TWEEN PUBLISHING’S

The 21st Century Student’s Guide to Study Skills

Instructor’s Guide

by Susan Mulcaire
The Middle School Student’s Guide to Study Skills

Instructor’s Guide

Illustrations by Zapp!

by Susan Mulcaire
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MESSAGE TO EDUCATORS

Dear Educator,

Thank you for selecting Tween Publishing’s The Middle School Student’s Guide to Study Skills. With this comprehensive program, students learn that study skills are more than practices or strategies occasionally used to prepare for a test or quiz. Good study skills apply to all aspects of learning.

*How* students learn is just as important as what they learn. The goal of this program is to give students the tools and strategies they need to be self-aware, active learners with the ability to successfully acquire, recall, and demonstrate knowledge.

To be high school and college-ready, students must *habituate* good study skills. To do this, they need consistent skills support at school and at home. Consider making this program more than just a study skills class. Make good study skills a part of your school culture. Enlist the help of all teachers to encourage and enable students to develop good study skills. Take a moment at the beginning of class to review a study skill. Periodically pause instruction to make a “skills check”. Post study skills tips and strategies posters in classrooms and hallways. Allow students time at the end of class to review and correct notes or discuss what they learned. Consistency is key!

Bring parents on board too. Use the *Letter to Parent* in the student workbook to tell them what their student is learning. Ask parents to help their student organize and use their home workspace and to encourage their student to discuss or reteach a concept learned in class. Explain to parents how they can help their student develop critical thinking skills and set grade goals.

Please take a moment to review the annotated lesson plan on the following pages. Each lesson in this Instructor’s Guide follows this format. Each lesson includes an in-class activity. Idea Walls at the end of each unit provide additional activities and suggestions for developing a strong study skills culture at your school.

Sincerely,

*Tween Publishing*
ANNOTATED LESSON PLAN

LESSON AND NUMBER TITLE

SLIDE
References the webslide corresponding to the lesson segment. (Access slides at www.middleschoolguide.com)

WORKBOOK
References the corresponding chapter in The Middle School Student's Guide to Study Skills (the “workbook”)

MATERIALS
Lists materials and information needed to prepare the lesson.

OBJECTIVES
Identifies the skills and strategies students will learn in the lesson.

GAINING ATTENTION
Lessons begin with a brief review of the previous lesson, and an informal discussion related to the skills and strategies students will learn in this lesson.

COMMUNICATE LEARNING GOALS
Students are told their learning goals for the lesson.

PRESENTATION OF CONTENT
Instructional Content. Most lessons are based on a Direct Instruction model, followed by skills practice.
**ANNOTATED LESSON PLAN**

**ACTIVITY**
Each lesson includes an in-class activity for skills practice. Activity worksheets are contained in the student workbook.

**LET’S SUMMARIZE!**
Summarizes key points at the conclusion of the lesson. Use this activity to guide students to complete the Letter to Parent in the workbook.

**READING AND HOMEWORK**
References the workbook pages students read to prepare for the next lesson, and the Application of Skills (homework) for this lesson. At the end of each Unit, students complete an assessment What Did You Learn?

**IDEA WALL**
Suggested study skills and college readiness issues and topics for the blog, debate, discuss activity.

**PRACTICE, PRACTICE**
Additional skills practice and activities.

**UNIT SOURCES**
Cites books, papers, articles, and website sources used for unit lessons.

**COLLEGE READINESS CORNER**
Suggested activities for developing students’ high school and college readiness skills.

**BLANK**
Where possible, we’ve left a blank space for your own ideas.

**TECH CONNECT**
Fun and useful apps to help students develop good study skills.

**IT’S A TEAM EFFORT**
Ideas for making good study skills and college readiness school-wide goals.
INTRODUCTION TO STUDY SKILLS & THE PROCESS OF LEARNING

Lesson 1  What are Study Skills?
Lesson 2  Metacognition: The Self-Aware Student
Lesson 3  A Bit About Brainy
Lesson 4  Mental Throwdown: Effort vs. Intelligence

By the end of Unit One the student will be able to:

- preview course materials and progression.
- state a simple definition of learning.
- recognize the application of study skills to all aspects of learning.
- describe the benefits of good study skills.
- define metacognition.
- identify traits of the metacognitive student.
- complete a survey of their personal metacognitive skills.
- label parts of the brain involved in the learning process.
- describe how the brain converts sensory data to knowledge.
- make a plan for maintaining a healthy brain.
- compare the roles of effort and intelligence in learning.
- identify as a fixed or growth mindset learner.
- list the traits of a growth mindset learner.
U.B. SMART MIDDLE SCHOOL STUDENTS ALI AND ELENA WALK THEIR DOGS AFTER SCHOOL.

HEY ELENA, REMEMBER OUR SCIENCE LESSON ABOUT PAVLOV’S DOGS AND CONDITIONED REFLEXES? AFTER CLASS I EXPERIMENTED WITH OTIS!

IT REALLY WORKS! WATCH THIS—- EVERY TIME I REACH INTO THIS BAG OF TREATS HE SALIVATES!

HEY RINGO, WATCH THIS! I’VE BEEN TRAINING MY HUMAN EVERY TIME I SLOBBER SHE REACHES INTO THAT BAG AND GIVES ME A TREAT!

COOL!
WHAT ARE STUDY SKILLS?

**TEXTBOOK**

This lesson corresponds to Chapter 1 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 1A-E (www.middleschoolguide.com)
- *The Middle School Student’s Guide to Study Skills* (“workbook”)
- [Optional] Go to a reliable blog hosting site, such as edublog.org or classpress.com and create a Study Skills class blog.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- preview course materials and progression.
- state a simple definition of *learning*.
- recognize the broad application of study skills to all aspects of learning.
- describe the benefits of good study skills.

**GAINING ATTENTION**

Welcome students to class. Advise them of course details:

**Course Description:** This is a comprehensive course in study skills for middle school students. The skills you learn in this class will provide a solid foundation for the study skills you need for success in high school and college.

**Materials:** Distribute one copy of *The Middle School Student’s Guide to Study Skills* (“workbook”) to each student. Advise students that the workbook contains the reading, worksheets, and homework for this course. Students should bring their workbooks to every class.
Assessment: The best way students can demonstrate that they have learned the skills taught in this class is to use them! Habituating good study skills means making them a consistent part of their daily routine. Good study skills improve grades and academic confidence, and reduce stress levels. In addition to habituating good study skills, grades are based on: (Insert your grading plan i.e. worksheet/exercise completion, quiz/test scores, class participation, etc.)

Blog/Debate/Discuss: Good study skills are much more than note-taking and outlining. They are about awareness of the actions and attitudes that make a student successful, and the actions and attitudes that impede academic success. As part of this course, students will blog, debate, and/or discuss issues related to study skills and academic success. Students are expected to participate in discussions and debates, whether conducted in class or by blog post. Comments should be relevant and reflect careful thought about the topic. (Demonstrate how to access and post to the blog.)

Check for understanding and proceed to Communicate Learning Goals.

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to state a simple definition of learning, recognize the application of good study skills to all aspects of learning, and describe the benefits of good study skills. Students will also preview the course materials.

PRESENTATION OF CONTENT

How is a successful student like a winning athlete?

Engage students in a discussion: What does it take to be a winning athlete? Is talent enough? Physical ability? Stamina? What about the mentality of a winning athlete? Does that play a part in success? (Anticipated/ Guided answers are: skill, hard work, practice, focus, dedication, ambition, devotion…)

Athletic success doesn’t happen by luck. Winning athletes practice techniques and skills over and over. They focus on perfecting their skills. They set goals, identify and correct mistakes. Hard work and focused practice make athletes faster, more efficient and more effective at their sport. Being a successful student also takes practice, skills and techniques. These are called study skills. Good study skills make you a faster, more efficient, and more effective student.

What are study skills?

The term study skills is misleading because it implies that theses skills are just for studying – like reviewing for a test or quiz. Study skills are not limited to reviewing for tests and quizzes. Study skills have a broad application. They apply whether you are studying for a quiz or test, in class listening to your teacher, participating in a lab or other learning activity, taking a test, reading a textbook or doing homework. How
you learn is just as important as what you learn. **Study skills are practices, strategies and techniques for all aspects of learning.**

### What is learning?

#### Learning is the Acquisition of Knowledge

*Engage students in a discussion: What is learning? You spend much of your day trying to do it. Do you ever give any thought to what learning is and how it happens?*

Learning is a complex concept. There's a large body of psychology devoted to what learning is, and how it happens. There are many ways to learn. Some learning is automatic. For example, when you were a small child you may have learned not to touch a hot stove by touching it once. (Ouch!) That's learning by “conditioning.” Other learning, like memorizing the names of the U.S. presidents or how to find the area of a prism is not automatic. It takes time and often a great deal of effort. The result of learning is the acquisition of knowledge. **Good study skills improve a student’s ability to acquire knowledge.**

#### Learning is the Retention of Knowledge

*Engage students in a discussion: Have you ever spent hours studying, were sure you knew the material but couldn't remember it when you needed to? Did you not learn it as well as you thought? Why did the knowledge slip away?*

Some things you learn are not meant to be remembered for a long time, so the brain quickly lets go of the information. Other information, like the kind you learn in school, is meant to be remembered for a long time. If you forget this information too soon after you learned it, you did not learn it successfully. Good study skills include practices and strategies for retaining more information for a longer period of time. **Good study skills improve a student’s ability to retain knowledge.**

#### Learning is the Demonstration of Knowledge

*Engage students in a discussion: Students are required to demonstrate what they’ve learned. What are ways students demonstrate knowledge? (Answers include: tests, quizzes, class participation, reports, essays, verbal reports, presentations, group presentations, etc.)*

Learning is measurable. Students must be able to successfully demonstrate what they’ve learned so their knowledge can be accurately measured and graded by their teachers. Demonstrating knowledge can be as simple as answering a question in class, or by test or quiz. Tests and quizzes can be essay, multiple choice, true or false, fill-in-the-blanks, short answer, oral response, or other demonstration. **Good study skills improve a student’s ability to successfully demonstrate knowledge.**

*Check for understanding and proceed to the activity.*
**ACTIVITY**

The purpose of this activity is to familiarize students with the course organization and materials. Direct students to the Table of Contents in the workbook. Review the chapter titles. Note that there are 28 chapters, clustered in 8 units. Each unit presents a related set of study skills.

Select and preview a workbook chapter. Guide students to note:

- Each chapter begins with a comic and introduction of a skill.
- Learning goals are identified in the goal box on the first page of each chapter.
- Chapters 1-4 explore the process of learning. It’s beneficial to know a little about the process of learning and thinking in order to be able to reflect on and improve your own thinking and learning!
- Chapters 5-7 expand students’ awareness of learning styles, multi-sensory resources and strategies. Recognizing, developing, and using your unique abilities, and compensating for your weaknesses makes you a more effective student.
- Chapters 8-11 explore pre-learning strategies. Students learn about habits and practices that set the stage for successful learning.
- Chapters 12-14 explore active learning, active reading and active listening. Learning is not a passive process! Students learn strategies and techniques for active engagement in the process of learning.
- Chapters 15-17 present note-taking and outlining skills students will need for success in high school and college.
- Chapters 18-19 investigate memory and recall techniques and strategies that can be used for retaining and recalling information in all subjects.
- Chapters 20-23 review test-taking strategies to improve the ability to successfully demonstrate knowledge on short answer, essay, multiple choice and true/false tests, and oral presentations.
- Chapters 24-28 preview high school and college readiness skills to enable students to gear up for long-term academic success. They will be applying to college in just a few short years, so preparing for college should now be an academic priority.

Review the activity worksheets. Guide students to note:

- The workbook contains the worksheets for all in-class activities.
- Turn to the Letter to Parent. Following each lesson, students complete the Letter to Parent in class and share it with their parent or guardian(s) at home, so they are aware of what students are learning. Parents care about study skills.
- Turn to Application of Skills. Unless directed otherwise by your teacher, the Application of Skills worksheets are completed as homework. These exercises may require significant thought and reflection. Students should allow 25-30 minutes for completion.
• Turn to What Did You Learn? At the completion of a unit, students take a summary quiz called What Did You Learn?

• Blog, debate, discuss. At the completion of a unit, students blog, debate, or discuss a study skill or college readiness topic. (Demonstrate how to access and post to the blog.)

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 8 of the workbook.

1. Learning is the acquisition of __________ knowledge, which can occur in many ways.

2. Some knowledge is intended to be short-term, but most of what students learn in school is intended to be remembered for a long period of time. If you forget what you learned soon after you studied it, you did not learn __________ successfully. Learning includes the __________ retention of knowledge, which is the ability to __________ remember __________ what you learned.

3. Good study skills make students __________ faster __________, more __________ efficient __________, and __________ effective __________ learners.

4. Study skills are not limited to __________ studying __________ for tests and quizzes; They are skills, practices and strategies for all __________ aspects __________ of learning.

5. Learning is measurable. As part of the learning process, students must be able to successfully __________ demonstrate __________ their knowledge in a variety of assessment (measurement) formats.

**READING AND HOMEWORK**

• Students read chapter 2 in the workbook to prepare for the next class.

• Students complete page 7 in the workbook Application of Skills [What are Study Skills?] Collect for assessment.
Big news from Rm. 400. Mr. Skillsworth’s study skills class is underway. Students are learning that good study skills take time, practice and discipline, but they’re worth the effort. “As you move up to high school and college, good study skills are very important to your success as a student,” said Mr. Skillsworth. “They help you be a faster, more efficient and effective learner.”

His students totally agree. Alison, a 7th grader, said “Good study skills take a lot of the frustration and stress out of learning. The skills, techniques, and strategies I learn in this class will be part of my study routine all the way through high school and ______ college ______.”

Students are using The Middle School Student’s Guide to Study Skills. They must bring it to every class. It contains the worksheets they need for class activities and homework.

Grades are based on in-class activities, homework completion, and consistent everyday use of the skills learned in this class. At the end of each unit, students ______ blog ______, debate or discuss study skills, and high school and college readiness topics. All students must participate in the discussions, debates and blogs.

On the first day of class, students learned that learning is the acquisition, retention, and ability to demonstrate knowledge.

A.J., a 7th grader said “I really need to learn these skills. Even though I study a lot, I forget what I learn. I have a hard time remembering what I studied.

Elena wants to learn good test-taking skills so she can better demonstrate her knowledge. “There are so many ways my teachers ask me to show what I know, such as: essay test, multiple choice test, true/false test, oral presentation, short answer test. ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ 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What are Study Skills?

1. The term study skills is misleading. Why?
   The term is misleading because study skills are not limited to studying. They apply to all aspects of learning: Studying, homework, test-taking, participating in labs and learning activities, etc.

2. What does being a faster, more efficient and effective student mean to you?
   Student’s discretion. (Example: Using time more effectively; improving comprehension and recall; getting better grades; preparing for high school and college; experiencing less stress in school.)

3. What are your three worst study habits? What problems have they caused for you?
   Student’s discretion.

4. What are your most productive study habits? How have they helped you be a more successful student?
   Student’s discretion.

5. “How you learn is just as important as what you learn.” Comment:
   Student’s discretion. Example: There are strategies and techniques for learning. Using them makes learning more efficient and improves a student’s ability to learn successfully. If you don’t know how to learn, it matters little what you learn. You must be able to acquire, retain and demonstrate the knowledge.

6. What’s the most frustrating and stressful part of learning for you? How does it make you feel about your abilities as a student, and your academic future in high school and college?
   Student’s discretion.

7. What grade would you give your current study skills and habits?
   A+  A   A-  B+  B   B-  C+  C   C-  D+  D   D-  F
U.B. SMART MIDDLE SCHOOL STUDENTS MAX AND AJ GET IN A BIT OF GAMING AFTER SCHOOL.

DUDE, WHAT’S ALL THAT?

THAT’S MY HOMEWORK...

MS. PELL ASSIGNED, LIKE, 50 PAGES OF READING!

WE HAVE A QUIZ TOMORROW AND I HAVE TO GET IT ALL IN MY HEAD BY TONIGHT!

THAT SUX! CAN I HELP?

SURE!

BONK! PLOP! KLOPF!

NOT THE KIND OF HELP I HAD IN MIND.
This lesson corresponds to Chapter 2 of *The Middle School Student’s Guide to Study Skills*.

### Materials
- Computer/whiteboard display with internet access.
- Webslides 2A-D (www.middleschoolguide.com)
- Workbook pages 10-21.

### Objectives
By the end of this lesson the student will be able to:
- define *metacognition*.
- list the traits of a self-aware student.
- identify poor metacognitive skills in a series of examples.
- complete a survey of their personal metacognitive skills.

### Gaining Attention
In the previous lesson, students explored the concept of *learning*. Learning includes the acquisition, retention, and ability to demonstrate knowledge. There are many ways to learn. Study skills are practices and techniques to be a faster, more efficient and effective learner. The term *study* skills is misleading, because the skills apply to every aspect of learning, not just studying for a test or quiz. How you learn is just as important as what you learn.
Engage students in a discussion: In the previous lesson, the class discussed the traits of winning athletes. Successful athletes practice long hours to perfect their skills and techniques. What goes through the mind of a good athlete when they are training? Are they thinking about what they watched on TV the night before? Are they wondering what to wear to school the next day? Do they just go through the motions of practice? (Take answers).

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to define metacognition, list the traits of a self-aware student, identify poor metacognitive skills in four examples, and complete a survey to determine whether you are a metacognitive student.

PRESENTATION OF CONTENT

What is metacognition?

Good athletes do not just “go through the motions” of practice! Successful athletes focus, laser-like, on their skills. They set goals to know what they want to achieve. They control their body movements, adjust speed, motion, and strategy for optimal performance. They gauge their progress by timing themselves, tracking completions, and assessing their performance. A good athlete is self-aware.

Self-awareness is an important trait for students too. Successful students are self-aware learners who consciously monitor and focus on their learning as they learn. They think about their thinking. Thinking about thinking is called metacognition and it’s an important study skill.

What are the traits of a metacognitive student?

✔ FOCUSES ON TASK

The metacognitive student focuses on one task at a time. Multitasking means trying to pay attention to, or work on several tasks at the same time. Neuroscientists (scientists who study the brain) have found that humans simply cannot focus well on more than one task at a time. Trying to focus on several matters at once (like watching TV or talking to friends while doing homework) creates a lot of conflict within the brain. When the brain is forced to switch back and forth between tasks, it constantly struggles to focus and refocus. It is an inefficient and unproductive way to learn. Laser-like focus on a single task is a trait of the metacognitive student.
✓ **IDENTIFIES LEARNING GOALS**

Studying is not unlike many other activities you engage in during the day. If you stop at the store on the way home from school, you generally know why you’re there, and what you want to get. Before starting a learning task, such as homework, reading, or studying for a test or quiz, the metacognitive student takes a minute to identify the information their brain should be retrieving from the task. Identifying specific learning goals is kind of like creating a shopping list for your brain, telling it what information to pick up as you study. **The identification of specific learning goals is a trait of the metacognitive student.**

✓ **ASSESSES ENVIRONMENT**

Physical surroundings impact a student’s ability to meet their learning goals. A metacognitive student **assesses their learning environment and makes adjustments** to enable them to control and manage their learning. Environment can include where and when you study, with whom you study, and how you study. The metacognitive student is able to recognize a poor study environment, adjust it, or seek out a new environment which better facilitates learning. **Monitoring and adjusting their learning environment to optimize learning is a trait of the metacognitive student.**

✓ **ADJUSTS THINKING**

Metacognitive students are alert to changes in thinking, such as when their mind wanders off task, or when they don’t understand something. They are aware of attitudes or thoughts that distract them from their learning goals. They adjust their thinking and refocus. If a learning strategy isn’t working, the metacognitive student adjusts to use a different strategy. **Actively monitoring and controlling their thought processes as they learn is a trait of the metacognitive student.**

✓ **GAUGES PROGRESS**

The metacognitive student checks progress toward their learning goals by **testing their knowledge as they learn.** They pause to check their comprehension of reading material. They restate concepts in their own words. They check whether they understand the big idea of a lesson. They check their answers for accuracy. They **reflect** on their learning. **Metacognitive students know that it is important to test themselves before they are tested by their teacher.** When metacognitive students don’t understand something, they ask for help instead of ignoring it, or assuming they’ll figure it out later. **The ability to gauge progress toward their learning goals is a trait of the metacognitive student.**
What is metacognition in action?

Read the following profiles aloud. Direct students to listen and observe the metacognitive skills of each student. Compare and contrast the metacognitive traits. Engage students in a discussion: “Who are you most like?”

Issa, a middle school student, is in her room doing homework. She keeps her cell phone out of her work space because she knows she gets distracted by texting. She’s reading a chapter in her science textbook, learning about gravitational force, specifically Newton’s Laws of Motion for a quiz on Wednesday. She comes across a word she doesn’t understand. She pauses and thinks “Uh oh, I don’t understand that word. I will need to know what it means, or the rest of this chapter probably won’t make much sense.” She checks the definition, then rereads the sentence, inserting the definition in place of the actual word. She asks “does that make sense? Do I understand now?” When she’s sure she understands, she continues reading.

By contrast, here’s Chris:

Chris, a middle school student, is on the sofa in the family room. He’s doing his homework—sort of. Books and papers are spread out around him. As he reads he keeps an eye on the sports channel, makes a couple of phone calls, texts his bros’ about plans for the weekend, and throws the ball for his dog. He’s working on a chapter in his science textbook—something about gravity and Newton—maybe Einstein—he’s not sure. Anyway, it’s boring. He’s in a hurry to finish because he’s meeting his friends at the movies. He notices that there’s this one word that keeps showing up all over the chapter. He doesn’t have a clue what it means. He’s gotten tripped up on that word before. He ignores it and keeps going assuming he’ll figure it out eventually.

Check for understanding and proceed to the activity.
ACTIVITY

Direct students to page 15 of the workbook. Divide students into four groups. Assign one Metacognitive Muddle student profile to each group. Students read and discuss their assigned student profiles to determine whether or not the student exhibits the traits of a metacognitive student. Groups present their profiles and findings to the class, answering the questions below. Alternatively, group-read the student profiles and discuss the student’s self-awareness traits.

1. Is the student focused on the task of learning, or just going through the motions? Are they multitasking?

2. Has the student identified their specific learning goals? Do they have a clear understanding of what they are supposed to retrieve from their learning tasks? (What is the student doing right/wrong?)

3. Does the student recognize a poor learning environment? Does he or she monitor and make adjustments to their environment to optimize learning? (If so, how? If not, what does the group recommend?)

4. Does the student monitor their thinking, and adjust their thinking or learning strategies to focus and optimize learning? (If so, how? If not, what does the group recommend?)

5. Does the student gauge their progress? Do they check for accuracy? Do they self-test, or restate concepts in their own words? (If so how? If not, what does the group recommend?)

(Answer key below.)

ANSWER KEY

Is Alison a metacognitive student?

Answer: No! Ali is not focused on the task of learning. She rushes to get her homework done before the bus gets to her stop. In the process, she hasn’t identified the learning goals of her math homework. She is actually multitasking, because the distractions on the bus cause her to pay attention to many things, requiring her brain to focus and refocus. It is a poor learning environment. Whether you’re on a bus, in a carpool or just hanging out with friends, a chatty social environment is not conducive to learning. Ali needs to adjust to her learning environment, by waiting until she gets home to do her homework. The fact that Alison’s “relieved” because she’s merely passing her class indicates a problem with her ability to gauge her progress. She’s just squeaking by. Math is a subject requiring mastery of one skill before moving on to the next. An accurate gauge of progress (such as by self-testing or restating big ideas) would tell Ali that she is headed for trouble in this class.

Is Max a metacognitive student?

Answer: No! Max’s attitude about the class is a distraction. Attitude is a component of thinking and it impacts learning. Max needs to make an adjustment to his thinking to improve his attitude. His mind wanders, affecting his focus. Max needs to identify his learning goals to understand the objectives of the lab. (“What specific knowledge and facts should I take away from this task when I finish?”) He should adjust
his learning environment to better control and manage his learning. How about doing his homework earlier in the day before practice and gaming? He should set a goal to get through all of the reading and gauge his understanding of the material by pausing to reflect on and restate concepts. Max should definitely avoid studying on his bed. It's a poor study environment.

Is A.J. a metacognitive student?
Answer: Partly. A.J. identifies tasks and follows directions. He does his homework and studies for tests and quizzes. But is A.J. just going through the motions of studying? His mind wanders while he’s reading. He loses focus, but doesn’t adjust his thinking or strategies to refocus. He doesn’t have a clear understanding of his goals. His low test and quiz scores indicate that, although he thinks he’s doing well, he is not accurately gauging his progress. He should test himself before his teacher tests him. If A.J. were a metacognitive student, he would ask his teacher for help to understand why his scores are not reflecting his effort level. He can make adjustments to his learning environment by adding study time or breaking his time into smaller more frequent study sessions. He should also adjust his learning strategies by trying different study techniques to assure he is meeting his learning goals.

Is Elena a metacognitive student?
Answer: Yes! Elena is aware that literature is a struggle for her. She assessed her learning environment and realized that she needed a quiet place to study in order to improve her focus. By studying at the library twice a week she’s adjusted her learning environment to improve her ability to focus. Elena identifies and understands her learning goals. Aware that she’s confused about literary devices, she’s adjusted her thinking and learning strategy to help her learn. She creates samples (which is like restating concepts) and has a measurable goal to learn three devices/terms per week. To gauge her progress, she checks in with her teacher and tracks her scores. She’s awesome. She thinks about her thinking. She is a metacognitive student.

At the conclusion of the activity, check for understanding and proceed to Let’s Summarize!

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 19 of the workbook.

1. Thinking about thinking is called metacognition and it’s an important trait for a self-aware student.

2. The metacognitive student does not multitask, which means trying to pay attention to other tasks while learning; they focus on the single task of learning.

3. A metacognitive student identifies their specific learning goals, so their brain knows what information to retrieve as they study.
4. A metacognitive student monitors their __________ environment and ___________ processes, and makes ____________ adjustments _______ to optimize learning.

5. A metacognitive student gauges __________ progress __________ toward their learning goals by checking comprehension, self-testing, and putting concepts into their own words. A metacognitive student tests themself before their ______ teacher ______ tests them.

**READING AND HOMEWORK**

- Students read chapter 3 in the workbook to prepare for the next lesson.
- Students complete pages 17-18 in the workbook *Application of Skills* [Metacognitive Homework Survey.] Collect for assessment.
CLASS ACTIVITY WORKSHEET  CHAPTER 2

Name: ______________________________________________________________________________

Metacognitive Muddle

Hey kids! **Metacognition** means thinking about thinking. Metacognitive students are self-aware students. They focus on learning as they learn. They identify their learning goals and monitor progress toward their goals. Metacognitive students assess and adjust their learning environment to keep it free from distractions. Read the profiles below and tell whether the student is a metacognitive student.

1. Is the student **focused on learning**? Are they multitasking? (How can you tell?)
2. Has the student identified their learning goals? (How can you tell?)
3. Does the student make adjustments to their learning environment to overcome problems? (If so what? If not, what changes do you recommend?)
4. Does he or she make adjustments to their thinking or learning strategies and optimize learning? (If so, how? If not, what do you recommend?)
5. Does the student accurately gauge their progress? (How? If not, what do you recommend?)

“Hi! I’m Ali. I usually do my math homework on the bus on the way home from school. If I rush, I can finish all the problems before we get to my stop. The bus is crowded and noisy, but I like talking to the kids around me as I work on the problems – it makes math less boring. I have a quiz tomorrow, so on the ride home today I reviewed stuff that might be on the quiz. I hope I remember! I totally never feel like I have a good grasp of what I’m supposed to know before my teacher moves on to the next chapter, but so far this semester, I’m passing the class. Awesome!” Is Ali a metacognitive student? Why or why not?

See answer key.

“Hey, I’m Max. OK, well life science is by far my worst class. For one thing, it’s super hard. My teacher gives us way too much homework. Also, it’s first period which starts at 7:45 and it’s hard for me to stay awake that early in the morning and then, you know, my mind starts wandering. I especially struggle with the labs, because I don’t get what’s going on or what the point of it is. I usually start my science homework about 9:00 at night because I have lacrosse practice from 5:00-7:00. Then I have to eat dinner and do a little gaming because a dude’s gotta have some fun, right? I study on
my bed. I don't get through much of the reading before my mind starts wandering again and pretty soon I'm zzzzzzz. A dude's gotta sleep, right?” Is Max a metacognitive student? Why or why not?

See answer key.

“I'm A.J. OK, overall, I'd say I'm a pretty good student. I like my teachers – they're cool. I'm pretty good about doing my homework. I follow directions. I do the assignments and reading for all of my classes. My mind wanders a lot. I lose focus but I do my homework without complaining. I don't even think about it – I just get through the reading and worksheets and that's what counts, right? I study a lot before tests and quizzes. I always think I'm prepared, but it's really weird, because my scores are low. I don't get it. It's kinda discouraging.” Is A.J. a metacognitive student? Why or why not?

See answer key.

“Hello, I'm Elena. My ‘problem’ class is literature. I totally struggle with all those long, boring ‘thou’ and ‘thee’ 19th century poems. I was getting low quiz scores. I decided that I needed to improve my focus and concentration to work through those difficult passages. I was doing my homework with friends, but we talked a lot. Personally, I need total quiet – no distractions. So I started going to the library twice a week to do the reading. That really helped. The unit on literary devices was so confusing. Allegory, allusion, alliteration – OMG they all sound the same! My teacher said that we have to be able to define the device and use it in our own writing. Now I learn three devices per week, and make three examples. I show the examples to my teacher to make sure they're right. Now I ace the quizzes.” Is Elena a metacognitive student? Why or why not?

See answer key.
**APPLICATION OF SKILLS**

Name: ________________________________________________________________

**Metacognitive Homework Survey**

Being a self-aware, metacognitive student is about what’s going on in your head while you are learning. When you learn, don’t just go through the motions! Engage your brain and focus on one task at a time. Identify your learning goals, adjust your environment and thinking to optimize learning. Gauge your progress. Be a metacognitive student!

What time did you start your homework? ______________ What time did you finish? ______________

List the subjects you worked on for homework:

_______________________________________________________________________________________

_______________________________________________________________________________________

Select one of the above subjects. Identify your homework **learning goals**. Be specific.

_______________________________________________________________________________________

_______________________________________________________________________________________

As you worked, were you **focused on a single task**, or were you paying attention to other tasks or activities, such as the TV, loud music, texts, phone calls, or chatting with friends? Discuss:

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

Describe your **learning environment** (location, noise, activity level, etc.) where you do homework.

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

Do you need to **adjust or control your environment** to optimize learning? How? Be specific.

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

Do you need to **adjust or control your thinking process** to optimize learning? How? Be specific.

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________
Do you **gauge your progress** toward learning goals by restating what you learned in your own words, testing yourself, or creating examples?

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

What are your **metacognitive strengths**? Laser-like focus? Adjustable thinking? Your excellent learning environment? Discuss:

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

What are your **metacognitive weaknesses**? Discuss:

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

List three things you will begin doing immediately to be a self-aware, metacognitive student.

1. ________________________________________________________________________________
2. ________________________________________________________________________________
3. ________________________________________________________________________________

---

**Pledge of the Metacognitive Student**

I, _______________________, Middle School Student, do hereby make this Pledge:

From this day forward, I will not just go through the motions of learning. When I am learning, I will:

- Identify my specific learning goals.
- Focus on the single task of learning as I learn.
- Adjust my learning environment to optimize learning.
- Monitor and adjust my thinking to optimize learning.
- Gauge progress toward my learning goals by testing myself, reflecting on my learning, restating concepts, or making examples.

From this day forward, I will be a metacognitive student!

Signed: _____________________________
MEET U.B. SMART SCIENCE TEACHER MS. PELL...

SO CLASS, THIS AMAZING ORGAN CALLED "THE BRAIN" WEIGHS ONLY ABOUT THREE POUNDS, BUT IT IS CAPABLE OF PROCESSING VAST AMOUNTS OF INFORMATION!

WITHIN THE BRAIN, NERVE CELLS CALLED NEURONS SEND OUT SPIKES OF ELECTRICAL ACTIVITY ALONG BRANCH-LIKE STRUCTURES CALLED AXONS...

THese ELECTRICAL SPIKES ARE CONVERTEd TO CHEMICALS AND SENT TO THE NEXT NEURON THROUGH CONNECTIONS CALLED SYNAPSES. GROUPS OF AXONS AND SYNAPSES FIRE TOGETHER IN PATTERNS TO ENCODe SENSORY DATA INTO MEMORIES. FASCINATING, ISN'T IT??

A BRAIN CAN HAVE UP TO 1,000,000,000,000,000 SYNAPTIC CONNECTIONS!!

OR IN SOME CASES, ABOUT FIVE.
This lesson corresponds to Chapter 3 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 3A-D ([www.middleschoolguide.com](http://www.middleschoolguide.com))


**OBJECTIVES**

By the end of this lesson the student will be able to:

- identify and label parts of the brain involved in learning.
- describe the basic processes by which the brain converts sensory data to knowledge.
- create a plan for maintaining a healthy brain.

**GAINING ATTENTION**

In the previous lesson, students learned that *metacognition* means thinking about thinking. A metacognitive student is self-aware. They focus on the task of learning as they learn. They avoid multitasking. They identify their specific learning goals. They monitor, adjust and control their thinking and learning environment to optimize learning. Metacognitive students reflect on their learning, restate
Engage students in a discussion: Do you take your brain for granted? Have you ever considered what an amazing organ the human brain is? How does all that stuff you see, smell, hear and feel every day work its way through your skill to become knowledge and memory?

**Communicate Learning Goals**

Your learning goals for this lesson are to be able to identify and label the parts of the brain involved in learning, and describe how the brain converts sensory data (what you see, hear, smell and touch) to knowledge. You’ll also create a plan for maintaining a healthy brain.

**Presentation of Content**

How does the brain learn?

Direct students to hold their hands up and make two fists. Then turn their fists to face one another and touch. That's about the size of their brain. The brain weighs about 3 lbs. It works 24/7, non-stop, 'round the clock! The brain processes information incredibly fast. It is a very sophisticated organ. Knowing a little bit about how the brain learns can help you understand how and why to study.

Basic Brain Structure

The Exterior Brain

The brain has two halves. Direct students to place one finger between their eyes and draw an imaginary line up through their forehead, across the top of their skull and down to the nape of their neck. That is a rough division of the two halves of their brain. The halves are called hemispheres. Each hemisphere has four exterior lobes. Generally, the lobes function as follows:

1. **Frontal Lobes:** Direct students to place both of their hands on their foreheads. The lobes at the front of the brain are called the frontal lobes. They are the largest lobes. Behind those is the prefrontal cortex which is key to reasoning, problem solving, making decisions, and coordinating speech. When you’re thinking about the sequence of a math formula, or resisting the impulse to grab that donut out of your friend's hand, your frontal lobe is at work. (Ask students to complete 37 - 20 = ? in their head. Someone with a prefrontal cortex injury would find this very difficult – maybe even impossible to do. People with prefrontal cortex injuries may also have problems controlling their behavior.) For successful learning, it’s very important to protect your prefrontal cortex from injury!
2. **Temporal Lobes:** Direct students to place both of their hands above their ears. These are the **temporal lobes**. (Ask: “Can you hear me? Do you understand my questions?” If so, your temporal lobes are doing their job!) Temporal lobes process what you hear, **like speech and music**. These lobes are also involved in forming long term memories.

3. **Parietal Lobes:** Direct students to place their hands on top of their heads. These are the **parietal lobes**. They are involved in **spatial orientation and sensory integration**. The parietal lobe is constantly working to move the parts of your body where you want them to go. (Ask students to put their pencils down toward the front of their desks, then reach for their pencils and pick them up. How did they know exactly how far to move their arm, hand and fingers to pick up the pencil? Their parietal lobe senses the distance and navigates the movements of their limbs. People who have sustained damage to this area of the brain would find it very difficult to make even such a simple movement. Direct students to rub a spot on their arm. If they feel it, their parietal lobe is doing its job!)

4. **Occipital Lobes:** Direct students to place their hands on the back of their heads. These are the **occipital lobes**. They are mostly involved with **vision**. (Direct students to look at the student next to them. Right now, their occipital lobes are actively processing what they see.)

**The Interior Brain**

Let’s go deep in the brain, beneath the **exterior lobes** to an area called the **interior brain**. The **Limbic System** is located within the interior brain and contains structures important to learning:

- **Hypothalamus.** Hungry? Thirsty? Sleepy? This structure constantly monitors internal systems like body temperature, hunger and fatigue. **Its function is to keep everything in balance.** If your hypothalamus senses that you need to eat or sleep, or that you are too hot or too cold, it may distract you from learning and nag you until you take care of your body.

- **Hippocampus.** Ground zero for **learning, memory and recall**. Can you believe this tiny structure is responsible for processing most of what you learn, and converting sensory data (what you see, hear and feel) to memory? The conversion of information to memory is not an instantaneous process. **It can take several exposures to the information before a memory is formed well-enough to be recalled.**

- **Amygdala.** Boo! The amygdala is responsible for emotions like **fear, happiness and sadness**. Ever wondered why it’s easier to recall (or harder to forget) something really scary, sad or happy—even if it happened years ago? Experts believe that your amygdala may more forcefully imprint **emotional memories**, which enables them to store faster, longer and stronger.
Neurons, Dendrites, Axons and Synapses. Sensory information from the outside world moves into the limbic system structures along nerve cells called neurons. The brain is made up billions of neurons. Each neuron has thousands of branchlike extensions called dendrites and axons which constantly receive and transmit electrical impulses to areas called synapses. Synapses enable neurons to communicate and process information.

Memory is actually a stored pattern of synaptic connections. When you read, study and review, your brain forms new synapses and strengthens old patterns. The more you study, the stronger the connections, making information easier to recall. The first time you learn something, it is new to your brain. Your brain must create a synaptic pattern for the information. If you study it only once, it can be difficult to recall, because the synaptic pattern of connections are not yet well established. With more study and review, the information becomes easier to recall and understand. There can be up to 1,000,000,000,000,000 synaptic connections in your brain!* (Souza, 22)

Even when doing just a simple math calculation, hundreds of millions of your brain's neurons, dendrites, axons and synapses are actively transmitting impulses and chemicals enabling you to come up with the correct answer. The brain is an amazing organ! Be good to your brain. You need it!

Check for understanding and move to Activity.

ACTIVITY

Direct students to page 27 of the workbook. Students work independently or in pairs to review, label and summarize the basic functions of the parts of the brain. When students complete the activity, proceed to Let's Summarize!
LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 30 of the workbook.

1. The brain is divided into halves called _______hemispheres______, made up of four exterior lobes called the _______frontal______, _______temporal______, _______parietal______, and _______occipital______.

2. The Limbic System is located in the interior brain and includes the _______hypothalamus______ (monitors internal systems), _______hippocampus______ (key to learning and memory) and _______amygdala______ (related to emotional memory.)

3. Information from the outside world moves through the brain via nerve cells called _______neurons______ which have thousands of branchlike structures called _______dendrites______ and _______axons______.

4. Memory is actually a stored _______pattern______ of synaptic connections; Studying forms new connections and strengthens old patterns, making information easier to _______recall______.

5. It can take several _______exposures______ to information before a memory is formed well-enough for recall.

READING AND HOMEWORK

• Students read chapter 3 in the workbook to prepare for the next lesson.
• Students complete pages 28-29 in the workbook Application of Skills [Your Brain Has a Bone to Pick with You!] Collect for assessment.
CLASS ACTIVITY WORKSHEET  

CHAPTER 3

Name: __________________________

Name the part of the brain and describe its function.

---

**Frontal LOBE**

**Function:**

*Reasoning, problem solving, making decisions, speech coordination.*

---

**Parietal LOBE**

**Function:**

*Spacial orientation and sensory integration. Navigates body movements.*

---

**Temporal LOBE**

**Function:**

*Processes hearing and is involved in long term memory.*

---

**Occipital LOBE**

**Function:**

*Primarily responsible for processing visual images.*

---

**Neuron:**

*Nerve cells with electrical impulses move sensory data.*

---

**Dendrites and Axons:**

*Receive and transmit electrical impulses to and from neurons to synapses.*

---

**Synapse:**

*Enables neurons to communicate. Forms, connections and patterns that are memory.*
Dear Owner:

I work 24 hours a day, 7 days a week, 365 days a year for you. How do you thank me? You treat me like I mean nothing to you. Riding around on your bike and skateboard without a helmet, leaving me open to all sorts of injuries if you fall... Do you have any idea how hard it is for me to make repairs in here?

Btw, you know all that junk food and sugary stuff you eat? I’d hardly classify it as “food.” Just because you like it doesn’t mean I like it. I need food that’s nutritious. I’d also feel a lot better if you’d eat a healthy breakfast in the morning.

While I’m on the subject, do you realize how often I’m thirsty? My neurons, dendrites, axons and synapses need water to work efficiently so you can learn. What the heck! Why so stingy with the water? Six to eight glasses a day, please. Soda and caffeine drinks don’t count.

Just a warning: don’t even think of using alcohol, drugs or tobacco, or I’m talking a serious slow-down in the work I do for you. I promise you will not like it.

I’d also appreciate 8-9 hours of sleep every night. While you’re off snoozing like a princess, I get to all of my chores, like restoring your mental and physical energy. You know how you get all cranky when you’re tired? That’s me (my hypothalamus to be exact) telling you to sleep so I can work!

By the way, to learn something new, you have to review it more than once. When you study and review, I form new synapses, and strengthen synaptic patterns and connections. That creates strong neural pathways which make it easier for you to recall the information. If you study or review something only once, I will have a hard time learning it.

One more thing. Would you mind taking a break from those video games? Too much annoys me and makes me nervous. Here’s what I like: I like fresh air. I like exercise. I like reading. I like stuff like chess and puzzles. I’m no whimp. I like challenge. We’re in this together.

Sincerely,

Brainy
Dear Brainy:

I’m sorry, sometimes I’m not very good to you. I need to take care of you, so you can take care of me and I can learn. Here’s my personal plan to keep you healthy:

When I’m biking, skateboarding, skiing or snowboarding I will protect you by wearing a _______________; It’s hard to fix a brain injury. I will always wear my seat belt in the car!

I promise to feed you better. I’ll improve my diet, starting with these three changes:

a. __________________________________________________________________________________________

b. __________________________________________________________________________________________

c. __________________________________________________________________________________________

I didn’t realize you need water to process information and learn. A dehydrated brain doesn’t work efficiently. I will drink water every day and avoid soda and caffeine drinks.

I will not use alcohol, tobacco or drugs.

I will try to go to bed by _______ (time) to get 8-9 hours of sleep. You need me to sleep so you can get busy sorting and storing information, and restoring my mental and physical energy. No wonder I feel so yucky when I don’t get enough sleep.

I will limit my video gaming to ______ minutes per day.

I will exercise every day. Here’s are some activities I’ll do for exercise:

______________________________________________________________________________________________

______________________________________________________________________________________________

______________________________________________________________________________________________

I understand that you need me to study and review information to strengthen synapses and create new ones so I can learn. Study and review build a strong memory, which helps me learn and recall information.

Brainy, I know you’re no wimp. I know you like challenge. I promise I’ll engage in at least one non-school related, mentally challenging activity every day, such as:

______________________________________________________________________________________________

______________________________________________________________________________________________

Sincerely,

Your Owner,
NOTES

PRODUCT

PREVIEW
Okay class put on your thinking caps. Today we're going to be playing a game called 'middle school. Let's play.'

We'll be playing a game called 'middle school. Let's play.'
MENTAL THROWDOWN: EFFORT VS. INTELLIGENCE

TEXTBOOK

This lesson corresponds to Chapter 4 of *The Middle School Student’s Guide to Study Skills*.

MATERIALS

- Computer/whiteboard display with internet access.
- Webslides 4A-C (www.middleschoolguide.com)
- Workbook pages 32-43.

*Note: Upon completion of Gaining Attention proceed directly to the activity on page 36 of the workbook.*

OBJECTIVES

By the end of this lesson the student will be able to:

- identify as a growth or fixed mindset learner.
- list the traits of growth mindset learners.
- compare the roles of effort, intelligence, and experience in learning.

GAINING ATTENTION

In the previous lesson, students learned that the brain is an amazing organ. It’s divided into two halves called hemispheres, which are divided into lobes. The limbic system is located deep in the interior brain. The hippocampus is believed to be the center of learning and memory. Learning occurs when sensory data (sights, sounds, smells, feelings) from the outside world moves through the brain via electrical impulses through nerve cells called neurons, along dendrites and axons, to the synapses. Memory is a stored pattern of synaptic connections. Study and review of information creates new synapses, and strengthens old synaptic connections and patterns. Review and study make neural pathways stronger, enabling easier recall of the learned information. Today the class continues to learn about *learning!*
Proceed directly to the activity on page 36 of the workbook.

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to compare and contrast fixed-mindset and growth-mindset of learners, identify whether you are a fixed or growth mindset learner, and compare the roles of effort and intelligence in learning.

PRESENTATION OF CONTENT

How you think about intelligence affects your success

In 2007, psychologists at Stanford and Columbia Universities were curious as to why middle school students with relatively equal abilities, could have such different academic outcomes. Why do some students thrive in school and others struggle, they wondered? Why do some enjoy the challenge of learning, yet others do their best to avoid it? Their study lead to an interesting discovery about intelligence. They found that students’ beliefs about the nature of intelligence can have a big impact on their achievement in school. (Blackwell, Kali, and Dweck, 247)

Generally, students who believe that intelligence can be developed and grown do better in school than students who believe that intelligence is fixed trait – something they are born with and can’t significantly alter or improve. The psychologists call students who believe that intelligence is fluid and developable growth mindset learners. Those who believe that intelligence is fixed and basically unalterable are called fixed mindset learners.

Fixed Mindset Learners

Some students believe that intelligence is a fixed trait – that people are born with a certain level of intellectual ability and as a matter of genetics, it cannot be improved or expanded. This is referred to as a fixed view of intelligence. This mindset can inhibit a student’s success. Fixed mindset learners:

✓ believe intelligence is genetically fixed and cannot be altered.
✓ label themselves (and others) as “smart” or “dumb.”
✓ believe learning and accomplishment are outside of their personal control.
✓ avoid challenge.
✓ give up easily.
✓ blame failure on a lack of intellect rather than inadequate effort. (“I don’t have a brain for math!” vs. “I didn’t study hard enough or pay attention in class.”)
Growth Mindset Learners

Growth mindset learners believe that intelligence is a fluid and controllable trait. They attribute academic success to effort and hardwork. They believe that like a muscle, the brain becomes stronger with use and challenge. Overall, these students are more successful than their entity counterparts, and are able to overcome many obstacles to learning. Growth mindset learners:

✓ believe basic ability can be developed through hard work, effort and experience.
✓ embrace challenge.
✓ reject labeling themselves or anyone else as “smart” or “dumb.”
✓ focus on strategy and processes while learning (rather than strictly on outcome or grades.)

High Achievers at Risk

Psychologists have made another surprising discovery. High achieving students who receive a lot of praise for their successes, or have a reputation as “smart kids” are particularly at risk for becoming fixed mindset learners. When these students become overly concerned with maintaining their identity as high achievers, they often begin avoiding challenge in order to avoid failure and losing their smartpants reputation.

(Dweck, American Educator, 2) Remember, Brainy likes challenge. Never back off of intellectual challenge because you’re worried about failure! Challenging your brain makes it stronger.

What about I.Q.?

Until recently it’s been believed that I.Q. (which is the measurement of intelligence) is basically unalterable. In other words, the belief was that you’re born with a level of intelligence that dictates your abilities for your life time. Researchers at the University of London have confirmed that this is not true. (Nature, cited in Aubrey) IQs rise and fall, particularly in teens. In an experiment, they administered IQ tests and MRI/brain scans to 33 kids in 2004 when they were 12 to 16 years old. Four years later they retested the kids. Many of their IQ’s had changed. Some had increases of 20 points! Of course some IQs also declined, further revealing the importance of protecting your intelligence by keeping the brain challenged. Yes, you can learn to be smart.

What does it all mean?

Genetics play a roll in intelligence, but there’s no getting around the fact that keys to achievement are effort and hard work. Students who embrace academic challenge, put in the effort and maintain a belief in their ability to increase their intelligence are more successful students. IQ is not a fixed trait.

Check for understanding and proceed to Let’s Summarize!
**ACTIVITY**

When students complete the questions, review answers and engage students in a discussion. Who answered A on this question? Why? Who answered B on this question? Why? Advise students that if they answered B on any question, studies show that their personal viewpoints may be limiting their success in school. Return to Communicate Learning Goals and proceed with the lesson.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 39 of the workbook.

1. To be a successful student, ______ effort ________ and ______ hard work ________ are more important than your intelligence level.

2. A ______________ learner believes that people are born with a certain intellectual ability which cannot be improved or expanded upon.

3. A ______________ learner believes that intelligence improves with use and challenge of the brain.

4. A recent study showed that students’ IQs can rise and fall as much as ______ points, particularly in the ___________ years!

5. High achieving students should be careful not to fall into the high achiever trap. Don’t avoid intellectual ___________ for fear of failing and losing a reputation as a smart student. Don’t become a(n) ______________ student.

**READING AND HOMEWORK**

- Students read chapter 5 in the workbook to prepare for the next lesson.
- Students complete page 37 in the workbook Application of Skills [Truth or Dare.] Collect for assessment.
- **Unit 1 Quiz:** Students complete pages 40–41 in the workbook [What Did You Learn About Study Skills & the Process of Learning?]
What’s Your Opinion?

Read the question. Select a or b.

1. Poor Elliot. Ever since first grade he’s gotten low scores in math. He’s now in the 7th grade, and his math grades haven’t improved much. Elliot dreams of studying aerospace engineering and one day piloting commercial space flights. That requires excellent math skills. What advice would you give Elliot?
   a. Don’t give up! Work hard. Believe in yourself. You can improve your math skills and pursue your dream.
   b. Dude, consider a different career. By now it’s pretty obvious you can’t do the math.

2. Wow! You do your homework every night. You do all of the assigned reading. You pay attention in class. You do all of this because:
   a. You like to learn new things.
   b. If you don’t, your grades will drop and you’ll be in trouble with your parents.

3. Which of these statements best sums up your opinion about intelligence:
   a. A person can actually learn to be smart.
   b. You are who you are. You can’t learn to be smart. Intelligence is a trait you’re born with.

4. Wow! Maddie is really smart! She has an IQ of 120.
   a. Maddie’s IQ is no guarantee of her success in life.
   b. Maddie’s so lucky because she will succeed in life.

5. There are a lot of problems in your science class: broken equipment, disruptive students, and ever since your teacher messed up his back slipping on a dissected frog, you’ve had a string of substitutes who don’t teach much. You:
   a. Do whatever it takes to make up for the lack of resources: supplement your learning with an online program, take advantage of the free tutoring offered at your school, and keep up with all of the reading and homework, hoping your teacher will return soon.
   b. Resign yourself to the fact that you won’t be learning much in science this year…
Psychologists have shown that a student’s beliefs about intelligence can affect their academic success. Fixed mindset students believe that intelligence is a fixed trait – and cannot be altered. Growth mindset students consider intelligence as a fluid and controllable trait, and believe that effort, hard work and challenge account for most of a student’s success. Is it possible that you believe you’re a growth mindset student, but your actions and attitudes are those of a fixed mindset student? Dare to find out! Take the Truth or Dare survey. Total your score and find your profile below.

<table>
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<tr>
<th>TRUTH</th>
<th>DARE</th>
<th>Watch out! The scoring guide changes...</th>
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<tbody>
<tr>
<td>I believe that effort, hard work and challenge are keys to success.</td>
<td>I worry people will think I’m dumb if I fail.</td>
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<tr>
<td>My school work reflects a high level of effort.</td>
<td>I blow through my homework just to get it over with!</td>
<td></td>
</tr>
<tr>
<td>I focus on and value learning strategies and processes (not just my grade in a class or on a project.)</td>
<td>When I get a bad grade, I blame the teacher, school, confusing instructions, basically anything or anyone but me.</td>
<td></td>
</tr>
<tr>
<td>I accept personal responsibility for my academic destiny.</td>
<td>Setbacks discourage me.</td>
<td></td>
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<tr>
<td>I’m ok with academic challenge because I know it will make me mentally stronger.</td>
<td>I procrastinate or just give up when faced with a difficult assignment.</td>
<td></td>
</tr>
<tr>
<td>I accept criticism or negative feedback from my teachers as guidance to help me improve my skills.</td>
<td>My self-image is tied to my success as a student.</td>
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Total TRUTH _______________  Total DARE _______________

Truth + Dare = _______ Check your score on the next page!
If you scored above 48:

Your actions and attitude show that you understand that effort, hard work and challenge are keys to success. You know that intelligence is not fixed, and that the harder you work, the smarter you get. You care about your grades, but also about learning. Keep up the good work! You’re a mental heavy-lifter.

If you scored between 36 and 48:

You’re not totally comfortable with the idea that effort, hard work and challenge are keys to achievement. You attribute your occasional failures to not being “smart enough,” to something your teacher did or didn’t do, or that your school isn’t as good as some other school. Sometimes your focus is more on the grade you will receive than what you are learning. You are on the cusp of greatness. Embrace challenge and up your effort level!

If you scored below 36:

You may say you believe that intelligence is not a fixed trait, but your actions speak otherwise. Your beliefs and attitude may be sabotaging your achievement. You know “those other kids” who are great students? They’re not smarter than you – they’re just working harder! Take a look at the time you spend on homework. Is it enough? How hard do you work on projects? Do you give up when faced with an academic challenge? Get your brain to the mental gym and do some heavy lifting. Start with the subject that is of most interest to you. Challenge yourself to increase your effort level and make your brain stronger. Be a mental heavy lifter.
Blog/Debate/Discuss
Select from any one of these for a class discussion, debate or blog topic:

- What does “adjusting your thinking process” mean to you? Do you need to “adjust your thinking” to learn better?
- On a scale of 1–10, how much effort do you really put in on learning? What factors impact your effort level?
- Ambition is the desire for personal achievement. Are you an ambitious student? Why or why not?

Unit Sources


Practice, Practice!
What Did You Learn About Study Skills & the Process of Learning?

It’s a Team Effort!

- Invite an adolescent psychologist, pediatrician, or school nurse to talk to your class about brain health.
- Get teachers at your school on board with study skills. Update teachers frequently by email or Twitter. Explain what your students are learning and how they can support the skill in their classroom.

College Readiness Corner
Self-testing is one of the best ways to improve learning and recall. Talk to your students about adopting the habits of a metacognitive student and test themselves before their teacher tests them! Set up “quiz teams” where students spend 15 minutes in class the day prior to a test or quiz, testing one another on content.

Tech Connect
http://www.pbs.org/wnet/brain/3d/index.html
PBS Secret Life of the Brain
http://www.traumaticbraininjuryatoz.org/Interactive-Brain.aspx


1. Your brain is not a muscle, but it is like a muscle because:
   - It can be developed and improved upon with intellectual “work out” and effort. “Heavy lifting” is good for your brain.

2. Do you believe intelligence is a fixed and unalterable trait? Why or why not?
   - Student’s discretion.

3. What would you say to a student who claims that he or she cannot improve upon their intelligence?
   - Studies have shown that intelligence is not fixed and that IQ can change. You can improve your intelligence with learning. You can actually “learn” to be smarter by making an effort and by embracing academic challenge and hard work.

4. Why does a metacognitive student make a point of identifying their specific learning goals?
   - Knowing what you are supposed to learn helps you focus on the information you need to retrieve, and enables you to gauge your progress toward your goals.

5. Study skills are not limited to studying for tests and quizzes. Where else do they apply?
   - Study skills have a broad application beyond studying for a test or quiz. They apply to thinking, listening, reading, test-taking, completing school projects, exercises and activities – all aspects of learning.

6. List three characteristics, traits, or attitudes that successful students and successful athletes have in common:
   - Examples: focus, perseverance, effort, discipline, fortitude, devotion, sets goals, ambition, gauges progress, hard workers, practices, endurance, focuses on process, not just outcome.
7. **Learning is the acquisition, retention, and ability to successfully demonstrate knowledge.** How might you be asked to demonstrate knowledge in an academic (school) setting? How will you demonstrate what you have learned in your study skills class?

*Answering questions in class, reports, oral presentations, homework, tests, multiple choice, true/false, essay and short answer; Study skills are demonstrated by using them everyday, and making them part of your study routine. (Habituation.) Good study skills are apparent by improved grades and confidence, and by lower stress levels!*

8. In the brain, is the *hippopotamus* ground zero for learning? If not, what is?

*hippocampus*

**True or False:**

9. **True** Neurons, axons, dendrites and synapses contribute to the brain’s intake and processing of sensory information into recallable memories.

10. **True** Review and study of information strengthens synapses and synaptic patterns, which makes information easier to recall.

11. List three things you can do to *monitor, adjust and control* your personal learning environment and thinking process for optimal performance:

   *Student’s discretion. Example: Alter your learning environment to avoid distraction; consider changing the time you do homework; monitor your thinking. Ask yourself if you understand. Test your understanding. Use a different learning strategy if one isn’t working; Focus on one task at a time.*

12. What is *multitasking* and why is it a poor way to learn?

   *Multitasking means trying to pay attention to, or work on several tasks at the same time. It creates conflict within the brain and requires the brain to focus and refocus on learning information, making learning more difficult.*

   ※ Ever since kindergarten, Kendra has had a reputation for being one of the smartest students in school. She’s won a lot of awards, and teachers often use her essays and reports as examples of excellent work. Now that she’s in middle school, she seems worried about losing her “smart student” reputation. She’s avoiding intellectual and academic challenge by taking classes that are way too easy for her. For book reports, she rereads books she’s already read. What’s your advice to Kendra?

   *Don’t let your reputation as a smart student keep you from taking on intellectual challenge. Work hard, try new classes and difficult reading or projects to grow your intelligence. The challenge of new and harder material will make you even smarter!*
UNIT 2

LEARNING STYLES & MULTIPLE INTELLIGENCES

Lesson 5  What’s in Style?
Lesson 6  Learning Resources & Multimodal Learning
Lesson 7  There’s More Than One Way to Be Smart!

By the end of Unit Two the student will be able to:

- define VAK learning styles.
- explain the benefits of knowing their preferred/dominant style of learning.
- discover their preferred learning style.
- list style-compatible learning strategies.
- locate learning style-compatible online resources.
- define multimodal.
- review and rate an online educational/tutorial website.
- identify a variety of sensory mode resources for creating a learning plan.
- list Gardner's multiple intelligences.
- explain how intelligence can be demonstrated in many forms.
- design a variety of responses to a project based on each intelligence type.
NO MATTER HOW YOU DO IT, LEARNING IS ALWAYS IN STYLE!

$(a^m)(a^n) = a^{m+n}$
This lesson corresponds to Chapter 5 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 5A-D (www.middleschoolguide.com)
- Workbook pages 44-51.

*Note: To prepare for this lesson, select a learning style assessment below, or use one provided by your school or district. Students will complete the assessment for the in-class activity, which may require access to the computer lab during class. Alternatively, assign the learning style assessment as homework.*

http://www.edutopia.org/multiple-intelligences-learning-styles-quiz
http://people.usd.edu/~bwjames/tut/learning-style
http://ttc.coe.uga.edu/surveys/LearningStyleInv.html
http://homeworktips.about.com/library/quizzes/bltypeabc.htm

Students enjoy discovering their personal learning style. Once discovered, focus students’ attentions on expanding their awareness and use of style-compatible strategies to optimize their learning efforts.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- list and define VAK learning styles.
- explain the benefits of knowing their dominant learning style.
- discover their dominant learning style.
- list a variety of style-compatible learning strategies.

**GAINING ATTENTION**

In the previous unit, students explored the concept of *learning* – what it is, and how the brain does it. Learning is the acquisition, retention and ability to demonstrate knowledge. Study skills apply to all aspects of learning, not just to studying for a test or quiz. Students identified the traits of metacognitive learners,
and compared the roles of effort and intelligence in learning. Students learned that learning often requires several reviews of information so that the brain can establish the necessary synaptic connections and patterns to make the information recallable. Students learned why multitasking is a poor study habit. Good study skills mean identifying your learning goals, focusing on the single task of learning as you learn, and understanding that effort is the key to achievement.

*Engage students in a discussion: Have you ever noticed that you take in and process information better in a particular format? Do you learn better when you read words or hear them? Do you need to touch and hold an object to understand it?*

---

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to list and define VAK learning styles, explain the benefits of knowing your dominant learning style, discover your personal dominant learning style, and identify some style-compatible strategies to help you learn.

---

**PRESENTATION OF CONTENT**

What are VAK learning styles?

For many years, cognitive psychologists (psychologists who explore mental processes) have conducted studies and experiments to understand how people learn, hoping to find ways to make learning easier and more efficient. In the 1970s, a theory developed that people have different styles of learning based on their senses: Visual (pictures), auditory (hearing), and kinesthetic (movement.) The Learning Style Theory is also known as VAK Learning = Visual, Auditory, Kinesthetic Learning.

The Learning Style Theory states that everyone’s brain is genetically wired to prefer one of the VAK sensory modes for taking in information. The VAK theory has been discussed and debated for years. Experts agree that our brains have a preferred or dominant sensory mode for taking in and processing information for learning. Although it is not the exclusive way we learn, our preferred sensory mode influences our ability to comprehend and retain information.

Can knowing your preferred learning style make you a better learner?

Students should always strive for awareness of their personal learning habits and patterns. Understanding VAK learning styles and knowing their preferred VAK mode of learning enables students to:

- identify and incorporate into their study routine strategies and resources compatible with their preferred style.
- compensate for in-class instruction that favors a different style.
- expand their awareness and use of strategies and resources for multiple sensory learning modes.
Visual (Spatial) Learners

Have you ever heard the expression *A picture is worth a thousand words?* Visual-spatial learners acquire and retain knowledge best when information is presented in a visual format such as a book, article, website, photographic image, or video. A visual-spatial learner approaches information holistically, needing to see the “big picture” before proceeding to step-by-step learning. Visual learners prefer handouts to read and study, power points, videos, and whiteboard visuals. They often take detailed notes, use highlighters or color code to mark text, create and study diagrams, charts, timelines, sketches and other visual aids. If you are a visual learner, make an effort to incorporate visual learning strategies into your study routine.

Auditory Learners

Auditory learners are hearing-dominant learners. They acquire and retain information best by hearing it. They learn with their ears. These students gain the most from lectures, discussions, read-alouds, audio recordings and podcasts, taped lectures, and by incorporating music into their learning. An auditory learner’s comprehension improves by reading aloud and orally summarizing or reteaching what they have read. Auditory learners benefit from group discussions and group study, because putting concepts into their own words and verbalizing information helps them remember it. If you are an auditory learner, make an effort to incorporate auditory learning strategies into your study routine.

Kinesthetic Learners

Kinesthetic learners are also called tactile learners. Tactile means feeling and touching. Kinesthetic relates to physical movement. Traditional learning, where students sit at a desk reading a textbook or listening to a teacher, is less effective for the tactile learner. Tactile learners improve their focus and comprehension when they get up every now and then to stretch and move, or even just move their foot or chew gum while studying. Tactile learners touch and manipulate things to learn, and should participate in lab or workshop activities whenever possible.

Do you know that many technology companies have basketball courts, ping pong and pool tables, walking paths, volleyball courts and full-sized swimming pools at their office campus? Some companies even have an eight-person bicycle where riders face each other in a circle and peddle their way through a meeting. These facilities and toys are not just for fun. Tech companies understand that physical movement inspires creativity and learning. If you are a kinesthetic learner, make sure to include movement in your learning routine.

Check for understanding and engage students in a discussion: What do you think your dominant learning style is? Advise students that they will take a learning style assessment to discover their learning style, and explore strategies and resources compatible with their style. Proceed to activity.
ACTIVITY

Direct students to the selected Learning Style Assessment. Allow time for completion. Discuss results. Review the worksheet on page 48, and discuss the variety of learning-style compatible strategies. Alternatively, direct students to page 48 of the workbook. Introduce the activity. Complete the worksheet as a class. Assign the Learning Style Assessment as homework.

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 50 of the workbook.

1. The Learning Style Theory (VAK Learning) proposes that knowledge is acquired and processed in three sensory modes: ___________ visual ___________, ___________ auditory ___________, or ___________ kinesthetic ___________.

2. Experts agree that the human brain has a genetically ___________ preferred ___________ sensory mode of receiving and processing information, although no one learning style is the ___________ exclusive ___________ way a student learns.

3. Knowing their preferred learning style is a study skills benefit, because it enables students to include style-compatible resources and ___________ strategies ___________ in their learning, and compensate for in-class instruction which ___________ favors ___________ a different style.

4. ___________ Visual ___________ learners take in and process information best from a visual format, such as pictures, images and words; ___________ auditory ___________ learners need to hear information, such as verbal instructions, lectures and recordings.

5. Kinesthetic learners are also called ___________ tactile ___________ learners; they need to engage in physical ___________ activity ___________ as they learn, such as a lab activity or assembling a model. Many ___________ tech ___________ companies recognize the relationship of physical movement to creativity and learning, and offer activities for employees to think on the ___________ move ___________.

READING AND HOMEWORK

• Students read chapter 6 in the workbook to prepare for the next lesson.
• Students complete page 49 in the workbook Application of Skills [Visual – Auditory – Kinesthetic.] Collect for assessment.
Learning Style Strategy Survey

Cognitive psychologists say that our brains have a genetically preferred sensory mode for receiving and processing information. Some people are visual-spatial learners. Others are auditory learners. Kinesthetic learners learn best by doing and moving. Below is a list of VAK strategies. Circle V, A or K if you think the strategy is Visual, Auditory or Kinesthetic (or a combination.) Check the box next to the item if you think it’s a good strategy for you. Include it in your study routine!

- create graphs, charts and diagrams
- listen to audio or e-books
- create maps
- map study
- debate
- use graphic organizers
- read text
- study pictures or other images
- draw/sketch ideas and concepts
- hand make/assemble models
- create computer graphics
- play board games
- play games that involve physical movement
- learn with a study group
- create animation
- act or role play
- make a video for a class project
- listen to low volume music when studying
- make/use flashcards
- record (themselves) reading a textbook or novel chapter for later listening

- make recordings
- draw cartoons or graphic novels
- create a poster for a project
- study graphs, charts or diagrams
- set up experiments
- make oral reports/presentation
- use highlighters and color markers to designate important information
- color-code notes
- make dioramas
- write a script
- make or study timelines
- watch an educational (tutorial) video
- listen to an educational (tutorial) audio podcast
- read aloud/recitation
- teach someone something you learned
- watch a play or performance
- reenact an event or experiment
- listen to an educational (tutorial) podcast on the go
APPLICATION OF SKILLS

Name: ____________________________________________

Visual – Auditory – Kinesthetic

The Learning Style Theory states that our brains are genetically wired to prefer a particular sensory mode for taking in and processing information. Take the Learning Style Quiz/Assessment assigned by your teacher, then answer the questions below and complete the charts. Be prepared to discuss your answers in class.

What is your dominant learning style? ______________________________________________________

Do you agree with the outcome of the Learning Style Assessment? Why or why not?

____________________________________________________________________________________

____________________________________________________________________________________

Consider each of the VAK learning styles. Brainstorm and list all of the learning strategies you can think of that are compatible with the learning mode. (You may refer to the chart on page 48 for help.)

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
IT'S ALL HOW YOU LOOK AT IT.

REALIZING THAT YOU'RE NOT MEETING YOUR LEARNING GOALS AND THAT YOU NEED HELP IN HISTORY SHOWS THAT YOU'RE BECOMING A SELF-AWARE STUDENT. GOOD JOB!

THANKS MOM!

DING DONG

I'LL GET IT! THAT MUST BE MY NEW TUTOR!

I THINK THERE'S BEEN A MISTAKE. WHO ARE YOU??

I AM THE TUDOR.
This lesson corresponds to Chapter 6 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 6A-F (www.middleschoolguide.com)
- 3 poster boards for Graffiti Model Activity
- 3 markers
- Workbook pages 52-65.

*Note: The Application of Skills activity requires assigning one or more educational or tutorial websites to students to review and rate. Select from the charts on pages 57-60 of the workbook, or assign a website(s) of your choice. Advise students that they will review the website, rank it one to five ★s, then present their recommendation(s) to the class.*

**OBJECTIVES**

By the end of this lesson the student will be able to:

- define *multimodal learning*.
- identify a variety of sensory mode resources to create a learning plan.
- review and rate an educational/tutorial website.
GAINING ATTENTION

In the previous lesson, students explored VAK Learning. Cognitive psychologists believe that the brain is genetically wired to prefer receiving and processing information visually, auditorily, or kinesthetically. Preferred means dominant but not exclusive. Knowing your dominant style is a good study skill because it enables you to identify resources and strategies to enhance your learning strengths, and compensate for weaknesses.

Engage students in a discussion: Did you take the Learning Styles assessment? Survey students informally. Who tested as a visual learner? Who identified as an auditory learner? Who identified as a kinesthetic/tactile learner? Do you find yourself doing by instinct many of the learning strategies compatible with your style? Who disagrees with the results of their assessment? Why?

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to identify a variety of sensory mode resources to incorporate into your learning, define multimodal learning, and review and rate an educational/tutorial website.

PRESENTATION OF CONTENT

Back in the groovy 1970s when cognitive psychologists first became aware of differences in learning styles, it was very difficult for students to actually locate sensory mode resources to learn. A student’s learning experience was pretty much limited to 1) the textbook, and 2) the teacher. Not so groovy.

Fast forward to today. You are the first generation of learners to have virtually unlimited access to educational/tutorial resources compatible with any learning style. Thanks to the internet these resources are instantly available 24/7 to enhance your learning experience. So what's your excuse? Do you include VAK educational resources in your learning or are you stuck in the 70s?

Where can you find resources compatible with your learning style?

As you move up into high school and college, you are expected to assume more personal responsibility for your learning. That means knowing how to reach beyond your teacher and textbook for supplemental or tutorial resources to enhance your learning or help you overcome a learning challenge. There's an abundance of awesome online VAK resources right at your fingertips: Lectures, video tutorials, amazing websites, broadcasts, podcasts, historical, and scientific data and images provide students with immediate access to learning resources. More and more content goes online everyday. It's inexcusable to give up in the face of a learning challenge! Knowing where to find reliable VAK resources is an excellent study skill.
Direct students’ attention to pages 57-60 of the workbook. Select two or three websites at random. Review the website using the worksheet on pages 61-62 of the workbook as a guide. Advise students that as homework, they will review and rate one or more of these websites.

The websites listed on this chart represent only a tiny fraction of the amazing resources available online for middle school students. Many students don’t realize that tutorial help is available online, 24/7 in all subject areas, for all learning styles. Visual learners can bring history or science alive on websites like Eyewitness to History (www.eyewitnesshistory.com) or Cells Alive (www.cellsalive.com); Auditory learners can download audio books from any number of sites, including Librivox (www.librivox.com), and make and replay audio recordings of their notes or textbook chapters on Vocaroo (www.vocaroo.com) Kinesthetic learners can download lectures to their iPods and listen on-the-go. There are math tutorials, history videos, world language (auditory) pronunciation guides, study guides for novels, interactive maps, and geography websites. The choices are endless! When you encounter a learning dilemma, or simply want to enhance your learning routine, go online and find a good tutorial or educational website.

Tip! Bookmark the American Library Association website. ALA’s Great Websites for Kids (gws.ala.org) because it contains links to many excellent resources for middle school students.

What is multimodal learning?

Experts advise against relying too much on a single sensory mode—even your preferred learning mode. Mix it up every now and then! Multimodal learning incorporates many sensory modes into a study routine and it’s a particularly effective way to learn. For example, visual learners always benefit from listening to an audio podcast. Audio learners can enhance their learning by constructing a model or diagramming a concept. Kinesthetic learners benefit from studying maps, charts and images, or listening to a lecture. The more and different ways you learn and review, the better Brainy will comprehend and remember.

Check for understanding and proceed to Let’s Summarize!

**ACTIVITY**

**It’s a VAK Match Up**

**Graffiti Model:** Group students into three teams. Provide each team with a poster board and a marker. Appoint a scribe for each team. Direct the scribe to make three columns of equal width on the poster board and label the columns as V – A – K. Introduce the activity:

“Victor, Ariana and Kevin are middle school students who need your help. [I/the teacher] will read aloud profiles (one at a time) identifying the student’s learning style and describing a particular learning dilemma he or she is experiencing. On “go!” teams have [three - five] minutes to brainstorm strategies and resources compatible with the student’s learning style to help the student overcome the dilemma and create a learning plan for the student. Teams may refer to the chart on page 54 of the workbook for strategies, and the chart on
pages 57-60 for online resources. When [I/the teacher] call(s) “time!” the scribe stops writing and puts down the marker. Teams will present their learning plans to the class.”

On conclusion of the activity, leave the posters on display. Students will refer to the posters to complete the worksheet on page 56 of the workbook.

STUDENT PROFILE: VICTOR

READ ALOUD: Victor is struggling in science. His teacher Miss Sears, begins every class with a 20 minute lecture. She prefers that students sit quietly and listen before moving on to the lab activity. She talks students through the lab activity. Victor can’t grasp the sequence of steps, and never gets the “big picture” or understands the learning goals. This week’s lesson on mitosis was particularly difficult for him. He often has to ask Miss Sears to repeat directions. After class, she posts her lecture notes on the class webpage. Help! Poor Victor is a visual learner trapped in Miss Sears’ auditory world!

ASK: Based on Victor’s learning style, what strategies and resources do you recommend to help him compensate for his teacher’s auditory teaching style? Make a learning plan for Victor.

Answer key: Visual learners absorb and retain information best by seeing it. They need to process information holistically (big picture) before moving on to step-by-step learning. Unfortunately, this science class is heavy on lecture and verbal instruction. Occasionally, a teacher’s preferred mode of instruction isn’t the optimal learning mode for a student. Victor should always read the textbook and any other assigned reading to form a “big” picture of the lab experiment processes and objectives. Creating flow charts, diagrams and sketches will help him learn. He should carefully study any diagrams, photos and charts in the textbook. He can make flashcards to help him understand lab activity sequences. It is very easy for Victor to find online style-compatible resources to work around his teacher’s auditory teaching methods. Victor should always download and carefully study his teacher’s lecture notes. (He could even ask for advance copies.) He can enhance his learning with Google images, charts, graphs, YouTube or iTunes links to educational websites, videos and podcasts. Flashcards, graphic organizers, highlighters, colored markers, and colored fonts improve retention. Possible tutorial/educational websites for Victor include: Science Made Simple, Brightstorm, Cells Alive, Inner Body, Sixty-Second Science.

STUDENT PROFILE: ARIANA

READ ALOUD: Ariana is an auditory learner. She loves stories and storytelling, so she figured she’d do pretty well in her literature class. Unfortunately, she’s a slow reader which is making it hard to get through the huge amount of assigned reading. She’s falling behind. During class, her teacher has students silently read a passage from a book, then answer multiple choice questions about it. Ariana can’t remember much of what she reads. Once the class was reading Romeo and Juliet, and her teacher assigned parts to students. Everyone had to act out a passage for the class. It was fun. Ariana played Juliet. She was surprised, because afterwards she understood the passage better and remembered it longer.

ASK: Based on Ariana’s learning style, what strategies and resources do you recommend to help her in her literature class? Make a learning plan for Ariana.
Answer key: Auditory learners, like Ariana, absorb and retain information best by hearing it. In a subject like literature, information is usually conveyed visually by written words. Thankfully, there are plenty of strategies and resources for auditory learners. When reading at home, Ariana should read aloud and underline key passages. She can discuss, retell, act out or explain passages to a family member or study bud, or join a study group that discusses and acts out the stories. She can record herself reading a story or reading from a textbook. Audio learners can download audio books and enhanced ebooks and read along with the narrator. Downloadable educational and tutorial audio podcasts are available on iTunes and iTunesU, as well as recordings of classic literature, historical newscasts, radio shows, debates, concerts, dramas and theater productions and lectures in all subjects. Audio learners should use headphones because they can be distracted by noise. They may also benefit by studying with low volume music. Possible tutorial/educational websites for Ariana include: Story Nory, Novel Guide, Folger Shakespearean Library, Librivox, iTunes Educational Podcasts, Vocaroo.)

**STUDENT PROFILE: KEVIN**

**READ ALOUD:** Kevin is in the seventh grade. He plays tight end on the Pop Warner team. He also runs track. He’s always on the move. In school, he likes science and totally dominates on labs and on projects where he gets to do experiments and build stuff. But he doesn’t like history. Too much sitting and reading. His mind wanders and he can’t remember what he read. Next week, the class has an important quiz on the Battle of Gettysburg and the Gettysburg Address. He’s studied his textbook, notes, copies of Lincoln’s speech and maps of the battlefield, but he’s still struggling to learn it. He’s worried he’s going to fail the quiz. Kevin is a kinesthetic learner. Help him prepare for the quiz!

**ASK:** Based on Kevin’s learning style, what strategies and resources do you recommend to help him in history? Make a learning plan for Kevin.

Answer key: Kevin is a kinesthetic learner. He needs to incorporate movement, touch and feel into his learning. He learns well with hands-on projects, so he could construct a map or a small model of the Gettysburg battlefield, memorizing details of the battle as he works. Moving manipulatives (like small soldiers, chess pieces—even M&Ms) around the map increases a kinesthetic learner’s comprehension. Kevin could go with a group of students to a local park to set up a historical reenactment. He can role play Lincoln, standing and reciting the Gettysburg Address. Even if he’s just tapping his fingers or pumping a hand weight as he studies, he will learn better. Kevin needs small blocks of learning time with breaks for physical activity. He should write out the speech, and read or study while standing at the kitchen counter. If Kevin has a treadmill or stationary bike at home or access to a gym, he can bring his textbook to read while he exercises. He can find a lecture about Gettysburg and download it to his iPod and listen on the go. Kevin can record himself reading from the textbook, and listen on the go. Kevin can ask a study bud or parent to interview him about the battle and speech while he shoots baskets or kicks a soccer ball. Taking notes in class, group study, list making and writing concepts out several times are good strategies for tactile learners. Possible tutorial/educational websites for Kevin include: Gettysburg, Eyewitness to History, Hyperhistory. Declare the winning team and proceed to Let’s Summarize!
LETS SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 63 of the workbook.

1. Thanks to the internet, excellent learning style-compatible resources are instantly available to enhance or supplement learning. Most online resources are free! (Cost nothing.)

2. Audio learners can find excellent educational audio podcasts on itunes.apple.com, and can even read aloud and record their class notes or textbook chapters, and listen to study.

3. As you move up into high school and college, you will assume more personal responsibility for your learning; knowing how to locate and use educational and tutorial websites is a good study skill.

4. Experts believe that students should not rely exclusively on one learning style. Go multimodal! Incorporate many sensory modes/styles into your study routine.

5. Even though the 1970's were groovy, a student's learning was pretty much limited to their textbook and teacher. Now, because of the internet, students have instant access to excellent tutorial resources to supplement their learning in all subjects.

READING AND HOMEWORK

- Students read chapter 7 in the workbook to prepare for the next lesson.
- Students complete pages 61-62 in the workbook Application of Skills [Review and Rate an Educational Website.] Collect for assessment and sharing.
CLASS ACTIVITY WORKSHEET

CHAPTER 6

Name: ______________________________________

It’s a VAK Match Up!

Hear ye! Learning is not limited to a textbook or worksheet. Thanks to this thing called “the internet,” students have access to resources for all learning styles. I command you to include strategies and resources from It’s a VAK Match Up in your personal learning routine.

Profile: Victor
- struggling in science
- teacher prefers lectures
- loses track of the sequence of steps in labs
- needs directions to be repeated
- doesn’t get the “big picture”
- needs to find a helpful online resource

What is Victor’s learning style? ____________________________

Create a learning plan for Victor:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Are there any websites on the chart on pages ___-___ which might be helpful for Victor? ____________________________________________

Profile: Ariana
- slow reader
- low comprehension
- likes literature
- can’t remember what she reads
- enjoys role playing
- needs to find a helpful online resource

What is Ariana’s learning style? ____________________________

Create a learning plan for Ariana:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Are there any websites on the chart on pages 57-60 which might be helpful for Ariana? __________________________________________

Profile: Kevin
- athletic
- struggles in history
- gets distracted
- can’t remember information
- likes to build stuff
- hates sitting and listening!
- needs to find a helpful online resource

What is Kevin’s learning style? ____________________________

Create a learning plan for Kevin:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Are there any websites on the chart on pages ___-___ which might be helpful for Kevin? __________________________________________
APPLICATION OF SKILLS

Name: ____________________________________________________________☆☆☆☆☆

Review and Rate an Educational Website

There's a huge amount of information online to enhance your learning experience. Your teacher will assign one or more educational tutorial websites from pages 57-60 for you to review and rate. Award the website one to five ☆s. Share your review with your classmates.

Website Title: ______________________________________________________

Circle the website's subject area(s):

M = Math  S = Science  H/SS = History/Social Studies  LA = Language Arts
GI = General Information  SA = Study Arts  WL = World Language

Describe the purpose of the website (i.e., math tutorial website). What skills does it address?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

What grade level(s) does the website apply to?
________________________________________________________________________

Do you like/dislike the design or look of the website? (Is it colorful? Attractive? Bland? Boring?)
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Does this website draw your interest and make you want to use it?
________________________________________________________________________

Is this website interactive? (Can you play games or take quizzes?) Describe:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Describe the activities the website provides for learning a skill. ________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Does the website have an **affiliation**? Is it related to or sponsored by a college or university, publisher, government department or school?  
Yes  No  
If yes, what is the affiliation?  ____________________________________________________________

Does the site ask for **personal information** about you or your family, or ask you to register or create an account?  
Yes  No  
(Don't register or provide information without parental permission!)

Rate the **quality of the text, images and graphics**:  
Excellent      Very Good      Good      Poor

Does the website have **video content**?  
Yes  No

If yes, rate the quality of the video:  
Excellent      Very Good      Good      Poor

How's the site **organized**? Is it **easy to navigate**? Can you **find the information** you're looking for?  
Excellent      Very Good      Good      Poor

Does the site try to **sell** you something, or require a **subscription**?  
Yes  No  
(Never buy or subscribe without parental permission.)

Is this website **free**?  
Yes  No  Can't Tell

Would you recommend this site to a **visual**, **auditory** or **kinesthetic learner** (or combination)?  
V  A  K

Do you think this website is a **helpful** tutorial/educational resource?  
Yes  No

Additional comments, such as useful information about the site, cool or unusual features.  
____________________________________________________________________________________  
____________________________________________________________________________________  
____________________________________________________________________________________

Overall, how many stars do you give this website?  
☆☆☆☆☆☆

Do you have a go-to website you use for homework help or tutoring that is not listed on the chart on pages 57-60 which you can recommend to classmates? Write the name, URL and a brief summary of the website.  
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Reviewed by: ____________________________  Date: ____________________________
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ELENA DEMONSTRATES EIGHT DOMINANT INTELLIGENCES!
This lesson corresponds to Chapter 7 of *The Middle School Student’s Guide to Study Skills*.

**Materials**

- Computer/whiteboard display with internet access.
- Webslides 7A-D (www.middleschoolguide.com)
- Workbook pages 66-77.

Note: To prepare for this lesson, select an online multiple intelligences assessment (see below) or use an assessment provided by your school or district. While students enjoy discovering their dominant intelligence, the focus of the lesson is on exploring the concept of diversity in intelligence and encouraging students to develop and demonstrate their unique intelligence.

http://literacyworks.org/mi/assessment/cgi-bin/results.cgi
http://surfaquarium.com/MI/inventory.htm

**Objectives**

By the end of this lesson the student will be able to:

- summarize Gardner’s Theory of Multiple Intelligences.
- list Gardner’s eight intelligences.
- design a variety of responses to a project based on intelligence types.
GAINING ATTENTION

In the previous lessons, students learned about VAK (visual, auditory, kinesthetic) learning styles. With the abundance of online resources, students can easily expand their learning beyond the teacher and textbook. Including visual, auditory and tactile learning resources and strategies enhances the learning experience and improves comprehension. Students explored a variety of online resources for supplementing their learning. Students also learned about multimodal learning, which is incorporating multiple sensory resources and strategies into their learning routine.

Engage students in a discussion: Learning styles are related to informational input – how people most efficiently take in and process information. What about the other side of the coin? Do people have a dominant informational output mode?

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to summarize the Theory of Multiple Intelligences, explain the different ways people can be smart and display intelligence, and design multiple responses to a project based on intelligence types.

PRESENTATION OF CONTENT

What are multiple intelligences?

Have you ever noticed that a student who’s really good at one subject may struggle in another? For example, a student who takes on the most heinous algebra equation with ease, may struggle with an oral presentation in history, or a student who expresses a complex concept through art, can’t explain it in an essay. Why? In the 1980’s, a professor of education at Harvard University named Dr. Howard Gardner thought a lot about how people display intelligence. He believed that the traditional notion of intelligence based on an I.Q. test was too limited. Intelligence, he argued, is more than a score on a test! Intelligence has many forms and knowledge can be displayed in many ways. Dr. Gardner identified eight types of intelligence now known as Gardner’s Multiple Intelligences. Just like learning styles, everyone has a dominant intelligence.

How can knowing your intelligence type help you be a better learner?

Knowing your dominant intelligence type helps you better manage your learning by enabling you to:

- make the most of your innate abilities.
- compensate for your weaknesses.
- utilize your dominant intelligence when selecting and designing a project.
- select a college study or career path compatible with your intelligence type.
What are multiple intelligences?

✓ **Linguistic Intelligence.** A linguistically intelligent person is sensitive to **words, the meaning of words**, speaking and writing. They often excel at things like story and poetry writing, speech and debate, oral reports, reading, writing, and spelling.

*Engage students in a discussion: Can they think of an historical or present day person who displays linguistic intelligence? (Some answers might be Dr. Seuss, Mark Twain, and Shakespeare.)*

✓ **Musical intelligence.** A musically intelligent person has a heightened ability to hear **tones, rhythm, musical patterns, and pitch and timbre**. They often excel at or easily handle musical activities, sound mimicry, playing an instrument, music composition, writing lyrics, rhythms, sound patterns, singing, participating in choir, rap and rap lyric composition, sound editing and sound production.

*Can students think of an historical or present day person who displays musical intelligence? (Some answers might be Mozart, Jay-Z, and Taylor Swift.)*

✓ **Logical/Mathematical intelligence.** A person who is logically or mathematically intelligent is able to **see relationships between objects, create and interpret data**. They excel at creating and recognizing number patterns, sequence data, solving puzzles, making and using spreadsheets, creating computer programs, solving geometric problems, and making scientific predictions.

*Can students think of an historical or present day person who is logically/mathematically intelligent? (Some answers might be Einstein, Bill Gates, astrophysicist and astronaut Sally Ride.)*

✓ **Visual/Spatial intelligence.** Visually/spatially intelligent people are able to **perceive and visualize objects**. They often excel at art, in creating and using graphs, charts and patterns, painting, sketching, drawing. They excel at making visual representations of concepts, such as a map or a timeline of an historical event, even video game graphics, CGI, building architecture and engineering.

*Can students think of an historical or present day person who is visually/spatially intelligent? (Some answers might be Picasso, Chinese architect and dissident Ai Weiwei, The Great Depression photographer Dorothea Lange)*

✓ **Bodily/Kinesthetic intelligence.** People who are bodily/kinesthetically intelligent, excel at activities requiring **body movement, physical action and control**. They have excellent **hand-eye coordination** and dexterity. They excel at physical activities like athletics and dance, and also at constructing models, labs, sculpture, surgery, and other activities requiring good hand-eye coordination.

*Can students think of an historical or present day person who is bodily/kinesthetically intelligent? (Some answers might be Olympic gymnast Gabby Douglas, Kobe Bryant, Hugo Sanchez.)*
✓ **Intrapersonal intelligence.** Intrapersonally intelligent people connect with their inner feelings. They’re introspective, self-reflective and intuitive. They are perceptive. They are good at controlling their destiny because they are aware of their personal strengths and weaknesses. They make self-aware decisions. They do well on individual projects.

*Can students think of an historical or present day person who is intrapersonally intelligent? (Some answers might be Freud, Helen Keller, Plato)*

✓ **Interpersonal intelligence.** Interpersonally intelligent people are adept at understanding the actions, emotions, moods, intentions and feelings of others. They interact well with their peers and are good at seeing or presenting problems from many perspectives. They are good mediators, can facilitate conflict resolution, and lead group meetings or projects. They excel at debate, team sports, clubs, and group projects.

*Engage students in a discussion: Can they think of an historical or present day person who is interpersonally intelligent? (Some answers might be Hillary Clinton, Steve Jobs, President Obama)*

✓ **Naturalistic Intelligence.** A naturalistically intelligent person is in tune with nature. These people excel at nurturing and exploring the environment through subjects connected to the study of nature, like biology, zoology, geology, meteorology, environmental science, and oceanography. They are sensitive to nature and changes to the environment. They excel at activities like gardening, agriculture, caring for animals, and environmental science.

*Can students think of an historical or present day person who is naturalistically intelligent? (Some answers might be environmentalist Rachel Carson, Charles Darwin, John Muir)*

**Are intelligences the same as learning styles?**

Intelligences are not the same as learning styles. Learning styles relate to informational input – how information is received and processed. Intelligences relate informational output – to how people express their knowledge and abilities. For example, it’s likely that the great environmentalist Rachel Carson was naturalistically intelligent, but she could have been a visual, kinesthetic or auditory learner.

*Check for understanding and proceed to the activity.*

**ACTIVITY**

Direct students to page 70 of the workbook. Introduce the activity. Students may work in pairs or groups for this activity. Share and compare answers.
LET'S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 73 of the workbook.

1. Learning styles and ________ intelligences ________are not the same. Learning styles relate to informational ________input _________. “Intelligences” refer to informational ________output ________.

2. Gardner identified ________ intelligences: ________ verbal/linguistic ________, ________ musical ________, ________ logical/mathematical ________, ________ visual/spatial ________, ________ bodily/kinesthetic ________, ________ intrapersonal ________, ________ interpersonal ________ and ________ naturalistic ________.

3. Everyone has a ________ dominant ________, but not exclusive, intelligence; knowing yours can help you make the most of your innate abilities, recognize and compensate for your ________ weaknesses ________.

4. An ________ intrapersonally ________ intelligent person is self-reflective, self-aware intuitive and perceptive.

5. A/An ________ interpersonally ________ intelligent person is adept at understanding the feelings, emotions and motives of others.

READING AND HOMEWORK

• Students read chapter 8 in the workbook to prepare for the next lesson.

• Students complete page 72 in the workbook Application of Skills [Making the Most of Your Intelligence]. Collect for assessment.

• Assign the selected Multiple Intelligence assessment as homework or computer lab activity. Students take the assessment and discuss results in the next class.

• Unit 2 Quiz: Students complete pages 74-75 in the workbook [What Did You Learn About Learning Styles & Multiple Intelligences?]
Multiple Intelligences: Work’n It Out in Different Ways

Intelligence is more than a score on a test. Intelligence can be displayed in lots of ways. According to the Theory of Multiple Intelligences, there are many different types of intelligences. Everyone has a dominant (but not exclusive) intelligence. Use your dominant intelligence to make the most of your innate abilities!

Project time! Your history teacher wants his class to learn all about the Boston Tea Party. He knows what a diverse and clever group of students he has, so he’s given you freedom to design your own projects. Suggest ways the eight intelligence types can approach this project showcasing their diverse intelligences.

Linguistic Intelligence. (Traits: sensitive to words, the meaning of words, speaking and writing; excels at story and poetry writing, speech and debate, oral reports, reading, writing, spelling.)
Student’s discretion. Example: Write and recite a period speech about the Colonists’ protest; debate the Townsend Revenue Act; Create a mock trial of the Boston Tea Party participants; Put on a short play about the event.

Musical intelligence. (Traits: ability to hear tones, rhythm, musical patterns, and pitch and timbre; excels musical activities, sound mimicry, playing an instrument, music composition, writing lyrics, rhythms, sound patterns, singing, choir, rap and rap lyric composition, sound editing and production.)
Student’s discretion. Example: Tell the story of the Boston Tea Party set to music; Provide a sample of present period (Colonist) music and songs; Create a rap about the Tea Party event and causes of the protest.

Logical/Mathematical intelligence. (Traits: recognizes relationships between objects; excels at creating and recognizing number patterns, interpreting and sequencing data, solving puzzles, making and using spreadsheets, creating computer programs, solving geometric problems, game code-writing and making scientific predictions.)
Student’s discretion. Example: Analyze the economic impact of the various revenue and tax acts that lead to the Boston Tea Party protest. Convert the economic impact on the Colonists to a present day equivalent. Present the findings to the class.
Visual/Spatial intelligence. (Traits: perceives and visualizes objects; excels at art, in creating and using graphs, charts and patterns, painting, sketching, drawing, visual representations of concepts.)

Student’s discretion. Example: Present the events of the Boston Tea Party in sketches. Display sketches on Power Points as a narrator explains the events and issues of the Boston Tea Party.

Bodily/Kinesthetic intelligence. (Traits: excels at activities requiring body movement, physical action and control; excellent hand-eye coordination and dexterity, athletics, dance, model building.)

Student’s discretion. Example: Reenact the events of the Boston Tea Party; Create a model of the ship or a scale model of Boston at the time of the colonial protests.

Intrapersonal intelligence. (Traits: understands inner feelings; introspective and self-reflective, perceptive, and able to identify and correct personal weaknesses; works well on individual projects.)

Student’s discretion. Example: Write a paper examining the relationships of the colonists to the British from opposing viewpoints: Son of Liberty vs a Loyalist; Review the colonists emotional attachment to tea.

Interpersonal intelligence. (Traits: understands actions, emotions, moods, intentions and feelings of others; interacts well with peers; see problems from many perspectives; excels at mediation and conflict resolution, leading group activities, meetings or projects debate, team sports, and clubs.)

Student’s discretion. Example: Stage a mock mediation of the colonists/British dispute, presenting the Taxation Act issues from several opposing perspectives.

Naturalistic Intelligence. (Traits: in tune with nature and the environment; excels at subjects connected to the study of nature such as biology, zoology, geology, meteorology, environmental science, and oceanography; sensitive to changes to the environment.)

Student’s discretion. Example: Explain how and where tea is grown, trace tea smuggling routes to the American colonies; discuss why tea was such a precious commodity in the colonies.
APPLICATION OF SKILLS

Name: ____________________________

Making the Most of Your Intelligence

Take the Multiple Intelligence Assessment assigned by your teacher, then answer the questions below.

What is your dominant intelligence type? ___________________________________

Do you agree with the outcome of the assessment? Why or why not?

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

In your opinion, which of the eight intelligences do you definitely not display? How can you tell?

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

School and community clubs, activities and after school programs provide excellent opportunities to explore and develop your intelligence type. For example, a visually/spatially intelligent student would enjoy an art competition or club; a linguistically intelligent student can develop skills in the debate club; the Environmental Club is a good choice for a naturalistically intelligent student. Go to your middle school’s website. List clubs, activities, and after school programs available to students:

(   ) ____________________________________________ (   )

(   ) ____________________________________________ (   )

(   ) ____________________________________________ (   )

(   ) ____________________________________________ (   )

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Review the above list. What intelligence types are represented in the clubs and activities? Mark (LI) if the club or activity would appeal to a linguistically intelligent student, (MI) if the club or activity appeals to a musically intelligent person, etc. (See abbreviations below). Circle programs, clubs and activities that appeal to your intelligence type and make a plan to participate. If you don’t see a club or activity for your intelligence type, talk to your teacher or counselor about starting one at your school. Developing your unique intelligence is a good study skill.

VSI = Visually/Spatial Intelligence  BKI = Bodily/Kinetic Intelligence
LI = Linguistic Intelligence          Intra = Intrapersonal Intelligence
MI = Musical Intelligence           Inter = Interpersonal Intelligence
LMI = Logical/Mathematical Intelligence  NI = Naturalistic Intelligence
Blog/Debate/Discuss

Select from any one of these for a class discussion, debate, or blog topic:

- Why does Brainy like multimodal learning?
- If you could choose any intelligence as your dominant intelligence, what would it be and why?
- What are careers for your intelligence type? What famous people or historical figures share your intelligence type?

It's a Team Effort!

- Get parents on board with understanding how to support their student's dominant learning style. Create a list of style-compatible resources students can use at home.
- Ask teachers to record and upload their lectures so students can listen at home or on the go.
- Collect students' educational/tutorial website evaluations. Place links to highly recommended sites on your class webpage. Share popular sites with other teachers and parents.

Practice, Practice!

What Did You Learn About Learning Styles & Multiple Intelligences?

College Readiness Corner

Besides looking good on a college application, involvement in a school or community organization is a great way for students to develop their unique intelligences. Survey the clubs and activities available to your students through your school, high school and local community. Sort by intelligence type. Are all intelligence types provided an opportunity to participate in a meaningful program? Work with the school counselor to suggest clubs and activities for students based on their intelligence type.

Unit Sources


Tech Connect

**App name:** PLapp. **Provider:** SEMS International. **Price:** Free. **Compatible with:** iPad. **Features:** Assemble 3D models on your iPad.

**App name:** Puzzle Me !!! **Provider:** SID On. **Price:** $0.99. **Compatible with:** iPhone, iPod and iPad. **Features:** Mentally engaging graphic jigsaw puzzles.

**App name:** Brain Trainer. **Provider:** Lumosity. **Price:** Free. **Compatible with:** iPhone, iPod, iPad. **Features:** Play games to train brain functions in memory and concentration. Includes a Brain Performance Index to track improvement and information about neuroscience.

**App name:** 3D Brain. **Provider:** Cold Spring Harbor Laboratory. **Price:** Free. **Compatible with:** iPhone, iPod Touch, iPad. **Features:** Rotate and zoom around 29 interactive brain structures. Discover functions, what happens when injured.

www.chess.com
WHAT DID YOU LEARN?  UNIT 2

Name: __________________________________________

**WHAT DID YOU LEARN ABOUT LEARNING STYLES & MULTIPLE INTELLIGENCES?**

1. Bailey is a *kinesthetic learner*. Gia is an *auditory learner*. They are in the same conversational French class and plan to study for the midterm together. The midterm will focus on vocabulary and pronunciation. Locate at least two online French tutorial or educational resources. Provide the website name and URLs. Find a tutorial website for the language you are studying in school, and write the name of the site and URL.

   - [www.bonjour.com](http://www.bonjour.com)

2. Ryan exhibits *visual/spatial intelligence*. He's good at all kinds of drawing and design. His bros Pedro and Steven play in the school jazz band. They exhibit *auditory intelligence*. The three of them have been assigned to a group project for U.S. History. The teacher wants students to collaborate, using their unique intelligences to design a presentation commemorating Pearl Harbor and America's entry into WWII. Ideas?

   - The students could re-enact the radio broadcasts of Pearl Harbor, or tell the story of WWII/Pearl Harbor while incorporating the Big Band or military music of the era. They could recreate the speeches of FDR and Churchill. They could recreate WWII posters or maps of Pearl Harbor and display them on Power Points set to music.

3. List two adjectives that describe an *intrapersonally* intelligent person:

   - self-aware
   - introspective

4. Your teacher has assigned Shakespeare's *As You Like It* as required reading for the entire class. OMG! You haven't a clue what the characters are saying. Knowing that you are an *auditory learner*, you decide to read along in the book as you listen to a theatrical production of the play. Find an audio recording of the play online. Write the URL here:

   - [www.Librivox.org](http://www.Librivox.org); [www.speak-the-speech.org](http://www.speak-the-speech.org)
True or False:

5. ____False____ Caroline is president of the middle school student activities committee. Several students have quit the committee because she doesn’t get along well with others. She tends to see things only from her own perspective. She disregards the actions, moods, and feelings of other students. Caroline has poor **intrapersonal intelligence**.
   (She has poor **interpersonal intelligence**.)

6. ____True____ A **naturalistically intelligent** person would probably enjoy an assignment about the effects of climate change on bird migration.

7. ____False____ You cannot be intelligent in more than one way.
   (Intelligences are dominant, not exclusive.)

8. ____False____ A **visual-spatially intelligent** person is adept at poetry writing, speech and debate, but don’t ask them to create a graph or design a poster!
   (They excel at visual representations or concepts.)

9. ____True____ A good learning program is multimodal, incorporating strategies and resources from all learning style modes, with an emphasis on the student’s preferred or dominant style.
   (Multimodal learning creates a strong learning program for students.)

10. ____True____ Knowing your dominant intelligence can help you compensate for your weaknesses and capitalize on your strengths.

11. In your opinion, what makes an educational/tutorial website worth 5 ⭐️s?
    Student’s discretion. Example: visually appealing; links work; graphics and images are clear; the content is helpful; the site is easy to navigate; has interactive content; grade appropriate; the material is well-organized; doesn’t ask for personal information; free or low cost; no subscription is required; good design; information is helpful.

12. How can joining a school club or after school activity help students develop their unique talents and intelligence?
    After school clubs and community programs offer opportunities to engage in activities like music, theater, art, debate, robotics, academic competitions, environmental clubs, poetry and writing contest, etc.
By the end of **Unit Three** the student will be able to:

- state the benefits of a consistent homework routine.
- describe five pre-learning strategies for improving homework efficiency.
- design a to-do list.
- list the features of an efficient and productive home workspace.
- critique their home workspace for efficiency and productivity.
- explain the purpose of a syllabus.
- tell how to use a syllabus to align their time and effort with their teacher’s priorities and expectations.
- draft a mock syllabus.
- define *schema*.
- state the benefits of activating schema as a pre-learning strategy.
- describe nine schema activation techniques.
MEET MR. VIEJO, MATH TEACHER...

GOOD MORNING AJ, WHERE'S YOUR MATH HOMEWORK?

SIGH. I FORGOT IT.

HMM. THAT'S THE SECOND TIME THIS WEEK.

I DID MY HOMEWORK, BUT I LEFT IT ON MY KITCHEN TABLE. NO WAIT... I LEFT IT ON THE BUS.

WHAT'S THE POINT OF A LIFE WITHOUT GEOMETRY?

WAIT A MINUTE! I THINK IT'S IN MY ROOM... MAYBE. I DON'T KNOW. IT COULD BE IN THE DEN OR THE TENNIS COURT.

AJ, YOU REALLY NEED A QUIET, PRIVATE PLACE TO DO YOUR HOMEWORK.

YOU'RE RIGHT, MR. VIEJO. I'M A HOMEWORK NOMAD. I MOVE FROM PLACE TO PLACE TO DO MY WORK. IT'S JUST AN OLD HABIT, I GUESS...

TRY TO DO YOUR HOMEWORK IN THE SAME PLACE AND AT THE SAME TIME EVERY NIGHT. ALL THAT WANDERING AROUND CAN CAUSE YOU TO MISPLACE AND FORGET YOUR HOMEWORK.

SON, YOU'RE NOT OLD ENOUGH TO HAVE AN "OLD HABIT".
This lesson corresponds to Chapter 8 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 8A-D (www.middleschoolguide.com)
- Workbook pages 78-87.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- state the benefits of a consistent homework routine.
- describe five pre-learning strategies for improving homework efficiency.
- design a to-do list.

**GAINING ATTENTION**

In the last unit, students learned how their dominant (or preferred) learning style dictates how they most efficiently take in and process information. Knowing their preferred learning style enables students to seek out and incorporate sensory resources and strategies to enhance their learning. Students also learned that intelligence can be displayed in many ways. Using your dominant intelligence helps you make the most of your innate abilities. Good study skills include incorporating your unique intelligence into school projects, and taking advantage of opportunities to develop your skills in after school clubs and activities.
Engage students in a discussion: Have you ever done the wrong assignment for homework? Have you ever lost a book or paper you needed for homework somewhere in your house? Isn’t it frustrating? Homework isn’t much fun to begin with, but doing the wrong assignment and searching for books and papers takes homework frustration to another level.

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to understand the benefits of a consistent homework routine, describe five pre-learning strategies for improving homework efficiency, and design a to-do list.

PRESENTATION OF CONTENT

What’s a homework routine?

In the next few lessons, the class will investigate pre-learning strategies. These are things students can do before starting homework to make learning faster, more efficient and less frustrating. The first of these strategies is to develop (and stick to) a homework routine.

The word routine has gotten a bad reputation. It’s become synonymous with dull and predictable, even boring! So unfair! Routine can be a beautiful thing, especially where homework is concerned. As you move up into high school and college, the volume and difficulty of homework will increase. It will also comprise a significant portion of your grade. It’s important to set the stage for working efficiently and productively.

Developing and sticking to a homework routine is an excellent pre-learning strategy for middle school, high school and college. A simple five minute homework routine can save you hours of work.

A homework routine:

- establishes a more successful and productive learning environment
- helps students avoid organizational disasters
- reduces stress and frustration over homework (for students and their parents!)
- helps students overcome procrastination
- saves time
What are homework routine do’s and don’ts?

1. Set time & place

DON’T DO! Don’t be a homework nomad, wandering from place to place to do your homework – one night in your room, one night at the kitchen counter, one night on the sofa... All that wandering can cause organizational disasters like misplaced papers, or lost or forgotten books or homework.

DO! Stake your claim! Set up a personal and permanent study zone at home. Make sure it’s well-lit, comfortable, and free from distractions. Keep your school stuff there – and only there. When you get home from school, put your backpack and books at your workspace, not in the entry hall or on the kitchen table. As much as possible, do your homework at the same time and in the same place every day. Routine is key for avoiding organizational disasters.

2. Clutterbust and organize

DON’T DO! A messy, cluttered desk is distracting and can cause you to lose worksheets, homework, books and handouts. Searching through clutter for papers, pens and other stuff is just one big, frustrating, yucky waste of your valuable time. Say no to a messy desk! If your desk is cluttered, your mind will be too.

DO! Before starting homework, take a couple of minutes to clutterbust and organize your workspace. Toss out trash. File or toss old papers. Stack books and papers neatly. Clear a space large enough to hold an open textbook and open binder. An organized, uncluttered workspace improves homework productivity and efficiency. It also reduces stress.

3. Limit breaks

DON’T DO! Don’t take long breaks. Breaking too frequently or for too long disrupts your concentration and drags out homework time for longer than necessary.

DO! Work steadily without a break for a set period of time or until you’ve fully completed an assignment and it’s filed in your binder. Breaks include checking Facebook or texts every other minute. Do not multitask. Focus on one task at a time. Limit breaks to 5 minutes per half hour of homework. As your concentration and attention span improve, increase your break-free study time to one full hour.

4. Do a to-do list

5. Don’t be h8n!
DON’T DO! Don’t assume you know what your assignments are and start working without confirming details. Teachers make changes or additions to assignments all the time.

DO! Check your planner, check the class webpage, and review your notes before you start working. Confirm assignment details like page numbers, chapters and problem numbers. If you’re confused, call or text a classmate (someone less confused than you, obviously.) Make a to-do list including all assignments and non-assignment related tasks, such as getting a permission slip signed or making sure you have that note you need to get out of class for your orthodontist appointment. Seriously – it takes about two minutes to make a to-do list, but it can save you hours of trouble.

DON’T DO! Don’t be h8n on your homework! Resentment, annoyance, impatience and all those negative emotions are big downers. A bad attitude makes it harder to get the job done and shows up in the quality of your work.

DO! Remember the traits of the growth mindset learner? That student understands the benefit of effort and challenge. Even if you think homework’s boring or that you’ve already mastered a skill or concept, Brainy’s neurons and synapses may need a bit more practice to form strong synaptic connections and patterns. You don’t have to love homework (that might be weird), but H8n on it distracts your brain from working efficiently. Adjust your attitude. Engage your mind in the homework process. You can’t avoid it, so make it work for you and learn from it.

Check for understanding and proceed to the activity.

ACTIVITY

Direct students to page 83 of the workbook. Introduce the Homework Routine Survey. Students take the survey and total their points. Compare results. Engage students in a discussion about their homework routines. Ask students to incorporate one homework routine “do” each night for the next five nights as they do homework.

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 86 of the workbook.

1. Establish a homework _______ routine. As much as possible, do your homework at the _______ same _______ time and in the _______ same _______ place every day.

2. Before starting homework, take a couple of minutes to _______ clutter-bust and _______ organize _______ your workspace.
3. Work for at least ______ minutes without a break, or until you’ve ______ finished ______ assignment and ______ filed ______ it in your binder. “Breaks” include checking ______ Facebook ______ or ______ texts ______.

4. Check your planner before you start your homework. Check the class webpage and notes. Know exactly what your ______ assignment ______(s) is/are; Make a ______ to-do ______ list including all of your assignments and non-assignment tasks.

5. Bad ______ attitudes ______ like resentment, annoyance, and impatience distract Brainy from working efficiently; Homework has its benefits: it helps build strong synaptic connections and patterns, so it’s easier to ______ recall ______ the learned information.

**READING AND HOMEWORK**

- Students read chapter 9 in the workbook to prepare for the next lesson.
- Students complete page 85 in the workbook Application of Skills [Do a To-Do.] Collect for assessment.
CLASS ACTIVITY WORKSHEET  CHAPTER 8

Name: ____________________________________________________________________

Just a Routine Survey!

The word routine has gotten a bad rap. It’s become synonymous with dull and predictable – even boring! But routine is a beautiful thing, especially where homework is concerned. A homework routine makes your time more productive, reduces stress, and helps you avoid organizational disasters. A homework routine can be a kind of pre-learning ritual to help you focus, and prepare your mind to learn.

From 1-10 (10 = “Awesome & Totally True”; 1 = “Not in a Million Years”) how efficient and productive is your homework routine? Read the statements below and select the number that best describes your routine.

1. I do my homework at about the same time every night (give or take an hour.)
   10          9          8          7          6          5          4          3          2          1

2. I do my homework in the same place every night.
   10          9          8          7          6          5          4          3          2          1

3. My desktop is clean and clutter-free!
   10          9          8          7          6          5          4          3          2          1

4. I have a trash can at my workspace and I use it.
   10          9          8          7          6          5          4          3          2          1

5. My home workspace is private enough for me to leave books and papers on the desktop without worrying they’ll be messed with or lost.
   10          9          8          7          6          5          4          3          2          1

6. When I do homework, I focus on one task at a time, and do not multitask.
   10          9          8          7          6          5          4          3          2          1

7. My homework breaks are short (no more than 5 minutes.)
   10          9          8          7          6          5          4          3          2          1

8. When I start homework, I check my planner to confirm assignment details.
   10          9          8          7          6          5          4          3          2          1

9. When I start homework, I review the class webpage to confirm assignment details.
   10          9          8          7          6          5          4          3          2          1
10. When I start homework I review class notes.

   10  9  8  7  6  5  4  3  2  1

11. I make a to-do list before I start my homework, which lists all of my homework assignments.

   10  9  8  7  6  5  4  3  2  1

12. My to-do list includes non-assignment tasks (like getting a permission slip signed or putting a book in my back pack.)

   10  9  8  7  6  5  4  3  2  1

13. I am able to work steadily for at least 30 minutes before I take a break.

   10  9  8  7  6  5  4  3  2  1

14. As I do my homework, I reject downer feelings about it (like resentment, annoyance or boredom.)

   10  9  8  7  6  5  4  3  2  1

15. As soon as I complete an assignment, I file it in my binder.

   10  9  8  7  6  5  4  3  2  1

Total: _____________

120-150 Ritual status. You understand and appreciate the value of a pre-learning routine. You have a consistent and productive homework routine. Your good pre-learning skills will serve you well through high school and college. Great job!

105-119 Your homework routine is pretty good, but needs attention in a few places. Review your answers to the survey. Hone in on your weakness. Is it a messy workspace? Too many breaks? Poor attitude? Over the next few weeks make an extra effort to improve your routine and shore up weaknesses.

75-104 Review your answers to the survey. Circle any questions you answered with a 7 or less. If you’re feeling stressed about homework, there’s a good chance that the deficiencies in your homework routine are major factors. Correct your habits and practices now so they don’t follow you to high school and college.

Below 75 Review the habits and strategies in the survey questions. Select two per week to incorporate into your homework routine. You will see your grades go up and your stress level fall. By the time you get to high school, your homework routine may reach ritual status.
APPLICATION OF SKILLS

Name: ________________________________________________________________

Do a To-Do

Making a To-Do List is an excellent homework routine. It takes only about a minute to make, but can have a big impact on your success as a student. A To-Do List helps you focus on homework goals and assures that you complete all of your assignments every day. A To-Do List also gives your busy brain a break, because once you write an item on your list, Brainy can relax and stop worrying about remembering it!

Your assignment (select one):

1. There are many good, free To-Do List design templates online. Some are simple (“Write down your tasks and cross them off as you finish.”) Others are more elaborate, allowing you to prioritize tasks, make notes and track status. Go online and search “to-do list templates.” Review the designs. Select one that’s right for you. Print a copy and bring it to class. Compare your selection with your classmates’. Stock your workspace with a 30-day supply. Make your to-do list a daily study habit.

2. Design your personal To-Do List. Use period prompts, such as “1st period homework”, “2nd period homework”... etc., or subject prompts like “science homework”, “language arts homework”... or any other prompt that works for you. Include a prompt for non-assignment/related tasks, like bringing a form to the attendance office or returning a library book. Customize your design with graphics, photos of friends, your team’s logo, a holiday motif, whatever! Bring your to-do list to class to share with other students. Stock your workspace with a 30-day supply. Make your to-do list a daily study habit.

To do on ______________________ (DATE)____________________

1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________
4. ________________________________________________________________
5. ________________________________________________________________
6. ________________________________________________________________
7. ________________________________________________________________
8. ________________________________________________________________

Non-assignment tasks: __________________________________________________

__________________________________________________________
This lesson corresponds to Chapter 9 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**
- Computer/whiteboard display with internet access.
- Webslides 9A-C (www.middleschoolguide.com)
- Workbook pages 88-97.

**OBJECTIVES**
By the end of this lesson the student will be able to:
- state the elements of a productive home workspace.
- list the supplies students need at their workspace to maximize productivity and efficiency.
- critique his or her home workspace for productivity and efficiency.

**GAINING ATTENTION**
In the previous lesson, the class explored the benefits of *routine*, learning that when it comes to homework, routine promotes productivity and efficiency. A consistent homework routine is a good pre-learning strategy to prepare your learning environment and reduce the risk of organizational disasters. Five homework “do’s” are:

1. Do your homework in the same place and at about the same time every day.
2. Clutterbust and organize your workspace before starting your homework.
3. Make a To-do list containing all assignments and non-assignments related tasks.
5. Watch the downer attitude! It distracts your brain from learning and affects the quality of your work.
Engage students in a discussion: Why do business people work in office spaces or cubicles reserved just for them? Why don’t they wander around the office and work wherever they want?

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to state the elements of a productive workspace, list supplies students need at their workspace for maximum efficiency and productivity, and critique your personal home workspace to determine whether it promotes productivity and efficiency.

**PRESENTATION OF CONTENT**

**Ergonomics** is the study of human ability and productivity in relationship to their work surroundings. The goal of an **ergonomist** (ergonomic scientist) is to determine what physical conditions increase or decrease worker productivity. Ergonomists tell us that productivity is closely related to a worker’s physical surroundings. People are happier and work more efficiently when they have a comfortable space of their own to work in. Productivity also increases when workspaces are organized and stocked with the supplies workers need to get the job done.

It’s no different for students. The space where you study and do your homework affects the quality of your work and your ability to manage your time. As you move up into high school and college, the increased volume and difficulty of homework will require you to spend a lot of time at your workspace. Your work environment is important to your success as a student.

**What makes a workspace work?**

**Location.** A good workspace is a **private, quiet and comfortable area, free from distractions**, like television, people talking, stereos, phones, or video games. It doesn’t have to be a big area, but it should be a place you have relatively to yourself, so you can leave items like books, papers and projects on your desktop, without fear of them being messed with or thrown out. It could be located in your bedroom, attic, basement, den – anywhere in your home, as long as it’s private and comfortable. If you can’t find a space at home, talk to your mom or dad about going to the public library several times a week to do your work. You won’t be allowed to leave your stuff on the desktop, but the library does provide a comfortable, distraction-free workspace. If you’re distracted by noise, consider getting a set of noise cancelling headphones, a white noise machine, or a small, tabletop fountain, which are inexpensive and can be found at most office supply stores.

**Desktop.** A desktop surface should be **large enough to hold an open textbook and binder** – so at least 18” deep and 30” wide, with a chair that is straight-backed and comfortable.

**Lighting.** Lighting is so important to human productivity that there is even a special field of ergonomics devoted to it. It’s called **light ergonomics** and it’s the study of the relationship between the light source and the individual. Poor lighting has been found to cause all sorts of problems including low productivity, high
error rates, headache, lack of mental alertness and general yuckiness. Poor lighting has even been found to slow neuron function, which has a direct effect on learning. Even if you have a good overhead ceiling light, consider adding task lighting, like a desktop lamp. Position the lamp so that the light falls directly on the page or computer keyboard, without creating a glare or a shadow. Try out different bulb wattages or even light filters to find what works best for you. If you're feeling drowsy when you study, low lighting could be the culprit.

Supplies. Have you ever sat down to do your homework or complete a project, all ready to be productive, only to discover that, in order for you to complete your work, you'd have to go to the office supply store for something you're missing? Delaying homework a project until you have the right supplies is a frustrating, inefficient way to work. **Stock your workspace with the supplies you need for homework and projects.** You don't need top-of-the-line supplies. Inexpensive ones work fine. Access to a computer with a printer, and a strong, reliable internet connection is important for middle school. But if the computer with its many temptations (YouTube, Facebook, Instagram) is a distraction for you, keep it out of your workspace. Here's a list of supplies you'll need to get homework and projects done:

| ✓ Binder paper/graph paper  |
| ✓ #2 pencils               |
| ✓ pens                     |
| ✓ markers                  |
| ✓ colored pencils          |
| ✓ ruler with metric and standard measurements |
| ✓ glue sticks              |
| ✓ yellow highlighter       |
| ✓ scissors                 |
| ✓ scotch tape              |
| ✓ stapler and staples      |
| ✓ three hole punch         |
| ✓ index cards (blank and lined) |
| ✓ erasers                  |
| ✓ pencil sharpeners        |
| ✓ white out                |
| ✓ paper clips              |
| ✓ calculator/scientific calculator |
| ✓ compass, protractor      |
| ✓ dictionary and thesaurus |
| ✓ foreign language dictionary |
| ✓ graph paper and math supplies |
| ✓ trash can                |
| ✓ bulletin board - post notes, class schedules, memos and important papers right where you can see them! (Don't forget tacks or magnets.) |
| ✓ double sided tape        |
| ✓ poster board             |
| ✓ Accordion files or several large manila envelopes (to store graded papers, class notes, and handouts you may need later.) |
| ✓ In-box or low-profile basket (keeps papers from piling up, provides a place for your mom or dad to put papers or books you leave around the house.) |
| ✓ Access to a computer with a printer. |
| ✓ flash drive 2-4 GB        |
| ✓ yellow stickies          |
| ✓ printer paper            |
| ✓ extra printer cartridges |
| ✓ Photos of your BFFs, team photos, cool posters, stickers, decals, notes, etc. |

Notes:
Personalize your space: You’ll be spending a lot of time at your workspace, so make it a place you won’t mind hanging out. Post class schedules and calendars. Put up pictures, posters, decals or other decorations. Use this area to display sports or academic awards you’ve received or pictures of colleges you’d like to attend. Choose a color scheme you like. Your workspace is a great place for self-expression.

Check for understanding and proceed to activity.

ACTIVITY

Direct students to page 92 of the workbook (Does Your Workspace Work for You?) Introduce the activity. Students work in pairs taking turns role-playing an ergonomic scientist interviewing a middle-school student about their home workspace. The “ergonomist” makes recommendations to improve the student’s workspace. Upon completion of the activity, students share results, ideas, and recommendations with the class.

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 95 of the workbook.

1. Elements of a productive workspace include a distraction-free ____________________________, well-stocked ___________ supplies ______________, and good overhead and task __________________________ lighting ______________. A workspace should also be relatively private and free from ______________ distractions ______________!

2. Stock your workspace with the ______________ supplies ______________ you need to get the job done.

3. __________________________ Light ________________ ergonomists tell us that poor ________________ lighting ______________ can make you feel tired and sleepy and can even slow neuron function! Consider using a ________________ desktop ________________ light to illuminate the page or keyboard.

4. Access to a computer with a _______________ printer _______________ and a reliable internet connection is important for middle and high school, but if the computer distracts you from getting your work done, keep it out of your workspace.

5. Your workspace is a great place for __________ self __________-expression. ______________ Decorate ______________ your workspace with photos of your friends, teammates, cool posters, stickers, decals, notes, college logos, etc. You’ll be spending a lot of time there, so make it a place where you won’t mind ______________ hanging out ______________.

READING AND HOMEWORK

- Students read chapter 10 in the workbook to prepare for the next lesson.
- Students complete page 94 in the workbook Application of Skills [Workspace Inventory.] Collect for assessment.
You are an ergonomist. You study the effect of a worker’s surroundings on their efficiency and productivity. You know that a student’s workspace affects the quality of their work and their ability to manage their time. You are interviewing a middle school student about their home workspace. Pair up with a classmate. Take turns playing the role of an ergonomist. Make recommendations to improve the student’s home workspace.

Ergonomist: ___________________________________________      Student: ___________________________________________

Q. Do you have a location at your home where you do homework?  yes   no   several

Q. Within your home, where is your workspace located? (If the student works in more than one space, list all.)
___________________________________________________________________________________
___________________________________________________________________________________

Q. Consider each of the locations and select one as your primary and permanent workspace.
___________________________________________________________________________________

Q. Is this location quiet?    yes   no   sometimes

Q. Is this location distraction-free?    _______ Is it away from people talking?    _______
    Is it away from t.v. sights and sounds?    _______ Is it away from other noise or commotion?    _______

Q. As you do your homework, are any of these devices at your workspace:
    cellphone    iPod    computer/laptop    tablet    T.V.    gaming equipment

Q. As you do homework, are you distracted from your learning goals by any of the above devices? Explain:
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

Q. Do you have a strong, reliable internet connection at your workspace?  yes   no

Q. Do you have access to a printer?  yes   no

Q. Is your workspace reserved primarily for your personal use?  yes   no   I share with others.

Q. Is your workspace comfortable?  yes   no   somewhat   Too comfortable!
Q. Do you have a straight-back, comfortable chair?  
   yes  no

Q. Is your desktop surface area size adequate?  
   yes  no

Q. Estimate size of the desktop surface area: _______ x _______

Q. Do books, papers or other items clutter your desktop?  
   yes  no

Q. Describe the lighting:  
   overhead  desktop/task  both

Q. Does your workspace lighting need improvement?  
   Is it too dull? ______  Too bright? ______

Q. Does the lighting cast a glare or shadow your working area or computer screen? Explain:
   ___________________________________________________________________________________
   ___________________________________________________________________________________

Q. How is the temperature and ventilation in your workspace?  
   Hot and stuffy? ______  Chilly? ______  Just right? ______

Q. Is your workspace personalized with class schedules and calendars, photos of friends, posters, art work, awards, or other decorations of your choice? Describe your workspace design and any changes you would like to make so your workspace expresses who you are.
   ___________________________________________________________________________________
   ___________________________________________________________________________________
   ___________________________________________________________________________________

Q. Overall, is your workspace environment a pleasant and productive place to work? Why or why not?  
   ___________________________________________________________________________________
   ___________________________________________________________________________________
   ___________________________________________________________________________________

Interviewer’s three recommendations for making this student’s workspace work better:
   ___________________________________________________________________________________
   ___________________________________________________________________________________
   ___________________________________________________________________________________

Signed:  
   _____________________________________________  Recommendations accepted:
   ______________________________  ______________________________
   Ergonomist  Student
APPLICATION OF SKILLS

Workspace Inventory

It’s frustrating when you don’t have the supplies you need to get your homework or project done! For maximum productivity and efficiency, your workspace(s) should be stocked with the supplies you need to get the job done. Use this form to take an inventory of your home workspace. Then head to the office supply store to get what you need.

### Shopping List

<table>
<thead>
<tr>
<th>Got it!</th>
<th>binder paper</th>
<th>Got it!</th>
<th>compass, protractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Got it!</td>
<td>#2 pencils</td>
<td>Got it!</td>
<td>dictionary and thesaurus</td>
</tr>
<tr>
<td>Got it!</td>
<td>blue, black and red pens</td>
<td>Got it!</td>
<td>foreign language dictionary</td>
</tr>
<tr>
<td>Got it!</td>
<td>markers</td>
<td>Got it!</td>
<td>graph paper</td>
</tr>
<tr>
<td>Got it!</td>
<td>colored pencils</td>
<td>Got it!</td>
<td>trash can</td>
</tr>
<tr>
<td>Got it!</td>
<td>ruler with metric and standard measurements</td>
<td>Got it!</td>
<td>posterboard</td>
</tr>
<tr>
<td>Got it!</td>
<td>glue sticks</td>
<td>Got it!</td>
<td>bulletin board + tacks or magnets</td>
</tr>
<tr>
<td>Got it!</td>
<td>yellow highlighter</td>
<td>Got it!</td>
<td>accordion file or several large manila envelopes</td>
</tr>
<tr>
<td>Got it!</td>
<td>scissors</td>
<td>Got it!</td>
<td>in-box or low-profile basket</td>
</tr>
<tr>
<td>Got it!</td>
<td>scotch tape</td>
<td>Got it!</td>
<td>computer with a printer (or access to one.)</td>
</tr>
<tr>
<td>Got it!</td>
<td>stapler and staples</td>
<td>Got it!</td>
<td>flash drive 2-4 GB</td>
</tr>
<tr>
<td>Got it!</td>
<td>three hole punch</td>
<td>Got it!</td>
<td>extra printer cartridges</td>
</tr>
<tr>
<td>Got it!</td>
<td>index cards (blank and lined)</td>
<td>Got it!</td>
<td>yellow “stickies”</td>
</tr>
<tr>
<td>Got it!</td>
<td>erasers</td>
<td>Got it!</td>
<td>printer paper</td>
</tr>
<tr>
<td>Got it!</td>
<td>pencil sharpener</td>
<td>Got it!</td>
<td>double-sided tape</td>
</tr>
<tr>
<td>Got it!</td>
<td>white out</td>
<td>Got it!</td>
<td>white noise machine, headphones</td>
</tr>
<tr>
<td>Got it!</td>
<td>extra printer cartridges</td>
<td>Got it!</td>
<td>or small fountain (optional)</td>
</tr>
<tr>
<td>Got it!</td>
<td>paper clips</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Got it!</td>
<td>calculator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTES

PRODUCT PREVIEW
This lesson corresponds to Chapter 10 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 10A-C (www.middleschoolguide.com)
- Three or four sample syllabuses from middle school, high school and college courses. *(Sample college syllabuses can be found online. Search “college syllabus sample.”)*
- Overhead projector, document projector or smartboard for viewing sample syllabuses.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- explain the purpose of a syllabus.
- tell how to use a syllabus to align time and workload management to a teacher’s priorities and expectations.
- draft a mock syllabus.

**GAINING ATTENTION**

In the previous lesson, students learned about *ergonomics*. That’s the study of how physical surroundings impact human productivity and efficiency. It’s important for students to have a comfortable and well-stocked home workspace. An organized workspace reduces homework stress, increases productivity and your ability to manage your time. Personalize your workspace with photos, posters, class schedules and calendars. Make it a place you don’t mind hanging out. Make your workspace work for you!
Engage students in a discussion: Did you complete the workspace inventory survey? Do you have the supplies you need at your workspace? What changes have you made or will you make to your workspace to improve your productivity?

This lesson continues with the theme of pre-learning strategies. Don't you wish you could read your teacher's mind, to know exactly how they'll grade you and what it takes to get an A in their class?

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to explain the purpose of a syllabus, tell how to use a syllabus to align your time and workload management with your teacher's learning priorities and expectations, and draft a mock syllabus.

**PRESENTATION OF CONTENT**

**What is a syllabus and why is it important?**

A syllabus is a document a teacher writes to provide students with an overview of their course. It's usually distributed the first day of class. Unfortunately, many students merely glance at it and toss it in their backpacks. Do not do this! The syllabus is one of the most important documents you'll receive from your teacher all year. It provides valuable insight into how your teacher will run the class, how the content is organized, what your teacher expects you to do, and how you are to do it. In short, the syllabus is your teacher’s game plan and students are players responsible for knowing what’s in it.

A middle school syllabus is usually a fairly simple document and middle school teachers often have similar policies and plans for their classes, but as you move up into high school and college, syllabuses become more complex, detailed and increasingly important to your success in a class. In high school and college, a syllabus can be several pages long. Get into the habit of carefully and thoroughly reviewing the syllabus.

**What do you do with a syllabus?**

The syllabus is such an important document, it deserves a place of honor. **Put it in a sheet protector and store it in the front section of your course binder.** You'll be referring to it frequently. If your teacher posts the syllabus on the class webpage, print a copy and post it on the bulletin board or wall at your workspace.

**What’s in a syllabus?**

Distribute or display a sample syllabus for guided review.

A typical syllabus addresses several topics relevant to the course:
Course title and description. The syllabus includes the name and level of the course, such as Honors or Advanced. It includes the course term (e.g. one year or a semester) and a brief description of the course.

Objectives. The syllabus includes a list of course objectives. Those are the skills students will learn in the class.

Teacher’s contact information. Teachers can be kind of picky about how, when and where students may contact them. No surprise – they have many students to care for and a lot of work to do. If your teacher sets office hours or restricts modes of contact, respect their rules.

Expectations and attendance policies. Sometimes this section is just a repeat of the usual stuff, like “all students are expected to be seated by first bell”, but it also holds information about the consequences of tardies and what constitutes an excused absence. It may set out whether and under what conditions, students are allowed to make up an assignment, homework or test, as well as rules regarding submission of late work and extra credit. Since even one zero can have a major impact on your overall grade in a class, know how to make up missed assignments, tests or quizzes. Whenever you are absent, mark the deadline for making up missed work in your planner.

Course calendar. The course calendar is more than just a list of dates and deadlines. It reveals the progression and pace of the class, and gives you a sense of the difficulty of the course. Compare the workload and pace of your various classes so you can anticipate periods of increased demand on your time and energy. Highlight days and weeks that you can expect to be very busy. Balance your workload and manage your time accordingly.

Tests and important dates. Write all assignments, exams, quizzes, and other dates and deadlines in your planner (or enter them into your electronic calendar if you use one.) Include recurring events too, like your English teacher’s infamous Friday morning quizzes. For assignments or projects that will take extra time and effort, note the date you should begin working, as well as the date the project is due.

Grading plan and policy. Heads up! This is probably the most important part of a syllabus. The teacher’s grading plan reveals key details about grades and score calculations. A grading plan is a teacher’s contract with the class about how students will be evaluated. In the grading plan your teacher tells you, straight up, what their learning and assignment priorities are, and how to get a good final grade in the class.

- Method - The grading plan identifies the method for grading assignments, quizzes and tests (numerical scores vs. letter grades.)
- Formula - The grading plan tells you the formula for converting numerical scores to letter grades, such as 87% = B+.
- Categories - Homework, papers, projects, tests, quizzes, class participation – basically anything that gets graded or scored, is categorized in the grading plan.
- Weights - For purposes of calculating a student's final grade in the class, weights are assigned to categories. For example, a teacher who places a high priority on homework will assign a heavier weight to homework completion scores. That tells you a good homework completion score is important to your final grade in a class.
Here’s a tip: Use your teacher’s grading plan as a workload and time management guide. If a teacher weights a test as 40% of a student’s final grade in a class and homework as 20% of the final grade, is it more productive to spend your time studying for a test, or making up a missing homework assignment for which you will receive 50% credit? Do the math! That doesn’t mean you can skip your homework, but in a time crunch, put your effort into the categories your teacher values most. Synching your time and effort to your teacher’s priorities helps you successfully balance your workload and manage your time.

Here’s another tip: Using your teacher’s grading plan, you can actually calculate the exact score you will need to achieve on any remaining tests and quizzes in order to earn your desired final grade in the class. Give it a try: Go to www.conquercollege.com (Amazing Grade Calculator) and plug in your teacher’s categories and weights. Plug in your current scores, then calculate the score you must get on any upcoming graded assignment or quiz in order to earn your desire final grade. Knowing how to calculate your grade is a good study skill because it helps you gauge your progress in a class, and tells you how much time and effort you need to apply to an upcoming assignment or test to achieve or maintain a desired final grade.

Texts and supplies. School budgets are tight, so students are increasingly asked to provide their own supplemental resources and supplies, such as books for their literature class. The syllabus identifies the resources and supplies students need, and when they’re due. You might even earn points by getting resources in on time, so pay attention to the due date.

Academic Honesty Policy. Don’t assume that because you’re such an angel you don’t need to concern yourself with academic honesty rules. Your teacher may have a much broader definition than you of what constitutes cheating or plagiarism. Know your teacher’s rules, definitions and consequences. As you move up into high school and college, academic honesty policies get more complex, and students can inadvertently violate rules. Get into the habit of reading the syllabus to understand what’s ok and what may land you in hot water.

Check for understanding and proceed to activity.

Display copies of the syllabuses on the overhead or whiteboard. Review and compare. Begin with a guided review of a middle school syllabus. What are the syllabus categories? Review and explain the grading plan. Move on to the high school and college syllabuses. Guide students to conclude that, while they address the same basic information, high school and college syllabuses become increasingly detailed, informative and important to their success.

Upon conclusion, check for understanding and direct students to page 103 of the workbook. Students may work independently, in teams or in pairs to draft a mock course syllabus. When students complete their syllabuses, discuss their courses: Is the information clearly conveyed? Is the grading plan easy to understand? Would a student in the course understand how the course will progress and what is expected of them? Do you now understand why knowing what’s in the syllabus is important to your success? Award students or teams for the most original course, funnest course, silliest course, most challenging course, etc.
LETS SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 107 of the workbook.

1. A syllabus is like your teacher’s __________ game plan. Students are like players on their team, responsible for _______ knowing _______ what’s in it. Reading and understanding the syllabus is an excellent __________ pre-learning _______ strategy for all subjects.

2. The syllabus belongs in a sheet protector in your __________ binder ________, and on the wall or bulletin board at your _______.

3. When you get a syllabus, review it for assignment, test, quiz and other important due _______ dates _______ and _______ deadlines _______. Write them in your _______ planner _______. For long term assignments, note the date you should _______ begin _______ working as well as the date the project is _______ due _______.

4. Any assignment or activity which receives a grade or score is categorized and given a _______ weight _______ for purposes of calculating your final _______ grade _______ in the class; Grade calculator programs, such as www.conquercollege.com allow students to plug in categories, weights and scores to predict their _______ final _______ grade in a class.

5. The weight your teacher assigns to a grading category indicates the _______ priority _______ he or she has given that skill. Knowing your teacher’s grading plan can help you manage your _______ time _______ and balance your _______ workload _______.

READING AND HOMEWORK

- Students read chapter 11 in the workbook to prepare for the next lesson.
- Students complete pages 105-106 in the workbook Application of Skills [The Game Plan.]
Class Activity Worksheet

Name:

You Be the Teacher!

Do you have a hobby or skill? Do you play a sport? Can you play a musical instrument, train a dog, cook or ski? Imagine you are teaching a course in your hobby, sport, skill or talent. Draft a syllabus for your course.

Course title and description. (What will you call your course? Is it a beginner course? Advanced? Honors? How long is it? One semester? Two or three weeks? In 40 words or less, write a description of your course.)

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Objectives. (What skills do you want your students to learn?)

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Contact information and office hours. (Do you use email? Is it OK for students to call you? Where’s your office? Be specific about how, when and where students may contact you.)

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Textbooks and supplies. (List resources by title. You may invent a textbook title for this exercise; List supplies and materials. For example, if you’re teaching a course on skateboarding, will students be required to bring a skateboard to class or will one be provided? What about helmets and elbow pads?)

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Course calendar. (Schedule two weeks of your course. List topics students will study and when the topics will be covered e.g. Week one: pp 22-41 – Skateboarding History. Will you schedule a field trip? Quiz and tests?)

<table>
<thead>
<tr>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>T</td>
<td>W</td>
<td>Th</td>
<td>F</td>
</tr>
</tbody>
</table>

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Product Preview

114 The Middle School Student’s Guide to Study Skills
Tests and quizzes (List 2 quizzes and 1 test. What will be tested? Will tests be essay, multiple choice, short answer, or T/F?)

Expectations and attendance policies. (Be clear about your expectations and attendance policies. Define “excused” and “unexcused absences” and their consequences. State your rules for making up missed work.)

Grading plan (How you will grade your students? Will you use letter grades? Numerical scores? If you use numerical scores what formula will apply? e.g. 85% = B. State your numerical score formula.)

Categories and weights (What skills do you want your students to learn? List your grading categories and assign a weight to each based on its importance. Percentages should add up to 100.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight/Percentage of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skateboard maintenance</td>
<td>10%</td>
</tr>
<tr>
<td>Skating safety tips and rules</td>
<td>20%</td>
</tr>
<tr>
<td>Skating Terminology</td>
<td>10%</td>
</tr>
<tr>
<td>Half Pipe execution</td>
<td>15%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Balance and Maneuvering</td>
<td>20%</td>
</tr>
<tr>
<td>History of Skateboarding</td>
<td>10%</td>
</tr>
<tr>
<td>Skate Park Design</td>
<td>5%</td>
</tr>
</tbody>
</table>

Academic honesty policy (What constitutes plagiarism? What is cheating? What resources are students not allowed to use? Write the rules and consequences for violating academic honesty policies in your class.)
APPLICATION OF SKILLS

Name: ____________________________

SYLLABUSTED!

1. It's the first day of school. Your algebra teacher just handed out the course syllabus. He “suggested” that students read it. If you know what’s good for you (and you should, because you just finished a lesson about it) what will you do with the syllabus?
   a. Glance at it and toss it into your backpack until spring.
   b. Take a look at it sometime around finals to make sure you've done all the assigned reading.
   c. Read it carefully, put it in a sheet protector in your binder and use it as a guide for the course.
   d. Turn it over and use it as scratch paper.

2. You need to talk to your teacher about a grade you received on your English essay. Because of the short passing period, she prefers not to talk to students immediately after class. She holds regular office hours. Where can you find her office hours, office location and contact information?

3. It’s Sunday night. You were out of town all weekend at a soccer tournament. You're stressed because you have a biology quiz in the morning that’s worth 15% of your grade in the class, and you haven't studied. You also have 10 vocab cards due tomorrow as part of your teacher's weekly vocab card assignment. The weekly vocabulary cards are worth 10% of your final grade and will take you about two hours to finish. In a time crunch, to which of these activities should you assign the highest priority? How can you tell?

   Studying for the biology test is the best use of your time. The biology test is weighted at 15% of your total grade, which is substantially more than one week’s worth of the weekly vocabulary cards.

4. Budget cuts have hit your school. Students have been asked to purchase their own books for your reading class. Your mother has asked you for the names of all of the books you will need so she can save money by buying them on the used book website. In what section of the syllabus can you find the list of books and the dates they are due?

   Texts and supplies
5. You have six periods not including P.E. Each teacher has provided their students with a syllabus. You’ve put them into sheet protectors in your binders. You’ve reviewed them and entered all test, quiz, project and other dates for each class into your planner for the entire semester. How can listing all of the dates and deadlines for all of your classes in a single place (your planner) help you be a better student? Once you list due dates and deadlines, what should you do?

Listing all of the important dates enables students to anticipate periods of increased demand on time and energy, and plan ahead to manage time and balance their workloads. After listing, review the calendar and highlight days or weeks of heavy demand on your time or effort.

True or False:

6. ________ False You are an honest and good person, so you do not need to concern yourself with understanding academic honesty policies.

7. ________ True The syllabus will tell you how many days you have to make up work after an excused absence.

8. ________ False As you move up into high school and college, syllabuses become easier to understand and less relevant to your academic success in a class.

9. ________ True The course calendar is a useful tool because it enables you to anticipate heavy work periods, which helps you balance your workload and manage your time.

10. ________ True If you know your teacher’s grading plan, you can actually calculate the score(s) you will need to get on remaining tests, quizzes and assignments in order to get a desired grade in a class.

* Bonus: You have an important math test next week. It’s worth 20% of your grade. Here are your grades in the class so far:

<table>
<thead>
<tr>
<th>Score Type</th>
<th>Score</th>
<th>Percent of final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Quiz)</td>
<td>78</td>
<td>10</td>
</tr>
<tr>
<td>(Homework)</td>
<td>92</td>
<td>30</td>
</tr>
<tr>
<td>(Project)</td>
<td>88</td>
<td>20</td>
</tr>
<tr>
<td>(Test)</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Upcoming Test</td>
<td>?</td>
<td>20</td>
</tr>
</tbody>
</table>

Go to www.conquercollege.com. Find your current average: ___89___

What score do you need to get on your upcoming test to bring your overall grade in the class up to an A? ___95___
UNDER WHICH CONDITION IS IT PERMISSIBLE TO CLAIM ZERO PRIOR KNOWLEDGE?

- [x] OK
- [ ] NOT OK
- [ ] MAYBE

- [ ] OK
- [x] NOT OK
- [ ] MAYBE

- [ ] OK
- [ ] NOT OK
- [x] MAYBE
This lesson corresponds to Chapter 11 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**
- Computer/whiteboard display with internet access.
- Webslides 11A-E (www.middleschoolguide.com)
- Workbook pages 110-123.

**OBJECTIVES**
By the end of this lesson the student will be able to:
- define *schema*.
- state the benefits of activating schema as a pre-learning strategy.
- describe nine schema activation techniques.

**GAINING ATTENTION**
In the last lesson, students learned why the *syllabus* is an important document. The syllabus lays out a teacher’s game plan for a course. Knowing what’s in the syllabus is an excellent pre-learning strategy because it guides students to align their study time, workload management, and effort with their teacher’s expectations and priorities. When you get a syllabus, put it in a sheet protector in your binder. Review it for all due dates and deadlines and enter them in your planner. Respect your teacher’s contact rules. Review the syllabus for required texts and supplies. Know your teacher’s grading plan, expectations, and attendance policies. In high school and college, the syllabus is a very important document communicating details about the course and the teacher’s expectations of students. Good study skills include knowing what’s in the syllabus and using it to guide you to success in a class.
Engage students in a riddle:

**How is knowledge like water?**

*(Take guesses. Answer provided in Presentation of Content)*

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to define *schema*, understand the benefits of activating schema as a pre-learning strategy, and describe a variety of techniques for activating schema.

**PRESENTATION OF CONTENT**

**How is knowledge like water?**

*Here’s the answer to the riddle:* Water molecules link to water molecules, right? If enough water molecules link together, they’ll eventually form a river. Knowledge is like that: *knowledge links to knowledge*. Prior knowledge (that’s the stuff you already know about something) is like molecules of knowledge that provide links for new, incoming knowledge. The larger your base of knowledge, the more knowledge you are able to link to, until eventually you’ve got a river of knowledge! In this lesson you will learn how activating prior knowledge is an excellent pre-learning strategy.

**What is schema?**

Imagine you’re an alien. You just crashed-landed your spaceship on earth. You weren’t planning on coming here. You’ve had no prior contact with earthlings. You know zilch, zero, nada about the human experience. That might be an acceptable excuse for having no preexisting knowledge relevant to the human experience, but that’s about the only excuse. Everyone else, even a middle school student, has some prior knowledge about almost everything. It may be a little, it may be a lot – but it’s there, inside their head. Prior knowledge is called *schema* and it’s uber-important, because *schema provides links and context for new, incoming information*.

**How is schema acquired?**

Schema is acquired as *facts and ideas learned in a formal school setting and by life experience*. By now you’ve had quite a bit of both. The fact is, students rarely learn something completely new. Textbooks, lessons, and curriculum are designed to *progressively build skills and knowledge*. What you studied today in science has a connection to something you learned or studied before – maybe a week ago, maybe last year. *You have a developed a schema in all subjects.*
Are schemas related?

Schema does not confine itself to a subject or content area. It flows (or should flow) freely between subjects. A concept you learned in science can provide prior knowledge (schema) for a story in your literature class. A book you read in literature, a movie you saw over the summer, or a conversation you had with your grandpa can provide a schema for a history topic. Let your schema flow!

What can your schema do for you?

When you’re faced with the task of learning something new, don’t assume you know nothing about it. Get your schema on! Activating your schema fires up Brainy’s dendrites, axons and synapses to prepare them to link to new information. That improves comprehension, makes learning more meaningful, and information easier to recall.

What are schema activation techniques?

Teachers often start a lesson by reviewing a prior lesson, or by engaging students in a discussion or brainstorming session about the lesson topic. Those are schema activation techniques. It’s like stretching before a workout. Those activities help you summon prior knowledge so you can more easily link to the new information. Here are some techniques you can use to activate your schema when you are learning on your own:

Class Notes

Class notes are like a “do-over” of important parts of a lesson and are an excellent way to activate your schema. Review class notes prior to doing the homework for that class. Don’t rush through your notes and toss them aside. Read them, asking What was the objective of this lesson? What information did my teacher want me to take away from this class? Circle unclear or incomplete information to identify potential weak links (gaps) in your prior knowledge. Reviewing your notes brings relevant information from your memory into your conscious thought making it easier to link to.

Brainstorm

Before reading new material, brainstorm what you already know about the topic. Don’t jump in and start reading without a warm up. Scribble down words, notes, names, ideas or events. Don’t worry about being neat. It’s just a free-form technique to call up information from deep in your brain.

Old Worksheets and Quizzes

Don’t toss out old worksheets and quizzes. File them in your binder or study folder at your workspace and review them to activate your schema whenever you are building on a skill you previously learned in a class.
K-W-L Chart

The K-W-L chart can be quite effective for activating prior knowledge. When you're reading something new or are assigned a difficult project, create a simple K-W-L chart on a piece of binder paper or index card. Under K, write a few short statements about what you already know—it's like a quick review. Under W, write what you want to know. Then write a short summary of what you learned when you finish reading. A series of K-W-L charts completed over several weeks makes an excellent study guide.

Preview Chapter Headings

Whether you're reading a textbook or handout from a teacher, always preview the materials before reading. Scan the text. Preview the headings. Read the chapter questions. That will help you get your schema on and prepare your brain to accept the information. (Note: SQ3R pre-reading strategies are covered in Chapter/Lesson 13.)

Quiz Yourself

Self-questioning is like brainstorming, but at a deeper level. Instead of pulling up bits and pieces of factual information, self-questioning recalls concepts and significant information. Before starting an assignment, quiz yourself: What do I already know about this? Can I summarize my knowledge or restate important concepts? Can I put information into chronological order? Can I make up a short story about what I know, such as summarizing a historical event or biological process?

Concept Mapping

You’ve probably used a concept map in class. Concepts are written in circles or boxes. Relationships between concepts are indicated by connecting lines. General concepts are at the top or center of the map. Details or specific concepts are placed below or around the general concept.
Concept maps are useful for stimulating the recall, organization and sequence of prior knowledge. They are particularly useful tools for visual learners. A timeline is a concept map that can help you recall the order or context of historical events. Go online and research “concept map templates.” You’ll find dozens of designs. Select a few that appeal to you and store copies in your binder and at your workspace. Use them for sorting out relationships, concepts or events, and review them to activate your schema.

Predict

Before starting an assignment or reading, ask yourself: Based on what I already know, what do I predict will happen? Make it a game: What three things do I expect to happen and why? Reward yourself when you’re right.

Wikipedia/Google Searches

Wikipedia is not a citable source, but Wikipedia and Google searches can help build schema. For example, build prior knowledge about a novel by researching facts about the author. What was the author like? What time period did they write in? Did their life experiences influence the writing of this novel? Explore the novel’s setting. For example, if the novel is set in 1850 California, spend a few minutes on Wikipedia or a good history website, learning what was going on in California at that time. Look at old photos. Study a map of 1850 California. Pull up old newspaper articles. Create a mental vision of the novel’s setting, so that the story runs like a movie in your head as you read. Simple research takes only a few minutes, but goes a long way to build your schema and make new information meaningful and memorable.

Check for understanding and proceed to the activity.

**ACTIVITY**

Direct students to page 115 of the workbook. Introduce the activity.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 119 of the workbook.

1. Knowledge links to ________ knowledge ________; Prior knowledge can be in the form of facts and ideas acquired in a formal ________ school ________ setting. It can also be the result of ________ life ________ experience.

2. A student rarely learns something completely new. Textbooks, lessons and curriculum are designed to ________ progressively ________ build skills and knowledge.

3. Activating your ________ schema ________ before learning new stuff is an excellent pre- ________ learning ________ strategy.
4. Activating schema helps students identify _______gaps_______ in knowledge which, if not addressed can weaken learning links.

5. Techniques for activating and building schema are:
   
   Review notes, brainstorm, KWL chart, review chapter headings/summaries, review old worksheets and quizzes, self-question/quiz, concept mapping, predict, simple research.
   
   ______________________________________________________________________________________
   
   ______________________________________________________________________________________
   
   ______________________________________________________________________________________
   
   ______________________________________________________________________________________

**READING AND HOMEWORK**

- Students read chapter 12 in the workbook to prepare for the next lesson.
- Students complete pages 117-118 in the workbook *Application of Skills* [Gettin’ Your Schema On.]
- **Unit 3 Quiz:** Students complete pages 120-121 in the workbook [What Did I Learn About Pre-Learning Strategies?]
1. You now have a schema for schema. **Brainstorm** what you know about schema and **pre-learning schema activation techniques**. Scribble your notes and thoughts here. Don’t worry about spelling or grammar.

   - everyone has prior knowledge of just about anything!
   - classnotes
   - KWL
   - schema = prior knowledge
   - uber-important!
   - Brainstorm
   - Google & Wikipedia
   - schema comes from formal school instruction & life experience
   - pre-read/skim
   - learning is progressive
   - build schema by research
   - schema flows freely between subjects
   - self-test
   - predict
   - old worksheets & quizzes
   - activate your schema before learning = excellent pre-learning strategy

2. Create a **K-W-L** Chart for Chapter 11: Gettin’ Your Schema On. (Example:)

   **K**
   
   **KNOW**
   Schema is prior knowledge of a subject or topic. Everyone has a little or a lot of prior knowledge about almost everything. Activating your schema before learning improves comprehension and the ability to recall the learned information.

   **W**
   
   **WANT TO KNOW**
   What are schema activation techniques I can use on my own to call up prior knowledge, making new information easier to learn?

   **L**
   
   **LEARNED**
   To activate my schema on my own, I can:
   - review classnotes
   - review old worksheets and quizzes
   - Brainstorm
   - self-test
   - make a KWL chart
   - preread
   - predict
   - make a concept map
3. **Self-quiz.** If you quizzed yourself about schema and schema activation techniques, what three questions would you ask? Write your questions and answers.

Q. ___________________________________________________________
A. ___________________________________________________________
Q. ___________________________________________________________
A. ___________________________________________________________
Q. ___________________________________________________________
A. ___________________________________________________________

4. Review Chapter 11. Complete the concept map of schema activation strategies.
APPLICATION OF SKILLS

Name: ____________________________________________

Gettin’ Your Schema On

Prior knowledge of something is called schema. Schema provides links for newer, incoming information, making it easier to remember. Activating schema is a good pre-learning strategy because it improves comprehension, makes learning more meaningful, and fires up your brain’s dendrites, axons and synapses to link to new information.

1. Your teacher just assigned a book called *The Pearl*. Other than the fact it was written by a guy named John Steinbeck, you know nothing about it. How can you build a schema for *The Pearl*?

   - Google John Steinbeck and read about his life, writing style and other novels. Research *The Pearl’s* setting and plot. Read about pearl diving.

2. Your teacher wants you to read one chapter of *The Pearl* each night. What techniques can you use to activate your schema of the characters and prior events in the book?

   - Use KWL charts to recall what you have read, what you want to know about the story, and what you learned; self-test to recall important events and chronology; predict; brainstorm.

3. Kelly’s algebra class just started a new chapter. Her teacher said this chapter builds on the concepts and formulas students learned in the prior chapter. What techniques can Kelly use to test her prior knowledge of concepts and ideas before moving on to the new chapter?

   - Kelly can quiz herself about the concepts and formulas she learned in the last chapter; she can review old worksheets and quizzes, and preview the new chapter, asking “How does this relate to what I learned in the last chapter?”

4. By the time Katie gets home from softball practice and starts her science homework, she can’t remember much of what she learned in class that day. What techniques can she use to activate her schema of the day’s science lesson?

   - Brainstorm what she recalls from the lesson; review her class notes; review the worksheets.

5. Emilio’s science teacher is totally into innovation and invention. She wants students to write an essay comparing the twentieth century tech revolution with the Industrial Revolution. Emilio studied the Industrial Revolution in history. How can his prior knowledge of history help him with his science
essay? What techniques can he use to summon his schema of names, dates, events and inventions of the Industrial Revolution?

Schema flows freely between subjects! He can brainstorm what he knows about the Industrial Revolution or create a concept map linking Industrial Revolution concepts and ideas to the tech revolution. His knowledge/schema of history can help him identify common themes in the tech revolution and the Industrial Revolution for his science essay.

6. What schema activation techniques are effective for organizing data, or sequencing information?

Concept maps, timelines, self-test/quiz, notes or KWLs in chronological order.

7. Britta’s literature class will soon read One Thousand Paper Cranes, by Ishii Takayuki. It is a story about a young victim of the atomic bombing of Hiroshima. In history last year, Britta studied about WWII. In science, she learned about radiation and nuclear energy. What prior knowledge might Britta have which can make the story more meaningful to her? Suggest some schema activation techniques for Britta.

Britta’s energy schema is useful for understanding the power of radiation and the effects of exposure to radiation. She could review her old textbook, worksheets or notes. She could brainstorm WWII and research facts about Hiroshima online or at the library.

8. Have you ever taken a road trip through the west and actually looked up from your video game long enough to observe your surroundings? Have you ever hiked through a forest or camped by a river? How might these activities add to a student’s schema about American history?

Student’s discretion. Example: Observing surroundings and geography provides valuable, real-life insight into, and an appreciation for the hardships faced by early American settlers, and the vastness of America. Moving goods, building shelters, finding water, growing food, etc., shaped how pioneers interacted, where they settled (settlement patterns) and how they lived.

9. Have you ever watched a lightning storm or experienced a hurricane? How might that add to your schema for science and math?

Student’s discretion. Example: A storm is a meteorological event. It adds to your schema about cloud types, predicting and measuring temperature, the power of a storm, the effects of climate change, measurement of precipitation, etc.

10. How is knowledge like water?

Knowledge links to knowledge, just like water molecules link together. The more you learn, the more you can learn!
Blog/Debate/Discuss

- Is your workspace a reflection of your personality? What does it reveal about you?
- What’s your homework routine? How can a pre-learning homework routine help you overcome procrastination?
- Classroom learning vs. life experience? How are these schemas different? How can they work together to enhance your schema?

Practice, Practice!

- What Did You Learn About Pre-Learning Strategies?
- Workspace Design Awards!
  Do you have budding designers in your class? Students submit photos of their home workspace and compete for Best Overall Design, Most Unusual Locations, Cutest Workspaces, Got-it-all (Best Stocked) Workspaces, Pet-friendly Workspaces, Most Collegiate, etc.
- As a fun activity, students bring in photos of their home workspace. Post the photos. Students guess to match classmates to their workspace.

It’s a Team Effort!

Ask teachers at your school to draft useful syllabuses and require students to know what’s in them. Quiz students on syllabus details like grading policies and plans. To encourage good high school and college readiness skills, get students into the habit of reading and using the course syllabus.

Grade Tracking

Teach students about grade averaging and how to track and calculate their grade in a class. www.conquercollege.com

College Readiness Corner

Loss of scholarship, expulsion, failing the course. OMG! The consequences for cheating and plagiarism are very serious in high school and college. When does innocent paraphrasing cross the line into plagiarism? Can a student resubmit a paper he or she wrote in one class for another? May students use commercially available test prep materials to study for an exam? Better safe than sorry! Introduce your students to high school and college level academic honesty rules by exploring one rule a month.

Unit Sources


Tech Connect

App name: 3D Brain. Provider: Vivid Apps/Dolan DNA Learning Center. Compatible with: iPhone, iPod Touch, iPad, Droid. Price: Free. Features: Rotatable 3-D models showing the parts of the brain and key facts about them.

App name: Brain Power Ambiscience. Provider: Tesla Software. Compatible with: iPhone, iPod Touch, iPad, Droid. Price: $0.99. Features: Plays ambient sounds on a frequency you select (sleep frequency, study frequency, etc.) to help you relax, focus or meditate.
WHAT DID YOU LEARN?

1. What are the benefits of a homework routine?
   - A homework routine creates a more successful and productive learning environment.
   - A homework routine reduces frustration and stress about homework.
   - A homework routine helps students avoid organizational disasters.
   - A homework routine saves time.
   - A homework routine helps students beat procrastination.

2. Many students don’t like doing homework, but it’s important to set aside negative feelings about it, like anger, impatience, and resentment because these feelings:
   a. prevent you from working efficiently
   b. make it difficult to focus
   c. affect the quality of your work.
   d. all of the above

3. Good lighting at your workspace is important because it:
   a. improves productivity and mental alertness
   b. shines on the correct answers
   c. makes you look fabulous while you study
   d. None of the above

4. State two advantages of a workspace that is adequately stocked with supplies.
   - You can complete an assignment or project without the distraction and frustration of searching for supplies; the student can complete the assignment on time and according to direction.

5. Quinn loves technology. She keeps in all of her devices within reach as she does homework. She has a laptop, iPod, cell phone and Xbox. She plays games on her cell phone, texts friends, surfs YouTube and updates his Facebook status as she works. Now her grades are falling and her parents are threatening to take away ALL of her tech toys until winter break if she doesn’t get a handle on it. What’s your advice to Quinn about her workspace?
   - Your workspace should be a distraction-free zone! Using your tech toys as you try to do your homework is multitasking and causes your brain to have to continually focus and refocus. Leave your tech toys out of your workspace. Work for a set time on a single task before taking a break. Check your texts, Facebook, Instagrams, etc. only on break; then get back work!
6. What information would you not find in a syllabus?
   a. School dress code
   b. Teacher’s office hours and contact information
   c. Expectations, classroom rules and honesty policy
   d. Grading plan and score calculation summaries

7. List the steps you should take when you receive a syllabus from your teacher:
   - Put it in a sheet protector in your binder
   - Read it/understand it
   - Copy important dates into your planner
   - Post a copy at your workspace

8. How can you use a syllabus to your advantage?
   a. Align your time and workload management with your teacher’s priorities and expectations
   b. Compare your workload with other classes to anticipate periods of heavy demand
   c. Know how to make up for absences and missing assignments
   d. All of the above

9. What are the benefits of activating your schema before learning new material?
   Activating your schema fires up your brain’s dendrites, axons and synapses to accept (link to) new, incoming information. It improves comprehension, makes learning more meaningful and makes information easier to recall.

10. Activating your schema is an excellent pre-learning strategy because it can make you a faster, more efficient and effective student. Which of these are schema activation techniques?
    a. Brainstorming, KWLS chart, self-questioning
    b. Reviewing notes, predicting, reviewing old quizzes and worksheets
    c. Prior chapter review, concept mapping
    d. All of the above
Lesson 12  Active Learning in a Passive Learning World
Lesson 13  Battle Plan SQ3R
Lesson 14  Hey, are You Listening?

By the end of **Unit Four** the student will be able to:

- define **constructivism**.
- compare the traits of active vs. passive learners.
- determine whether he or she is an active learner.
- explain the benefits of active reading.
- describe SQ3R active reading techniques.
- apply SQ3R active reading techniques to an expository passage.
- state the benefits of active listening.
- describe active listening strategies.
- identify personal behaviors and attitudes that prevent active listening.
JASON TAKES PASSIVE LEARNING TO A NEW LOW.
LESSON 12

ACTIVE LEARNING IN A PASSIVE LEARNING WORLD

TEXTBOOK

This lesson corresponds to Chapter 12 of *The Middle School Student's Guide to Study Skills*.

MATERIALS

- Computer/whiteboard display with internet access.
- Webslides 12A-D (www.middleschoolguide.com)
- Workbook pages 124-133.

OBJECTIVES

By the end of this lesson the student will be able to:
- define *constructivism*.
- compare the traits of *active vs. passive learners*.
- determine whether he or she is an active learner.

GAINING ATTENTION

In the last unit, the class explored pre-learning strategies. It’s important to have a homework routine and to stick to it! Using a *to-do list* and having an organized, well-stocked workspace improves homework efficiency and productivity. Students should get into the pre-learning habit of reading the course syllabus and understanding their teacher’s grading plan. Students learned that activating schema is a good pre-learning strategy to improve comprehension and retention of new material. Whenever you’re learning something new, get your schema on by reviewing class notes, making a K-W-L chart, previewing chapter headings, quizzing yourself, predicting, making a concept map, and reviewing old worksheets and quizzes. You can also build schema by doing basic factual research online or at the library.
Engage students in a discussion: Learning usually takes place sitting at a desk, reading, studying a textbook, or listening to a teacher. Not very “active!” Does that mean learning is a passive activity? Can learning be active?

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to define constructivism, compare active and passive learning traits, and determine whether you exhibit the traits of an active or passive learner.

**PRESENTATION OF CONTENT**

Learning seems like the ultimate passive activity. After all, it involves little physical activity. More often than not, students sit at their workspace or in a classroom, verbally or visually receiving information from a textbook or a teacher. In the next few lessons, students will explore how to make learning active.

**What is “active learning”**?

Way back in the early 20th century, at a time when learning was all about sitting quietly at a desk, passively accepting information from a teacher or textbook, a psychologist named Jean Piaget (pi-yah-zhe) proposed something pretty radical. He proposed that a mind that actively questions, explores and assesses information as it learns, learns more deeply and more meaningfully. Piaget believed that the student who searches for and actively constructs an answer, rather than simply accepting the answer handed to them, is a better learner. Piaget called this active learning theory constructivism. Active learners take in information and experiences, compare them to previous ideas and experiences, add to or alter beliefs, and construct a personal base of knowledge.

**What are the benefits of active learning?**

Active learners:

- build a large schema
- remember more of what they learn because it has personal meaning to them
- are self-confident students
- are motivated to learn
- use their knowledge to find creative solutions to problems
- seek not just the right answer, but why an answer is right or wrong.

**The active learner vs. the passive learner**

Direct students to page 127 of the workbook. Assign students an “active learner” role vs. “passive learner” role. “Let’s compare the traits of active and passive learners.” Read columns aloud and discuss.
<table>
<thead>
<tr>
<th><strong>THE ACTIVE LEARNER...</strong></th>
<th><strong>THE PASSIVE LEARNER...</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connects.</strong> An active learner knows that what they learn in the classroom has actual <strong>connections to the real world.</strong> It's true! Learning comes alive in plays and museums, on hiking trails, at political meetings and rallies, at tide pools, community service jobs, science exhibits, and academic competitions. Learning plays out every day in real life in the news. Active learners <strong>construct</strong> their personal knowledge by connecting it to their schemas and to the real world around them.</td>
<td><strong>Isolates.</strong> A passive learner <strong>isolates</strong> their learning from the real world and learns only in the classroom. A passive learner would reject a weekend visit to a museum, ignore a plea from a local charity for volunteers, turn down an invitation to see a play, and consider attending a community council meeting a waste of time. Don't isolate your learning. Seek out opportunities to connect to the world outside the classroom.</td>
</tr>
<tr>
<td><strong>Takes it personally.</strong> What you learn now and how well you learn it will impact your later life. The active learner makes learning their <strong>personal responsibility.</strong> They pursue strategies for better learning, including adopting good study and organizational skills. They set education goals, and work around obstacles to achieve them. Active learners take college preparation seriously. Active learners understand that they control their learning.</td>
<td><strong>Avoids responsibility.</strong> A passive learner expects their teacher or school to be 100% responsible for their learning. Many students are in less-than-ideal academic settings. A passive learner assumes that the poor learning environment is <strong>out of their control.</strong> Own your learning and you can overcome almost any obstacle. Read books. Watch the news. Join an academic club. Talk to your counselor about college. Take an honors class. What you learn and how far you go in life is up to you.</td>
</tr>
<tr>
<td><strong>Rejects passivity.</strong> Active learners question, analyze, dissect ideas, reflect on, debate, wonder, disagree, compare... Yes, they actually <strong>think</strong> about what they've learned. They reach beyond just knowing the right answer to fully understanding why the answer is right.</td>
<td><strong>Learns like a zombie.</strong> Learning by <strong>rote and memorization</strong> with little real understanding of a topic is a classic passive learner trait. Passive learners are more concerned about their grades than about actually learning something.</td>
</tr>
<tr>
<td><strong>Looks inward.</strong> The active learner looks within for motivation. <strong>Intrinsic motivation</strong> can come from something as simple as the enjoyment of learning, or pride in accomplishment. It may also come from knowing that learning and actively using your education are the keys to meeting your life goals.</td>
<td><strong>Depends on rewards.</strong> A passive learner depends on <strong>extrinsic motivators</strong> like rewards or gifts of money to learn. In high school and college, extrinsic rewards are few and far between. A passive learner may suffer a motivational crisis when the rewards run dry. Developing your personal intrinsic reward system builds mental toughness.</td>
</tr>
<tr>
<td><strong>Engages.</strong> The active learner knows that intellectual conversation won’t kill them. The active learner has the <strong>confidence</strong> to engage in intellectual discussion and debate.</td>
<td><strong>Hides out.</strong> A passive learner keeps their intelligence <strong>in the closet.</strong> Let it out!</td>
</tr>
<tr>
<td><strong>Prepares.</strong> Everyone’s busy, and it can be hard to keep up with responsibilities. The active learner knows that their job is to be a good student. They prepare for class by <strong>doing their job:</strong> reading, studying and doing their homework.</td>
<td><strong>Slacks.</strong> A passive learner comes to class <strong>unprepared,</strong> not knowing what’s going on and not caring. They don’t do the reading. They don’t study much. What they don’t realize is that even a boring class is a lot less boring when you’re prepared.</td>
</tr>
<tr>
<td><strong>Is open-minded.</strong> An active learner has an <strong>open mind.</strong> That doesn’t mean they adopt every new idea that comes their way, or change their core values. Active learners are open to new ideas, even if it’s just for the purpose of expanding their schemas.</td>
<td><strong>Grows mental mold.</strong> A passive learner has a <strong>closed mind.</strong> Like an old gym bag, it’s dark in there and starts to stink.</td>
</tr>
</tbody>
</table>
Check for understanding and proceed to the activity

**ACTIVITY**

Direct students to page 128 of the workbook [What Would an Active Learner Do?] Introduce the activity. Read the scenarios aloud. Direct students to identify the correct answer, then consult the Active vs. Passive Learner chart on page 127. Discuss the active learning opportunities and principles exhibited in the question. (Suggested discussion questions are contained in the answer key.)

**ANSWER KEY**

1. The correct answer is a. There's a real-life connection between what Ali is learning in school and Auntie C's life experiences. What an opportunity! Learning about Auntie C's life will help Ali construct knowledge and build schema useful in understanding the novel she is reading. Discuss: Have you ever made a real-world connection like this? What did you do? Did it help build your schema and make learning more meaningful to you? Can you think of any real-world connection opportunities you have? What can you learn from the adults in your life? Do you have the opportunity to develop a skill or hobby, or participate in community service to link your learning to the real world?

2. The correct answer is c. As you move up into high school and college, extrinsic rewards are fewer and farther between. Active learners find their motivation from within. Intrinsic motivation is a powerful force. It keeps you going when the chips are down. It's essential for recovering from a setback. It builds self-reliance. It's important that Elena's friend find some internal force to motivate her. Discuss: Are you intrinsically or extrinsically motivated? What things motivate you to achieve? If you are an extrinsically motivated student, what will happen to you when "the extrinsic motivation well" runs dry? What are some good motivators for middle school students? Do you expect your motivators to change as you grow up?

3. The correct answer is d. Active learners are open to new ideas, even if it's just for the purpose of expanding their schemas. Jason can't be forced to adopt the other kids' beliefs or opinions, so why should he be afraid of listening to them or engaging in an intellectual discussion? He'll learn from their opinions. He will also learn by speaking up, and practicing articulating his opinions. Discuss: What might Piaget say about the benefits of listening to opinions even if you don't agree with them? What's your reaction when someone says something, or states an opinion you disagree with? How can you develop the ability to remain objective even when you are offended by another person's opinions or beliefs? How can you develop the confidence to express your opinions or beliefs? How can you learn to articulate them accurately?

4. Here's some advice for Max: Rote memorizing has a role in learning, such as studying factual information for a test, but constant reliance on rote memory with little real understanding of what he's learning is a classic passive learner trait. Piaget showed that the student who analyzes, debates, dissects and reflects on learning rather than simply accepting the answer handed to them, learns more meaningfully and remembers more. To prepare for high school and college, Max needs to drop his old
school learning habits and embrace the active learning challenge. Discuss: Why are analysis, debate, reflection, etc., more meaningful ways to learn than memorization? How can you incorporate these strategies into your own learning? Do you feel like your learning is stuck in a “rote and recite” mode?

5.

**Let’s Summarize**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the *Letter to Parent* on page 132 of the workbook.

1. Piaget’s Theory of Constructivism holds that students learn best when they construct their own personal knowledge / schema of the world.

2. A good strategy for constructing personal knowledge is to seek out ways to connect what you learn in school to the real world all around you. Learning comes alive in:________________________

3. Don’t expect your teacher to be 100% responsible for your learning. You have a great deal of personal control over it, even in a less than ideal academic or home setting. Take responsibility for your learning and your personal academic future. Own your learning and you can overcome almost any obstacle.

4. Active learners take in information and ideas then question, analyze, dissect, disagree, wonder, reflect…!

5. Engaging in an intellectual discussion debate or analysis will not kill you! It might even be fun.

**Reading and Homework**

- Students read chapter 13 in the workbook to prepare for the next lesson.
- Students complete pages 130-131 in the workbook *Application of Skills* [Are You an Action Hero?] Collect for assessment.
CLASS ACTIVITY WORKSHEET

CHAPTER 12

What Would the Active Learner Do?

An active learner questions and explores as they learn. They build large schemas and remember more of what they learn because it has personal meaning to them. They are self-reliant and motivated students. Read the questions below and select the answer that best describes how an active learner would react to the situation. Be prepared to discuss the active learning principles and opportunities, and how you would react in a similar situation.

1. At a wedding reception, Alison is seated next to her second cousin’s adorable Great Auntie Crizelda. In the course of conversation, Auntie C mentions that she grew up in Alabama in the 1930’s. What a coincidence! Ali’s literature class is reading *To Kill a Mockingbird* which takes place in Alabama in the very same era. Auntie C clearly likes to gab, and still has all her marbles. If Ali is an active learner, what will she do?
   a. Realize that Auntie C may have some interesting and relevant knowledge, mention the book she’s reading and politely engage her in a conversation about life in 1930’s Alabama.
   b. Excuse herself and head for the buffet.
   c. Assume Auntie C doesn’t know anything and wouldn’t want to talk to her about it anyway.
   d. Fail to see a connection.

2. Elena’s friend Katie is in hot water with her parents. After seeing her mid-term grades they are convinced she is a slacker. As a last resort to motivate her to learn, they’ve offered her $20 for every B and $25.00 for every A on her report card. Unlike Katie, Elena is an active learner. Her advice to Katie includes each of the following EXCEPT:
   a. “Since the best long term motivation is intrinsic, find something within yourself that inspires you to learn. It can be a love of learning, or a personal challenge to do better, or wanting a bright future including college and a good career.”
   b. “Money and gifts are temporary fixes for a serious motivational problem.”
   c. “Girl, hold out for more money!”
   d. “This will do little to correct your slacker tendencies.”
3. Jason is uncomfortable in his social studies class. Once a week the class discusses a current social issue. Some kids come from different backgrounds, and Jason thinks they have the weirdest opinions. They say stuff that neither he, nor any member of his family would ever agree with. As an active learner, he should:
   
   a. Tell them to keep their opinions to themselves.
   b. Just keep tellin' himself that his opinions are right and to not get caught up in all their weirdness.
   c. Say nothing. Try not to listen or let it bother him.
   d. Keep his mind open! Jason doesn't have to buy into their opinions, or change his core values, but knowing how others think and understanding why they think it (right or wrong) is a tasty morsel of knowledge to add to his schema, and an opportunity to practice articulating his own ideas.

4. The teachers at U.B. Smart Middle School are emphasizing high school and college readiness, so they're challenging students to s-t-r-e-t-c-h their brains and become active learners. They want students to question, analyze, dissect ideas, reflect, debate, wonder, disagree, and compare! This makes Max unhappy. He's used to rote and recite learning. He reviews the materials and memorizes for tests. He worries his test scores will fall if he changes how he learns. Explain to Max why it's worth embracing his teachers’ active learning challenge.

5. Design a word wall with active learning terms from the chart on page ____.
APPLICATION OF SKILLS

Name: __________________________________________

Are You an Action Hero?

Students who actively question, explore and assess information as they learn are better learners. They build larger schemas, and are self-confident, motivated students. How about you? On a scale of 1 to 10 (1 = “No, not at all” and 10 = “Totally and absolutely!”) how active a learner are you?

Do you connect?

Do you connect your learning in school to the real world all around you? Whether it’s by going to a museum, analyzing a current event, volunteering, or getting involved in a community project, do you involve yourself in projects or activities offering real world experience?

10 9 8 7 6 5 4 3 2 1

Are you responsible for you?

How likely are you to search for resources to supplement, clarify or expand on what you learn in class? A student who accepts personal responsibility for his or her own learning, works to overcome obstacles to learning, and puts serious thought and planning into their academic future, like preparing for college. Do you feel and act responsible for your own learning and academic future?

10 9 8 7 6 5 4 3 2 1

Is your brain engaged?

Is your mind actively engaged as you learn? Do you question and analyze? Do you reflect on your studies? Do you consider learning as more than just short term memorization for a test?

10 9 8 7 6 5 4 3 2 1

Does your motivation come from within?

If you rely too much on external motivators like gifts, praise, money or even threats of punishment to learn or study, you could face a motivational crisis when the motivation well runs dry. The most reliable source of motivation comes from within. How intrinsically motivated are you to learn and achieve?

10 9 8 7 6 5 4 3 2 1
Is your intellect out of the closet?

When was the last time you discussed a political issue or read about a current global event just because you wanted to know about it? How likely are you to engage in intellectual discussion, debate, or analysis outside of the classroom?

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Are you the King or Queen of Slackerdom?

Preparing for class means keeping up with the assigned reading, doing your homework and whatever else your teacher assigns, and bringing required materials to class. When you get to class, how prepared are you to learn?

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Is your mind open?

Do you enjoy experiencing other peoples' opinions and hearing about their beliefs even if you don't agree with them? Do you appreciate the value of new information, even if it's just for the purpose of expanding your schema?

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

ACTION HERO! 58-70

Semi-Slacker 42-57

Purely Passive 21-41

Below 20

CHECK YOUR PULSE. YOU’RE FLATLINING!
PRODUCT PREVIEW
MEET
MISS LOVELESS, L.I.B. SMART LITERATURE TEACHER...

MISTER MCWHISKERS IS WATCHING YOU.

BOYS AND GIRLS, BY FOLLOWING THESE IMPORTANT TIPS, EACH OF YOU CAN BECOME ACTIVE READERS!

BEFORE YOU BEGIN READING, SURVEY THE TEXT. GET TO KNOW IT! INTRODUCTIONS ARE IMPORTANT!

CHECK OUT THE HEADINGS. CHECK OUT THE SUBHEADINGS. DON’T JUMP RIGHT IN.

ASK YOURSELF: "WHAT DO I ALREADY KNOW ABOUT THIS SUBJECT? PRIOR KNOWLEDGE IS USEFUL!!

BE ATTENTIVE! ASK QUESTIONS! MAKE CONNECTIONS!

THAT SOUNDS MORE LIKE MISS LOVELESS’ DATING STRATEGY!
This lesson corresponds to Chapter 13 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 13A-C (www.middleschoolguide.com)
- A sample chapter from a textbook, including headings, subheadings, charts, illustrations, summary and questions for demonstrating SQ3R reading strategies.
- Workbook pages 134-143.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- explain the benefits of active reading.
- describe SQ3R active reading techniques.
- apply SQ3R active reading techniques to an expository passage.

**GAINING ATTENTION**

In the previous lesson, students compared active and passive learning traits. Piaget showed that students who actively question, analyze and compare information are better learners. Learning and knowledge come alive all around you! Seek out opportunities to connect learning to the world outside your classroom. Active learners are prepared and responsible students. They understand that learning is their personal responsibility and within their control. Active learning skills are good study skills because they encourage deeper and more meaningful learning.

Engage students in a discussion. Have you ever noticed that it’s easier to read a novel, like a Harry Potter book, than a history textbook? Why? Isn’t reading just reading? Why is reading nonfiction more difficult than reading fiction?
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to define active reading, describe SQ3R active reading techniques, and apply active reading strategies to expository text.

PRESENTATION OF CONTENT

Reading for information, like reading a textbook, is called expository reading. Reading for pleasure, like reading a good story, or a gossip magazine is called ludic (loo-dik) reading. Reading for pleasure is relaxing and usually doesn't take much effort, especially when you get caught up in a story. Expository reading is more difficult because you are on a mission to obtain information and achieve certain goals. That requires effort and a special set of reading skills.

As you move up into high school and college, your academic success will depend on your ability to read, comprehend, and recall a great deal of nonfiction text. Studies show that if you open up your textbook and begin reading without preparation, you'll remember less than 30% of what you read by the next week. Good study skills include using special reading strategies to improve comprehension and memory of nonfiction text.

Prepare for battle!

In the 1940s, as WWII raged, the United States military was responsible for training millions of soldiers for battle. Upon enlistment, soldiers were sent to basic training and assigned manuals, guidelines and training materials to read. Soldiers had to quickly master volumes of information and head overseas into battle. The military knew that the men's survival depended on how well they comprehended and remembered the information in the training materials, so the military began using SQ3R.

Was SQ3R a secret weapon? No. Brainwashing? No. A battle plan? Sort of. SQ3R is a battle plan for... reading! The military began using an active reading technique developed by Francis Robinson, a professor of psychology at Ohio State University. SQ3R (also known as SQRRR) enabled WWII soldiers to read training manuals quickly, with improved comprehension and retention of content. It was so successful that after the war, it began to be taught in schools. If it was good enough to beat the Nazi's, it's good enough for you. Whenever you're assigned expository reading here's your battle plan:

SURVEY ➔ QUESTION ➔ READ ➔ RECITE ➔ REFLECT!

SURVEY: Expository reading requires a patient approach. Don't plunge right in and start reading. Begin with a survey of the chapter. The survey gives you the big picture of what you will read. Note the title. Preview headings and subheadings. Consider what they reveal about the text's purpose. Check out illustrations, charts and photos. Flip through the pages and survey bolded words. Turn to the end of the chapter and read the summary. Finally, observe how the information is organized. It is organized that way for a reason. Organize your thoughts about the content the same way.
QUESTION: Based on information acquired from the survey, ask yourself questions to activate your schema: What do I know about this topic? What’s the big picture? What context does this information fit into? Textbooks often have questions or state learning objectives at the beginning or end of a chapter. Read the questions or objectives. They identify the important ideas and topics you will read for.

READ: Expository reading is an active process requiring concentration and energy. Be attentive. Be focused. Don’t let words just slip past your eyeballs. Read for ideas and with the intent to understand. Identify the point of each section. Write out answers to the chapter questions as you read. Review pictures, charts, maps, and illustrations to help you create a visual image of the content in your mind.

RECITE: It may feel weird at first, but reciting answers aloud is one of the best ways to activate and strengthen synaptic patterns and neural pathways for memory. Read and answer the chapter questions aloud. Explain the main concept(s) in your own words. Do it again, trying not to look at the book. Tell yourself a short story about what you read, with a beginning, middle and end. If you can’t explain an idea or concept, go back, reread that section and try again.

REFLECT: Close the book. Reflect on what you read. This gives Brainy a chance to sort and organize the information. Ask yourself: What do I now know about this subject? How does this information fit in with what I already knew? What might my teacher ask me in class or on a test? What do I need to reread for clarification? Are there any gaps in what I can recall? Check for understanding and proceed to the Activity. If your school teaches a THIEVES active reading strategy introduce it now.

ACTIVITY

Display the sample chapter. Model SQ3R strategies. Students observe, completing the worksheet on pages 138-139 of the workbook. (I ♥ SQ3R)

Survey: Point to the title of the chapter. Turn pages, pointing to and reading headings and subheadings. Survey illustrations, charts, photos and bolded words. Locate the summary and read it. Return to the beginning of the chapter. Turn the pages asking students to observe how the information is organized.

Question: Upon completing the survey, model self-questioning techniques. What do I know about this subject? Based on the survey, what do I know about this chapter? Can I see a “big picture”? What does the organization of information tell me? How can it help me to structure my thoughts? Review chapter questions. Show how to locate the ideas students will read for.

Read: Emphasize that expository reading is an active process requiring concentration, energy and purpose. Guide students through the text as if reading it. Active readers identify the point of each section as they read and write answers to the chapter questions as they go. Emphasize that active reading means reading for ideas and with the intent to understand. If students use highlighters while reading, explain that highlighting is a post-reading strategy. They should read all the way through a paragraph first, then go back to select and highlight important ideas.
**Recite:** Recite the answers to the chapter questions aloud. Guide students to return to each section and recite important concepts in their own words. If they can’t do it, they should reread the section and try again.

**Reflect:** Close the book. Model reflection: *How does this new information fit into my schema? Do I need to clarify any information? What might my teacher ask on a test? What are the important ideas and concepts, and could I answer test questions about them? If I were asked to provide an example, would I be able to do it? Can I define the vocabulary words? Are there gaps in what I am able to recall?*

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the *Letter to Parent* on page 141 of the workbook.

1. As students move up into high school and college, their academic success increasingly depends on their ability to read, comprehend and recall ____________ text.

2. SQ3R or stands for: ____________ and ____________ and ____________ and ____________ and ____________.

3. For SQ3R, *survey* means: Look at the chapter ____________, ____________, and ____________. Get the ____________ picture! Note how the content is ____________.

4. For SQ3R, *recite* means to answer questions ____________ and put important ideas and concepts into ____________. Try to do this without looking at the book.

5. ____________ is an essential SQ3R strategy which gives the brain an opportunity to sort and organize information. Students should consider how the information fits into their ____________, what they might be asked on a ____________, and whether there are ____________ in information (indicating the need to reread.)

**READING AND HOMEWORK**

- Students read chapter 14 in the workbook to prepare for the next lesson.
- Students complete page 140 in the workbook *Application of Skills* [Battle Plan SQ3R.] Collect for assessment.
I ♥ SQ3R

In high school and college, your academic success will depend on your ability to read, comprehend and recall nonfiction text. Active reading strategies help students understand more of what they read and retain it in memory longer. Whenever you’re assigned reading from your textbook, follow these strategies: **Survey, Question, Read, Recite and Reflect!**

**Survey**

What is the **title** of the chapter? ______________________________________

List one **heading**: ____________________________________________________

List one **subheading**: _________________________________________________

Did you review **charts and diagrams**? _____ Illustrations/photos? _____ Bolded words? _____

Does the chapter have a **summary**? _____ Read it and list the **main ideas**:

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

Return to the beginning of the chapter. Turn the pages. Observe how the chapter is **organized**. Describe how you will organize the information in your mind:

______________________________________________________________________

______________________________________________________________________

**Question**

Ask yourself: **Based on the survey, what do I know about what I will read? What do the title, headings and subheadings tell me? Can I fit this information into my schema?” Can I see a “big picture”?** Write your answers here:

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

Review chapter questions or learning objectives. Identify the **ideas** you will read for:

______________________________________________________________________

______________________________________________________________________
Read

Did you read **actively**, with concentration and energy?  yes  no
Did you read with the intent to understand?  yes  no
Did you identify the point of each section?  yes  no
Did you read for ideas?  yes  no

Students who use highlighters: Did you read all the way through a paragraph before highlighting a passage or text?  yes  no

Did you write down the answers to the chapter questions as you read?  yes  no

Recite

Did you read the chapter questions and recite the answers aloud?  yes  no
Did you put important concepts into your own words?  yes  no

Can you summarize the information with a beginning, middle and end?  yes  no

Reflect

How does this new information fit into your schema?
_______________________________________________________________________________________
_______________________________________________________________________________________

Do you need to reread any part(s) of the chapter for clarification or to fill gaps in knowledge?
_______________________________________________________________________________________
_______________________________________________________________________________________

Write three questions about important ideas or concepts from the chapter (including charts and diagrams) that you might be asked on a test:
1. ___________________________________________________________________________________
2. ___________________________________________________________________________________
3. ___________________________________________________________________________________
During WWII, the United States military trained millions of soldiers for battle. Before going overseas, soldiers went to basic training where they were given manuals and training materials. Their survival depended on their ability to learn the content quickly and thoroughly. The military used SQ3R to improve soldiers' reading comprehension and retention. SQ3R is a battle plan for active reading!

Your mission: Decode the SQ3R steps and describe your battle plan.
NOTES

PRODUCT PREVIEW
TEXTBOOK

This lesson corresponds to Chapter 14 of *The Middle School Student’s Guide to Study Skills*.

MATERIALS

- Computer/whiteboard display with internet access.
- Webslides 14A-E (www.middleschoolguide.com)
- Workbook pages 144-155.

OBJECTIVES

By the end of this lesson the student will be able to:

- state the benefits of active listening.
- describe active listening strategies.
- identify personal behaviors and attitudes which prevent active listening in the classroom.

GAINING ATTENTION

In the previous lesson, students explored SQRRR active reading strategies. In high school and college, your academic success depends on your ability to read, comprehend, and recall a great deal of nonfiction text. Never approach expository text as you would a story. Reading expository text requires a special set of reading skills, because you are on a mission to obtain information and achieve certain goals. Active reading strategies improve comprehension and retention by guiding students to read with purpose. Readers use the organization of the text to activate their schema before reading, identify the key ideas, and structure their thoughts about the content. When reading expository text, activate Battle Plan SQ3R!

Survey ➔ Question ➔ Read ➔ Recite ➔ Reflect.
Engage students in a discussion: Is there a difference between “hearing” and “listening”? We often use the words interchangeably, but do they mean the same thing? Is “Do you hear me?” the same as “Are you listening to me?”

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to understand the benefits of active listening, describe active listening strategies, and identify personal behaviors or attitudes that hold you back from being an active listener in the classroom.

**PRESENTATION OF CONTENT**

“Hearing” and “listening” are not the same.

To **hear** means: to perceive or apprehend by the ear.

To **listen** means: to hear something with thoughtful attention and give it consideration.

As a student, much of what you are responsible for learning is delivered through lecture or spoken instructions. In high school and college, lectures will be longer and more complex. Spoken instructions will be quick and concise. When your teacher speaks, you should hear “with thoughtful attention and consideration.” Good listening skills are not automatic, however. Developing good listening skills requires practice and discipline. It’s important to your success as a student that you develop **active listening skills**.

**What is active listening?**

Active listening is a method of listening in which the listener:

- focuses all of their **attention** on what the speaker is saying
- listens for **concepts and ideas**
- checks for understanding by **interpreting concepts** in their own words
- actively **avoids distraction**
- **monitors the quality** of their listening

**What are the benefits of active listening?**

As a student, much of what you must learn and remember is delivered verbally through lecture or oral instruction. Active listening strategies improve comprehension and increase retention of information. Active listening prevents students from misunderstanding content, or missing important information.
What are active listening strategies?

Decide to listen.

Yes, it’s that simple. Make a **conscious decision to listen to your teacher**. Clear your mind of your own thoughts. Control your mind from wandering. **Don’t zone out.** Focus, and actively try to absorb what your teacher says.

Listen for ideas.

Don’t just hear words – **listen for ideas**. Teachers speak in ideas. They may have different lecture styles, but they are usually clear about the **main points** they want to get across to students and don’t generally drop information bombs without warning. Main points or ideas are often preceded by phrases emphasizing the importance of the information such as:

“The most important thing is...” or
“The main characteristics are...” or
“This is what I want you to know...” or
“This will be on the test...”

Tune in to the phrases your teachers use to draw attention to important information.

Make eye contact.

Eye contact tells your teacher that you’re awake, listening, and paying attention. It also helps keep your **mind from wandering**. Your teacher’s facial expressions and gestures convey thoughts too, so keep your eyes on your teacher to improve your understanding of the subtleties of verbal information.

Value visuals

Senses work together: **Eyes support ears; ears support eyes**. When your teacher uses power points, overheads or other visuals, **look at them**! Copy important visuals in your notes (unless your teacher posts the image on the class web page.) Visual images make verbal content more meaningful and illustrate principles of the lecture.

Make connections.

As you listen, **make connections** between what your teacher says and what you already know. **Get your schema on!** Search your mental data base for connections to prior knowledge. Interpret concepts as they are presented. If you can’t make a connection or interpret a concept, raise your hand and ask. Odds are other students aren’t getting it either. Don’t sit and let information you don’t understand wash over you. Get involved and ask!
What prevents students from active listening?

Certain behaviors, habits, and attitudes can interfere with a student’s ability to actively listen. Often, students are completely unaware of the problem. For example, a lack of self-control can cause a loss of focus. Boredom is an attitude, and it distracts students from learning. Students can also get side-tracked by something a teacher says that they don’t understand. Others lose focus on the message when there is something about the messenger that bothers them. The poor acoustical quality of the classroom, or noise from outside can interfere with listening. Active listeners constantly monitor the quality of their listening. They self-correct behaviors that prevent active listening, and seek assistance when they are prevented from listening because of noise or other interferences.

Remember, hearing is a passive activity, listening is not. Active listening requires effort and concentration. Get into the habit of monitoring your listening skills in class.

Check for understanding and proceed to the activity.

**ACTIVITY**

Direct students to page 148 of the workbook. [What’s Holding You Back from Being an Active Listener?]

Introduce the activity:

Being an active listener means identifying and controlling personal behaviors or habits that prevent you from listening. Students complete the active listening survey to determine what’s holding them back from actively listening. Complete the activity as a class as a guided read aloud, or independently. Discuss answers on completion.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 152 of the workbook.

1. “To hear” and “to listen” are not ___________________! To hear is to perceive or apprehend by the ear; To listen is to hear with thoughtful ___________________ attention and give it consideration. When your teacher talks, you should always ___________________ listen.

2. An active listener ________________ comprehends better and ________________ retains more of their teacher’s verbally delivered content.

3. An active listener makes a conscious ________________ decision to listen to their teacher. An active listener doesn’t just hear ________________ words; they listen for ________________ ideas.
4. An active listener makes ______ eye ______ contact with the teacher to keep their mind from ______ wandering ______, and values visuals, such as slides, overheads or examples that ______ illustrate ______ the principles of the verbal content.

5. An active listener makes an effort to ______ control ______ behaviors or attitudes that prevent them from actively listening, such as being ______ distracted ______ by their own thoughts, or losing focus when they ______ miss ______ information.

**READING AND HOMEWORK**

- Students read chapter 15 in the workbook to prepare for the next lesson.
- Students complete pages 150-151 in the workbook *Application of Skills* [Hey, Are You Actively Listening?] Collect for assessment.
- **Unit 4 Quiz:** Students complete pages 153-154 in the workbook [What Did You Learn, Action Heroes?]
What’s Holding YOU Back from Being an Active Listener in the Classroom?

The concept of active listening is simple: Decide to listen, listen for ideas, make eye contact, pay attention to visuals aids, and make schema connections! So why are so many students poor listeners? What behaviors, habits and attitudes prevent students from actively listening? What’s holding you back from being an active listener in the classroom? (Check all that apply.)

1. When I’m in class listening to my teacher I often:
   - play with a pencil or pen.
   - look around at friends.
   - text.
   - get lost in my own thoughts (it’s so beautiful in there!)
   - flirt with the hot guy/gal next to me.
   - finish (or start) homework for that (or another) class.
   - study the insides of my eyelids.
   - zone out.

   If you checked any of these boxes, poor self-control is holding you back from being an active listener. Do you know that the human mind processes information much faster than the normal rate of speech? In the lag time between the listener’s processing and the speaker’s speaking, listeners can get distracted and lose focus. Make a conscious decision to listen. Resist the urge to talk to a friend, flirt, text, or lose your concentration. Active listening takes practice and self-control. In high school and college you will need great deal of self-control to succeed. Practice developing zen-like control over your thought processes and impulses. Start by actively listening in class.

2. When I’m in class listening to my teacher, my usual attitude is:
   - disagreement.
   - disinterest.
   - boredom (I’ve heard it before…)
   - natural resistance to whatever they say.

   If you checked any of these boxes, your attitude is getting the better of your listening skills. Never assume you already know what your teacher is going to say. Studies show that when people do this, they often hear what is expected, rather than what is actually said. If you disagree with something your teacher says, make a mental note but keep listening! Don’t stop to form a rebuttal in your head. Stay focused. Don’t let boredom distract you from listening. Boredom is an attitude. Active listening requires a positive attitude, and a conscious effort to generate an interest in the topic even when it’s not all that interesting to you.
3. I can’t concentrate if my teacher:

☐ has an accent.
☐ has a weird outfit on.
☐ is having another bad hair day.
☐ has an annoying voice.
☐ is a substitute I don’t know.

If you checked any of these boxes, bias holds you back from being an active listener. Remember, it’s the message, not the messenger! Don’t be distracted by physical appearance or other traits of a speaker. Active listening skills require a listener to be objective, not judgemental. Focus on the information.

4. When my teacher says something I don’t understand, I:

☐ do not raise my hand to ask for clarification
☐ forget about it and move on
☐ obsess over it, stop listening and panic because I may have missed something important!
☐ would be too embarrassed to ask about it.

If you checked any of these boxes, poor self-advocacy skills are holding you back from being an active listener. If your teacher permits students to ask questions during instruction, or periodically stops to check for understanding, don’t hesitate to ask for clarification if you need it. If your teacher prefers that you wait, don’t panic or get distracted by your need to know. Jot the question down on your notes and keep listening. If you’re too shy to ask, get tongue-tied or struggle with your English skills under pressure, write the question on a piece of paper, raise your hand and read it.

5. When my teacher provides a visual aid like a power point, outline or document on the whiteboard or overhead projector, I:

☐ continue to look at my teacher, at the floor, at the ceiling…basically anywhere but at the visual aid.
☐ use that time to do any of the activities listed in Question 1 above.
☐ don’t realize how important the visual aid is for illustrating the point my teacher is making.
☐ usually can’t see it because something is in the way.
☐ struggle to copy down every word or image.

If you checked any of these boxes, poor sensory support holds you back from being an active listener. Part of listening is looking. Sensory data interacts: your eyes support your ears; your ears support your eyes. The result is improved comprehension and memory. If your view is blocked and you can’t clearly see the image, politely ask your teacher if you can move to a better vantage point. If the image is blurry (but no one else seems to notice) you may need an eye exam. If you’re too busy copying every detail on the slide, stop! Ask your teacher to post the visual aids on the class web page so you can review them again later.
Hey, Are You Actively Listening?

**APPLICATION OF SKILLS**

Name: ____________________________________________

**Hey, Are You Actively Listening?**

Good listening skills are not automatic. Being an active listener requires practice and self-control. The benefits of active listening include better comprehension and improved retention.

1. What’s the difference between hearing and listening?
   "Hearing" is to perceive noise; “listening” is to pay attention and give careful consideration to what you hear.

   ____________________________________________
   ____________________________________________
   ____________________________________________

2. Omar’s teacher created a power point presentation demonstrating how to solve a difficult algebra equation. Omar can’t see it because his teacher’s head is in the way of the whiteboard. What should he do and why?

   Omar needs to be able to see the visual aid to comprehend the lesson. Good self-advocacy skills mean that Omar should ask his teacher if he can move to a better vantage point to see the slide.

   ____________________________________________
   ____________________________________________
   ____________________________________________

3. In class, don’t just hear your teacher’s words. Active listening means listening for ____________________
   a. the bell to ring
   b. the correct answer
   c. ideas
   d. P.A. announcements

4. Active listeners make ____________________ between what their teacher says and what they already know.
   a. notes
   b. eye contact
   c. arrangements
   d. connections

5. In high school and college, much of what students are responsible for learning is delivered (verbally) by lecture or verbal instruction. That means active listening is an essential skill. Benefits of active listening include all of the following, except:
   a. better comprehension
   b. increased retention
   c. avoidance of misunderstandings
   d. automatic “A” on the test
6. Refer to the worksheet on pages 148-149. Review your answers. What’s holding you back from being an active listener in the classroom? (Circle all that apply)

   a. poor self-control  
   b. attitude  
   c. bias  
   d. poor self-advocacy  
   e. poor sensory support

7. Active listeners constantly monitor the quality of their listening. Write a plan for addressing your active listening weaknesses, and monitoring the quality of your listening in the classroom.

   Student's discretion

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

8. Teachers have different lecture styles, but generally don’t drop main ideas or information bombs without a warning. What are some phrases your teachers use to draw their students’ attention to important information?
Blog/Debate/Discuss

- News, biographies, travel books, magazines, ezines and websites. What's your favorite form of non-fiction?
- Active listening can be prevented by distractions like students talking or noise from the hallway. Maybe your teacher doesn't speak loud enough to reach the back of the room where you sit. Good self-advocacy skills mean that you need to speak up when you can't hear! How do you handle problems that interfere with your learning?
- Good or bad motivator: Should students be paid for grades?

College Readiness Corner

Reports indicate a decline in reading comprehension among incoming college students and a need for students to read more nonfiction. Essays, journals, newspapers, histories, textbooks, encyclopedias, letters, memoirs, biographies, travel books...nonfiction comes in many forms! Increase high school and college readiness skills by introducing your students to a variety of nonfiction.

Unit Sources


Practice, Practice!

What Did You Learn, Action Heroes?

It’s a Team Effort!

Let teachers at your school know that your students are learning to be active listeners and need help to practice their skills in class. Students design “Active Listening” posters for every classroom, prompting them to actively listen in class. Ask teachers to periodically refer to the poster to remind students to monitor their listening skills. Train your students to be active listeners.

Tech Connect

App name: FocusTimer. Provider: RainbowHill. Compatible with: iPhone, iPod Touch, iPad. Price: $0.99. Features: Time yourself while studying, record distractions, activate the distraction alarm and motion sensor to keep you on task.


WHAT DID YOU LEARN?

Name: ________________________________

1. Connect: Discuss a project or activity you’ve engaged in within the past six months which connected your classroom learning with the real world. If you have none, describe a project or activity you would like to do, and how it would connect your learning to the real world.
   
   
   
   
   Student’s discretion.

2. Engage: When’s the last time you engaged in an intellectual discussion or debate outside of the classroom? What was it about? Politics? The environment? Science? A social issue? Who was involved? What was the outcome? What did you learn?
   
   
   
   
   Student’s discretion.

3. Motivate: Active learners develop intrinsic motivation. Are you intrinsically motivated? What are your motivators and why do they motivate you? What does not motivate you?
   
   
   
   
   Student’s discretion.

4. Prepare: It’s your job to be a good student. Do you do your job by reading, doing homework and adequately preparing for class? Compare: How you feel in class when you are prepared vs. how you feel in class when you are not prepared.
   
   
   
   
   Student’s discretion.
5. High school and college students do a lot of expository reading, which is non-fiction reading for information. Active reading strategies are good study skills for expository reading because they improve _________________________________.
   a. comprehension
   b. retention
   c. a and b
   d. none of the above

6. You’ve just finished reading a chapter in your health textbook. Using SQ3R active reading strategies, how will you reflect on what you have read?
   Close the book, ask “what do I know about this subject? How does it fit in with what I already know? What questions might my teacher ask me about this information, and would I be able to answer correctly? Are there gaps in my understanding? What do I need to reread? Can I interpret and explain the charts and diagrams?”

7. When your teacher says something you don’t understand in a lecture or lesson, what should you not do?
   a. Raise your hand to ask for clarification, if your teacher permits questions.
   b. Forget about it. Move on. Figure it out later.
   c. Stay calm. Don’t let your confusion distract you from listening.
   d. Ask for clarification when your teacher checks for understanding.

8. One of the best (and easiest) active listening strategies is to make a conscious decision to __________!
   a. decide
   b. listen
   c. hear
   d. look

9. What does it mean to read with the intent to understand?
   To read with the goal of understanding what you read; Read to understand ideas, not just words;
   Read with focus, and with specific learning goals in mind.

10. Is highlighting a pre or post reading strategy? __________

   * Bonus: “Active learners don't just care about knowing the right answer, they care about knowing why the answer is right.” Comment:
      Student’s discretion. Example: Active learners are focused on the process of learning, not just their grade; the active learner wants to comprehend at a deeper level, not just learn by rote and recite, or memorize for a test.
UNIT 5

NOTE-TAKING AND OUTLINING SKILLS

Lesson 15  Navigating Notes
Lesson 16  Cornies & Indies & Hybrids, Oh My!
Lesson 17  The Hidden Benefits of Outlining Your Textbook

By the end of Unit Five the student will be able to:

✔  explain the benefits of taking notes in class.
✔  compare to know and to do information.
✔  use abbreviations for efficient note-taking.
✔  restate eight rules for navigating notes.
✔  describe the Cornell note-taking system.
✔  take notes using the Cornell note-taking system.
✔  design a form to support their personal note-taking needs.
✔  explain the benefits of outlining a textbook chapter.
✔  create a basic Roman numeral formatted chapter outline.
✔  outline a sample textbook chapter.
LEARNING STUDY SKILLS WITH MR. SKILLSWORTH

OK CLASSES, TODAY WE ARE LEARNING ALL ABOUT AN IMPORTANT SKILL FOR BEING A SUCCESSFUL STUDENT: TAKING NOTES IN CLASS.

WHY DON'T YOU ALL GIVE IT A TRY? AS I TALK, LISTEN CAREFULLY AND TAKE NOTES! HERE WE GO...

TO TAKE NOTES IN CLASS, FOLLOW THESE SIMPLE INSTRUCTIONS:

THE MINUTE YOU WALK INTO YOUR CLASSROOM, HAVE A PENCIL IN YOUR HAND. OPEN YOUR BINDER TO YOUR NOTES SECTION.

USE YOUR ACTIVE LISTENING SKILLS!

LISTEN FOR YOUR TEACHER TO CONVEY IMPORTANT INFORMATION. WHEN YOUR TEACHER SAYS SOMETHING IMPORTANT, WRITE IT DOWN IN YOUR NOTES.

ELINA, WHY HAVEN'T YOU TAKEN ANY NOTES?

LISTEN FOR TWO KINDS OF INFORMATION: WHAT YOUR TEACHER WANTS YOU TO DO AND WHAT YOUR TEACHER WANTS YOU TO KNOW...

BECAUSE YOU HAVEN'T SAID ANYTHING IMPORTANT YET.
This lesson corresponds to Chapter 15 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 15A-D (www.middleschoolguide.com)
- Workbook pages 156-165.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- explain the benefits of taking class notes.
- compare *to know* and *to do* information.
- use abbreviations for efficient note-taking.
- restate eight rules for navigating notes.

**GAINING ATTENTION**

The class has completed several lessons on active learning. Active learners connect their learning to the real world. They go beyond rote memorization to reflect, discuss, analyze, and debate as they learn. Active learners don't just care about knowing the right answer – they want to know *why* the answer is right. Active learners prepare for class and take personal responsibility for their learning. Active readers use Battle Plan SQ3R to improve their comprehension and retention of expository (non-fiction) text. Active listeners don't just “hear” their teacher – they focus and listen for ideas. Active listeners monitor the quality of their listening and self-correct personal behaviors that prevent them from actively listening in the classroom.

*Engage students in a discussion: Have you ever forgotten what you learned in class on the very same day you learned it? Have you ever misunderstood your teacher’s instructions and wished you could have a do-over? Do you ever find yourself in class saying “wait a minute, what just happened?”*
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to understand the benefits of taking notes in class, identify the type of information that goes into class notes, create abbreviations for efficient note-taking, and restate eight simple rules for navigating notes.

PRESENTATION OF CONTENT

What are the benefits of taking notes in class?

You've heard it before, but it's worth repeating: In high school and college, content (that's the stuff you are supposed to learn) gets more difficult. Classes move faster and teachers' expectations increase. Lectures are longer and packed with information you must remember. To succeed in high school and college, you'll need to take notes in class. There are many benefits to taking class notes:

- Notes help you stay focused and attentive.
- Notes create a kind of journal of what your teacher wants you to know and to do.
- Notes make a reliable, personalized study guide for any subject.
- The act of writing something down improves your ability to remember it, especially for visual and kinesthetic learners.
- Notes can be used to activate your schema.

8 simple rules for navigating notes:

Rule #1: Note-taking is a skill developed over time.

Taking notes in class is a struggle for many students. They can't decide what to write down, or they write too much or too little. Some students can’t decipher their handwriting later, and many don’t know how to use their notes to study. **Be patient and keep at it.** Even the world’s best note-taker was once a note-taking noob. You can become a good note-taker. It’s not that hard.

Rule #2: Note-taking skills begin with active listening skills.

When you get to class, have a pen or pencil in hand. Open your notebook or binder to the note section. **Use your active listening skills.** Focus, and make a conscious decision to listen, make eye contact, make connections, and control your own distracting behaviors and attitudes. Listen for two different, but equally important kinds of information: What your teacher wants you to do and what your teacher wants you to know.
Rule #3: Include *To Do* information in your notes.

*To Do* information is direction about what a teacher wants students to do, and how, when and where they are supposed to do it. (Think *due dates*, *deadlines*, and *directions.*) Sometimes students don’t as listen carefully to *to do* information because there’s no test on it. But if you’ve ever been marked down on an assignment because you handed it in late, or failed to follow your teacher’s instructions, you know that *to do* information is important. It usually comes at the beginning or at the end of a class. Your teacher may verbally tell you the information, or write it on the board. It includes:

- changes or additions to homework assignments
- due date reminders
- permission slip or field trip information
- assignment turn-in directions
- test/quiz details (dates, type of test, supplies.)
- lab book or journal instructions
- deadlines for anything in a class

Rule #4: It’s OK to be judgey (of information, that is.)

Write down the **topic or title** of the lesson, then listen for **main and supporting points** and important **details**. This is where students often get sidetracked: *Isn’t everything my teacher says important? Well, yes and no.* **Note-taking requires you to make judgements about what’s important and what is not quite as important.** Don’t scribble down everything your teacher says or you’ll end up with a disorganized mess. Deciding what to write is not hard. Here are some tips:

- Teachers are usually obvious about what they think is important – after all, they want you to learn! They may repeat a point or say something like “The *most important* points are...” or “You will be *responsible for knowing* this...”
- Your teacher may **write words or phrases on the board or on a Power Point, or create examples.** Copy them into your notes.
- Look for **patterns to emerge in how information is conveyed by your teacher.** An observant student can learn to pick up on verbal cues such as changes in the volume of their teacher’s voice, transitional pauses, or use of words signifying the introduction of a main point.
- Do the reading before class. Generally, a lecture or lesson will key off of **reading material.** If you have actively read the textbook, you should be able to identify the main ideas.

If you are confused about something said in a lecture, don’t get distracted. Put a “?” in your notes and leave a little extra space. Ask your teacher to clarify after class. If you miss something entirely, leave a blank line and fill it in later. Skip a line between ideas and concepts to make your notes easier to comprehend.
Rule #5: B short.

When taking notes, use key words, phrases or very short sentences. Eliminate the, a and an. Don’t stress about spelling or grammar. Use abbreviations, which are shortened forms of a word or phrase, much like expressions and symbols you use to text. Abbreviations help you take notes quickly, without sacrificing accuracy. Be consistent in their use so the abbreviations become part of your personal note-taking vocabulary. Abbreviate countries, states, cities, dates, measurements, chemicals, and commonly used words. Use symbols such as # for number or pound, @ for “at”, $ for money, & or + for “and.”

Rule #6: It’s not a beauty contest.

Don’t be put off of note-taking because your notes don’t look as neat or pretty as the ones taken by the overachieving student next to you. Your notes need to work for you and no one else. (Students explore note-taking forms and strategies in the next lesson.)

Rule #7: Channel your inner artist.

Not all concepts must be expressed in words. Some are better expressed and remembered as visual representations, such as parts of a cell or geologic layers. You’re not limited to words when you take notes. Draw and label pictures. Create graphs for math. Diagrams, charts, flow charts or timelines can help you understand a concept, relationship or chronology.

Rule #8: Use your notes!

A plain spiral notebook (one for each subject) is good for notes. Spiral notebooks keep notes in one place and in chronological order. A note section in your binder works well too, especially if you use pre-printed note forms. (Students learn about those in the next lesson.) If you take notes in loose-leaf form, be careful to keep them in order. Mark the date and page number on the pages and file them in your binder right away.

Review your notes every night as part of your normal homework routine. Studies show that reviewing class notes within 24 hours greatly improves the amount of content you remember from the class. Add missing information, rewrite or fix unclear or illegible items. When you are waiting for class to begin, take a minute to review notes from the prior class. Reviewing notes activates your schema. Notes also make an excellent study guide.

Tip! Math notes should be exact. If your teacher writes a formula or problem on the board as an example, write it down accurately. A similar problem may show up later on a quiz.

Check for understanding and proceed to the activity.
**ACTIVITY**

Direct students to page 161 of the workbook. Students work independently or in pairs to create and interpret abbreviations.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 164 of the workbook.

1. Good note-taking skills develop over _______ time, and begin with active _______ listening _______ skills.

2. When taking notes in class, listen for two different, but equally important types of information: **To do** information, which is about: _______ due dates _______ , _______ deadlines _______ and _______ directions _______ and **to know** information which is about _______ content _______.

3. Don’t write down everything your teacher says! First write down the _______ topic _______ of the lesson. Then listen for the _______ main _______ and _______ supporting _______ ideas. Copy your teacher’s _______ examples _______ into your notes.

4. If you miss something your teacher said, put a _______ ? _______ on your note paper and leave a little extra _______ space _______. After class, ask your teacher to _______ clarify _______.

5. Review your notes within _______ 2+ _______ hours to enhance what you remember from class. Review notes every night as part of your normal homework _______ routine _______, and in class to activate your _______ schema _______.

**READING AND HOMEWORK**

- Students read chapter 16 in the workbook to prepare for the next lesson.
CLASS ACTIVITY WORKSHEET  

CHAPTER 15

B Short

Abbreviations are **shortened forms of a word or phrase**, sort of like the expressions and symbols you use to text. Abbreviations help you to take notes **quickly, but accurately**. Develop a large vocabulary bank of abbreviations. Be consistent in their use. Below are common abbreviations and symbols. Write their meanings and use them to take notes. (Helpful websites listed below.)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg.</td>
<td>kilogram</td>
</tr>
<tr>
<td>pop.</td>
<td>population</td>
</tr>
<tr>
<td>pl.</td>
<td>plural</td>
</tr>
<tr>
<td>cu.</td>
<td>cubic</td>
</tr>
<tr>
<td>c.</td>
<td>circa or about (time)</td>
</tr>
<tr>
<td>m.</td>
<td>meter</td>
</tr>
<tr>
<td>oz.</td>
<td>ounce</td>
</tr>
<tr>
<td>rqd</td>
<td>required</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>ditto (same as above line)</td>
</tr>
<tr>
<td>poss.</td>
<td>possible/y</td>
</tr>
<tr>
<td>div.</td>
<td>division</td>
</tr>
<tr>
<td>St.</td>
<td>state or street</td>
</tr>
<tr>
<td>yd</td>
<td>yard</td>
</tr>
<tr>
<td>&amp;</td>
<td>and</td>
</tr>
<tr>
<td>@</td>
<td>at</td>
</tr>
<tr>
<td>¶</td>
<td>paragraph</td>
</tr>
<tr>
<td>→</td>
<td>is the result of</td>
</tr>
<tr>
<td>e.g.</td>
<td>for example</td>
</tr>
<tr>
<td>*</td>
<td>note this/pay special attention to</td>
</tr>
<tr>
<td>i.e.</td>
<td>that is</td>
</tr>
<tr>
<td>b.</td>
<td>born</td>
</tr>
<tr>
<td>E</td>
<td>East</td>
</tr>
<tr>
<td>N</td>
<td>North</td>
</tr>
<tr>
<td>W</td>
<td>West</td>
</tr>
<tr>
<td>S</td>
<td>South</td>
</tr>
<tr>
<td>d.</td>
<td>died</td>
</tr>
<tr>
<td>Mar.</td>
<td>March</td>
</tr>
<tr>
<td>vol.</td>
<td>volume</td>
</tr>
<tr>
<td>mt.</td>
<td>mountain</td>
</tr>
<tr>
<td>§</td>
<td>section</td>
</tr>
<tr>
<td>sq.</td>
<td>square</td>
</tr>
<tr>
<td>mts.</td>
<td>mountains</td>
</tr>
<tr>
<td>~</td>
<td>about</td>
</tr>
<tr>
<td>#</td>
<td>number</td>
</tr>
<tr>
<td>w/</td>
<td>with</td>
</tr>
<tr>
<td>w/o</td>
<td>without</td>
</tr>
<tr>
<td>w/i</td>
<td>within</td>
</tr>
<tr>
<td>s/t</td>
<td>something</td>
</tr>
<tr>
<td>re</td>
<td>regarding</td>
</tr>
<tr>
<td>A</td>
<td>Answer</td>
</tr>
<tr>
<td>ch</td>
<td>chapter</td>
</tr>
<tr>
<td>ASAP</td>
<td>as soon as possible</td>
</tr>
<tr>
<td>Jan.</td>
<td>January</td>
</tr>
<tr>
<td>Ø</td>
<td>none; no</td>
</tr>
<tr>
<td>©</td>
<td>copy</td>
</tr>
<tr>
<td>≠</td>
<td>is not equal to or is different than</td>
</tr>
<tr>
<td>+</td>
<td>and/plus</td>
</tr>
<tr>
<td>➞</td>
<td>result/consequence of</td>
</tr>
</tbody>
</table>

Need help? Want to learn more about abbreviations? Here are some good resources:

- www.factmonster.com
- www.english-zone.com/study/symbols.html
- www.ilile.org/events/past/seminar
- www.abbreviations.com
- www.enchantedlearning.com
- www.scribed.com
In high school and college, classes move faster and the difficulty of verbal content increases. You'll need to take notes in class. Below are eight rules to help you develop good note-taking skills. Read the rule on pages 158-160 and write a short summary of each. Use abbreviations!

8 Simple Rules for Navigating Notes

Rule #1: Developing note-taking skills takes time.

Rule #2: Good note-taking begins with active listening skills.

Rule #3: Include “To Do” information.

Rule #4: Be judgemental (of information.)
Rule #5: B short!

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Rule #6: It’s no beauty contest.

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Rule #7: Channel your inner artist.

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Rule #8: Store – Organize – Use!

_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Spiral notebooks keep notes in one place and in chronological order.

Loose leaf notes enable students to design and print their own note forms. (see chapter 16)
YOU CAN'T DIVIDE BY ZERO

WHAT’S 827457 DIVIDED BY ZERO?

I DUNNO.

THE INFORMATION YOUR TEACHER THINKS IS IMPORTANT AND WANTS YOU TO KNOW ISN'T HARD TO SPOT.
This lesson corresponds to Chapter 16 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**
- Computer/whiteboard display with internet access.
- Webslides 16A-E (www.middleschoolguide.com)
- Workbook pages 166-175.

**OBJECTIVES**
By the end of this lesson the student will be able to:
- describe the Cornell note-taking system.
- take notes using the Cornell note-taking system.
- design a note form to support personal note-taking needs.

**GAINING ATTENTION**
In the previous lesson, students learned eight simple rules for navigating notes: Developing good note-taking skills takes time. Active listening skills are essential for identifying the information to put into your notes. Include *to do* information about due dates, deadlines, and directions, and use abbreviations for efficiency and accuracy. Listen for the topic, main points, and key information. Notes don’t have to be beautiful, they just have to work for you. Include pictures, charts, timelines or other visual representations of content. Use your notes to activate your schema, and as a study guide for a class.

*Engage students in a discussion: A blank piece of binder paper does little to inspire good note-taking. Have you ever considered using a preprinted note form to help you take good notes and guide you to listen for, and write down key information?*
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to describe the Cornell note-taking system, complete an exercise based on the Cornell note-taking system, and design a note form that supports your personal note-taking needs.

PRESENTATION OF CONTENT

What is the Cornell note-taking system?

The Cornell note-taking system is a popular method for taking notes in class. It was developed by a Cornell University professor named Walter Pauk. It’s been around for about 60 years, and millions of students have used this format. Why? Because it’s simple and it works! Cornell notes can be used with all learning styles, in any subject. Cornell notes make excellent personalized study guides.

How do you take Cornell notes?

Direct students to page 169 of the workbook. Introduce the Cornell note-taking graphic organizer: This is a basic Cornell note format, modified for middle school students. Begin a guided review.

**Date.** Direct students’ attentions to “Date.” Write the date on your notes so they will be in chronological order.

**Topic.** Direct students' attentions to “Topic.” This is not for writing the subject such as “math” or “history”. This area is for writing the topic of the lesson, such as “Samurai Values & Traditions in 12th Century Japan.”

**To Do.** Direct students’ attentions to the “To Do” box. The traditional Cornell note format doesn’t include a box for to-do information, but students often need a prompt to remember to listen for and write down important tasks. Use the To Do box to record due date, deadline and direction reminders from your teacher. Transfer the information to your planner when you do homework.

**Notes Column.** Direct students’ attentions to the large column on the right. This area is for taking notes. Listen for main points, and supporting ideas and concepts, and write them here. Don’t worry about structure, spelling or grammar. Use abbreviations. Skip a line between (or number) concepts or ideas. If you miss something, write “?” , leave space, and fill in the information later. You can also use this area for diagrams, charts or other visual aids that help illustrate the concepts your teacher discusses.

**Cue Column.** Direct students’ attentions to the narrow column on the left. This is the cue column. It remains empty while you are taking notes. Review your notes within 24 hours. Reduce the content in the large right column to short descriptions or key words and phrases. Write them in the cue column. You can also use the cue column to formulate questions which are answered by information in the notes column – sort of like Jeopardy! To improve your retention of the information, try using a different colored ink for each column. For example, take notes in blue ink; write cues in red.
Summary/Reflection. Direct students’ attentions to the summary box at the bottom. The summary box is for condensing the information on the page into manageable ideas. Read the notes, then paraphrase or summarize the information in 3–5 sentences. Use your own words, because personalizing information improves your memory of it.

Study. When studying from your Cornell notes, cover the large note column with a piece of binder paper or fold the note column vertically in half so only the cues are visible. Read aloud the questions or cues from the cue column and try to recall the information in the note column from memory.

Check for understanding.

Are there other ways to take notes?

The Matrix Note format is useful for comparing information.

DNA & RNA Structures Nov. 12

<table>
<thead>
<tr>
<th>DNA</th>
<th>RNA</th>
</tr>
</thead>
</table>

CHEM STRUCT.

| INFO | INFO |

REPLICATION

| INFO | INFO |

The Matrix system lays out information in a table format. This format reduces clutter and is useful for comparing two or more topics or evaluating sets of information. Topics (in this case DNA and RNA) are placed as headings in the top (horizontal) row of the table. In the vertical column, write the items you will compare (here we compare chemical structure and replication.) There can be any number of rows and columns allowing for the comparison of lots of data! Use the blank square at the top left for the date and topic.

What are indies? What’s a hybrid?

Hybrids: Why not mix it up a little? If you like the traditional structure of the Cornell Note format, but need the practicality of the Matrix, try a Cornell-Matrix hybrid. Insert a Matrix table format into the note column of the Cornell form. For taking notes in math, print a Cornell form on graph paper.

Indies: By now you should have a sense of your personal learning style, academic strengths and weaknesses. Consider designing a customized note form to support your personal needs and preferences. If you’re a strong visual learner, create a note form with a large area for drawing and labeling images. Experiment with formats to find one that works for you. Customize note form styles for different subjects. For example, note forms for your history class might include a blank timeline for sequencing important dates, or a flow chart or concept map for tracking events or relationships. Color-code sections, change font and border styles and sizes to help improve retention. Personalize your note forms with photos or logos!
**ACTIVITY**

Direct students to page 171 of the workbook. Students use this Cornell note form for the class activity. Read aloud the passage below at a pace appropriate for a middle school history lesson. Prompt students to use active listening skills. Read the passage once, then read it again, guiding students to take Cornell notes and use abbreviations. Allow students a few minutes to review their notes and condense them into concepts in the cue column. Guide students to review the page and write a brief summary in their own words. Display the answer key on page 189 of the Instructor’s Guide (or refer to slide 16 D) so students can compare results. Model how to fold the note column vertically in half, so that only the cue column is visible. Ask students to read their cues and try to recall the information in the note column.

**PASSAGE**

“Good morning class, today we’re continuing our discussion of the Golden Age of Athens. Before we start, I want to remind you of the upcoming quiz on the vocabulary terms of ancient Greece on Wednesday the 8th. You will be responsible for knowing all of the terms in Chapter 5 of the history textbook. Terms are listed on page 256. On the quiz there will be one essay question and 10 multiple choice questions. Also, please, please, please make sure you have returned the signed authorization to watch the movie we have scheduled for Friday. It’s PG-13. If I don’t have your permission slip, you cannot watch and you will have to sit in the library. OK, today we are learning about The Golden Age of Athens. It was from about 480 BC to 404 BC – not a long time. Why is it referred to as “Golden?” That indicates some pretty good things were going on in Athens during those years, and indeed there were! Athens flourished during this period. It flourished politically, economically and culturally. Let’s start with the political scene. Remember Athens was a city-state. During this period, Athens was the leader of a coalition of city-states called the Delian (D-e-l-i-a-n) League. In 479, under Athen’s leadership, the Delian League defeated the Persians at the Battle of Salamis (S-a-l-a-m-i-s). A great victory for western civilization! We will spend a whole class on it later. This coalition of city-states eventually became the Athenian Empire. It was economically very powerful throughout the Mediterranean, particularly after moving the Delian Treasury to Athens. OK, so this was a time of great prosperity. Livelihoods included farming, trading, civil service and of course, military service. Pericles (P-e-r-i-c-l-e-s) is a name you need to know. He was the great statesman who fostered Athens’ glory. The Golden Age was also a time of great cultural growth and advancement. Art and architecture flourished under Pericles. The Acropolis – that big temple-looking building with the columns – was built during this time. It’s a symbol of the great wealth and power of Athens. This period also gave rise to Greek plays (comedies and tragedies) and the great Greek philosopher Socrates (S-o-c-r-a-t-e-s).”
**Date:** March 3  
**Topic:** Golden Age of Athens = GAA

**To-Do:**
Quiz, Wed. (8th); Know ch 5 vocab (p.256); Quiz = 10 multi ch qs. + essay.  
*Movie perm. slip due ASAP.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What time per. was GAA?</td>
<td>GAA = c. 480-404 B.C. = “The Golden Age of Athens”</td>
</tr>
<tr>
<td>Why is GAA “Golden?”</td>
<td>Flourishes Politically* (+econ +culture)</td>
</tr>
<tr>
<td>What did Delian League become?</td>
<td>Delian League = <em>DL union of city-states</em> becomes Athenian empire. DL defeats Persians @ Battle of Salamis 479 B.C.</td>
</tr>
<tr>
<td>Who was defeated at Battle of Salamis?</td>
<td>Great win for Western civ.</td>
</tr>
<tr>
<td>What did Acropolis symbolize?</td>
<td>Art, architecture (Acropolis built - symb. of wealth &amp; power of Athens. Temple-like with columns) Socrates is great philosopher; plays written (comedy/trag)</td>
</tr>
<tr>
<td>Who was great GAA philos?</td>
<td><em>Pericles</em> = great statesman governs Athens in GAA &amp; is credited for military &amp; cult. advancements. (Know him!)</td>
</tr>
</tbody>
</table>

**Summary/Reflect:** 480-404 was a time of great progress & wealth for Athens. City-states united to form the Delian League which became Athenian Empire. The Battle of Salamis = 479 B.C. was a huge win against Persians; and set stage for western civ. to develop. Pericles guided Athens & encouraged growth of arts/architecture. The Acropolis is a symbol of GAA.
**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the *Letter to Parent* on page 173 of the workbook.

1. The ________ Cornell ________ note-taking system has been used by millions of students to take notes in class. The Matrix system is a note form used to compare information or data in a ________ table ________ format.

2. Students should keep class notes in ________ chronological ________ order in their ________ binders ________, and use them as ________ study ________ guides for tests and quizzes.

3. The Cornell note-taking form can be modified to include a To do box to prompt students to listen for information about ________ due dates ________, ________ deadlines ________ and ________ directions ________; transfer important dates into your ________ planner ________.

4. On a Cornell form, notes go in the large column on the ________ right ________ side; The ________ cue ________ column is on the left side, and is used for questions or condensed statements about the content in the note column. In the bottom box, reflect on and ________ summarize ________ the information on the page in your own ________ words ________.

5. Make it easy to develop a note-taking habit. ________ Stock ________ your binder with 30-40 blank note forms; you may go through ________ several ________ forms in a single class. Replenish your supply every week.

**READING AND HOMEWORK**

- Students read chapter 17 in the workbook to prepare for the next lesson.
- Students complete page 172 in the workbook *Application of Skills* [Indies Rock!] Collect for assessment.
**Indies Rock!**

By now, you have a sense of your personal learning style, strengths, and weaknesses. Design a note form to support your note-taking needs and preferences. If you’re a visual learner, consider including an area for images. Color-code or change font styles to improve retention. Decorate your forms with photos or logos. Design your note form below, then recreate it in word processing. Put several copies in your binder. Share your design with your classmates.
THE "SEARCH AND RECOVER" PART OF TEXTBOOK OUTLINING INSPIRES JASON'S IMAGINATION.
This lesson corresponds to Chapter 17 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 17A-E (www.middleschoolguide.com)
- A sample textbook chapter for outlining skills practice.
- Workbook pages 176-185.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- explain the benefits of outlining a textbook chapter.
- create a basic Roman Numeral formatted chapter outline.
- outline a sample textbook chapter.

**GAINING ATTENTION**

In the previous lesson, students learned about the Cornell note-taking system. The Cornell note format has a large column for notes and a smaller “cue” column for condensing the note section into short statements or questions. Summarize the information in 3-5 sentences at the bottom of the page. A set of Cornell notes makes an excellent study guide. Students also learned how to design independent or hybrid note-taking forms by combining formats, such as a Cornell format with a Matrix table. Students can design note forms that support their personal learning needs and preferences. Adjust your design for different subjects or as your learning needs change. Keep your binder stocked with plenty of blank note forms to encourage good study skills.
Engage students in a discussion. Do you think you’ll get through middle school without having to outline a textbook chapter? Maybe. Will you get through high school without needing outlining skills? No. Outlining is a skill you’ll need in high school and college.

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to explain the benefits of outlining a textbook chapter, how to outline a textbook chapter, and to outline a sample textbook chapter.

**PRESENTATION OF CONTENT**

**What are the benefits of outlining a textbook chapter?**

Does the thought of having to outline a chapter in your textbook bring on a fit of sighs and eye-rolling? It shouldn't, because chapter outlining is actually an easy and very effective way to learn. The beauty of outlining is that it enables students to condense large amounts of expository information into manageable, bite-sized and logically organized chunks that are easy for Brainy to digest. There's also a hidden benefit to chapter outlining: The process of outlining — selecting important information and "shrinking" it into outline format — greatly improves comprehension and retention of the information. Outlines also make great study guides.

**How do you outline a textbook chapter?**

The Read-Assemble-Search & Recover approach to chapter outlining is simple, effective and easy to learn. It works for e-textbooks too.

**Step 1: Read**

Outlining is *not* a substitute for reading. It is a **post-reading** (after reading) strategy because it requires familiarity with the text. First read the chapter using active reading SQ3R strategies. Then return to outline the information.

**Step 2: Assemble the Framework**

When you finish reading a chapter, turn back to the beginning. Turn the pages and **survey chapter headings and subheadings**. These provide the **framework** for building your outline. Textbook authors organize information under chapter headings and subheadings because they want you to think about the information in that order. **Assemble the framework for your outline by copying headings and subheadings**. Yes, it’s just that simple. *(Formatting is discussed below.)*
Step 3: Search & Recover

When the headings and subheadings framework is in place, you’re good to go! Your mission? Return to the text to search the sections and recover key points. A section can have one or several key points. Pick out information that is important to the main concepts, such as information that was identified in the summary, bulleted or bolded words, or graphics showing processes. Number the key points and restate them in short phrases or brief sentences. Use abbreviations.

How do you format an outline? RCNi!

Students are often confused about formatting an outline, but it's easy. Just remember RCNi. (Roman numeral, Capital letter, Number, lower case Roman) This simple format indents at each step:

Roman Numeral (I, II, III) for chapter heading.

→ Capital Letter (A, B, C,) for chapter subheading.

→ Numbers (1., 2., 3.) for key points of a section.

→ Lower case Romans (i,ii,iii) for details, vocabulary words.

Write a brief conclusion in your own words.

*Note: The RCNi format is for outlining, not for taking notes in class.

How do you use a chapter outline?

Much of the benefit of outlining actually comes from the process of making the outline. The process requires students to organize, select and condense information, and write it out by hand. An outline is not a substitute for the textbook, but makes a good study guide and schema activation tool. If you’re early to class or have a minute before your teacher begins instruction, review your outline to activate your schema. A series of outlines filed chronologically in your binder provides a progressive review of the key points of your textbook. Keep plenty of pre-printed outline forms at your workspace. Make chapter outlining a part of your normal homework routine. It’s a great study skill.

Check for understanding and proceed to the activity.

ACTIVITY

Direct students to page 180 of the workbook. Review the sample outline. Display the sample textbook chapter selected for the activity. Guide students to outline the textbook chapter. Begin by identifying headings and subheadings, and creating the outline framework. Model how to “search” the text and “recover” key points. If time permits, or as homework, students practice skills by outlining a chapter in their own textbook. Outlining skills should be practiced as often as possible.
CLASS ACTIVITY WORKSHEET  

CHAPTER 17

Name: ____________________________________________________________________________________

Outlining a Textbook Chapter

Chapter Heading

I

A.

1. _____________________________________________________________________________________

Details

i. _____________________________________________________________________________________

ii. _____________________________________________________________________________________

Keypoint

1. _____________________________________________________________________________________

Conclusion/Summary

II

COPYRIGHTED MATERIAL

PRODUCT PREVIEW

COPYRIGHTED MATERIAL

PRODUCT PREVIEW
LET'S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 182 of the workbook.

1. Textbook/chapter outlining is an excellent study skill that students need for success in high school and ____________

2. Outlining ___________ condenses a large amount of information into manageable, bite-sized, and logically organized chunks. The hidden benefit of outlining is that the ___________ of selecting, condensing, and writing the information improves a student's ___________ and ___________ of the chapter content. Outlines also make good ___________ guides.

3. Outlining is not a substitute for (SQRRR) active ___________ of the textbook; it is a ___________ (after) -reading skill.

4. The basic Roman Numeral outline format is popular with students. RCNi =

   I. Roman Numerals designate chapter ___________.
      → A. Capital letters designate chapter ___________.
         → 1. Numbers designate ___________.
            → i. Lower case Roman Numerals designate ___________.

5. For proper formatting, ___________ at each step. The conclusion/summary should be in the student's ___________ words.

READING AND HOMEWORK

• Students read chapter 18 in the workbook to prepare for the next lesson.

• Students complete page 181 in the workbook Application of Skills [The Hidden Benefits of Chapter Outlining.] Collect for assessment.

• **Unit 5 Quiz:** Students complete pages 183-184 in the workbook [What Did You Learn About Note-Taking and Outlining Skills?]
The Hidden Benefits of Chapter Outlining

The ability to outline a textbook chapter is an important study skill for high school and college. There’s a hidden benefit to outlining: The process of searching for and recovering key information, “shrinking” it into outline format, and writing it out by hand improves comprehension and retention! Use this form to practice outlining a chapter from your textbook.

I

A.

1. ____________________________
   i. ____________________________
   ii. ____________________________

2. ____________________________
   i. ____________________________
   ii. ____________________________

II

Name: ____________________________
Blog/Debate/Discuss
- What's the hardest part about taking notes in class?
- Outlining is not a substitute for active reading. Why is it worth outlining a chapter if you've already read it once?

College Readiness Corner
Encourage teachers at your school to require students to take notes in class. Periodically pause instruction to enable students to review their notes and confirm main points. At the end of class, allow students 3-5 minutes to review notes, clarify points, and create cue column questions. Once a week, pair students to quiz one another from their Cornell notes.

Unit Sources


Practice, Practice!
- What Did You Learn About Note-taking and Outlining Skills?
- Require students to outline textbook chapters, (one or two sections a day.) Review, discuss and compare outlines in class to confirm students are able to successfully “search & recover” key points, details, and vocabulary.

It’s a Team Effort!
- Create an abbreviation word wall in your classroom. Include abbreviations for a variety of subjects such as chemistry and math. Quiz students on abbreviations.
- Upload student-designed hybrid and indie note forms to the class web page for sharing.
- Provide students with pre-printed Cornell note forms and chapter outline forms (or upload forms to the class webpage.) Include the school logo or mascot. Encourage students to download and print forms every week for use in class and homework.

Tech Connect
App name: Key Stage Goals. Provider: Skycom Ltd. Compatible with: Iphone, iPod Touch, Ipad. Price: $0.99. Features: Input your study and life goals with due dates, check them off as you accomplish them and receive rewards.


WHAT DID YOU LEARN ABOUT NOTE-TAKING AND OUTLINING SKILLS?

1. List five benefits of taking notes in class.
   Notes help you stay focused and attentive; Notes create a kind of journal of what your teacher wants you to know and do; Notes make a reliable, personalized study guide for any subject; Writing something down improves your ability to remember it; Notes can be used to activate your schema.

2. Your English teacher always starts class with reminder of upcoming quizzes and project due dates. You take notes in class, but wait for her to begin instruction before you start writing. What important information are you missing in your notes?
   To do information about due dates, directions & deadlines.

3. If you take notes in loose leaf form, what 3 things should you do to prevent them from getting out of order?
   Mark the date, number the pages and file them in your binder asap.

4. Reviewing notes within ______ greatly enhances the amount of content you remember from class.
   a. 36 hours
   b. 2 weeks
   c. 24 hours
   d. one year

5. On a Cornell note form, what is the large column on the right used for?
   Writing down main points, supporting ideas and concepts.

6. On a Cornell note form, what is the cue column for, and where is it found?
   The cue column is the narrow column on the left. The cue column is for reducing the content from the large right/note column into short descriptions after you take notes. You can also use the cue column to formulate key questions which are answered in the note column, kind of like Jeopardy.

7. On which part of the standard Cornell note form do you condense the information on the page into manageable ideas in 3-5 sentences in your own words?
   In the summary box at the bottom of the page.
8. The Matrix Note form is a table format and is useful for:
   a. reducing clutter
   b. comparing two or more topics
   c. evaluating sets of information or data.
   d. all of the above

9. Place the following topics and items in the correct matrix note form boxes, then create notes from chapter 16.
   Date and Lesson Title
   Topic 1 Cornell Note Form
   Topic 2 Matrix Table
   Item 1 Comparing data/concepts
   Item 2 Depicting info visually

<table>
<thead>
<tr>
<th>(Date) Note-taking</th>
<th>Cornell Note Form</th>
<th>Matrix Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparing data/concepts</td>
<td>Comparisons made by narrative text, but can be modified to include Matrix table.</td>
<td>Data/concepts compared by columns &amp; rows. Unlimited row and column capacity.</td>
</tr>
<tr>
<td>Visual depiction of info</td>
<td>Info conveyed in text, but can include graphs, images, etc.</td>
<td>Info boxes generally contain text; can include visuals.</td>
</tr>
</tbody>
</table>

True or False:

10. **True**  Outlining condenses a large amount of information from a textbook into manageable, bite-sized, and logically organized chunks.

11. **False**  Outlining a textbook chapter is an excellent substitute for reading.

12. **True**  Downloading, printing and storing blank Cornell note forms and blank textbook chapter outlines in your binder and at your workspace encourages you to use them, and promotes good study skills.

13. What does R-C-N-i stand for?
    Roman Numeral, Capital Letters, numbers, lower case roman numerals. (The basic indented outline format.)

14. How can students use Cornell notes to study?
    Cover the large note column with a piece of binder paper, or fold the paper vertically, down the middle of the note column so only the cues are exposed. Use the cues to quiz yourself about the content in the note column. Try to recall information from memory. Store notes in your binder for a personalized and chronologically organized study guide.

15. When you take notes in class, should you try to write them in an RCNi indented outline format?
    No! The RCNi indented outline format is for outlining, not for note-taking in class.
By the end of **Unit Six** the student will be able to:

- ✔ explain the purpose of a mnemonic device.
- ✔ describe five mnemonic devices which help students recall learned information.
- ✔ create mnemonic representations using a variety of devices, including acronym, acrostic, name/trait, spelling and rhyme/song.
- ✔ describe how learned information is forgotten over time as illustrated by *The Forgetting Curve*.
- ✔ explain how *time-spaced learning* facilitates retention of content.
- ✔ create a time-spaced learning plan using repetition at intervals, mnemonics, recitation and self-testing.
MAX ENJOYS THE IRONY OF HIS ACROSTIC.
This lesson corresponds to Chapter 18 of The Middle School Student’s Guide to Study Skills.

• Computer/whiteboard display with internet access.
• Webslides 18A-B (www.middleschoolguide.com)
• Workbook pages 186-197.

By the end of this lesson the student will be able to:

☐ explain the purpose of a mnemonic device.
☐ describe five mnemonic devices to help students recall learned information.
☐ create mnemonic representations using a variety of devices, including acronym, acrostic, name/trait, spelling and rhyme/song.

In the previous lesson, students learned how and why to outline a textbook chapter. Outlining is a good study skill because it condenses a large amount of information into manageable, bite-sized, and logically organized chunks. The process of outlining improves comprehension and retention of the chapter content. Outlining is a post-reading strategy: first read the text, then assemble the framework using headings and subheadings. Return to the text to “search and recover” key points. Use an indented RCNi format. Use your outline as a study guide, and to activate your schema of the information in the textbook.

Write the sentence below on the board. Tell students that there is a hidden message in the sentence:

Jake’s Uncle Vinney slurps noodles every Monday.
Engage students in a discussion: Can anyone guess what message is hidden in this sentence? (Answer provided in Presentation of Content.)

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to explain what a mnemonic device is, describe five mnemonic devices that help students recall learned information, and create mnemonic representations using acronym, acrostic, name/trait, rhyme/sing, and spelling mnemonics.

**PRESENTATION OF CONTENT**

What is the secret message? *(Circle the first letter of each word.)*

Jake’s Uncle Vinney slurps noodles every Monday.

This sentence represents the names of the planets (not in order): Jupiter, Uranus, Venus, Saturn, Neptune, Earth, Mars

What’s a mnemonic device?

The best way to learn something is to develop a comprehensive understanding of it. Once you understand something, it’s much easier to remember details about it. But sometimes learning requires plain old memorization, especially in the case of lists of things, orders of steps, or stages of a process. In those situations, a mnemonic (ni-mon-ik) device like the “Uncle Vinney” sentence can be very helpful.

A mnemonic device is a technique that consolidates a lot of information into a kind of code that stimulates recall of the information. There are many types of mnemonic devices which can be used for any subject. A mnemonic can take some effort to create, but once you’ve made it and memorized it, you have a nearly foolproof and long term means of recalling the information. Using mnemonics to help you recall information is a good study skill.

**The Acronym**

An acronym is a popular mnemonic device using a combination of letters. Each letter is a cue to an idea you need to remember. For example, you recently learned how to use SQ3R be an active reader. SQ3R is also known as SQRRR, which is an acronym for Survey, Question, Read, Recite, Reflect. Whenever you see or think SQRRR it’s easy to recall the steps of active reading, and recall them in order!

Acronyms are useful for all subjects – history, science, math, english etc. For example, FAMS helps you remember the names of the leaders of the women’s suffrage movement: Margaret Fuller, Susan B. Anthony, Lucretia Mott and Elizabeth Cady Stanton. CHONPHS will remind you that living organisms are made of molecules consisting largely of carbon, hydrogen, oxygen, nitrogen, phosphorus, and sulfur.
The Acrostic

An **acrostic** is a sentence where the first letter of each word is a cue to an idea. “**Normal angels pass long years talking sweet heavenly words**” is an acrostic for the royal families of England in order of their rule. (Norman, Angevin, Plantagenet, Lancaster, York, Tudor, Stuart, Hanover, Windsor.) If you’re struggling to remember the names of the four slave states that remained in the Union during the American Civil War (Delaware, Maryland, Kentucky, and Missouri) and can’t come up with a memorable acronym with DMMK, how about **Dancing Makes Kids Merry or Dela and Mary took Ken to Missouri**? Acrostics can be used for large chunks of information. Acrostics can be easier to create than acronyms, and are particularly helpful when you must recall information in chronological order (like the royal family list) or in order of steps, like the steps in **mitosis**, for example. Here’s how to make an acrostic:

1. List the meaningful phrases, words or process steps. (If it involves ordered steps or a chronology, make sure to list them in order.)
2. Circle or underline the first letter of each key word or phrase.
3. Write the first letter of each keyword on a line.
4. Using the first letter of each keyword, create a sentence.

Here’s an acrostic for the Scientific Method using the first letter of each phrase:

- **S**tate the problem
- **G**ather information on the problem
- **F**orm a hypothesis
- **E**xperiment to test hypothesis
- **R**ecord data
- **A**nalysze data
- **D**raw conclusions

Here’s an acrostic for the Scientific Method using the first letter of each key word:

- **P**roblem
- **I**nformation on the problem
- **H**ypothesis
- **T**est hypothesis
- **R**ecord data
- **A**nalysze data
- **C**onclusions

Don’t worry if the sentence is silly. It’s only purpose is to help you correctly recall information. In fact, sometimes silly sentences are easier to recall!
Name/Trait Mnemonic

A name/trait mnemonic helps you recall facts about a person, place, thing or concept by inventing an association between the name and a characteristic. For example: Archimedes discovered formulas for the area and volume of geometric figures. (Think: arch = geometric figure = Archimedes.) Alliteration is a literary device that refers to the repetition of a particular sound in the first syllables of a series of words or phrases. (Think: a-a-a-literation!) Alexander Hamilton, was the first Secretary of the U.S. Treasury (Think: You can buy a lot of HAM with the Treasury.)

Again, don’t worry if the association is silly. It’s only purpose is to help you correctly recall information.

Rhyme it/Sing it Mnemonic

Remember this?

*In the year 1492, Columbus sailed the ocean blue.*

It’s easy to remember lyrics to songs or words to a rhyme. Harness the power of music and rhyme to improve your recall skills. *Rhyme and song mnemonics* put information in the form of a rhyme/poem, rap or to a familiar tune. A couple of rhyme examples are:

**History:**

*Slavery caused the civil war to start but economics played a part.*

**Literature:**

*When the action starts to fall, the denouement ends it all.*

Try setting information to a familiar song or rap. For example, if you can remember the tune to "Pop Goes the Weasel" you’ll forever be able to recall the quadratic formula!

\[
x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}
\]

Spelling and Word Usage Mnemonics

Students often make the same spelling or word usage errors over and over. *Spelling and word usage mnemonics* help you remember correct spelling and word usage. When you come across a word that gives you trouble, focus on the letter or combination of letters causing the confusion. Create an association to remember the correct spelling.
Examples:

<table>
<thead>
<tr>
<th>Common Misspell or Misusage</th>
<th>Correct Spelling or Usage</th>
<th>Spelling Mnemonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>separate</td>
<td>separate</td>
<td>For an “A”, spell separate right</td>
</tr>
<tr>
<td>permanent</td>
<td>permanent</td>
<td>There’s a “man” in the middle!</td>
</tr>
<tr>
<td>principle vs. principal</td>
<td></td>
<td>The principal is your pal</td>
</tr>
<tr>
<td>attendance</td>
<td>attendance</td>
<td>Will you attend the dance?</td>
</tr>
<tr>
<td>capital vs. capitol</td>
<td></td>
<td>The o in capitol represents the dome of the capitol building</td>
</tr>
<tr>
<td>legible</td>
<td>legible</td>
<td>I have legible handwriting</td>
</tr>
<tr>
<td>counsel vs. council</td>
<td></td>
<td>I am on the student council</td>
</tr>
</tbody>
</table>

Check for understanding and proceed to the activity.

**ACTIVITY**

Direct students to page 192 of the workbook. Introduce the activity. Students may work individually or in pairs to compete for the most useful, funniest or cleverest mnemonic. Upon completion of the activity, proceed to Let’s Summarize!

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 195 of the workbook.

1. ________ mnemonic devices are techniques to prompt the recall of lists of things or names, orders of steps, stages of a process, traits, concepts, or correct spelling and word usage.

2. A(n) ________ acronym is a mnemonic device using a combination of ________ letters as cues to words or ideas.

3. An ________ acrostic is a ________ sentence where the first letter of each word is a cue to an idea you need to remember; it’s especially useful for recalling lists, steps, orders of a ________ process ________, or chronology.

4. A ________ name ________ trait mnemonic helps recall facts about a ________ person ________, ________ place, ________ thing ________, or concept by inventing a relationship between the name and a characteristic of the person, place, thing, or concept.

5. ________ rhyme ________ song mnemonics put information in the form of a poem, rap or song.
**READING AND HOMEWORK**

- Students read chapter 19 in the workbook to prepare for the next lesson.
- Students complete page 194 in the workbook *Application of Skills* [Spelling and Word Usage Mnemonics to the Rescue!] Collect for assessment.
Dumb Kids Pitching Cows Over Fences Get Smashed

Don’t worry, no cows or kids got hurt! Mr. Skillsworth’s study skills students are learning a kind-of secret code to help them remember information, like lists of things or names, orders of steps, stages of a process, or correct spelling and word usage. The secret code is called a mnemonic device.

“An acronym is a popular mnemonic device using a combination of letters. An acrostic is a sentence where the first letter of each word is a cue to an idea you need to remember. Mnemonic devices can help you recall information in any subject.” explained Mr. Skillsworth.

Today’s headline, “Dumb Kids Pitching Cows Over Fences Get Smashed,” contains a hidden message in an acrostic for the student’s of Ms. Pell’s science class. Can you decipher it? (The answer is at the bottom of this page.)

“Mnemonic devices may take some effort to make,” Mr. Skillsworth says, “but a good mnemonic is a foolproof and long term way to recall a list of words, steps or stages of a process. I highly recommend adding acrostics, acronyms, name/trait, spelling and rhyme/sing mnemonics to your list of study skills and strategies.”

Mr. Skillsworth Challenges Students to a Mnemonic Throw Down!

Mr. Skillsworth has challenged students to create an acrostic, acronym, name/trait or spelling mnemonic for the information below:

1. Create an acrostic for the first six American presidents (as listed, in order of their presidency): Washington, Adams, Jefferson, Madison, Monroe, Adams
   Student’s discretion.
   Example: We almost just missed my airplane.

2. Create an acrostic for the planets in order of their position in the solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune
   Student’s discretion.
   Example: My vegan elephant makes Jane serve up nachos.

Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species
3. **Create an acronym for the four ocean zones:** intertidal, near-shore, edge of continental shelf, perpetual darkness  
   *Student's discretion. Example: PINE*

4. **Create an acronym for the confederate states:** South Carolina, Mississippi, Florida, Alabama, Georgia Louisiana, Texas, Virginia, Arkansas, North Carolina, Tennessee  
   *Student's discretion. Example: TV FANS GLAM T*

5. **Create an acrostic for general properties of matter:** mass, weight, volume, density  
   *Example: We vote more donuts.*

6. **Create an acronym for types of triangles:** Right, Acute, Obtuse, Equilateral, Equiangular, Isosceles, Scalene, Oblique  
   *Student's discretion. Example: I SEE A ROO*

7. **Create an acronym for the properties of light:** reflection, refraction, transmission, absorption by matter  
   *Student's discretion. Example: TAMRR*

8. **Create an acronym or an acrostic for inventors of the industrial Revolution:**  
   Awkright, Bessemer, Watt, Singer, Telford, Stephenson, Edison  
   *Student's discretion. Example: WET BASS*

9. **Using the letters of your first name, create an acrostic that describes your personality.**  
   *Student's discretion.*

10. **Create name/trait mnemonics for:**  
    - **Mitochondria:** mighty = mitochondria (creates cell energy ATP)  
    - **Olduvai Gorge:** Old = one of oldest prehistoric sites in the world.  
    - Create a spelling mnemonic to remember the correct usage of affect vs. effect.  
      - *affect* = action/verb  
      - *effect* = (sound effect) = noun
**APPLICATION OF SKILLS**

Name: ________________________________

### Spelling and Word Usage Mnemonics to the Rescue!

Some words are hard to remember how to spell or use correctly. Below is a list of commonly misspelled or misused words. Read the word, and **focus on the particular letter or combination of letters that cause the problem**. Identify the correct spelling or usage, and create a mnemonic to prompt recall of the correct spelling or usage.

<table>
<thead>
<tr>
<th>Common Misspell or Misusage</th>
<th>Correct Spelling or Usage</th>
<th>Spelling (or usage) Mnemonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>relevent</td>
<td>relevant</td>
<td>Student’s discretion. Example: An ant is relevant</td>
</tr>
<tr>
<td>knowledge</td>
<td>knowledge</td>
<td>Student’s discretion. Example: Your knowledge is on the ledge</td>
</tr>
<tr>
<td>weird</td>
<td>weird</td>
<td>Student’s discretion. Example: We are weird.</td>
</tr>
<tr>
<td>embarass</td>
<td>embarrass</td>
<td>Student’s discretion. Example: Double r, double s</td>
</tr>
<tr>
<td>argument</td>
<td>argument</td>
<td>Student’s discretion. Example: Only u are in the middle of an argument.</td>
</tr>
<tr>
<td>definate</td>
<td>definite</td>
<td>Student’s discretion. Example: A finite number is definite</td>
</tr>
<tr>
<td>dependant</td>
<td>dependent</td>
<td>Student’s discretion. Example: Who put a dent in independent?</td>
</tr>
<tr>
<td>seige</td>
<td>siege</td>
<td>Student’s discretion. Example: I was first to the siege.</td>
</tr>
<tr>
<td>weather vs. whether</td>
<td></td>
<td>Student’s discretion. Example: What will you wear in this (weather?) or which indicates a question. (What, who, when, which)</td>
</tr>
<tr>
<td>good vs. well</td>
<td></td>
<td>Student’s discretion. Example: I’m good = I’m a good person. I’m doing good (vs. well) = I’m a do-gooder.</td>
</tr>
</tbody>
</table>
NOTES

PRODUCT PREVIEW
WHO ROCKED THE STUDY LOOK BETTER?
This lesson corresponds to Chapter 19 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 19A-D (www.middleschoolguide.com)
- Workbook pages 198-209.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- describe how learned information is forgotten over time, as illustrated by *The Forgetting Curve*.
- explain how *time-spaced learning* improves retention of content.
- create a time-spaced learning plan using repetition at intervals, recitation, and self-testing.

**GAINING ATTENTION**

In the prior lesson, students learned that “Dumb Kids Pitching Cows Over Fences Get Smashed” is a mnemonic device called an *acrostic*. Mnemonic devices are techniques for consolidating information into a kind of code to prompt recall of the information. Students learned how to create acrostics, acronyms, name/trait, associations, rhyme/song, and spelling mnemonics. Mnemonics are useful study aids, especially for remembering lists, steps and orders of processes, and chronology of events. Mnemonics can be used for any subject and, once memorized, a mnemonic will stick with you for a long time.

*Engage students in a discussion: Do you know that in Shakespeare’s play Hamlet, the character of Hamlet has about 1500 lines? That’s a lot to remember! Have you ever been in a play and had to memorize dialogue? How did you do it? How are actors able to remember so many lines?*
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to explain how quickly learned information is forgotten over time, tell how a study method called time-spaced learning improves retention of content, and create a time-spaced learning plan using repetition at intervals, recitation, mnemonics, and self-testing.

PRESENTATION OF CONTENT

What is Time-Spaced Learning?

To memorize dialogue for a play, actors instinctively do the kind of study techniques you will learn in this lesson. Actors know it’s impossible to learn all of their lines in one study session, so they space their learning over time. They review at intervals, recite, and self-test to learn lines. This is time-spaced learning. As you move up into high school and college, content will be more difficult and there will be a lot more of it. Time-spaced learning is an excellent method for improving retention of learned information.

Forgetting happens!

In 1885, a German psychologist named Hermann Ebbinghaus was one of the first scientists to study the process of memory. He actually studied forgetting. Ebbinghaus had been a grade school teacher in England who later worked with a group of scientists to study how quickly students forget what they learn during the school day. Through a series of experiments, Ebbinghaus created The Forgetting Curve illustrating how quickly learned information is forgotten.

Forgetting is a very slippery slope indeed! The sharpest decline in memory of learned content happens in the first twenty minutes after learning it. This memory free-fall continues for about an hour and levels off over the next few days, where little of the original learning can be recalled. Additional factors, such as fatigue, stress, and distraction can make matters worse.
How can students improve their retention of content?

Ebbinghaus studied how quickly information is forgotten because he wanted to develop study techniques to improve memory and recall. He experimented with all sorts of learning techniques, and concluded that repetition and review of material over time results in the highest rate of retention.

Ebbinghaus called review and repetition over time spaced-repetition learning. It is now referred to as time-spaced learning. Experts agree that people learn and retain information better when they study it a few times over a period of time, rather than intensely, once or twice, in a short period. If you want to improve your retention and take a lot of stress out of learning, it's worth a try!

Time-spaced learning is the “anti-cram”

To cram means to study very hard, with urgency, often for long hours just before a test or quiz. In spite of the fact that learning experts have repeatedly shown that cramming is stressful and doesn't work well, students continue to do it. Time-spaced learning is anti-cramming. Instead of learning the material once in class or as homework, then returning for an intense and often painful marathon review session before a test or quiz, time-spaced learning takes place in several short reviews at intervals spread over time. Overall, time-spaced learners and crammers spend about the same amount of time studying, but time-spaced learning is a far more productive use of time. (Just check out that chart!) For students in the habit of cramming, time-spaced learning requires a change of study habits, but it’s worth doing and not hard to learn.

Time-spaced learning easily fits with a busy schedule. Yes, ten (focused) minutes on the bus is enough time to review an algebra formula. Got just twenty minutes before practice? Ten minutes at breakfast? No problem! Whip out your notes or flash cards and review! With time-spaced learning you do not need a large chunk of time to study effectively, but you must review at frequent intervals.
Why does time-spaced learning work so well?

**Quantity:** Memory studies have shown that the human brain can only handle so many ideas at one time. (Duh!) Time-spaced learning limits focus to **less information,** reviewed **more frequently.** Rather than trying to master an entire month's worth of information two nights before a quiz, time-spaced learners **progressively master small, bite-sized amounts of content,** adding to it over time until it is all learned.

**Repetition at Intervals:** At the heart of time-spaced learning is **repetition at intervals.** Information must be reviewed as soon as possible after learning it. For example, if you learned a difficult skill in algebra, try to review it immediately in your head or with a friend as you walk to your next class. Recall the main points of what you learned. Review the information again that day and the following two days as part of your normal homework routine. Create a mnemonic if it's the kind of information that works with a mnemonic prompt. Space reviews farther and farther apart. **The goal is to space reviews as far apart as possible, yet still be able to recall the information.** Cognitive psychologist believe that spacing the review and recall makes Brainy work hard to retrieve information. That builds stronger, synaptic connections and more flexible neural pathways to the learned information.

**Recitation & Self-Testing:** Recitation and self-testing are particularly effective study techniques because they force your brain to pull information from memory, generate an answer, and recite it aloud so you can hear it. Recite information to yourself, or reteach it to a brother, sister, parent – even your dog or stuffed animal. If you are uncomfortable reciting, try writing out your answers and reading them aloud. **Self-testing by quizzing yourself aloud or writing out answers builds retention skills and is an important aspect of time-spaced learning.** Flashcards are simple and effective self-testing tools and can be stored in your backpack or binder for on-the-go review sessions. When you can say it from memory, you know it!

**Time-Spaced Flashcards**

1. Write the information you need to learn on one side of the flashcard in short, simple sentences.
2. Write a prompt (cue word, mnemonic or question) on the other side.
3. For three days in a row, when you do homework, lay the flashcards out on your desk, prompt side up. Select a card at random; read the cue aloud.
4. **DO NOT TURN THE CARD OVER.** Try to recite aloud, or write out from memory, the information on the other side. Check your answer. Repeat 2x for all cards.
5. Space flashcard review intervals to every other day, then every three days. When you can recall the information after a significant interval you've learned it!
6. As you learn, add more information to your flashcard review until you have mastered all you need to learn.
Check for understanding and proceed to the activity.

**ACTIVITY**

Direct students to page 204 of the workbook. Complete the worksheet as a guided activity.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 206 of the workbook.

1. Hermann Ebbinghaus created ____________________________________________________________________ which illustrates how quickly learned information is forgotten.

2. The sharpest decline in memory of learned content happens in the first __________ minutes after learning it.

3. Ebbinghaus discovered that __________ and __________ of material over time is the best way to learn, with the highest rate of retention. Today this is called __________ learning.

4. Time-spaced learning techniques are: __________, __________, __________, and __________-testing at intervals that move farther and farther apart. __________ more and more information over time until it is all learned.

5. Recitation can include __________ what you have learned to a brother, sister, parent or even your dog, so you can hear yourself say the concepts aloud. To self-test, make __________ with a word, sentence or mnemonic cue on one side and the information on the other. Try to recall the information from __________.

**READING AND HOMEWORK**

- Students read chapter 20 in the workbook to prepare for the next lesson.
- Students complete page 205 in the workbook Application of Skills. Collect for assessment. [My Personal Time-Spaced Learning Plan]
- **Unit 6 Quiz**: Students complete pages 207-208 in the workbook [What Did You Learn About Memory and Recall Strategies?].
Max's Time-Spaced Learning Plan

**Monday**
- Identify the information you need to learn. (Constitutional Amendments 1-10);
- Study for 15 to 20 minutes.
- Make a flashcard for each amendment. Write a prompt (cue, question or mnemonic) on one side and the information on the other in 2-3 short sentences. Study for 20 mins.
- Lay the flashcards on your desk. Select a card at random. Read the cue aloud. Try to recite the text on the other side from memory. Check your answer. Repeat.
- Review flashcards for 20 mins. Reteach a parent, friend or sibling.

**Tuesday**
- Lay the flashcards on your desk. Select a card at random. Read the cue aloud. Try to recite the text on the other side from memory (or write it out.) Check your answer. Repeat. Skip Saturday & Sunday.

**Wednesday**
- Give the flashcards to a parent or friend. They select a card at random and read the prompt aloud. Recite the information at the back from memory. Have the parent or friend read the text on the back of the card. You identify the prompt.
- Review flashcards for 20 mins.
- Lay the flashcards on your desk. Select a card at random. Read the cue aloud. Recite aloud the text from the other side without looking at it. Repeat 2x. 

**Thursday**
- EXAM!!
- Wasn't that easier than stressing out about the test and cramming the night before? Go get that "A"!

**Friday**
- (Saturday & Sunday, no assignment)
- Check your work (or write it out). Check your work from memory. If you aren't sure, double-check your work. Read the prompt (cue, question or mnemonic) on one side and the information on the other in 2-3 short sentences. Review flashcards for 20 mins.
- Lay the flashcards on your desk. Select a card at random. Read the cue aloud. Try to recite the text on the other side from memory. Check your answer. Repeat.
- Review flashcards for 20 mins.

**Q.** Max has a 20 minute break between his last period and lacrosse practice. For time-spaced learning, is this enough time to review?

**Q.** Max feels self-conscious reciting information aloud. Convince him that it's a good study habit.

Yes. Max can find a quiet place to lay out his flashcards, recite and recall information from memory, or have a friend test him. Recalling information from memory and hearing yourself say the answer has been shown to be an effective memory technique. You can also write out your answers and read them back to yourself. Help! It's almost finals week at U.B. Smart Middle School. I have to be able to summarize the first ten amendments to the U.S. Constitution. That's a lot of information! Please create a time-spaced study plan so I can ace my final without cramming. Include review at intervals, flashcards, mnemonics, recitation and self-testing. Enter the time-spaced plan in my planner below.

Max's Time-Spaced Learning Plan

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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</tr>
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</table>
Time-spaced learning is the anti-cram. Instead of learning content once or twice in class, or as homework, then returning for an intense marathon review session prior to a test, time-spaced learners study in several short sessions at intervals spread over a period of time. Give it a try! Select some difficult information you must learn for one of your classes, such as math formulas, verb conjugations for a language class, or names and dates for history. Create a 10 day time-spaced study plan using flashcards, repetition at intervals, mnemonics, recitation and self-testing.

<table>
<thead>
<tr>
<th>WEEK 1</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEK 2</td>
<td></td>
<td></td>
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</table>
Blog/Debate/Discuss

- Reviewing information within the first 20 minutes after learning it is critical for retention. How can you review what you learned immediately after class? What’s your plan?
- Cramming is an inefficient way to learn. So why do students continue to do it?
- What are some of your favorite acronyms?

Unit Sources


Practice, Practice!

- What Did You Learn About Memory and Recall Strategies?
- Display Edgar Allan Poe’s poem “An Acrostic.” Challenge students to find the hidden message.

It’s a Team Effort!

- Ask teachers at your school to pair students for 5 minutes at the end of every class. Students reteach one another the main points of the lesson, or use the time to create flashcards, quizzing each other on information learned over several lessons. Encourage students to pull the information from memory!
- Ask teachers to create a mnemonics board in their classroom, posting student-created useful acronyms and acrosties for their subject.

College Readiness Corner

College students often study in groups because group study is an effective way to learn. Encourage teachers to organize classes into study teams of 4-5 students of mixed abilities. Members elect a study captain responsible for keeping students on track at meetings, and create a group study plan, including meeting dates, times, locations, and topics. At meetings, students review information, create and share mnemonics, create time-spaced learning plans, and quiz one another on study topics. Teachers should meet with groups once to review their plans, and periodically thereafter to discuss progress. Study teams can compete for best overall performance on a quiz, most improved, best group meeting attendance, best study snacks, etc. Form new groups at semester.

Tech Connect


App name: iStudyTracker. Provider: Lumentec Inc. Price: $2.99. Compatible with: iPhone, iPod, iPad. Features: Enter your desired study schedule, goals, and minimum times, and then allow the app to remind you. Tracks your progress over time so you can easily see how much total time you spend on different subjects.
WHAT DID YOU LEARN?  UNIT 6

Name: ________________________________

1. What is the purpose of a mnemonic device?
   A mnemonic device consolidates information into a kind of code to prompt recall of the information.

2. What is an acrostic?
   An acrostic is a sentence or statement where the first letter of each word stands for an idea, concept or word.

3. What is an acronym?
   An acronym is a combination of letters that are cues to ideas, words or concepts such as SQRRR.

4. How does a name/trait mnemonic help you recall learned information?
   Facts about a person, place, thing or concept are associated with a characteristic related to the name, place, thing or concept.

5. What topic was of interest to Herman Ebbinghaus in 1885?
   a. human emotion
   b. healthy children
   c. forgetting
   d. physical fitness

6. Why are intervals between reviews important for time-spaced learning?
   a. Spaced review makes the brain work harder to retrieve information and builds stronger, more flexible neural pathways to the information.
   b. The intervals allow time for group meetings
   c. The intervals allow students time to catch up on other homework
   d. none of the above

7. Active recall means:
   a. making your brain generate the answer
   b. pulling information from memory
   c. reciting the answer aloud (or writing it out)
   d. all of the above

8. What is cramming and why is it an inefficient way to study?
   Cramming means studying really hard just before a test or quiz, often for hours. It isn't an efficient way to learn – the human brain can only handle so much information at a time!
9. *Time-spaced* learning includes:
   a. review/repetition at intervals
   b. active recall generating the answer in your brain
   c. moving review/repetition intervals farther apart and adding bits of information until all is learned!
   □ all of the above

**True or False:**

10. ________ **False** Crammers and time-spaced learners spend about the same amount of time studying, but cramming is a far more efficient use of time.

11. ________ **False** Overall, time-spaced learning is more stressful than cramming and yields about the same results.

12. ________ **True** You will use time-spaced learning instead of cramming because it is a good study skill and has been shown to greatly improve retention of learned content.

13. What does the graph below tell you about *forgetting*?

   ![The Forgetting Curve](image)

   It tells you that forgetting happens fast! The fastest free fall is right after learning, which is why you should review information as soon as possible. Within 6 days you can barely remember anything if you haven’t reviewed the information.

   The graph shows the substantial increase in retention of information over 6 days, when the information is reviewed at time-spaced intervals.

14. What does the graph below tell you about *remembering*?

   ![The Forgetting Curve](image)
By the end of **Unit Seven** the student will be able to:

- describe six test-taking strategies for short answer tests.
- describe six test-taking strategies for essay tests.
- identify strategy errors in a series of sample short answers.
- explain how to study for multiple choice tests.
- use basic proofing symbols to edit written responses.
- describe test-taking strategies for success on multiple choice tests.
- demonstrate how to avoid marking errors on a scannable answer form.
- identify strategy errors in a series of multiple choice answers.
- explain test-taking strategies for true/false tests.
- explain the process of preparing an effective oral presentation.
- tell speaking tips for making a successful oral presentation.
- give an extemporaneous oral presentation using a variety of speaking skills.
- critique oral presentation skills.
- explain types of test anxiety.
- tell tips for controlling anticipatory test anxiety.
- tell tips for controlling situational test anxiety.
Short Answer Tests Returned Today

"YES, I KNOW IT WAS A SHORT ANSWER TEST, BUT "YES", "NO" AND "MAYBE" ARE TOO SHORT!

STUDENTS: I KNOW WHEN YOU'RE TEXTING!
MR. V

YES I DO HAVE EYES IN THE BACK OF MY HEAD.
LOL
MR. V
This lesson corresponds to Chapter 20 of *The Middle School Student's Guide to Study Skills*.

**Materials**
- Computer/whiteboard display with internet access.
- Webslides 20A-E (www.middleschoolguide.com)
- Workbook pages 210-223.

**Objectives**
By the end of this lesson the student will be able to:
- describe six test-taking strategies for short answer tests.
- describe six test-taking strategies for essay tests.
- use basic symbols for proofing a written response.
- identify strategy errors in a series of sample short answers.

**Gaining Attention**
In the previous lesson, students learned how quickly learned information can be forgotten. Cramming, which is studying very hard, often for many hours just before a test or quiz, is not a productive way to learn. *Time-spaced learning* is the anti-cram. Instead of learning information once, then cramming to relearn it before a test or quiz, time-spaced learning uses repetition at intervals, recitation, and self-testing until content is mastered. The result is far better retention of information in about the same (total) amount of study time, with a lot less stress!
Engage students in a discussion: At the start of this study skills course, you learned that “learning is the acquisition, retention and ability to demonstrate knowledge,” and discussed ways that students are required to demonstrate what they have learned. Can you recall some of the ways? (Answers include: tests and quizzes; tests can be multiple choice, true/false, essay, etc.)

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to describe six strategies for short answer tests, six strategies for essay tests, use basic symbols for proofing a written response, and identify strategy errors in a series of sample answers.

**PRESENTATION OF CONTENT**

There's more to taking a test than knowing the right answer. In the next few lessons, students learn test-taking skills and strategies. This lesson presents strategies for short answer and essay tests. First, let’s review basic strategies for all tests and quizzes:

- **Confirm time.** Before starting a test or quiz, confirm how much time you have to complete it. It happens all the time – students think they have an hour to finish, but find out the hard way they have only 45 minutes. Listen for your teacher to tell you how much time you have to take the test or quiz. Before starting the test, look at the clock in your classroom and note when time will be up. If your classroom clock is analog (that’s the kind with the big and little hands pointing to numbers) but you’re a digital kid, make sure you can recognize where the clock hands will be when time is running low.

- **Allocate time.** When you start a test, make a quick preview of the parts of the test to form a rough plan for the allocation of your time. If you have one hour to complete five short answer questions, an essay and ten multiple choice questions, how will you allocate your time? Allocate by difficulty or by point value, but don’t spend 15 minutes of a 45 minute test struggling to answer a question worth 5 points, then short-change an essay worth 25 points. Try to work at a pace that allows you 5-10 minutes at the end of the test to check answers and proof your writing.

- **Blanks policy.** Confirm your teacher’s blanks policy before beginning the test or quiz. Unless specifically directed to do so by your teacher, do not leave an answer blank or you will lose points.

- **Test aids.** If you are allowed to use a calculator, make sure it’s powered up and on your desktop. If your teacher allows you to use notes, or if the test is open book, have those items on your desk top. Mid-test is not the time to go digging through your backpack for them.

- **Proof answers.** Reserve time at the end of the test to check written responses for spelling, punctuation, grammar and clarity. Use proofing symbols to keep changes or additions to your answer neat and legible. ^, called a caret, means to insert a letter, word or phrase. The symbol —, drawn through a word or phrase means to delete the word or phrase. The word stet written next to something you
What are strategies for short answer tests?

In high school and college, short answer questions (also called prompts) are almost always on an exam. There are specific strategies for these types of tests.

Confirm the test section. Tests often have many different sections, including an essay, short answer and multiple choice section. In the jangle of nerves and rush to answer, students can get confused and mix up sections, answering the essay question with a short answer and the short answer with an essay. Oops! Don’t start writing until you’ve confirm the test section.

Read the question. Read the question carefully, then read it again. Resist the urge to assume you know what it asks, or you may read what you assume, instead of what it actually asks.

Underline key words. Search the question for key words and underline them. Key words tell you what you will write about—usually a name, date or concept you studied.

Circle action words. While key words tell you what you will write about, action words tell you how you will write about the key words. Questions will ask you to present information in a particular way like “define”, “state”, “list”, “compare”, or “name.” Questions often have more than one action word, for example “Name the author of the following passage, and list three other works by that author.” Circle each action word and address each in your response.

Write 3-6 sentences. How short is too short? How long is too long? Some teachers tell you up front how many sentences are too many and how many are too few, but generally 3-6 content rich sentences is about the norm. Short answer questions generally ask for factual information, not a lengthy analysis. A short answer test may ask you to list items, dates, names or steps. Concise answers are best.

No blanks! If you can’t answer a question, try scanning other questions and parts of the test. Something you see there may activate your schema and trigger enough recall for an answer. Write down whatever you know that’s relevant to the question: a name, date, fact, place, related vocabulary word or event, and hope for partial credit.

What are strategies for essay tests?

Confirm the test section. (See above)

Read the question. Read the question carefully, then read it again. Don’t assume you know what the question’s asking.
Underline key words. Underline the key words in the question. Stick to the topic indicated by the key words. Focus on what the question asks about the key words and prepare a relevant response. The blank page can be intimidating, but resist the urge to include random ideas just to fill up space. Adding unrelated information can result in a loss of points. Do not begin a sentence with “I believe” or “In my opinion,” unless the question clearly asks for your opinion, belief, or personal interpretation.

Circle action words. While short answer questions generally ask for factual-type information, essay questions look for a deeper analysis and more thorough demonstration of knowledge. Typical essay question action words are “analyze” “compare and contrast”, “defend” “refute” “discuss and compare” “state the cause and effect of” “evaluate” and “summarize.” Develop a mental bank of words and phrases that support certain action words. For example, for “compare and contrast” use phrases like “by contrast”, “in comparison”, “on the other hand”, “likewise”, or “similarly” in your response. Using supporting action word language in your response tells the reader (your teacher) that you structured your response as required by the action word.

Brainstorm! No matter how concerned you are about time, do not jump right in and start writing. “Stream of consciousness” writing usually ends up with the writer writing themself into a corner, or failing to address the prompt. Expositive essays require thought, organization and structure. First, get your schema on: Brainstorm what you know about the topic. Jot down words, ideas and facts. Reread the question and think through your answer from introduction to conclusion.

Create a 5-paragraph essay outline. Critics of the five-paragraph essay say it is too formulaic and stifles creativity. Expositive essays, however, need a structured, informative style. The easy-to-follow, five paragraph essay provides this. Once you have brainstormed and thought through your answer, organize the ideas and facts into a basic RCNi outline. Don’t obsess over how neat it is. It’s function is to provide structure and direction for your essay. Include an introduction with a one sentence thesis statement, and three subtopics. List supporting information and details for the subtopics, and conclude with a summary.

Get writing! Fold the subtopics from your outline into your essay. Develop ideas and details more thoroughly, and provide examples. At the end of each subtopic paragraph, include a transition sentence leading the reader to the next subtopic. Conclude with a brief summary.
A note about the 5PE: The five-paragraph essay is adequate for middle school and high school. Practice, practice, practice your five-paragraph essay skills! Once you are comfortable with it, use it as a foundation for developing a more sophisticated and flexible writing style for college.

Proof. No matter how tired you are of writing, or how much you want to finish up and get out of there, proof your essay. Check and correct spelling, grammar, and punctuation. Check for clarity. If you run out of time, jot down the rest of your answer in bullet points. Use proofing symbols to keep edits and additions neat and legible.

Check for understanding and proceed to the activity.

**ACTIVITY**

Direct students to page 216 of the workbook. Introduce the activity. Correct together. Discuss the action and key words and whether the student utilized correct strategies for a short answer response.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 221 of the workbook.

1. Before taking a test, quiz or exam, confirm the amount of ________ time ________ the teacher has allowed for completion, and preview parts of the test to make a rough ________ allocation ________ of time to answer the questions.
2. Carefully _______read_______ the short answer or essay test question, then _______reread_______ it; do not _______assume________ you know what it is asking!

3. Key words tell you _______what________ you will write about; _______action________ words tell you _______how________ you will write about the keywords; a question can have one or _______more/several________ action words.

4. _______Expositive________ essays require thought, organization and structure. Brainstorm, organize your ideas, and make an _______outline________ for a _______5____-paragraph essay; essay writing becomes easier with lots of _______practice________!

5. Underline _______key________ words and focus your response on what the question asks about them; Even if you’re stuck, resist the urge to include _______random________ ideas or facts which have little or nothing to do with the question. Don’t state your personal _______opinion_______ unless the question asks for it.

**READING AND HOMEWORK**

- Students read chapter 21 in the workbook to prepare for the next lesson.
- Students complete pages 218-220 in the workbook Application of Skills. Collect for assessment [Dominate Short Answer and Essay Tests.]
On a recent American History test, U.B. Smart Middle School students were asked:

What were the thirteen original colonies? List the colonies and identify the colonies which were founded primarily for religious freedom or purposes. (Value: 3 points)

Below are their responses. Describe their short response strategy error(s) and award 0-3 points.

**Alison’s Answer:** Pennsylvania, Massachusetts, New Hampshire, Virginia, Maryland, Delaware, South Carolina, North Carolina, Georgia, Rhode Island, Connecticut, New Jersey, and New York. Religion was very important in all of the colonies, especially in the New England colonies where the puritans lived.

What short answer test strategy errors did Alison make?

A short answer question can have more than one action word. This question has two. Ali’s answer addresses the first action word (list) but does not address the second (identify). Alison made many spelling and punctuation errors which she ought to have found, had she properly proofed her answer. She gets 1.5 points.

**Max’s Answer:** The original thirteen colonies are: Pennsylvania, Massachusetts, New Hampshire, Virginia, Maryland, Delaware, South Carolina, North Carolina, Georgia, Rhode Island, Connecticut, New Jersey, and New York. The colonies which were founded because of a quest for religious freedom or for a religious purpose are: Massachusetts, Connecticut, Rhode Island (Puritan/Protestant), Maryland (Catholic), and Pennsylvania (Quakers.)

What short answer test strategy errors did Max make?

Max's answer is just right. It does exactly what’s asked: lists the thirteen colonies and identifies which were founded for religious freedom or purposes. He threw in a little additional information which wasn't necessary, but it wasn't totally random or too lengthy. 3 points.

**A.J.’s Answer:**
Answer test strategy errors did A.J. make?

Unless his teacher specifically directed students not to write anything if they didn't know the answer, A.J. shouldn't have left the answer blank. He must have enough prior knowledge of American history to provide at least a partial answer, and hope for some credit. It's possible that A.J. inadvertently skipped this question as he hurried through the test. Had he gone back to proof his answers, he would have caught his mistake!

Zero points. ☹

Jason's Answer: There were 13 colonies separated into the Middle Colonies, the Southern Colonies and the New England Colonies. In my opinion, religion had a very important role in the founding of all of the original thirteen colonies. Some colonies were mainly Puritan and some were mainly Baptist and Lutheran, but there were also Catholics, Jews and Quakers.

What short answer test strategy errors did Jason make?

What? Jason couldn't list even one colony? C'mon! Surely by activating his schema or reviewing other questions, he could identify a few colonies. His answer indicates that he probably did not read the question carefully, and assumed what the question asked, not what it actually asked. Jason failed to identify the colonies founded for religious purposes. The question did not ask for his opinion, nor did it ask for information about specific religions within the colonies. He gets zero points. ☹

Elena's Answer: The original thirteen colonies are: Pennsylvania, Massachusetts, New Hampshire, Virginia, Maryland, Delaware, South Carolina, North Carolina, Georgia, Rhode Island, Connecticut, New Jersey, and New York. The New England colonists were mainly Puritans. They led very strict lives. The Middle colonists were a mixture of religions, including Quakers who were led by a man named William Penn.

There were Catholics, Lutherans, Jews, and others located in various colonies. Southern colonies were home to many religions, including Baptists and Anglicans. French Huguenot settlers arrived in America around 1685, because they faced religious persecution in France under King Louis XIV. He revoked the Edict of Nantes that protected their religious freedom. After that, many Huguenots came to America and settled in New York and New Jersey.

Many of the outer colonies were safe havens for colonists who sought religious freedom. Catholics (also called Papists) were discriminated against and treated unfairly by the other colonists. I believe that treating any group unfairly because of their religion is just wrong!

What short answer test strategy errors did Elena make?

It's possible Elena did not confirm the test section, and believed she was answering the essay question. Hopefully this is not her idea of a "short" answer. She may have improperly allocated time. Her response is TMI - too much information! Short answers are concise responses. She includes irrelevant and random information, including her beliefs, which the question did not request, and history of the Huguenots. She fails to address the second action word. In spite of all her effort, she will receive 1.5 points for this answer.
APPLICATION OF SKILLS

Name: __________________________________________________________________________________

Dominate Short Answer and Essay Tests

There’s more to taking a test than knowing the right answer! Test-taking strategies and techniques are important. Let’s see what you’ve learned about short answer and essay test strategies.

1. The life science quiz begins at 10:05 on the dot. Your teacher is allowing 45 minutes for the quiz. What time will it end? _________

2. Draw the location of the classroom clock hands when there are just five minutes left on the quiz.

3. Key words will tell what you will write about. Action words tell how you will write about the key words. Circle the action words and underline the key words in the following essay and short answer prompts:
   • List three major diplomatic conferences of World War II and name the world leaders who attended.
   • State five noticeable changes in climate occurring in the past 50 years.
   • Name the six types of triangles and provide an example of a right triangle.
   • Define “extinction” and identify three species at risk for extinction in the next 25 years.
   • Summarize the rights of a Roman citizen and compare by class and gender.
   • Define and discuss two forms of display for data sets.
   • Illustrate the proper safety procedures for handling an emergency in the science lab.

4. What can happen if you do not carefully read a question in its entirety, assuming you know what it is asking?

   When you assume you know what a question is asking, you may read what you assume, instead of what it actually asks. Always read and reread questions.

5. What is the purpose of a five-paragraph essay outline?

   Expositive essays require thought, organization and structure. An outline provides structure, organization and direction, including an introduction, 3 subtopics and a conclusion/summary.
6. When Derek takes an essay test, he wastes a lot of time trying to make his outline look really good. What’s your advice about this?

The outline is to provide structure and direction for your essay. Don’t worry about how it looks.

Brainstorm and create a basic RCNi outline, for direction. Then get writing!

7. Write a short answer question containing two action words for any topic in Chapter 20 of *The Middle School Student’s Guide to Study Skills*. Circle the action words and underline the key words, then write a response to your question.

**Question:** Student’s discretion. Example: **List** and **restate** five basic strategies for all tests.

**Response:** Student’s discretion. Example: 1. Confirm the amount of time for the test; 2. Preview and allocate time by point value or difficulty; 3. Know your teacher’s policy about leaving an answer blank; 4. Have test aids out and ready; 5. Reserve time for checking/proofing answers using proofing symbols.

8. Create an essay question with two action words for any topic in Chapter 20 of *The Middle School Student’s Guide to Study Skills*. Circle the action words and underline the key words. Brainstorm, and create an outline below.

**Question:** Student’s discretion. Example: **Compare** and **contrast** short and essay response strategies.

<table>
<thead>
<tr>
<th>BRAINSTORM</th>
<th>OUTLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be direct</td>
<td>I. Similarities and differences in short and essay response strategies.</td>
</tr>
<tr>
<td>action words = how</td>
<td>A. Both require action &amp; key word identification</td>
</tr>
<tr>
<td>key words = what</td>
<td>1. Action = “how” to respond;</td>
</tr>
<tr>
<td>high school &amp; college use supporting phrases (mental bank)</td>
<td>i. may be more than one</td>
</tr>
<tr>
<td>3–6 sentences vs. 5 paragraphs</td>
<td>ii. address each action word</td>
</tr>
<tr>
<td>factual info vs. conceptual analysis relevance</td>
<td>2. Key = “what” the topic is</td>
</tr>
<tr>
<td>proof answers</td>
<td>i. guides relevance</td>
</tr>
<tr>
<td>brainstorm</td>
<td>ii. address each key word</td>
</tr>
<tr>
<td>concise</td>
<td>B. Both require proofing of answers</td>
</tr>
<tr>
<td>create word bank</td>
<td>1. Proof spelling, grammar, clarity, punctuation</td>
</tr>
<tr>
<td></td>
<td>i. Reserve time at end of test</td>
</tr>
<tr>
<td></td>
<td>2. Use proofing symbols</td>
</tr>
<tr>
<td></td>
<td>i. ^, ¶, ~, stet, sp</td>
</tr>
<tr>
<td></td>
<td>C. Contrast: The type of information may be different</td>
</tr>
<tr>
<td></td>
<td>1. Short Answers may test factual info</td>
</tr>
<tr>
<td></td>
<td>i. lists &amp; processes</td>
</tr>
<tr>
<td></td>
<td>2. Essays require deeper analysis</td>
</tr>
<tr>
<td></td>
<td>i. concepts and theory</td>
</tr>
<tr>
<td></td>
<td>II Conclusion</td>
</tr>
<tr>
<td></td>
<td>Many similarities in test-taking strategies, but differences in depth of response.</td>
</tr>
</tbody>
</table>
9. Even if you’re exhausted from writing short answers and essays, you’re not done with a test until you’ve gone back and proofed your responses.

10. Proofing means, searching for errors in:
   a. spelling
   b. punctuation
   c. grammar
   d. clarity
   e. all of the above

11. Match the proof symbol to its meaning.

12. Below is Ali’s short answer. Help her make the check-marked changes below by using the appropriate proofing symbol:

   The Compact, signed by 40 men, laid the foundation of the governing law in America. It states that settlers should have faith and belief in God, loyalty towards the King of England, equality among one another, and the ability to establish democratic law. 150 years later, many of the colonist had a common goal: to govern themselves and to have a say in how they were represented.

   ✔ Insert the word “Mayflower” between “The” and “Compact” in the first sentence.
   ✔ Delete the number 40 and change it to 41.
   ✔ Indicate that the sentence starting “150 years later...” was intended to start a new paragraph.
   ✔ Indicate that Ali is uncertain of her spelling of equality.
   ✔ Delete the words “to have a say in how they were represented,” then indicate that she changed her mind and wants to leave the sentence as originally written.

   * Bonus: Key words tell what you will write about; action words tell how you will write about the key words. Below are 10 action words commonly found on high school and college test questions. Research the action word and explain how to put it into action. (Suggested search: “Action words for essays and tests.”)

<table>
<thead>
<tr>
<th>Action Word</th>
<th>What does it mean?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze</td>
<td>Break down into parts and discuss separately, then address how they relate to each other.</td>
</tr>
<tr>
<td>Compare</td>
<td>Discuss and share the similarities and the differences.</td>
</tr>
<tr>
<td>Identify</td>
<td>List and briefly discuss each item.</td>
</tr>
<tr>
<td>Define</td>
<td>Provide the meaning of something (i.e., a key word).</td>
</tr>
<tr>
<td>Discuss</td>
<td>Provide a thorough explanation, including examples and/or links back to the text.</td>
</tr>
<tr>
<td>Critique</td>
<td>Identify and evaluate the positive and negative aspects of something.</td>
</tr>
<tr>
<td>Illustrate</td>
<td>Provide or locate examples to explain a topic.</td>
</tr>
<tr>
<td>Contrast</td>
<td>Find and discuss the differences between two or more key words.</td>
</tr>
<tr>
<td>Summarize</td>
<td>Provide main points or ideas.</td>
</tr>
<tr>
<td>Explain</td>
<td>Clarify the meaning of something; provide examples, and a solution.</td>
</tr>
</tbody>
</table>
TO ALL, THE SADIE HAWKINS DANCE WAS KIND OF LIKE A MULTIPLE CHOICE TEST...

SADIE HAWKINS DANCE!
THIS FRIDAY, 7:00 PM
GIRLS ASK BOYS!

HMM... MAYBE.

MAAAAYBE.

MMMM... LIKE?

NO.

DEFINITELY NOT!

SO MANY CHOICES, SO LITTLE TIME!
SO MANY CHOICES, SO LITTLE TIME!

TEXTBOOK

This lesson corresponds to Chapter 21 of The Middle School Student’s Guide to Study Skills.

MATERIALS

- Computer/whiteboard display with internet access.
- Webslides 21A-F (www.middleschoolguide.com)
- Workbook pages 224-237.

OBJECTIVES

By the end of this lesson the student will be able to:

☐ explain how to study for multiple choice tests.
☐ describe strategies for success on multiple choice tests.
☐ demonstrate how to avoid marking errors on a scannable answer form.
☐ explain strategies for segmented true/false statement.

GAINING ATTENTION

In the previous lesson, students learned short answer and essay test-taking strategies: Confirm the test section, read the question (also known as the “prompt”) twice. Circle action words and underline key words. Short answers should be content rich and concise. Essay test questions are more complex, and require brainstorming and an outline to provide structure and direction. The basic five-paragraph essay is a good foundation for developing a more flexible and sophisticated writing style for college. Students learned that different action words require different approaches to the response and benefit from the use of unique supporting words and phrases. Develop a vocabulary bank of words and phrases that support responses to a variety of action words.
Engage students in a discussion: When your teacher announces that a test will be multiple choice, what’s your reaction? Relief? Who prefers a multiple choice test over an essay test? Why or why not?

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to tell how to study for a multiple choice test, show how to avoid marking errors on a scannable answer form, identify strategies for selecting the correct answer on a multiple choice question, and describe how to correctly read a segmented true/false statement.

**PRESENTATION OF CONTENT**

There’s a perception among students that multiple choice tests are easier than essay tests. After all, multiple choice tests don’t require a student to generate the answer in their brain. The answer to the question is right in front of them. All they have to do is find it and check a box or bubble in a circle, right? Wrong! From knowing how to study for a multiple choice test, to using a scannable answer form, to deciding between two answers which both seem correct, multiple choice tests have unique challenges. In this lesson, students learn strategies and techniques for success on multiple choice and true/false tests.

**How do you study for a multiple choice test?**

When you find out that a test or quiz will be multiple choice, your first thought should be “How will I study for this test?” Studying for a multiple choice test is different and sometimes more difficult than studying for an essay or short answer test.

**Information focus.** Generally, multiple choice tests won’t ask you to analyze information, apply theories, or provide examples, but you will be expected to know specific dates, names, vocabulary terms and definitions. Multiple choice questions often test your knowledge of orders of steps in processes or chronology of events. Mnemonics are especially useful study techniques for multiple choice tests.

**Study holistically.** When preparing for a multiple choice test, don’t make the mistake of studying only up to the point of being able to recognize the correct answer. On these kinds of tests, the correct answer is often found by process of elimination. The student eliminates wrong choices until settling on what they hope is the correct one. **Studying for a multiple choice test requires a holistic approach. Study with the broader goal of also being able to recognize incorrect choices.** For processes, steps or chronology of events, know the right sequence, but also be able to recognize when a date or step is out of sequence.

**Graphs and tables.** Multiple choice questions often ask students to compare, contrast and interpret information or data from a graph or table. Typically, the graph or table is pretty similar to one from a textbook or example discussed in class. Always study the graphs, charts and tables in your textbook. Know right and wrong interpretations, and be able to label parts of the graph or table.
Write out questions. Multiple choice questions are often based directly on information in your textbook. Outline the textbook chapter and, as you outline, **anticipate questions your teacher might ask on a test**, and how he or she might ask them. Turn information from your textbook and notes into test questions. Know the answer to the question, as well as possible wrong answers.

**What are strategies for identifying the right choice on a multiple choice test?**

*Remind students that the pre-test strategies listed on page 212 of the workbook also apply to multiple choice tests: Confirm the amount of time allowed for the test, confirm what test aids are allowed and have them on your desktop, allocate time, work at a pace that assures you will get to every question, and allow time to check answers.*

**Read the stem carefully.** The “question” part of a multiple choice question is called the *stem*. Often it is not a question at all, but a *phrase or a statement* you must complete by selecting a, b, c or d. Read the stem carefully. Students often make errors because they rush and miss important words. *Don't assume you know what the stem says or you may read what you assume, not what it actually says.*

**Predict the correct answer.** Read the stem with the answer choices covered. Before uncovering the choices, **try to predict the answer.** Uncover the choices and read each one carefully. Even if the first choice seems correct keep reading! *On multiple choice tests, you are looking for the best answer.* Another choice may be more accurate.

**Decision dilemma.** On a multiple choice test, the incorrect choices are called *distractors*. A typical multiple choice question will have a stem, three distractors and a correct choice. There’s usually one choice which is obviously wrong and can be quickly eliminated. Students are often able to narrow the choices down to two options, then face a decision dilemma where both answers seem (and may actually be) correct. They read back and forth between the choices hoping to eliminate one or the other, and end up guessing. Here are strategies for finding the best choice in a decision dilemma:

- ✓ Read through the whole stem and answer choices as complete sentences. If a choice does not **grammatically agree** with the stem, eliminate it.
- ✓ Read through the whole stem and each answer choice. **Consider which choice more completely addresses the question.** If an answer is only partly true, or is true only under certain narrow conditions, it’s probably not the best answer. You can eliminate it.
- ✓ Read through the whole stem and each answer choice. If you have to make **assumptions or read additional facts or conditions into the choice** to make it work, it’s probably not the correct choice. Take choices on *face value*; do not read additional information or facts into them.

**All of the above/none of the above questions.** If you are certain one of the statements is true don’t choose “None of the above.” If you are certain one of the statements is false don’t choose “all of the above.” The “all of the above” or “none of the above” choice is often a distractor. If you are sure that at least two of the answers are correct, choose “all of the above.”
Absolutes. Pay special attention when an answer choice is stated in an absolute. Absolutes are words like: never, always, just, only, none, not, must, solely, invariably, totally, every, entirely, no and all. When an absolute appears in the stem, circle it. If it appears in the choice, read the stem and the choice as a single sentence. Ask yourself “Is this 100% the case 100% of the time?” An absolute is often an indicator of a distractor.

What if you really, truly do not know the answer?

Strategic guessing. Sometimes, no matter how hard you studied, you really, truly cannot figure out the correct choice. You can't even narrow it down to two choices. In that case, you have to guess. But don't randomly guess “c” or close your eyes and point like some students do! You can significantly increase your odds of making the correct choice by guessing strategically:

✓ Try to identify the obvious distractor and eliminate it.
✓ Eliminate any choice using an absolute.
✓ Eliminate the “all of the above” or “none of the above” choices.
✓ Eliminate the choice that does not grammatically agree with the stem.

What are strategies for true/false tests?

Segmented true/false statements. In middle school, true/false tests questions (actually statements) are relatively simple and straightforward. Example: “Scientists classify life forms in groups called kingdoms.” In high school and college, true/false statements are more complex. They are longer and may contain multiple, segmented parts, which can make it hard to determine the answer. Example: “Scientists classify life forms in five kingdoms, Monera, Protists, Fungi, Plant and Animal, which are further classified into Phyla.” When given a compound or complex statement on a true/false statement, read each segment or part set off by a comma as an independent statement. For the answer to be “true” each segment must be true. If any one part is false, the entire statement is false.

Example:

<table>
<thead>
<tr>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretary of State Hillary Rodham Clinton went to Columbia University and graduated with honors in 1966.</td>
<td></td>
</tr>
</tbody>
</table>

For the answer to be true each of the following must be true:

☐ she is/was Secretary of State  ☐ she graduated in 1966
☐ she went to Columbia University  ☐ she graduated with honors

(BTW the answer is false. She went to Wellesley College and she graduated in 1969. It is true that she graduated with honors and has served as Secretary of State.)

Absolutes. A true/false statement containing an absolute is suspicious. Absolutes often indicate a false statement.
What are tips for avoiding marking errors on a scannable answer form?

Direct students to page 233 of the workbook. Guide students to preview the sample scan form, use this to practice techniques for avoiding marking errors.

Another test-taking challenge you’ll face in high school and college is being required to use a scannable answer form where answers are either “bubbled-in” (○) or indicated by filling in a small horizontal rectangle (■). Scannable answer forms can be confusing. So many rows of numbers! So many tiny bubbles! Here are some tips for successfully marking your answers on a scannable answer form:

**Preview the Scan Form.** Take a minute before the test to familiarize yourself with the scan form sheet and how you’ll move through it to mark your answers. If there are 50 questions on the test, find answer line number 1. [Demonstrate] Put your index finger on line 1, then slide down the column through the rows of numbers (and over to the next column if you need to) until you get to answer line 50. You will move through the answer sheet in that direction.

**Use a #2 pencil.** Most scannable answer sheets require number two pencils for an accurate scan. You need a good, clean eraser because dirty erasers can leave smears on the form. Thoroughly erase changed answers. Scanners are sensitive to rogue pencil marks.

**Q&A Match Up.** With so many columns, rows, numbers and letters, it takes concentration to stay on the answer line that corresponds to the question number. It’s common for students to inadvertently skip or double-bubble a row, only to discover their mistake at the end of the test when the marked answers exceed or fall short of the number of questions. If you miss or double-bubble a row on a scan form, all subsequent answers will be incorrect. Ouch! Here’s how to avoid this common disaster:

- [Guided practice] Place the index finger of your free (non-writing) hand on the scan form, on the number of the question you’re answering. Before bubbling-in your answer, look back at the question sheet. **Make sure the question number and the “finger number” match.** Bubble-in your answer, then scan the row to make sure there’s only one answer bubbled-in. No double-bubbles! Slide your finger to the next number.

- If the finger sliding/tracking method isn’t for you, try pausing about every five answers to **make a quick check to confirm that the number of the question you’re answering matches the scan form row you’re on.** If they don’t match up, you have a problem, but at least you won’t have to go far to find the error.

- [Guided practice] Use a piece of blank binder paper or index card to **cover up the filled rows as you work through the test.** Each time you answer a question, move the paper down a row, so you do not inadvertently double-bubble a row. (Warning: Some test situations bar the use of any paper that could contain notes or answers. Get your teacher or proctors’ permission before you use this method.)

- [Guided practice] If you’re struggling with an answer and want to leave a row blank and return to it later, **make a light pencil mark dash “-” on the scan form to the left of the question number.** That tells you that it was intentionally left blank, and alerts you to return to that question later. Erase the dash after you bubble-in your answer.
Check for understanding and proceed to activity.

**ACTIVITY**

Direct students to page 231 of the workbook. Introduce the activity.

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 236 of the workbook.

1. On a multiple choice tests, finding the correct answer is often by process of **elimination**. Study holistically, with the goal of being able to recognize the right and **wrong** answers. Be able to recognize a **distractor** (wrong choice) which, even though it may be partly correct, is not the **best** choice.

2. On a scannable answer form it’s common for students to inadvertently **skip** or **double**-bubble a row, only to discover their error at the end of the test.

3. The “question” part of a multiple choice question is called the **stem**, and often is not a question at all, but a phrase or a statement. Read it carefully with the choices **covered**. Try to **predict** the answer.

4. Decision dilemma! Strategies for identifying the best of two seemingly correct choices are: Eliminate the choice that does not agree with the stem; eliminate the choice which is only partly true, or true under narrow **conditions**; eliminate the choice which requires you to make assumptions.

5. On true/false tests, **every/each** part of a statement (including parts set off by commas), must be **true** for the answer to be “true.” If any part is **false**, the answer is false.

**READING AND HOMEWORK**

- Students read chapter 22 in the workbook to prepare for the next lesson.
- Students complete pages 234-235 in the workbook *Application of Skills*. Collect for assessment.
**Conquer Decision Dilemma!**

Questions 1-3 relate to the following question:

1. What clue tells you **a** is a distractor?  
   
   Read through the stem and choice as a complete sentence. They do not grammatically agree.

2. What clue tells you **b** is probably a distractor?  
   
   An absolute (“all”) in the choice is suspicious.

3. Select between **c** and **d**. Explain your choice and why you eliminated the other.

   It’s tempting to focus on the word “honor” and read additional facts into the question, such as: What about those Canadians who want to sever ties to England or abolish the monarchy? Remember to take choices on face value—do not assume facts not there. The answer is **c**. The Queen is honored as Head of State in Canada. **d** is a distractor because Canadians live in provinces, not states. Again—take the distractor on face value. “States” is incorrect because you would have to assume the misuse of a word to make this choice work.

4. In the following true/false sample, list each fact which must be true in order for the answer to be true.

   **T**  
   The complementary base pairing of AT and CG is the basis of DNA replication, ensuring that both of the strands of DNA have exactly the same message contained in them.

   **F**

   □ The pairing AT must be correct
   □ The pairing CG must be correct
   □ They must be the basis of DNA replication
   □ They must have the function of ensuring both strands have exactly the same message
Question 5 relates to the following question:

Even prior to 1700, images of eagles can be found:
- on stamps
- on the U.S. government seal
- on business cards
- on coins

5. Which is the obvious distractor and how did you recognize it? What other distractor(s) did you identify and how?

b is the obvious distractor because the United States did not exist prior to 1700. C is a distractor because, while people may have had calling cards prior to 1700, they did not have “business cards.”

Questions 6 and 7 relate to the following question:

From west to east, the major geographic features of the United States are:
- Rocky Mountains → Great Plains → Mississippi River → Appalachian Mountains
- Great Plains → Mississippi River → Rocky Mountains → Appalachian Mountains
- Rocky Mountain → Great Plains → Appalachian Mountains → Mississippi River
- Mississippi River → Appalachian Mountains → Pine Lake → Rocky Mountains

6. Circle the key words in the stem.

This is a 2 part question. “west to east” is important. You must select the choice that presents the features in a correct order and the choice that provides major geographic features.

7. What memory/study technique could help students recall the information necessary to select the correct answer on this question?

Mnemonics (acrostic, acronym)

8. List 10 absolutes:

never, always, just, only, none, not, must, solely, invariably, totally, every, entirely, no, all,

inevitably, invariably, inalterably

9. When an absolute appears in a stem or question, what should you ask yourself?

Is this 100% the case 100% of the time? Could this be a distractor?

10. What does it mean to take choices on face value?

Don't make assumptions or read additional facts or conditions into a choice to make it work.
# Application of Skills

**Name:**

As you move up into high school and college, multiple choice tests are more complex. Good test-taking skills include studying holistically for a multiple choice test, avoiding marking errors on a scannable answer form, and knowing how to recognize the best answer in a decision dilemma.

## 1.
On the scannable answer form above, put your finger on row one. Trace the rows from 1 to 100. What does this tell you?

*This tells you the direction you will move in as you bubble in the answers.*

## 2.
There are four marking errors on the scannable answer form above. Find and circle each.

## 3.
What is the consequence of any of the marking errors identified in question 2? What would the student have to do to fix the errors?

*All of the subsequent answers would be wrong. The student would have to go back and erase all subsequent answers and restart the test from that number.*
4. Marta is using a scannable answer form to take a test. She is distracted and confused by all of the bubbles and lines. Suggest some things she can do to minimize her confusion and ensure that her answers are synched with the question numbers.

She can keep an index finger on the scan form on the number of the question she’s answering. Before bubbling in an answer, check to make sure the (finger) answer and question numbers are in synch, then slide her finger to the next number. She can check her answers and questions about every five answers to make sure the numbers match up. With her teacher or proctor’s permission, she can use a piece of binder paper or index card to cover the filled rows as she works.

5. Write a true/false statement about yourself containing three segments, one of which is false.

Student’s discretion.

6. If the statement you wrote in response to question 5 were on a true/false test, what must your answer be and why?

False. If any segment of a true/false statement is false, the answer is false.

7. What does it mean to study holistically? Why is this a good way to study for a multiple choice test?

Studying holistically means to study with the broader goal of being able to identify the right and wrong answers, and to study with the goal of being able to recognize sequences in and out of order. The correct choice is often found by process of elimination, which means identifying the wrong answers first.

8. On a multiple choice test, you are searching for the __________ choice.

a. holistic
b. correct
c. best

9. On a scannable answer form, how do you indicate that you intentionally left a row blank in order to return later to answer it? Mark the blank rows on the scanform on page ___ to indicate they were intentionally left blank.

A very light dash (-) to the left of the question number indicates you have intentionally left the question blank to return to it later. Erase the dash after you mark your answer!

10. If you absolutely do not know the answer on a multiple choice test, you may have to guess. What is strategic guessing?

Strategic guessing uses techniques for identifying distractors (grammar match, absolutes, all/none of the above, obvious distractor) to increase the probability of selecting the correct choice.
NOTES

PRODUCT
PREVIEW
WHY MEMORIZING YOUR ORAL PRESENTATION IS A BAD IDEA...

MIDDLE SCHOOL STUDENTS CAN ENGAGE IN EARTH-FRIENDLY SUSTAINABLE ENERGY PRACTICES... R-R-R... UMMM... Today: 3-minute oral presentations Enjoy!

OH NO! I FORGOT THE NEXT LINE!

MAY I START OVER?

YES.

THINK ELENA, THINK! WHAT COMES NEXT?

MAY I START OVER?

YES.

NO.

MIDDLE SCHOOL STUDENTS CAN ENGAGE IN EARTH-FRIENDLY SUSTAINABLE ENERGY PRACTICES LIKE REDUCE, REUSE AND RECYCLE, WHICH SAVES... UMMM... AGGHH! MAY I START OVER??

MIDDLE SCHOOL STUDENTS CAN ENGAGE IN EARTH-FRIENDLY SUSTAINABLE ENERGY PRACTICES... R-R-R... UMMM... LIH...
This lesson corresponds to Chapter 22 of *The Middle School Student’s Guide to Study Skills*.

To prepare for this lesson, develop several oral presentation topics on subjects familiar to middle school students. Topics may be fun or serious. Some ideas are: “The Future of Justin Beiber”, “Why You Should Eat Vegetables” “Why You Should Go to College”, “How to Apologize to a Friend,” “The Good, Bad and the Ugly of Pop Stardom,” “Doing Your Part for World Peace,” “The Perfect Summer,” “The Benefits of Joining a Middle School Club” “3 Questions for Sasquatch” “What’s Wrong with Professional Sports?” “Japanese Cartoons: Awesome, Weird or Weirdly Awesome?” etc. Write topics on flash cards. Students randomly select a card from a box or bag, and prepare a 30-60 second extemporaneous oral presentation practicing skills learned in this lesson. Depending on the number of students in the class, you may have to schedule additional class time for presentations. As an alternative or additional activity, go to www.ted.org. Select examples of excellent, brief oral presentations for students to watch. Students observe and use the form on page 245 of the workbook to critique the presentation. [Explain that “to critique” means to identify and evaluate the positive and negative aspects of the presentation.]
OBJECTIVES

By the end of this lesson the student will be able to:

☐ explain the process of preparing an oral presentation.
☐ tell speaking tips for making an effective oral presentation.
☐ make an extemporaneous oral presentation using speaking skills.
☐ critique oral presentation speaking skills.

GAINING ATTENTION

In the previous lesson, students learned test-taking tips and techniques for multiple choice and true/false tests. On a multiple choice test, the correct answer is often found by process of elimination. Study for the right and wrong choices. Be able to recognize a choice which, even though partially correct, may not be the best or most accurate choice. When faced with a decision dilemma, eliminate any choice that does not grammatically agree with the stem. If you have to make assumptions or read additional facts into an answer, it is probably the wrong choice. Avoid scan form bubbling disasters by tracking answers line-by-line. True/false statements containing multiple segments must be analyzed segment by segment. If any segment is false, the answer is false.

Engage students in a discussion: Students are learning test-taking strategies. A common way teachers ask students to demonstrate knowledge is by oral presentation. Who enjoys making a speech? Why or why not? What skills help make a speech successful?

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to explain how to prepare an effective oral presentation, tell speaking tips for making an oral presentation more successful, give a brief extemporaneous oral presentation practicing speaking skills, and critique an oral presentation.

PRESENTATION OF CONTENT

How to prepare an oral presentation.

For a generation that has grown up on texting and Facebook, a speech requiring eye contact and complete sentences can be a challenge. There are different types of oral presentations given for different purposes and occasions. An impromptu oral presentation is a short speech given with no preparation and little, if any, time for advanced thought, like when you are asked to introduce yourself at a meeting and tell about your interests or hobbies. An extemporaneous oral presentation is a presentation with limited preparation, such as addressing a topic in a speech competition or debate, presenting or receiving an award or introducing a
Oral presentations in class are usually made for informative or persuasive purposes, and are expected to be prepared and practiced. Oral presentations aren't required as often as written tests, but when they're assigned, they almost always make up a significant portion of your grade in class. Mastering basic public speaking is an important skill for high school, college, and career.

Review the rubric. Carefully read the oral presentation rubric or instructions. Understand your teacher's expectations about how the presentation will be graded. Search the rubric or instructions for key words, action words and presentation requirements. As with an essay, the action and key words dictate the "what" and "how" of the presentation. Determine the purpose of the oral presentation. (Is the purpose to inform, such as an oral book report? Is it to debate or persuade? Maybe the purpose is to inspire, honor or motivate, such as a speech to a team.) Note how much time you are expected to speak. Preparing a five minute presentation requires substantially more work than preparing a two minute presentation. Note whether you will be expected to include visual aids such as power points.

Write out your presentation. There's a popular saying with speakers: “Tell them what you’re going to say, say it, then tell them what you said.” To prepare your oral presentation, write a rough draft of it in essay form. A good speech must have structure, so include an introduction telling what you are going to say, a body saying it, and a conclusion telling what you said:

✓ The introduction tells your audience who you are and what you are going to talk about. Its purpose is to get listeners interested in your presentation. Advise the audience of your thesis, the information that will be covered, and how it will be presented. Try to tell or show your audience something in the introduction that gets their attention and entices them to listen.

✓ The body of the presentation is the longest part. It’s where you present your main points and ideas. Move from point to point by obvious and clear transition. (“The next point I’d like to make is...”) Try not to jump around or go back and forth between ideas. It confuses the audience. The number of ideas you present and how deeply you discuss them, depends on the amount of time you have for the presentation. Don't stuff so much information in to a presentation that you have to rush to cover each point. On the other hand, don't make so few points that you end up without enough to say, and have to repeat points to fill time.

✓ The conclusion is a brief summary of the main points. If you have a message for the audience, such as the address of a website where they can find more information about the topic, or how they can help with a cause, tell them in the conclusion. Reserve a little time for questions from the audience. Finish your presentation by thanking the audience.

Make cue cards. Once you’ve written out your presentation and are satisfied with it, review the text and circle the main points. Make cue cards with main points condensed into key words and phrases. 3 x 5 index cards work great. Notes are acceptable too. Do not write the full text of the presentation on the cue cards. You do not read from the cue cards. Use them to prompt you to recall the main points in correct order. If you’ve practiced your presentation well enough, the words and phrases on the cue cards should be sufficient to prompt your recollection of the content. Number the cue cards in case they get out of order.
Integrate visual/tech. In Chapter 14 you learned that your eyes support your ears, and your ears support your eyes. A good oral presentation includes visual aids. Drawings, graphs, charts, pictures, comics, video clips, photos or maps make an oral presentation more effective and memorable. Select images that help your audience understand the points you’re making. If you are using power points, number them, and write the number on the coordinating cue card so the slides and the presentation stay in sync. Do not read slides or other visual aids to your audience – explain them. Use bullet points instead of full sentences for text. Practice your entire presentation using the visual aids. Tech is not infallible, so have a backup source for visual aids, like a copy on a flash drive or disk – even a hand out.

Tips for looking like an experienced speaker

It’s a rare person who can make an oral presentation with little practice and actually do it well. Oral presentation skills are learned skills. You can be sure that any speaker who appears to be relaxed, confident, and completely comfortable in front of an audience has put in long hours of practice. In fact, many excellent public speakers confess that they’ve never really gotten over stage fright, but because they practice their presentation many times and have developed speaking skills, the audience never suspects they’re nervous. These tips will help you trick out your presentation to make you look like an experienced speaker:

Voice: Practice your presentation aloud several times, so you can hear your voice, volume, pace and intonation. When presenting, speak loud enough so the person in the back row will be able to hear you, but don’t shout. Unless you’re trying to put your audience to sleep, try not to speak in a monotone. Voice intonation is a tool speakers use to emphasize a point, or signal the transition between points. An active, intonated voice makes an audience pay attention and want to hear more.

Time: Time your presentation. Make sure you meet the requirements set by your teacher.

Pace: Nervous speakers often rush through their presentation. Resist doing this! Try to speak at a normal pace. Pause between main points to allow your audience a chance to absorb information and recognize transitions.

Gestures: Standing still with your hands at your sides in robo-speaker mode is not interesting to an audience. On the other hand, excessive gesturing is distracting and can make you appear nervous. It’s perfectly fine to use your hands or walk around a bit to emphasize points. Just don’t get carried away with movement. Never put your hands in your pockets or fiddle with your hair during a presentation.

Facial expression and eye contact: An oral presentation is no time to master your deadpan delivery. Facial expression is important! It draws your audience in. If you look bored, your audience will be bored. If you look sincere and interested, your audience is more likely to be interested in what you have to say. Make eye contact with audience members – not with your shoes or the ceiling. Don’t stare at your cue cards. Look around at all of the audience, not just at one or two people or the front row.

Pauses: If you get stuck or lose track of where you are in your presentation, try not to mutter “ummmm” or giggle nervously. Pause and look at your cue card to find your place. Take a breath, regain your composure and move on. The pause may seem like an eternity to you, but audiences are pretty tolerant and will barely notice.
**Vocabulary:** When you give an oral presentation, you must appear to be an expert. That requires seriousness of purpose and use of appropriate vocabulary. Do not demean your role as expert by infusing the presentation with middle school student jargon like “awesome,” “sucks,” or “ya know?”

**Memorization:** Novice presenters are often tempted to memorize their entire presentation, then recite it from memory. Do not do this! Memorization is a technique for acting. You are speaking, not acting. **Memorization is a poor oral presentation technique because it does not allow for flexibility.** More often than not, memorization backfires because the speaker forgets part of the speech, gets confused, and has to backtrack through the speech to prompt their memory. Memorizers often speed through delivery ending up with a presentation that sounds unnatural, and falls short of the time mark. It's truly much easier to make a good presentation with practice and reliable cue cards, than to memorize it.

**How to develop speaking skills**

If you plan to pursue a leadership position in a high school club or association, or are interested in a college major or career requiring oral communication, good speaking skills are essential. **In high school, you will have many opportunities to develop speaking skills.** The debate team is an excellent place to hone skills, as are clubs like Youth in Government (YIG), Model United Nations (MUN), Junior Statesman of America (JSA) and Junior Toastmasters. Developing your public speaking skills through one of these fun associations also goes a long way toward improving your ability to make an effective informative or persuasive oral presentation in the classroom.

*Check for understanding and proceed to the activity.*

**ACTIVITY**

Direct students to page 244 of the workbook. Introduce the activity. Students randomly select one oral presentation topic card from the bag or box. Allow students 5 minutes to prepare a 30-60 second presentation. The objective of the presentation is for students to practice using cue cards, moderating their voices for volume and intonation, using facial expression, eye contact, dealing with pauses, lost concentration, pacing, gestures, etc. Remind students that this is intended to be a fun activity, not a stressful exercise! Consider making this activity a weekly event. If time allows, view TED presentations prior to the activity so students can observe and model good speaking skills.

*On completion of the activity, proceed to Let’s Summarize!*
LET'S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 248 of the workbook.

1. An __________________________ speech is an oral presentation given with a little time to prepare, such as in a debate, introduction of a speaker or acceptance of an award. Most oral presentations students make in school are to inform or persuade, and are expected to be ________ prepared ________ and ________ practiced ________!

2. Memorization ________ is a poor oral presentation technique because it does not allow for flexibility. It can cause a speaker great distress if they forget a part.

3. “Tell them what you’re going to say, say it, then tell them what you said.” A good oral presentation needs ________ structure ________, including a(n) ________ introduction ________, a ________ body ________ and a ________ conclusion ________.

4. Oral presentation skills are learned skills. To appear to be an experienced and confident speaker, use ________ voice ________ intonation to signal transitions, speak at a ________ normal ________ pace, do not make excessive ________ gestures ________, make ________ eye ________ contact with the audience and try not to say ________ ummmmm ________ when you pause.

5. Oral presentation skills are a must for any academic or career leadership role. In high school, consider joining the ________ debate ________ team, Model ________ United Nations ________, Youth in ________ Government ________, Junior Statesmen of ________ America ________, Junior ________ Toastmasters ________, or any other club or activity to develop your speaking skills.

READING AND HOMEWORK

- Students read chapter 23 in the workbook to prepare for the next lesson.
You will prepare a one minute oral presentation on a topic selected at random. Include an introduction, body, and conclusion. Focus on using your voice, intonation, and facial expression. Use your hands to emphasize points. Watch your pace. If you lose concentration, try not to say “ummm” or giggle. When you conclude, thank your audience and refer them to the chart on page 245 to critique your presentation. (Use this page as your cue card.)

**The One Minute Presentation**

**Topic:**

**Introduction**

**Body**

Point 1

Point 2

Point 3

**Conclusion**
## ORAL PRESENTATION CRITIQUE CHECKLIST

<table>
<thead>
<tr>
<th>SPEAKING SKILL</th>
<th>CRITIQUE</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>Volume was adequate.</td>
<td>Too soft or too loud.</td>
</tr>
<tr>
<td>Gestures</td>
<td>Gestures were appropriate and used to emphasize points.</td>
<td>Too few or too many. Hands in pockets or fiddled with hair, etc.</td>
</tr>
<tr>
<td>Pace</td>
<td>Good pace.</td>
<td>Too fast or too slow.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Good eye contact.</td>
<td>Looked up or down, but made little/no eye contact; stared at one or two people.</td>
</tr>
<tr>
<td></td>
<td>Looked around at the audience, not just at the front row.</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>On time.</td>
<td>Under/over 1 minute.</td>
</tr>
<tr>
<td>Intonation</td>
<td>Used voice to emphasize points and indicate transitions.</td>
<td>Monotone – could use a little vocal variety.</td>
</tr>
<tr>
<td>Pauses/loss of</td>
<td>Handled well; looked at cue cards and got back on track.</td>
<td>Said “ummm” “uhhhh” giggled, looked around, or gave up.</td>
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<tr>
<td>concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial expression</td>
<td>Used facial expressions to draw in audience; looked interested in their own message.</td>
<td>Deadpan delivery. Could use a little more facial expression.</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Used “expert-appropriate” language</td>
<td>Too much slang or informal language. (i.e. “awesome” “ya know” “and like” etc.)</td>
</tr>
<tr>
<td>Introduction</td>
<td>Introduced themselves, the topic and thesis.</td>
<td>No introduction; dove into presentation without telling the audience about their topic or thesis.</td>
</tr>
<tr>
<td>Body of presentation</td>
<td>Points were clearly stated; transitions clearly made.</td>
<td>Points not clearly made; transitions not clearly indicated; jumped around between ideas.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Summarized their presentation. Asked for questions. Thanked the audience.</td>
<td>Ended abruptly. Didn’t thank the audience or allow questions.</td>
</tr>
</tbody>
</table>
**APPLICATION OF SKILLS**

**Awesome Advice for A.J.**

A.J., a student at U.B. Smart Middle School, has to make a three minute oral presentation in Miss Loveless’ literature class. Knowing that you’re an expert on oral presentations, he’s asked your advice.

1. “I have to give a 3 minute oral presentation in my literature class on Friday. My teacher wants us to argue for or against a particular 20th century author as the most influential on modern American literature. What kind of presentation is that?”

   *(persuasive) prepared presentation*

2. “I’m a pretty good talker, and have a basic idea of what I want to say. I think I can wing it. What do you think?”

   Your teacher has asked for a prepared oral presentation, not an impromptu speech. Speaking for three minutes is a fairly lengthy time which requires preparation and practice. Winging it is a bad idea!

3. “If I don’t wing it, how should I prepare for my oral presentation?”

   Review the rubric. Write your presentation out in essay form with an introduction, a body and a conclusion. Reduce it to key words and phrases. Make cue cards with prompts. Create relevant visuals. Practice your presentation using speaking skills.

4. “What are cue cards and how do I use them?”

   Cue cards are 3x5 index cards or notes with the main points condensed into key words and phrases. Do not write your full presentation on the cue cards. Do not read from them. Glance at them to prompt you to recall the main points in correct order. Number the cue cards in case they get out of order.

5. “Should I memorize my presentation?”

   If you practice your presentation well enough, a few words and phrases on a cue card should be sufficient to prompt your recollection of the content. It’s easier to make a good presentation with practice and reliable cue cards than to memorize a long speech. Memorization is a poor oral presentation technique.
6. “I feel totally awk standing up and talking in front of people, even if it is just a bunch of my classmates. What speaking skills can help me overcome this or at least appear less nervous?”

   Most speakers get butterflies or feel awkward.
   The best way to appear relaxed and confident is to practice your presentation. Develop presentation skills like using your voice, face and gestures, making eye contact and knowing how to handle pauses. Those things disguise nervousness. Join a club or an activity where you can practice speaking.

7. “When I’m talking in front of an audience I don’t know what to do with my hands so I shove them in my pockets. Is that ok?”

   No. Keep your hands out of your pockets. Use them to help you express ideas.

8. “When I lose track of my place in my presentation or I get confused, I sometimes say “ummm” or start laughing. It’s totally embarrassing. What should I do if that happens?”

   Look at your cue card to find your place. Take a breath. Regain your composure and move on. Most audiences are pretty cool. They won’t notice or care if you pause.

9. “Should I thank the audience for listening? If so, when? What should I say?”

   Yes. Thank them at the conclusion of your presentation. Ask them if they have any questions, such as whether they need more information, or would like you to clarify a point.

10. “I am using Power Points for my presentation. There’s a lot of text on them. Is it cool if I just read the slides to the audience?”

    Unless you are presenting to preschoolers, your audience can read for themselves. Don’t read slides or visuals. Explain them! Avoid using too much text on a slide. Use bullet points instead.
IT'S ALL HOW YOU LOOK AT IT.

DUDE!
YOU KILLED IT!

DUDE.
YOU KILLED IT.
This lesson corresponds to Chapter 23 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 23A-E (www.middleschoolguide.com)
- Workbook pages 250-263.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- explain types of test anxiety.
- tell tips to relieve anticipatory test anxiety.
- tell tips to relieve situational test anxiety.

**GAINING ATTENTION**

In the previous lesson, students learned that public speaking skills are important for high school and college. Oral presentations are made for different purposes and occasions. In middle school, high school, and college, oral presentations are made for informative or persuasive purposes and are expected to be prepared and well-practiced. They can make up significant portion of your grade in a class. When you are assigned an oral presentation, review the rubric and write out your presentation with an introduction, body and conclusion. Make cue cards. Create visual aids. When speaking, engage your audience by using voice intonation, facial expression and eye contact. Practice, practice, practice! Join a club or activity that helps you to develop good public speaking skills.

*Engage students in a discussion: Do you get stressed out before a test? Have you ever blanked out on a test and been unable to answer a question, even though you knew the material? Why does this happen and what can you do about it?*
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to explain the differences between types of test anxiety, and tell tips for controlling test anxiety.

PRESENTATION OF CONTENT

What is test anxiety?

Almost everyone gets a little nervous before a test. It’s perfectly normal. But for some students, a bout of nerves can get so severe it causes them to have trouble concentrating or even blank out on answers. This is called test anxiety. It’s not the kind of stress you logically (and deservedly!) feel when you’ve blown off studying for a test. Students who suffer from test anxiety often do poorly on tests in spite of the fact that they have studied and are well-prepared. Some students begin to feel nervous days or even weeks before a test. That’s called anticipatory anxiety. For others, the nervousness happens during the test. That’s called situational anxiety.

Where does test anxiety come from?

The physical symptoms of test anxiety – the racing heart, tense muscles, queasy stomach etc., come from a stress hormone called adrenaline which the body produces when it’s in a scary situation and wants o-u-t! The more important a test, the more severe a reaction can be. There are a lot of opinions about why students become anxious before tests. Some experts believe it may be a learned behavior resulting from a prior bad test experience. Others think it affects students who are inclined toward perfectionism and have a fear of failure. The fact is, test anxiety is quite common. It just affects students to a greater or lesser degree. If it begins to interfere with your performance on tests, it’s time to tame the test anxiety beast!

How do you control anticipatory anxiety?

Make a plan. Do you feel anxious days before a test? Do butterflies in your stomach flutter their wings when you even think about an upcoming test? That’s called anticipatory test anxiety, and experts say that our old nemesis procrastination may be at the root of it. For some students, the very thought of a test makes them so uncomfortable that they ignore it and “stick their head in the sand.” Later they have to cram to prepare, which adds to the stress. To quell anticipatory anxiety, take control. Conquer procrastination. Face test preparation head on. Create a good study plan, organize a study schedule, and stick to it. Planning, routine and preparation go a long way toward controlling test anxiety.

Use your study skills. Build your test-taking confidence by using the study skills you’ve learned in this course, including time-spaced learning, anticipating test questions and self-testing. Good study skills have made you a faster, more efficient and effective learner. You should be confident in your ability to adequately prepare for any test.
**Visualize success.** Thinking positively about the outcome of the test helps control anticipatory anxiety. Don't let your mind wander to the dark side, seeing yourself failing the test and imagining all sorts of horrible consequences. **Replace negative thoughts or visions of failure with positive ones of you confidently taking the test and achieving a good result.**

**How do you control situational anxiety?**

**Expect a little anxiety.** In an academic world addicted to tests and test scores, many students struggle with **situational test anxiety.** It hits when they’re taking or about to take a test. Sure, it would be great not to feel nervous at all, but how realistic is that? If you begin to feel a little nervous, don't be surprised by it. Understand that it's **normal.** Don't focus on it.

**Have confidence in your test taking skills.** Make a preemptive strike on situational anxiety by reminding yourself of your **awesome test-taking skills.** You know how to read a test question for action and key words. You know how to allocate your time on a test. You can brainstorm and activate your schema. You have essay and short answer skills, and if you run into trouble on a multiple choice test, you know strategies to help you select the correct answer. You’re a lean mean test-taking machine!

**Relax and breathe.** If you feel anxiety creeping up on you during a test, tell it “no” and push it away with your mind. **Take slow, deep breaths.** Relax your shoulders and neck — that’s where muscle tension often builds. Don’t think about it or give into the feeling. Visualize yourself doing well on the test.

**Assess the threat.** Anxiety is the body’s reaction to a perceived threat. It starts pumping out adrenaline to charge up the muscles to either fight, or get the heck outta there! Ask yourself: “**What danger am I in here? What will really happen to me if I don’t do well on this test? Is this a life-threatening situation? Aren't I overreacting a little?**” It helps to remind yourself that, while failing a test is an **inconvenience** and has obvious negative consequences, it **won’t actually kill you.**

**Ignore students who finish ahead of you.** A test is not a race. There’s no reward for finishing first and there’s no penalty for finishing last. Take your time. Focus on doing your best. The fact that other students finish before or after you has **no significance.** Don't read anything into it.

**Get your zzzzz’s!** Shakespeare’s character **MacBeth** nailed it when he said “sleep knits up the ravell’d sleeve of care.” It’s important to get enough sleep the night before a test. **Too little sleep can leave you edgy and irritated, adding to the adrenaline dump and making you feel more anxious.** Sacrificing sleep to study for a test is a gamble. You may think you’re learning, but you could actually be sabotaging your test performance. Get a good sleep the night before a test. When you wake up, spend a few minutes thinking about what you studied and **recalling** information.

**Eat! Hydrate!** Oxygenation, hydration, and carbohydrates are the fuel that makes your brain work. Carbohydrates are transformed into glycogen which fuels the brain. Do you know your brain uses 50% of your body's glycogen? Brainy needs even more when it's stressed out and working hard on a test. **Do not go into a test hungry.** Eat breakfast in the morning. Grab a healthy snack and a glass of H20 before a test.
Write your fears away. Researchers at the University of Chicago recently discovered that students who are prone to test anxiety improved their test scores when they were allowed a few minutes before the test to write about their fears. Apparently, dumping anxieties onto a piece of binder paper frees up brainpower normally occupied by worries about the test. If you suffer from situational test anxiety, it's worth a try. Arrive a few minutes early to the classroom. Write a paragraph addressing your fears about the test. Visualize the anxiety moving out of your brain, down your arm, to your hand and on to the paper. (Ramirez and Beilock, 213)

Talk to your teacher. Test anxiety is fairly common, but if you feel it's affecting your test performance, talk to your teacher or counselor about it. They can help.

Check for understanding and proceed to the activity.

ACTIVITY

Direct students to page 255 of the workbook. Introduce the activity.

On completion of the activity, proceed to Let's Summarize!

LET'S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 259 of the workbook.

1. Test anxiety is not the kind of stress you logically (and deservedly!) feel when you blow off studying for a test; students with this problem often do poorly on tests in spite of the fact that they have studied and are well-prepared.

2. Feeling nervous days or even weeks before a test, is called anticipatory anxiety; feeling nervous during the test is called situational anxiety.

3. Strategies for controlling anticipatory test anxiety include making and sticking to a study plan and schedule; Anticipatory test anxiety is often the result of procrastination.

4. If anxiety creeps up on you while you are taking a test, tell it “no!”, push it away with your mind and take slow, deep breaths; remind yourself that you have excellent test taking skills and strategies.

5. Students prone to test anxiety may be able to control their nervousness if they write about the causes of their fears just before the test; unloading anxiety frees up brainpower normally occupied by worries about the test.
READING AND HOMEWORK

- Students read chapter 24 in the workbook to prepare for the next lesson.
- Students complete pages 257-258 in the workbook *Application of Skills* [Taming Test Anxiety.] Collect for assessment.
- **Unit 7 Quiz:** Students complete pages 260-261 in the workbook [What Did You Learn About Test-Taking Tips & Strategies?]
Name: __________________________________________________________

PROCRAST-O-METER

Anticipatory anxiety is the nervousness a student feels days or weeks before a test. Procrastination is often at the root of it. To tame test anxiety, wage all out war against procrastination! Create a study plan, organize a study schedule, and commit to it. Procrastination can be conquered!

Take this survey then check your score on the Procrast-o-meter.
Scoring guide: 10 = No, never! 1 = Yes, totally!

← NO, NO NEVER! — — — — — — — — — — — — — — — — — — — — — — YES, TOTALLY →

1. I put low priority tasks ahead of high-priority tasks.
   10 9 8 7 6 5 4 3 2 1

2. I blow off important tasks and responsibilities to do fun stuff instead.
   10 9 8 7 6 5 4 3 2 1

3. I blame my “poor time management skills” when I fail to complete an assignment or adequately prepare for a test.
   10 9 8 7 6 5 4 3 2 1

4. My typical reaction to being assigned a project or report, or needing to study for a test is “Why do today what I can put off until tomorrow?”
   10 9 8 7 6 5 4 3 2 1

5. I delay working on a project or studying because I work more productively under pressure.
   10 9 8 7 6 5 4 3 2 1

6. I put off working on a project or studying because I’m more creative under pressure.
   10 9 8 7 6 5 4 3 2 1

NOTHING IS SO FATIGUING AS THE ETERNAL HANGING ON OF AN UNCOMPLETED TASK.

HEY KIDS! HE MEANS THAT PROCRASTINATION CAUSES A LOT OF STRESS!

William James

Nothing is so fatiguing as the eternal hanging on of an uncompleted task.

Bill Skillsworth

hey KIDS! he means that procrastination causes a lot of stress!

Anticipatory anxiety is the nervousness a student feels days or weeks before a test. Procrastination is often at the root of it. To tame test anxiety, wage all out war against procrastination! Create a study plan, organize a study schedule, and commit to it. Procrastination can be conquered!

Nothing is so fatiguing as the eternal hanging on of an uncompleted task.

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Anticipatory anxiety is the nervousness a student feels days or weeks before a test. Procrastination is often at the root of it. To tame test anxiety, wage all out war against procrastination! Create a study plan, organize a study schedule, and commit to it. Procrastination can be conquered!

Nothing is so fatiguing as the eternal hanging on of an uncompleted task.
7. My way of coping with the prospect of studying for a test or quiz is to stick my head in the sand and hope the test or quiz goes away.

8. I can’t start studying or working on a project until everything is “just right” (i.e., I’m comfortable, organized, not hungry, not thirsty, in the right mood to start working, etc.).

9. I have to rush to complete projects and assignments by the due date.

10. I cram.

PROCRAST-O-METER

Mild procrastinator status. Figure out why and when you procrastinate. Do you really believe you’re more creative, or study better at the last minute? That attitude can backfire in high school and college.

Break the procrastination habit before it becomes a serious problem. When you’re assigned a project or need to study for a test or quiz, make a study plan and stick to it!

Serial procrastinator status. You miss deadlines and due dates. You cram to prepare for tests. You waste a lot of time. Your procrastination has become a bad habit and it’s affecting your grades. Conquer procrastination now, or one day it may take you down.

Congratulations! You are not a procrastinator. You face projects, reports and test preparation head-on, without delay. The words “I’ll do it later” are not even in your vocabulary! Keep up the good work.
**APPLICATION OF SKILLS**

**Taming Test Anxiety**

1. With regard to test-taking, what are the differences between *anticipatory* anxiety and *situational* anxiety?

   *Feeling nervous days or even weeks before a test, is anticipatory anxiety; feeling nervous during the test is situational anxiety*

2. You're halfway through a test. Most of the students have already handed in their tests and left. Should you be worried? What does it mean?
   
   a. Those students are smarter than you.
   b. You must have been given a different, harder test.
   c. Don't worry. It means nothing. Ignore them.
   d. They probably couldn't answer the questions and gave up.

3. Glycogen fuels the brain, so it's important to __________ before a test.
   
   a. glyke up
   b. chant
   c. eat something healthy, duh.
   d. study

4. To control *anticipatory* test anxiety it's helpful to:
   
   a. create a thorough study plan
   b. organize a study schedule
   c. stick to the plan and schedule
   d. all of the above

5. Some tips for controlling *situational* test anxiety are to:
   
   a. expect a little anxiety
   b. have confidence in your test taking skills.
   c. relax your muscles and take deep slow breaths
   d. all of the above.

6. According to researchers at the University of Chicago, how might writing about test-taking fears before the test reduce situational anxiety?

   *Addressing fears in writing before a test has been shown to have the effect of relieving situational anxiety. The theory is that the fear “moves” from the brain on to the paper, and frees up brainpower normally occupied by worry.*
Create a PROCRASTINATION acrostic telling why procrastination is a bad habit and how you will conquer it.

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Blog/Debate/Discuss
• Have you ever suffered a bout of test anxiety? What happened? Did it affect your test score?
• What’s the worst blunder you’ve ever made on a test?
• What’s your ideal career path? Will it require good public speaking skills?
• Tell about a time you listened to a really good speaker. Why was the speaker so good?

Practice, Practice!
• What Did You Learn About Test Taking Skills & Strategies?
• Once a week go to www.ted.com and select an oral presentations for your students to observe, critique and model.
• Say no to messy edits! Require students to learn and use proofing symbols.

Unit Sources
Boyle, Emily, The Great Debate Over the Five-Paragraph Essay - Academic Help or Creative Hindrance? Yahoo, 2007
Taking Multiple Choice Exams
www.uwec.edu/geography/ivogeler/multiple.htm

It’s a Team Effort!
• Students design Action Word posters for classrooms reminding them to search for action words, and to use words and phrases that support the action word on written tests.
• Invite students from the high school debate team, MUN, JSA, or other club to talk to your class about how their club or activity can help them develop speaking skills, and have fun doing it! Ask them to invite your students to a club event or activity.

College Readiness Corner
• It’s important that students understand the differences between test and quiz action words. Knowing the specific meaning of an action word enables a student to understand what is expected in their response, prevents misunderstanding of the question, and helps keep their response on topic. There are dozens of action words students should be familiar with for good test-taking skills. Get your students high school and college-ready with “Action Word of the Week.” Select, analyze and practice one action work.
• Prepare students for leadership roles in high school and college by teaching and practicing Roberts Rules of Order.

Tech Connect
App name: Speaker Timer. Provider: Minute Apps. Price: $0.99. Compatible with: iPhone, iPod, iPad. Features: Time your speech, and break it up into independently timed sections, allowing you time each part of your speech and cover multiple topics.
App name: Sound Meter. Provider: Smart Tools Co. Price: Free. Compatible with: Android. Features: Measure the volume of your voice when practicing for an oral presentation to make sure your audience will be able to hear you.
App name: Anxiety Test. Provider: Rui Fonte. Price: $2.00. Compatible with: iPhone, iPod, iPad. Features: Answer questions to test your overall level of stress and anxiety.
WHAT DID YOU LEARN?  

Name: ____________________________________________________________

1. In a short answer or essay test question, what is an action word? Why are action words important?
   An action word tells the writer to present their response in a certain way, such as “list,” “explain” or “evaluate.” It tells the writer “how” to answer the question.

2. Circle the stem of this multiple choice question:
   It is warmer at the equator than at the North Pole because ____________________________
   a. the equator has a larger area than the North Pole.
   b. the equator is closer to the Sun than the North Pole.
   c. the equator receives more direct sunlight than the North Pole.
   d. the equator has more hours of daylight per year than the North Pole.

3. Circle the obvious distractor on this multiple choice question.
   George Washington was:
   a. a General in the United States Army.
   b. the first President of the United States of America.
   c. a peanut farmer from Georgia.
   d. signed the Declaration of Independence.

4. By using a process of elimination to find the answer to question 3, you may eliminate d as a distractor. What clue tells you d is wrong?
   The stem and the choice do not grammatically match.

5. Anticipating questions and choices your teacher might include on a multiple choice test is a good way to study. When you do this, include:
   a. wrong, better and best choices
   b. choices with processes and steps
   c. choices with chronology of events
   d. all of the above

6. Always reserve a few minutes at the end of a test to proof and edit your essay. To keep your edits neat, and your essay legible, use proofing symbols:
   \(^\) = insert/add a word or phrase
   \(_\) = delete a word or phrase
   stet = leave as it was originally written
   \(\) = new paragraph
   \(\) = pos. spelling error
   \(\) = all of the above

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Product Preview

Student Book
7. Decision dilemma! On a multiple choice test, when deciding between two choices which both seem correct, eliminate the choice that:
   a. grammatically agrees with the stem.
   b. is true only under certain narrow conditions
   c. needs additional facts read into it (or assumed) to make it work
   d. b and c

8. How can voice intonation be used effectively in an oral presentation?
   Your voice is a tool to emphasize certain points, indicate transitions, bring more meaning to words, and make your presentation more interesting. A monotone presentation is boring to an audience!

9. How can the speaker’s facial expression add to their message in an oral presentation?
   Facial expressions add dimension to a presentation and convey meaning. Facial expression draws the audience into the presentation and conveys the speaker’s interest in their own content.

10. In an oral presentation, what are cue cards used for?
    Cue cards prompt recall of information. Do not read directly from the cue cards.

11. When an action word tells you to analyze a key word, concept or idea, what should you do?
    Break the key word (concept or idea) into parts and analyze each separately. Then discuss how they relate to one another.

12. In the following sentence, state every fact that must be true in order for the answer to be “true.”
    Transferases are enzymes that transfer molecules and trigger the transfer of a functional group.
    ✓ transferases are enzymes ✓ transferases trigger transfer
    ✓ transferases transfer molecules ✓ transferases trigger transfer of a functional group

13. The debate team is an excellent place to develop oral presentation skills, as are clubs like Youth in Government (YIG), Model United Nations (MUN), Junior Statesman of America (JSA) and Junior Toastmasters. Go to your future high school’s website. What opportunities does the school offer for students to develop public speaking skills?
    Student’s discretion.

14. What is your strongest test-taking skill? What test-taking skills do you need to improve?
    Student’s discretion.
UNIT 8

WRAPPING UP FOR COLLEGE READINESS

Lesson 24  So Close, Yet So Far...  Distance Learning
Lesson 25  Ouch My Brain Hurts! Critical Thinking Skills
Lesson 26  Ramp Up Your Research Skills
Lesson 27  Good Citizens, Perfect Participants!
Lesson 28  The Benefits of Failure

By the end of Unit 8 the student will be able to:

☑ define distance learning.
☑ identify the benefits and challenges of distance learning.
☑ state strategies for a successful online learning experience.
☑ observe the navigation of a distance learning course.
☑ list higher order thinking skills.
☑ explain the process of critical thinking.
☑ demonstrate critical thinking.
☑ compare technical vs. information literacy.
☑ list information literacy skills for basic college readiness.
☑ identify bias, relevance, accuracy, credibility and currency in a sample article.
☑ describe a variety of ways to effectively participate in the classroom community.
☑ list the benefits of good classroom citizenship and participation skills.
☑ assess poor participation and citizenship skills in a role-play presentation.
☑ make a plan to improve their own participation and citizenship skills.
☑ compare failure vs. set back.
☑ set grade goals for success.
☑ recognize the relationships of poor study skills to grade goal failures.
☑ list potential benefits of failure.
...and we'd all like to thank Miss Payne who has graciously volunteered to take the lead in designing our new distance learning program!
This lesson corresponds to Chapter 24 of The Middle School Student’s Guide to Study Skills.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 24A-D (www.middleschoolguide.com)
- Workbook pages 264-275.

Note: To prepare for this lesson, contact your district office, local high school, or home school division for access to a distance learning (DL) course. Preview the DL program using the activity worksheet on page 270 of the workbook. Alternatively, invite a high school or home school teacher, or district DL administrator to demonstrate DL program(s) navigation for your students, and discuss the benefits and challenges students face when enrolled in a DL program.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- define distance learning.
- identify the benefits and challenges of distance learning.
- state strategies for a successful online learning experience.
- observe the navigation of a distance learning course.

**GAINING ATTENTION**

In the last unit, students learned test-taking tips and strategies. Good test-taking skills help students avoid strategy errors on short answer, essay, multiple choice and true/false tests. For multiple choice tests,
study holistically, because the correct choice is often found by process of elimination. Essays and short answers must address each action and key word in the question. True/false statements with multiple or compounded segments require careful consideration of each segment. If one is false, the answer is false.

Good oral presentation skills are important for high school and college. Oral presentations are a means of demonstrating knowledge and are often heavily weighted for grading. Oral presentation skills include thoroughly preparing and using speaking skills such as voice intonation, gestures and eye contact.

Engage students in a discussion: The proliferation of smart devices such as iPads, iPods, cell phones, tablets and laptops means that education is increasingly tech-based. Have you ever wondered what it would be like to take an entire course online? What would you like about it? What problems might you encounter?

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to define distance learning, identify the benefits and challenges of distance learning, tell how to make an online learning experience successful, and observe the navigation of a typical distance learning program.

WHAT IS DISTANCE LEARNING?

Ready or not, here it comes! Distance learning (“DL”) is headed your way. DL has many aliases: Online courses, online learning, the virtual classroom, distance education, e-learning, and web-based learning. DL is a program or class delivered over the internet instead of in a traditional classroom. With the growth of technology and easy access to mobile devices, DL is a fast-growing trend in American education. In high school and college, you will take one, or even several DL courses. The ability to work successfully online is an important study skill.

HOW DOES DISTANCE LEARNING WORK?

There are thousands of DL courses covering just about every subject. In high school and college, teachers and administrators select the DL courses students may take for credit. In high school, students take a DL course designed by an online company or publisher. In college, the DL course is usually created by the professor. DL students are supervised and graded by a teacher, professor or “course facilitator” at the high school or college. Course materials, including all reading, study guides, worksheets, and quizzes are accessed through the course website. For example, lots of high school students take a popular online American Government course. The course appears on their schedule as a regular class, but with no assigned period. Students go to the course website and set up a student account with a user name and password. From that point on, all of their course work is completed online through the website.
**What are the benefits of distance learning?**

**Anytime, Anywhere!** An obvious benefit of DL is the freedom of being able to choose when and where to “go to class.” Students can access their course account 24/7 and as long as they have a computer, tablet or digital device with internet access they can work from anywhere in the world. Another benefit: no dress code! Jammies and slippers are acceptable attire.

**Materials included.** No more toting around heavy textbooks! Online courses are taught in *modules*, which are like lesson units. All the materials students need for a module are on the course website. The downside is, there may actually be more required reading than a traditional course. DL students often underestimate the amount of time needed to complete the reading and other assignments in a DL course module.

**Virtual and interactive experiences.** DL courses are interactive, allowing for a rich sensory learning experience. A well-designed DL course includes links to audio and video resources such as music or other audio, film clips and slides to improve comprehension and engagement with the course content.

**Participation.** DL coaxes students out of their shell and encourages participation in class. As distance learners, everyone’s on equal footing. Since participation is generally by discussion board or chat, everyone gets a say, not just the talkative overachievers. “Classmates” can be grouped for online projects.

**Do-overs.** Unlike the one-shot at information you get in the classroom lecture, DL enables students to read and reread materials, and listen over and over again to a lecture. Some courses allow students several attempts at a quiz and provide instant feedback on errors and scores. There are however, limits to do-overs. For example, in March you probably can’t access a module assignment or quiz you were supposed to complete in February. Like a traditional class, there are deadlines and due dates.

**Upward mobility.** DL enables students to take courses at a level of study more advanced than their current grade level. With approval from their counselor, high school students can take college level courses or study subjects not offered at their school, such as a world language course. Because you can set your own schedule it’s not hard to take a DL course in addition to your regular courses.

**Remediation and Credit Recovery.** DL is popular option for students who need to repeat a class for credit recovery or remediate skills before moving to the next level in a subject.

**What are the challenges of distance learning?**

**System requirements.** Obviously students need access to a computer with a reliable internet connection. In a few rural areas in the U.S., the internet connection is still spotty, but those problems should resolve as broadband expands into even the remotest of locations. Most DL courses require the user to download a plugin to work. Most DL courses can also be delivered through mobile devices including smart phones, tablets and iPods. In fact, virtual delivery of content is getting so popular that many high schools are turning to BYOD or BYOT (Bring Your Own Device/Tech) programs, allowing students to use their mobile device in class to access digital content.
Program navigation. In a traditional classroom, students walk in, sit down and have a pretty good idea of how the lesson will be presented and what is expected of them. Not so with DL programs. There isn’t a standard DL course design. Some programs can be trickier than others to navigate. When you enroll in a DL program, plan on spending some time learning your way around it. Take the tutorial. Watch the demo. Check for download and system requirements. Try out the links, access the discussion board, learn how to post a message and contact the instructor. Know how to file an essay, take a quiz, track grades, and get the instructor’s feedback. Fumbling around a DL program when you need to do your reading or post an assignment can make the DL experience frustrating.

Submitting work. Have you ever accidentally deleted a document or lost your work in cyberspace? DL programs suffer occasional tech glitches. Users can be timed out sooner than expected, or by going back a page, inadvertently delete their work. To avoid this, compose extended responses or essays in a word processing program outside of the DL program, then copy and paste the response into the response window. Some DL programs have a dropbox feature enabling students to file papers and essays by attachment. Before you click “submit” always save copies of written work or posts.

Submitting work outside of the DL program. Students may be required to submit papers, reports or essays outside of the DL program through a professional online submission service such as TurnItIn.com. Build in additional time for this task, because it often does not go as smoothly as hoped. Students must first create an account and password. Users may need to download a plugin or application. Users can encounter file format errors, file size limitations, or other problems uploading a document. Allow plenty of time before a deadline to upload your work.

Attendance. The instructor or course facilitator is able to track how often and for how long students log on, what files or pages they access, and when they log off. If you don’t “show up for class” for several days the instructor will know. Regular attendance is important! Since students are able to log into their account using any mobile device with internet access, there’s no excuse for poor attendance.

Time Management. DL classes can be surprisingly time-consuming. In fact, they often require more time and more work than on-site classes. After all, reading a lecture takes more time than listening to it. There’s often a great deal of required participation and writing. Before starting a module, preview all of the required reading and assignments. Make an estimate of the amount of time it will take to complete the module work. Schedule the assignments in your planner. If you miss an assignment, don’t count on being able to make it up. Generally, when a due date passes, the assignment link in the module is taken down, and the student receives a zero.

Keyboarding. Would it be stating the obvious to say that strong keyboarding skills are important? Most DL courses require quite a bit of writing. The ability to type with speed and accuracy makes an online class easier and more enjoyable.

Logins and PWs. A minor hurdle, but accessing your DL account requires a student i.d. number, user name and password. Select a user name and password that is secure, but easy to remember. Being locked out of your account, or searching for a user name and password is stressful and can result in a missed deadline.
**Procrastination.** Procrastination is a huge challenge for some DL students. No bell rings to tell them it's time for class. No campus security sends students to the office for a tardy slip. No classmates remind them of due dates or deadlines. Students who are procrastination-prone and need structure, should be extra-vigilant about establishing a homework routine and sticking to it. **Log in to your DL course at regular intervals as part of a normal homework routine.** Track DL course due dates and responsibilities in a planner or e-calendar as you would any other class.

**Isolation.** Students who enjoy interacting with other students in a traditional classroom might find DL a **lonely experience.** To combat the isolation from peers, some DL courses incorporate video conferencing. Others use a blended model, combining online learning with periodic classroom instruction or field trips with DL classmates.

### The Flipped Classroom

A form of instruction called **The Flipped Classroom** is gaining popularity with middle and high school teachers. Under this model, students learn at home by watching a brief 5-10 minute video created or selected by their teacher. It may be a video of their teacher's lecture, or other online resource. Students watch the video, then write down questions and thoughts about it. The following day in class, they participate in a lab or practice activity related to the video. Flipped learning leaves more time for practice and individualized attention from the instructor.

*Check for understanding and proceed to the activity.*

### ACTIVITY

Access the sample DL course. Direct students to page 270 of the workbook. **Introduce the activity. Students observe navigation of the DL program. Discuss observations and guide students to complete the activity worksheet.**

- Demonstrate locating the DL program online.
- Demonstrate the login procedure.
- Review the title and URL.
- Access the course tutorial or demo.
- Locate and review the course syllabus.
- Locate the course schedule/calendar; display weekly/monthly views.
- Locate the instructor or facilitator's email and contact information.
- Access a course module.
- Access the reading and assignments for a module; Ask students to estimate how much time it would take to complete the module work.
- Locate links; sample at least two of the linked resources.
- Demonstrate how to post a message on the discussion board.
- Demonstrate how to access the chat room and comment.
- Locate the dropbox.
- Demonstrate how to upload a document to the dropbox.
Demonstrate how to check grades/progress and receive feedback from the instructor.
Demonstrate any other interesting features of the program.
Demonstrate how to log off.

On completion of the activity, proceed to Let’s Summarize!

**LET’S SUMMARIZE**

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the *Letter to Parent* on page 274 of the workbook.

1. *Online courses, virtual classroom, distance education, e-learning, and web-based learning are all names for ___________________.*

2. *DL is a course, program or class delivered over the internet instead of in a traditional classroom setting.*

3. List five advantages of distance learning:
   - Work can be completed anytime/anywhere; students can take courses not offered at their school, including remedial courses for credit recovery or advanced courses; DL courses provide rich interactive learning experiences; students can reread materials or listen again to lectures; there is equal opportunity to participate; course materials are mostly online.

4. List ten challenges of distance learning:
   - Hardware and equipment issues; course modules may have a lot of assignments and reading; students often underestimate the amount of time it takes to complete work; good keyboarding skills are essential; work should be saved before submitted, procrastination, isolation; some DL programs are difficult to navigate; attendance (logging in) is key because the instructor knows when, and how often you log on, which files you access and when you log out; students must build the course into their normal homework routine.

5. To avoid inadvertently losing written work, _______ compose _______ documents and written responses in word processing outside of the DL program; _______ copy _______ the response into the response window. Before you click “submit” or upload an attachment to the _______ dropbox _______, _______ save _______ a copy of your work.

**READING AND HOMEWORK**

- Students read chapter 25 in the workbook to prepare for the next lesson.
- Students complete pages 272-273 in the workbook *Application of Skills* [So Close Yet So Far...] Collect for assessment.
**DL Navigation Demo**

Distance Learning ("DL") is becoming a popular format of American education. In high school and college, you will take one or several DL courses. The ability to work successfully online is an essential study skill. Your teacher has selected a DL course for you to review. Check it out and answer the questions below.

What is the title of the DL course? (ie. Government and Economics 101)

How do students access the DL course? (What is the URL?) Do you log in through a link on teacher’s web page?

Does the DL course require a student number, user name and/or password?  
*yes  no*

What downloads or plugins are needed for this course?

Is there a course syllabus?  
*yes  no*

Is there a tutorial or demo to help students learn how to navigate the DL program?  
*yes  no*

How do students communicate with the instructor/course facilitator? How do students communicate with each other?

Is there a course schedule?  
*yes  no*

Can students view the course schedule or calendar by month?  
*yes  no*

Can students view the course schedule or calendar by week?  
*yes  no*

Is the course schedule interactive (links to assignments, downloads to iCal, etc.)?  
*yes  no*

Can students view their grades and course progress?  
*yes  no*
Is the course organized in modules? If so, how many?  yes  no  Number of modules: __________

How do students access module assignments posted by the instructor?
_______________________________________________________________________________________

Is there a video conferencing capability/link?  yes  no

Is there a discussion board?  yes  no

Is there a chat room?  yes  no

Are there links to content outside the program?  yes  no

Describe two of the linked resources. (i.e. video? document? audio? slides? topic?)
_______________________________________________________________________________________
_______________________________________________________________________________________

How do students submit written work? Is there a dropbox?
_______________________________________________________________________________________
_______________________________________________________________________________________

Sample course readings or assignments for one module. Estimate the amount of time it would take you to complete the reading or assignments.
_______________________________________________________________________________________
_______________________________________________________________________________________

Are there any classroom or peer activities for students enrolled in this course? If so, describe:
_______________________________________________________________________________________
_______________________________________________________________________________________

In your opinion, is this DL program easy to navigate?  yes  no

What makes this program easy (or difficult) to navigate? How can it be improved?
_______________________________________________________________________________________
_______________________________________________________________________________________

Do you think you would succeed in this class as a distance learner? Why or why not?
_______________________________________________________________________________________
_______________________________________________________________________________________
APPLICATION OF SKILLS

Name: ____________________________________________

So Close Yet So Far... Distance Learning (DL)

1. List the benefits of DL:
   Work can be completed anytime/anywhere; students can take courses not offered at their school; students can take remedial courses or advanced courses; online courses provide rich interactive experiences to enhance learning; students can attend class as many times as they need; equal opportunity to participate; most of the course materials are online.

2. Which two benefits of DL do you find most appealing and why?
   Student’s discretion.

3. What are the challenges of DL?
   Hardware and equipment issues; courses may have a lot of assignments and extensive reading; students often underestimate the time it takes to do the work; good keyboarding skills are essential; work should be saved before submitted; procrastination; isolation; uploading documents can take time; may need to download a plugin or application.

4. For you, what are the two biggest challenges of DL? What specific things will you do to overcome these challenges in order to be a successful DL student?
   Student’s discretion.
5. What happens if a student misses a DL assignment deadline?
   The link expires and the student receives a zero for the assignment.

6. DL classes require students to actively participate in discussions, chats and message boards. Are you an active participant in the traditional classroom answering questions and contributing to discussions? Would your participation level increase or decrease in a DL class? Discuss.
   Student’s discretion.

7. Online programs suffer occasional operational glitches, and a student’s work can be lost or deleted. When a DL course requires you to submit an extended written response, what should you do to protect yourself from loss of data?
   Write the response outside of the program in a word processing program, then copy and paste it into the response window. You can be timed out sooner than expected, or by going back a page, inadvertently delete your work. Save copies of a written work or posts before you upload to a dropbox or click “submit.”

8. Your teacher has decided to teach in a Flipped Classroom model. What does that mean?
   Students learn at home by watching a brief 5–10 minute video created by their teacher and assigned as homework. Students write down the concepts they do not understand and/or questions they have about the information on the video. The following day in class, students participate in a lab or practice activity.

9. What’s your vote on The Flipped Classroom Model? Sounds great! Not for me. I’d have to try it first.

10. What’s your keyboarding wpm (words per minute)? _______
   7th graders should be able to type about 35 wpm. If you haven’t reached that goal, practice!

* Your friend Bella has just signed up for a DL course. She says she really likes DL because she can ignore the class most of the time, and get all the assignments done at the end of the month. What’s your advice?
   The teacher can see how often and for how long you are on the site. Do the work as part of your normal homework routine. DL course can be very time-consuming. Do all the assignments and reading. Links expire when the assignment deadline passes and you will get a zero for the assignment! Don’t be a DL procrastinator.
BOYS AND GIRLS, TODAY WE ARE PRACTICING FIELD OBSERVATION SKILLS. PROPER FIELD TECHNIQUE REQUIRES OBJECTIVE OBSERVATION. DESCRIBE THE SCENE AS YOU SEE IT. COLLECT DATA. HYPOTHESIZE!

IT'S ALL HOW YOU LOOK AT IT.

Observation

1) Large, brown colored object
2) Rough hairy surface

Hypothesis

SASQUATCH!!
This lesson corresponds to Chapter 25 of *The Middle School Student’s Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Workbook pages 276-287.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- list higher order thinking skills.
- explain the process of critical thinking.
- demonstrate critical thinking skills.

**GAINING ATTENTION**

In the previous lesson, students explored the benefits and challenges of distance learning (DL.) DL is also known as e-learning, virtual classroom, online learning, distance education, web-based learning, etc. High school and college students often take one or several DL courses. DL classes are convenient because students can “attend class” from anywhere, at anytime. DL enables upward mobility for students who want to take advanced courses. It’s also ideal for remedial learning and credit recovery. DL courses incorporate interesting interactive content to enhance learning. DL is not without challenges, however. Some students feel isolated from their peers and miss the interaction of a traditional classroom. The freedom of a DL course may be a problem for students who need more structure, or tend to procrastinate. DL is tech-dependent and requires a
reliable internet connection, and program navigation skills. DL courses require regular attendance and often involve a lot of work. Knowing how to succeed in a DL class is a good study skill.

Engage students in a discussion: Descartes said “I think, therefore I am.” For hundreds of years historians and philosophers have debated the meaning of this famous statement. What does it mean to you?

In this lesson students learn about critical thinking skills. Henceforth, your motto will be:

“I think critically, therefore I am an awesome student.”

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to list higher order thinking skills, explain the process of critical thinking, and demonstrate critical thinking skills.

**PRESENTATION OF CONTENT**

In 1956, some cognitive psychologists got together in a group headed by Dr. Benjamin Bloom to consider how to classify education objectives. They didn't examine what students should know. They considered how they should know. The result of their studies is a famous classification of learning objectives called Bloom’s Taxonomy which guides the development of higher order thinking skills in students: knowledge, comprehension, application, analysis, synthesis, and evaluation. The ultimate goal is for students to become critical thinkers. Critical thinking doesn't mean criticizing someone or something. It is a process of thinking that leads the thinker to the right conclusion or solution.

**Why are higher order thinking skills important?**

Knowledge is not static. It grows and changes. It’s flexible. There are many levels and dimensions to thinking. People can think conceptually, make assumptions, draw inferences, consider implications, argue different points of view, etc. Higher order thinking is like moving beyond one dimension, fact-and-recite-thinking, to thinking in 3-D.

**Can students learn to be higher order thinkers?**

Yes and no. The ability to use higher order thinking skills is partly developmental. While the average first grader has the ability to learn the letters and sounds of the alphabet, it would be silly to expect them to be able to reflect on the development of the alphabet and analyze its impact on western society over the past 2000 years. As your brain matures, it develops the ability to think at higher levels. Piaget (remember him from our lesson about active learning?) believed that thinking develops in stages, and that around the age of 12-16 the brain is mature enough to think critically.
How are higher order thinking skills demonstrated?

**Knowledge.** Why do you suppose the first level of Bloom’s hierarchy of thinking skills is knowledge? Gathering knowledge is uber-important, because it’s impossible to think if you have nothing to think about! **Knowledge is the foundation of higher order thinking skills.** Get going on gathering a lot of it. Read fiction and nonfiction books, study a variety of subjects, study maps, get a hobby, get up to date on developments in science and tech, listen to news and political commentary. Cut down on reality TV and celebrity gossip. You are not too young to gather knowledge about the world. Be an active learner.

**Comprehension.** To comprehend means to grasp the meaning of something or the importance of a fact. For example, the exclamatory sentence: “OMG, she has no clue!” read literally means that the subject “does not have the information she needs to solve a problem or a mystery.” However, your comprehension skills tell you that there is an alternative meaning to this statement. Comprehension is on the lower level of the thinking skills hierarchy, but still an important step toward critical thinking. Active reading, active listening, taking-notes, and outlining chapter textbooks are study skills that improve comprehension.

**Application.** What good is knowledge if you don’t use it? The application of knowledge means to use what you know to understand situations and solve problems. To be a successful student, you must apply knowledge to create solutions and solve problems. For example, if you know a little about history, apply that knowledge to try to understand how the past influences the present. Use what you know about science to understand the environment, climate change, or other current issues in science.

**Analysis.** Analysis is a skill you must be able to demonstrate in high school and college. It means to be able to distinguish among parts and ideas, know and recognize relationships among concepts and processes. For example, you may be asked to identify a pattern of behavior or a character’s motive. You may be asked to extrapolate and interpret data, or separate ideas, issues, or matter into parts for separate study, then tell how they relate to one another. In high school and college it will not be enough to simply regurgitate facts!

**Synthesis.** In terms of the hierarchy of thinking skills, synthesis is up near the top. It is sort of the flip side of analyze. It means to combine separate elements or substances to form a coherent whole. Combining what you know to create, invent, design, build, compose or construct something demonstrates synthesis. For example, over many years of taking reading and literature classes, you have learned the elements of a story (plot, character, setting, conflict, resolution.) You have also learned literary devices, writing styles and techniques. You may be required to synthesize your knowledge to compose a story demonstrating your ability to use each of these skills. In high school and college you will be expected to synthesize information and concepts from a variety of subjects and sources: the classroom, textbooks, labs and experiments, and the real world.

**Evaluation.** Higher order thinking skills culminate in evaluation. The ability to successfully evaluate something requires critical thinking. **Critical thinking is a process applying logical reasoning, objective thought, and unbiased judgment.** When followed correctly, the process leads the thinker to a well-reasoned and accurate conclusion. There’s nothing mysterious about critical thinking, but it does require effort, discipline, and practice. In high school you will be expected to exhibit basic critical thinking skills. In college and career, deeper, more complex critical thinking skills will be required of you.
Critical Thinking for Beginners

Gather Information
Approach any problem project, paper, or report by gathering knowledge about the topic. Read. Research. Gather facts and data. Work holistically, keeping an open-mind. Don’t exclude information that challenges beliefs, or contradicts ideas or opinions.

Assess Information
Sort through the gathered information. Reread, looking for inconsistencies and inaccuracies. Evaluate the credibility of information sources. Search for gaps and relationships in the information. Try to avoid bias (personal preference) in your assessment, and be alert to the existence of bias in information and data.

Apply Logic
Compare the information. Discriminate between ideas. Determine fact vs. opinion. A fact is based on evidence and can be verified. An opinion is a belief or conclusion that is not supported by evidence or fact. Beliefs are often presented as fact, so always look for supporting evidence! Reflect on the information you have gathered and apply reason to make a judgement, reach a conclusion or find a solution.

Formulate a Thesis
A thesis is a simple statement of what you will prove, show or conclude from the information you have gathered, assessed and logically reviewed.

Make Your Argument
Base your evaluation on facts and evidence, not on feelings or beliefs. Refer back to the facts and evidence to prove your point. When writing or presenting any evaluation, avoid subjective language like “I believe”, “I think...” or “My opinion is.” Use logic jargon such as “Based on the evidence, I have concluded that...,” “The weight of the facts indicates that...,” or “The research best supports the conclusion that...”

Check for understanding and proceed to the activity.
ACTIVITY

Direct students to page 282 of the workbook. Introduce the activity. Review the suggested topics. (Use these or create topics for your students.) Advise students that these topics present ideas or concepts about which students may have a strong personal bias. This exercise requires students to set aside personal bias and preconceptions to apply logical reasoning, objective thought, and unbiased judgement to reach a conclusion or solution. Select a sample topic and guide students through the steps of critical thinking and how to prepare an argument. Students may need additional time to research and prepare their argument. Students with opposing theses may debate their topics. Encourage students to use logic jargon. Schedule presentations.

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 285 of the workbook.

1. Dr. Benjamin Bloom's 1956 study didn’t examine what students should know; it considered how students should know. Higher order thinking skills include: knowledge, comprehension, application, analysis, synthesis, and evaluation.

2. The foundation of higher order thinking is knowledge, so gather plenty of it! Cut down on reality TV and celebrity gossip.

3. Critical thinking applies logical reasoning, objective thought, and unbiased judgement to reach a conclusion.

4. Beliefs or opinions are often presented as fact. Remember, however, that fact is based on evidence that can be verified.

5. Critical thinking is a process. Critical thinkers reach conclusions or find solutions based on evidence and reason; this requires them to discriminate between ideas, look for inconsistencies and inaccuracies, and determine fact vs. opinion.

READING AND HOMEWORK

• Students read chapter 26 in the workbook to prepare for the next lesson.
• Students complete page 284 in the workbook Application of Skills [Step Up to Critical Thinking.] Collect for assessment.
I Think (Critically), Therefore I am Awesome!

Thinking critically means gathering and analyzing data, and setting aside personal bias or preconceptions to apply *logical reasoning*, *objective thought* and *unbiased judgement*. Select a topic from page 283. Use this worksheet to follow the steps of critical thinking. Prepare a thesis and make a logical argument based on verifiable fact.

**TOPIC:**

---

**Gather Information**

**Assess Information**

**Apply Logic**

**Formulate a Thesis**

**Make Your Argument**
1. Some middle schools have banned students from reading *Harry Potter* novels on the basis that they promote wizardry and sorcery, and that middle school students are too young and impressionable to read about such things. *Harry Potter* censorship: Right or wrong? Is there ever a benefit to censorship?

2. Padma and Lara have been friends since second grade. Padma’s birthday was Saturday. She had a party but didn’t invite Lara. When Lara found out she was devastated. She confronted Padma who explained “I’m really sorry, Lara, but my mom arranged for a party at the zoo. I know that being around animals triggers your asthma attacks, so I thought it was best if I didn’t invite you.” Lara accused Padma of being a bad friend. What is friendship? Padma: Good or bad friend?

3. Colin has been accused of cheating on a test. Here’s how it went down: Colin’s cousin Dominic is in the same grade at a different school. His school doesn’t use that particular test any more so Dominic’s teacher gave students a copy of the test as a study guide. Colin saw it on Dominic’s desk and asked for a copy. Colin’s teacher found out that he used it to study for the test. Colin’s school is very strict about academic dishonesty so he’s been suspended. Fair or unfair?

4. Which Disney princess best represents the ideals of a modern American teenage girl? What are the ideals of the modern American teenage girl?

5. Kenisha loves animals. She wants to be a veterinarian when she grows up. Her science teacher assigned a project requiring students to compare the pros and cons of using animals in medical experiments. Kenisha is 100% opposed to animal experimentation. She believes that animals have a right not to be used in medical experiments. Is she right about animal rights?

6. Avi and Emil have had it in for each other since kindergarten. It’s gotten worse as they’ve gotten older. Today they had a fist fight in the cafeteria. Now the school counselors and parents are involved and the boys are in big trouble. Is it ever ok to fight?

7. Should middle school cafeterias be banned from serving cookies, or sugary foods other than fruit? Should a school be allowed to tell students what they can and cannot eat at school?

8. Use these lines to write down a topic assigned by your teacher:
   
   ________________________________________
   ________________________________________
   ________________________________________
   ________________________________________
**APPLICATION OF SKILLS**

**OUCH MY BRAIN HURTS!**

**Step Up to Critical Thinking**

**KNOWLEDGE:**
The foundation for developing thinking skills is knowledge. Gather plenty of it by reading, observation, researching and being an active learner. The more you know, the more you have to think about.

**APPLICATION:**
Using your knowledge to solve problems, understand concepts and create solutions.

**COMPREHENSION:**
To understand; to grasp the meaning of something; to recognize a deeper level of meaning.

**ANALYSIS:**
The ability to discuss, critique, recognize relationships and patterns, or separate ideas or issues for separate study; the ability to determine how concepts relate to one another.

**SYNTHESIZE:**
The ability to combine separate elements to create a whole; combining knowledge and information from several sources, concepts or subjects to create something new.

**EVALUATION:**
Critical thinking. The ability to apply logical reasoning, objective thought, unbiased judgement to reach a conclusion. It is a process used to reach an outcome.
ON A RECENT FIELD TRIP TO THE MUSEUM OF TECHNOLOGY, MS. PELL IMPRESSES STUDENTS WITH HER SKILLS!

THE WORLD OF KEYBOARDS

TELEPHONES OF YORE

HOW DO YOU TEXT ON THAT??

HALL OF NON-FLAT TELEVISIONS

PRE-POD RADIO

CHANGING CHANNELS REQUIRED GETTING OFF THE SOFA!

MS. PELL HAS AWESOME SURVIVAL SKILLS!

MUSEUM OF TECHNOLOGY

APRIL 15th THROUGH JULY 30th

TOASTER OVENS OF YUGOSLAVISTAN
RAMP UP YOUR RESEARCH SKILLS

TEXTBOOK

This lesson corresponds to Chapter 26 of *The Middle School Student’s Guide to Study Skills*.

MATERIALS

- Computer/whiteboard display with internet access.
- Webslides 26A-E (www.middleschoolguide.com)
- Workbook pages 288-301.

OBJECTIVES

By the end of this lesson the student will be able to:

- compare digital vs. information literacy.
- list information literacy skills students need for basic college readiness.
- identify bias, relevance, accuracy, credibility and currency in a sample article.

GAINING ATTENTION

In the previous lesson, students explored higher order and critical thinking skills. They learned about Bloom’s hierarchy of thinking: knowledge, comprehension, analysis, application, synthesis, and evaluation. Critical thinking is the pinnacle of thinking skills. It is not an outcome, it is a process which uses logical reasoning, objective thought, and unbiased judgement to reach a conclusion or solution. Critical thinking skills are essential for success in high school, college, career, and life.

Engage students in a discussion: Do you know that one of the biggest problems faced by first year college students is their lack of basic research skills? What if Wikipedia didn’t exist? How would you complete a research assignment or report?
COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to compare digital vs. information literacy, describe information literacy for college readiness, identify bias, relevance, accuracy, credibility, and currency in a sample article.

PRESENTATION OF CONTENT

Go ahead – pat yourselves on the back! You have the great fortune of being born into an era when most information is at your finger tips. Just a generation earlier, research required the tedious tasks of going from library to library, culling through card catalogs, filling out form after form to check out books, and waiting (often weeks) for a book to be returned by another borrower. Information searches were made page-by-page. Copying required standing at a temperamental machine feeding it a nickel per page. Research was a slow and painful process. So no whining about how “hard” it is to research. You’ve got it easy. Make the most of your good fortune by developing college-ready research skills.

What is Information Literacy?

Nowadays, most research is done online. Unfortunately, students sometimes assume that because they have good tech skills, they also have good research skills. These skills are not the same. Your ability to use a computer, surf YouTube, instant message, share photos, use Facebook, download music and games, and upload a video, makes you digital literate, not information literate. The National Forum on Information Literacy (“NFIL”) is the go-to group for these skills. Experts there say that to be information literate a student must be able to identify, locate, evaluate, and effectively use information for the issue or problem at hand. Information literacy is such an important 21st century skill, it’s even the subject of a presidential proclamation:

“Every day, we are inundated with vast amounts of information...Rather than merely possessing data, we must also learn the skills necessary to acquire, collate, and evaluate information for any situation. This new type of literacy also requires competency with communication technologies, including computers and mobile devices that can help in our day-to-day decision making. [There is a need for] all Americans be adept in the skills necessary to effectively navigate the Information Age.”

President Barack Obama, 2009

Information literacy is uber-important for high school and college readiness. Students who mistake digital literacy for information literacy may end up learning the hard way, through a failed class, or mandatory and costly remediation, that they need to ramp up their research skills.
What is Information?

Seems like a simple question, but information is actually a complex concept. Information comes in many forms. The NFIL categorizes information as factual, analytical, subjective and objective:

✓ **Factual information** consists of short facts or statements, without explanation or elaboration. It’s the type of information you find in reference materials like encyclopedias, dictionaries, and almanacs. It includes facts like dates, names, places or statistics. Government agencies produce a lot of factual information.

✓ **Analytical information** interprets or analyzes factual information. It is often published by experts, such as an automotive association analyzing the gas mileage statistics of various car models, or an association of healthcare professionals analyzing a report on disease control.

✓ **Subjective information** is information presented from one point of view, such as an opinion piece in a magazine, newspaper or blog. Movie, restaurant and fashion reviews are subjective information. Political and news blogs are subjective information because they are written from the point of view of the blogger.

✓ **Objective information** encompasses many points of view, presenting all aspects of an issue or story with factual accuracy, and without judgement or opinion. Objective information includes fact-based, informative journalism that recounts important events and newsworthy issues, such as a war, elections or natural disasters.

Whenever you are receiving information, whether by reading, hearing or watching, get into the habit of asking yourself: What type of information is this? Factual, analytical, subjective or objective?

How do you locate information?

**Sources**: In high school and college you may be restricted to using primary sources for a report. Will you know what those are and how to find them? **Primary sources can be difficult to find online because they are original materials**. They include historical documents such as a handwritten letter, pages of a diary, an original recording of a news event, interview, a newspaper article written at the time of the event, photographs, and original research reports. Copies are often maintained in a library or historical association’s online archive, which is like a file that must be accessed and searched to find the source. **Secondary sources are papers, books, magazine articles, journals analyzing, interpreting or evaluating a primary source. A tertiary source is a list, compilation, digest, index or encyclopedia**. Research often begins at the tertiary source, like a Wikipedia or encyclopedia article, then works inward to secondary sources, such as an article or book about the subject, then to the primary sources themselves. To develop college-ready research skills, know the difference between primary, secondary and tertiary sources. Get into the habit of thinking about a source as you read, watch or listen. Ask yourself: **Is this a primary, secondary or tertiary source?**

**Focus Your Search**: Don’t just jump into a search. Choose search words carefully because they determine what kind of information is returned and whether it is relevant to your topic. Think for a few moments about your research topic. Jot down key words and concepts. Adding key words to a search makes it more...
specific to your topic and increases the chance that the search will return relevant information. **Cast a wider information net by including alternative terms or synonyms in your search.** For example, if you are researching “types of cats” also search “feline breeds.” If you are researching “ocean pollution clean up,” also try “marine environmental remediation.” If you can’t think of alternative terms, include a “syn.” next to the key words your search will bring up reference material including synonyms.

**How do you evaluate online information for reliability?**

You were just told how lucky you are to have so much information available to you with little effort, but there’s a dark cloud to every silver lining and this is it: Before the internet existed, information was pretty much limited to printed resources. Books or articles always went through a publication process where they were reviewed, edited, and analyzed for accuracy by many people before being made available to the public or allowed on a library shelf. The internet however, is a completely different animal. It is a public forum, which means *anyone, anywhere can digitally publish any information, story or article and make it immediately available for public consumption.* Anyone can claim to be an “expert.” An information literate student knows how to evaluate online sources. **This requires using critical thinking skills to determine the reliability of information:**

- **Purpose.** Personal websites are maintained by people with a personal interest in a topic. Special interest sites are maintained by groups of people with a common interest. Professional sites are maintained by institutions or professional organizations. There are news and journal sites, commercial/business sites, and government sites. Verify the purpose of a site or source before you use it.

- **Currency.** You live in the Information Age. The world generates and circulates information at incredible speed. As a result, information becomes stale and outdated pretty quickly, particularly in areas like science, tech and medicine. If you’re researching a topic that requires current information, such as a state-of-the-art stadium design or discoveries in biology, **check the date of publication.** Make sure the information is current.

- **Credibility.** Somewhere on a website, the author should state their credentials telling you why they are qualified to write a particular piece or state an opinion on a topic. Credentials include affiliations and memberships, educational background, length of time in the field or industry, reputation and other publications they have written. Verify credibility before you use information.

- **Bias.** The ability to determine bias of sources is a big part of information literacy. **Bias reflects a preference for, or a prejudice against something or someone.** As a middle school student, you may not yet have enough life experience to immediately recognize bias in a source, but you certainly have enough intelligence to understand that sources can be (and frequently are) biased. Use your critical thinking skills. Be doubtful! Scrutinize! Investigate the writer’s relationships or associations. Analyze the words chosen by the writer. Are they inflammatory or informative? Bias can be very subtle, or hidden under many layers of information.

- **Relevance.** Information you use must be relevant to your specific topic. If you are researching “cat breeds,” and you find an article on crazy cat tricks, it may be interesting, but it’s not relevant.
✓ **Accuracy.** When using quantitative research (such as statistics or measurements) check for accuracy. Scrutinize the research. **Does it measure what you think it is measuring?** Was the data collection procedure is reliable? Poor research may invalidate data and make the information unreliable.

**Tip!** U.S. Government reports are accepted as accurate, reliable, unbiased, and citeable sources.

Get into the habit of mentally evaluating the reliability of digital (and print) information, by asking yourself: **What's the purpose of this? Is it current? Is it accurate? Is there a possibility of bias?**

**Are there restrictions on using information?**

**Plagiarism.** Don't copy. Whenever you use a quote, paraphrase or summarize information from any source other than directly from your own brain, and use it in a paper, essay or in other writing, **tell your reader about the source**, otherwise you are taking credit for someone else's work. Keep track of your sources when researching, and give them proper credit.

**Citation.** You know how credits run at the end of a movie? You must credit helpful sources at the end of a paper, report or essay. This is done by a sort of fussy arrangement of details called **citation** which includes the **name of the author, title of the publication, date of publication, etc.** There are three common citation styles: **MLA (Modern Language Association), CTA (Chicago Citation) and APA (American Psychological Association.)** Different styles are used for different subjects. Teachers tell students which style they prefer.

There are citation rules for all sources of information: books, journals, articles, audio recordings, websites, even blogs! Citation credits the author with the work, and tells your readers where they can find the sources you used. There are plenty of free online resources to help you master citation styles. When you write a paper or essay, don't guess at the citation. Consult citationmachine.net, easybib.com, or bibme.org. **To be college-ready, understand that there are a variety of citation styles, know the basics of each, and know how to locate online citation resources.**

**What about using information from blogs?**

**Verify.** A **blog** is an online journal or diary where people can express their opinion on just about anything. These days it seems like everyone, everywhere is blogging about everything and anything! Blogs are increasingly cited as information sources. There are restrictions on the use of blogs as sources. **You must be able to verify (1) who wrote the blog, and (2) that the blogger is a credible source.** Blogs that are part of, or connected to a news agency, magazine, university, professional association, online publication, or other credible site (like a sports expert who blogs for ESPN) are considered reliable, citable sources. As a general rule, self-published blogs (not connected to a credible site), are not considered reliable, citable sources. However, many experts and professionals are now quite active in the world of independent blogging and, since information literacy is an evolving field, a self-published blog, written by a credible professional blogger within their field or profession and under their real name, may be considered an acceptable source.
What about Wikipedia?

Wikipedia is the ultimate public forum! Anyone can add to or alter information on a page. That impacts its reliability as a source. In fact, Wikipedia has experienced several accuracy errors in recent years. As a result, it is not considered to be a reliable, citable source. Many high schools and most colleges follow a strict “Look-but-don’t-cite” Wikipedia policy. Wikipedia is a great way to jump-start research, or check basic facts, or find sources, but it is a tertiary source at best. Do not cite Wikipedia in a paper. Reliance on Wikipedia will impede your development of college-ready research skills.

Help! Where can students learn information literacy skills?

Don’t be fooled by the unassuming demeanor of a school librarian. Librarians, also called “information technicians”, have mad research skills. Your best source for learning college-ready research and information literacy skills is a librarian. If you are not taught information literacy in school, make an effort to learn it on your own. Many public universities have research skills information and tutorials on their website. Check your local public library for classes. Information literacy is an essential college readiness skill.

Check for understanding and proceed to activity.

ACTIVITY

Direct students to page 296 of the workbook and introduce the exercise. Read The Daily Owl article aloud. Analyze the article and complete as a class activity.

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 300 of the workbook.

1. Your impressive tech skills do not mean you are ____________ information literate, or have college-ready ____________ research skills.

2. The National Forum on Information Literacy (“NFIL”) says that to be information literate a student must be able to “________ identify, __________ locate, __________ evaluate ___________ and __________ effectively use __________ information for the issue or problem at hand.”

3. The NFIL categorizes information as __________ factual, __________ analytical, __________ subjective and __________ objective. Because the internet is __________ public forum, any information obtained online should be carefully evaluated for __________ reliability.
4. Combine _______ key _______ words in a search, so the results you get are more relevant to your topic; use __________ alternative _______ search terms, (like synonyms) to cast a wider search net.

5. When evaluating information, use your _______ critical _______ thinking skills to determine: 
   _______ currency _______ (whether the information is up-to-date), _______ bias _______ (whether the author has a preference or prejudice), and _______ credibility _______ (whether the author is qualified.)

READING AND HOMEWORK

- Students read chapter 27 in the workbook to prepare for the next lesson.
- Students complete pages 298-299 in the workbook Application of Skills. Collect for assessment.
Elena, a popular U.B. Smart Middle School seventh grader, is caught up in a dispute between rival toothpaste companies. Her science fair project compared Spark-L-Teeth toothpaste against Dental D'Light toothpaste to determine which brand is more effective in whitening teeth. Elena’s research concluded that Spark-L-Teeth’s product is superior to Dental D’Light’s.

Science fair officials have recently learned that Dental D’Light is suing Spark-L-Teeth for making false claims about Spark-L-Teeth’s toothpaste. Since Elena’s report relies on information from Spark-L-Teeth, her project is under investigation.

The Spark-L-Teeth/Dental D’Light conflict began over a recent advertisement. In the ad, ordinary smiling people vouch for Spark-L-Teeth toothpaste, claiming that since using it, they have 20% fewer cavities. One of these people, L.I. Arpants, claims her teeth “are 20% brighter.” All of the smiling people received a case of Spark-L-Teeth for participating in the advertisement.

Elena’s research also relies on information received from Spark-L-Teeth user and ex-NASA astronaut Col. Pho Nee, who writes a popular blog about space technology and space travel. He blogged that his teeth “shine like stars in outer space.” He states that, in his expert opinion, he’s had 15% better luck with the ladies because of Spark-L-Teeth.

Spark-L-Teeth spokesperson Pearl E. White, confirms that Spark-L-Teeth has the data to back up their sparkle superiority complex. She cites a 2001 U.S. Department of Smiles test confirming that an ingredient similar to the one used in Spark-L-Teeth is 15% more effective in whitening teeth than any other ingredient.

Buck Tuth, President of the Tooth Fairies Association (“TFA”), and noted dental industry expert, is skeptical. “We believe the government data is flawed,” he said, “Our fairies report that teeth from children who use Spark-L-Teeth are no easier to find in the dark than teeth from children who use other products. Our fairies note no difference at all.”

Insiders claim that Spark-L-Teeth and the TFA haven’t always seen eye-to-eye, (or tooth-to-tooth!) Spark-L-Teeth recently mouthed off about the TFA’s refusal to leave money under the pillows of children with cavities. Dental D’Light has referred all questions to their law firm Dewey, Cheatem and Howe.
Help Elena respond to the Science Fair Committee’s inquiry!

**SCIENCE FAIR COMMITTEE**

Dear Elena,

Thank you for participating in the U.B. Smart Middle School Science Fair. Due to the dispute between Dental D’Light and Spark-L-Teeth, the Science Fair Committee is asking you to confirm that your sources are unbiased, credible, current, accurate and relevant. Please answer the questions below.

Thank you,

Dr. X. Perry Ment

President, The Science Fair Committee

1. The people from the advertisement claim that since using Spark-L-Teeth, they have had 20% fewer cavities. Is this information relevant to your science project?
   - The fact that the people have 20% fewer cavities is not relevant. Elena’s project is about teeth whitening, not cavity prevention.

2. Ms. L.I. Arpants says her teeth are 20% brighter. Silly name aside, is Ms. L.I. Arpants’ information accurate?
   - When using quantitative information, scrutinize for accuracy. Her claim that her teeth are 20% brighter is too vague to be accurate since it’s impossible to measure or confirm: 20% brighter than what? Brighter than her teeth were before she used Spark-L-Teeth? Brighter than Dental D’Light users? Brighter than the sun? What is this data based on? Without more information, there’s no way to confirm the accuracy of this statement. This also applies to the claim of 20% fewer cavities. (Fewer than what number? How was this measured?)

3. Are the “ordinary, smiling people” in the ad unbiased sources?
   - No. The spokespeople, including Ms. L.I. Arpants, were paid with cases of Spark-L-Teeth. Payment (even if it’s not in money) presumes bias.

4. What type of information is the U.S. Dept. of Smiles statistics report?
   - factual
5. Are U.S. government reports generally considered to be unbiased, reliable and credible?  
   Yes

6. Is the U.S. Department of Smiles report a primary, secondary or tertiary source?  
   Primary

7. What kind of website/blog does ex-Astronaut Pho Nee maintain?  
   Personal

8. You relied on information from ex-Astronaut Pho Nee’s blog that Spark-L-Teeth improves romantic relationships. Is ex-Astronaut Pho Nee’s opinion about the effect of whiter teeth on relationships credible?  
   His credentials confirm that he is not a relationship expert or counselor. This is merely a personal opinion. He lacks credibility on this issue.

9. For what topics of information would ex-Astronaut Pho Nee be a credible source?  
   Space technology, space travel, NASA

10. Do you have currency or relevancy concerns about Pearl E. White’s statement that the U.S. Department of Smiles report supports Spark-L-Teeth’s claim?  
    Generally, U.S. Government reports are considered reliable, credible and unbiased information. But Sparkle-L-Teeth is basing it’s claim on a 2001 publication. It lacks currency. Also, the report is not relevant because it actually reflects the study of a different chemical.

11. What kind of organization is the TFA?  
    Professional

12. What type of information is the TFA report analyzing the government data?  
    Analytical

13. Is Buck Tuth a credible expert on tooth whiteness and dental matters?  
    Yes. He is a recognized dental industry expert and head of a related professional association. His credentials confirm his knowledge and authority on dental issues.

14. Is there any evidence that Buck Tuth’s opinion is biased?  
    Yes. He represents an association that has a history of conflict with Spark-L-Teeth. There is no obligation for an expert to be unbiased. In fact, many experts with excellent credentials are employed for the purpose of representing a particular interest or position on an issue. So in addition to confirming an expert’s credentials, check their opinion history, publications and industry relationships for the possibility of bias.
Your science class is studying energy. You must write a report on “The Future of Solar Energy in America.”

1. What’s your basic search strategy?
   Read the project instructions. Look for possible source restrictions, such as “primary sources only.”
   Begin by researching solar energy facts in almanacs or encyclopedias. Familiarize yourself with solar energy terminology. Read secondary sources such as articles and books about the science of solar energy and the current state of the solar energy industry. Research primary sources for data, facts and knowledge about the topic. Work holistically. Keep an open-mind. Search for opinions from industry and government experts both for and against solar energy.

2. What are some alternative search terms for solar energy? How can you find synonyms? Find them and list them here.
   renewable energy, solar power, photovoltaic, solar panels, alternative energy, sustainable energy resources. Type “solar syn.” or “solar energy syn.”

3. You found a good article about a solar energy experiment. It is in a respectable online science journal. The authors are the very scientists who conducted the experiment! Is this a primary, secondary or tertiary source?
   primary

4. You found a recent report produced by the U.S. Department of Energy comparing the efficiency of solar energy with other forms of energy. Is this a reliable and current source?
   yes

5. You found a information about a Colorado solar energy project in a blog written by an amateur scientist who calls herself “Solar Barb.” She has written many blog entries discussing factors influencing the growth of solar energy in America. May you cite it?
   She maintains a personal blog which is generally not a credible source. Assessing the reliability and credibility of bloggers requires more effort, including verifying the blogger’s identity and expertise. In this case you know neither her real identity nor her background, so this information is unreliable.

6. You found an online video interview with a scientist who conducted solar energy experiments just like the experiments that are the topic of your paper. In the video, he discusses the results of other scientist’s experiments. Is this a primary, secondary or tertiary source? Can you use it?
   With regard to discussing, and interpreting or analyzing other scientists’ experiments, it is a secondary source. Of course you can use a video quote, with proper MLA, APA or Chicago citation. Check an online citation source, such as easybib.com for the correct citation style.
7. You found an October 2007 article in *Newsweek* magazine titled “The Power of the Sun.” What kind of information is this?
   objective (journalism)

8. Is the *Newsweek* article a primary, secondary or tertiary source?
   secondary

9. Your teacher has instructed students to use MLA Citation format for your paper. How would you cite the *Newsweek* article?
   Author(s). “Title of Article.” Title of Periodical; Day, Month, Year: pages. Medium of publication (ie. print)

10. You found an online article arguing that there are several political factors influencing the future of a solar energy policy in America. You have searched and searched, but are unable to confirm the authorship. Can you cite the article?
   no

11. You found a report that is particularly informative and you would like to use it and cite it in your paper, but need to confirm the author’s credibility. Which of these will you check?
   a. affiliations and memberships
   b. educational background and other publications
   c. reputation in the field or industry
   d. all of the above

12. You found a very convincing article by O.L. Wells, arguing that there’s no future in solar energy in America. You almost altered your thesis, but remembering what you learned in your study skills class, decided to check the author’s credentials for the possibility of bias. You discovered that O.L. Wells is a member of an association called FFF which stands for Fossil Fuels Forever, and has served as a lobbyist for the petroleum industry. He is a noted energy development expert. Can you ignore the article?
   You cannot ignore the article. There is no obligation for an expert to be unbiased. Many experts with excellent credentials are employed for the purpose of representing a particular interest or position on an issue. Whether or not you agree with O.L. Wells, his opinion is important in the field of energy development. Discuss the article, but disclose the possibility of bias. (e.g. “O.L. Wells is a noted expert in the field of energy development who believes that solar’s inefficiency and excessive cost will prevent it from becoming a major energy source in the United States. While Mr. Wells makes some excellent points, it must be noted that he is a long-time fossil fuel advocate with ties to the oil industry.”)

* Bonus: Can you cite a website?

   Of course! There are APA, MLA and Chicago style formats for citing websites.
Miss Loveless talks to her study skills class about good participation...

Good morning boys and girls!

Our study skills topic for today is "how to demonstrate good participation skills".

Be polite when classmates speak!

Answer questions! Make comments! Engage in discussions! Volunteer ideas!

Yes, Aj?

The length of the hypotenuse of a right triangle can be found using the Pythagorean theorem!

Oh dear, did I neglect to mention that comments should be relevant to the topic?
This lesson corresponds to Chapter 27 of The Middle School Student’s Guide to Study Skills.

**MATERIALS**
- Computer/whiteboard display with internet access.
- Webslides 27A-D (www.middleschoolguide.com)
- Workbook pages 302-313.

The activity for this lesson includes a brief skit about participation and citizenship skills called The Not-So-Perfect Participants of Room 141. Select five students, assign roles, and provide them with a copy of the script on pages 329 and 331 of the Instructor’s Guide. The script can also be accessed and downloaded at www.middleschoolguide.com.

**OBJECTIVES**
By the end of this lesson the student will be able to:
- describe a variety of ways to effectively participate in the classroom community.
- list the benefits of good classroom participation skills.
- assess classroom citizenship and participation skills in a presentation.
- make a plan to improve their own participation and citizenship skills.
GAINING ATTENTION

In the previous lesson, students learned how and why to ramp up their research skills for high school and college. Good tech skills do not translate to information literacy. An information literate student is able to identify, locate, evaluate, and effectively use information. That includes knowing what type of information is needed, how to search for it, how to determine if it is credible, current, accurate, relevant, and unbiased. In high school and college you will be expected to know the differences between primary, secondary and tertiary sources, and how to locate and use each of these sources. An information literate student also knows how and why to cite sources, and follows a Look-but-don’t-cite Wikipedia policy.

Engage students in a discussion: Do you participate in class? For you, what’s the hardest part about participating? What’s the point of participating if the teacher already has all the answers?

COMMUNICATE LEARNING GOALS

Your learning goals for this lesson are to be able to describe a variety of ways to effectively participate in the classroom community, list the benefits of participation, assess participation and citizenship skills in a skit, and make a plan to improve your personal participation and citizenship skills.

PRESENTATION OF CONTENT

The importance of classroom participation and citizenship skills is often overlooked by middle school students. After all, there’s no quiz on these, right? Since these skills make up a percentage of your final grade in a class, they deserve your attention. As you move up into high school and college, the level and quality of your classroom participation and citizenship skills are increasingly important to your success as a student.

What is classroom participation?

When asked what classroom participation means, most middle school students would say “raising your hand and answering your teacher’s questions.” That’s partly correct – answering questions, engaging in discussions, and volunteering ideas is important. Participation is also demonstrated by active listening. When students are focused, making eye contact with their teacher, and taking notes during class, they are demonstrating good participation skills. Other ways to demonstrate participation skills include coming to class prepared and enthusiastically engaging in a class activity or small group discussion, instead of sitting on the sidelines contributing nothing. Participation is also demonstrated by taking a leadership role in a team exercise or group activity.
Four good reasons to participate in class

1. **Participation impacts your final grade.**
   Some teachers assign a hefty weight to participation – up to 20% of a student's final grade a class. Some teachers don’t assign a weight, but instead award an “S” for Satisfactory or “U” for Unsatisfactory at the end of the term. Always review the class syllabus to determine the weight your teacher has assigned to participation because **it definitely impacts your final grade** to some degree. At the end of the grading term, a solid participation history might just provide the bump you need to get your grade up to a higher letter.

2. **Participate because the classroom is a community.**
   Why go through a whole year of school without your teachers and classmates realizing what an awesome person you are? A classroom is a community and every student brings a unique and important perspective to it. When every student participates, the community thrives. Besides, it gets boring hearing from the same students all the time. Class participation is also important because it enables a teacher to make a quick check of the depth and breadth of their students' understanding of the topic under discussion, and make adjustments to the lesson if needed.

3. **Participation is a good learning skill.**
   Generating thoughts in your head, organizing ideas, verbalizing your ideas and hearing yourself express them is an important part of learning. **Participation improves comprehension, retention of content, and speaking skills.**

4. **Participating is good practice for the future.**
   In high school and college, participation expectations are high. Verbal response and active commentary in classroom discussions are a common means of measuring a student's achievement. In college, you will take classes called seminars where participation can count for up to 50% of your grade! You must be able to engage in intelligent discourse about an academic topic. Participating now is excellent practice for a successful academic future.

How can students demonstrate good classroom participation skills?

✓ **Prepare.** Questions and discussions usually key off of homework or the prior night’s reading. If you haven’t done the homework or assigned reading, you won’t have much to say. Sitting in class hoping your teacher won’t call on you can be pretty uncomfortable. **Prepare. Do the homework. Do the reading.** It’s much easier than the constant stress of trying to hide in plain sight.

✓ **Anticipate.** When doing homework or assigned reading, try to anticipate questions your teacher will ask, or discussion topics they might raise. **Prepare answers. Jot down notes.** Run through answers in your head or say them aloud. When a question is asked or a discussion starts, your notes will prompt you to recall the answer.
**Be Relevant.** Comments should be relevant to the point under discussion. Establish relevancy by linking back to the reading or to a comment made by another student. If you don’t have a relevant comment to make, try asking a relevant question. If you’ve prepared for class, you should be able to answer most questions. If you can’t answer a question when asked directly, politely say “I don’t know.” Try to redeem yourself later by answering another question. It’s better to make one relevant comment and ask one relevant question than ten pointless or irrelevant ones.

**Don’t be Judgemental.** Don’t expect greatness right away. The ability to effectively participate in class develops over time, with patience and practice. Set a goal to participate twice in every class. Keep at it. Don’t worry if your answer comes out less-than-perfect, if your voice cracks, or you’re nervous. Don’t go all judgemental on yourself (or others.) Confidence builds with effort and practice. Your skills will improve.

---

**A special note to the introverted student**

Ever notice how some students can jump right into a conversation and answer questions without hesitation, yet others stammer and stall even when they know the answer? **An estimated one in four people are introverts.** Introverts are not just “shy” students, and they are not afraid of participating. They are thoughtful, often gifted people, who need a bit more time to process a question and formulate a verbal response. Unfortunately, their delay can be interpreted as a lack of preparation or inability to answer. If you’re an introvert, take notes when you’re doing the reading and homework. Have your notes handy in class. Let your teacher know that when called on, you need a moment to formulate your response.

---

**The rules of engagement: Good Citizenship**

Be polite. Listen attentively when classmates speak. Don’t look around the room, tap your pencil, roll your eyes, or make a disparaging comment or noise. Never scoff or laugh at a speaker and do not judge them as cool or uncool, smart or dumb. To do so would reveal the extent of your immaturity. In a classroom discussion, it’s ok to disagree, but don’t let a disagreement get personal. Don’t bring schoolyard animosities into the classroom.

Don’t hog the floor. It’s great that you’re an enthusiastic participant, but don’t dominate the discussion. Let other students have a turn at voicing opinions and practicing skills. Don’t interrupt when others speak.

Elevate the discussion. One problem with classroom discussions, particularly in middle school, is that students are hesitant to take or represent an uncool or contrary viewpoint and the discussion stagnates. For the benefit of classroom citizenship and to generate a meaningful discussion, offer to take an alternative or unpopular viewpoint. You might even come to enjoy being the classroom “Devil’s Advocate.”
Compliment. A simple “Good point!” or “Well said!” helps create an atmosphere of acceptance. Coaxing more students out of the participation closet will make your classroom community more vibrant. Be especially patient and encouraging when you encounter a student with limited English skills.

Speakers. If your class is lucky enough to have a guest speaker, listen actively. When they conclude, it is your duty as a good classroom citizen to ask at least one relevant question – two if no one else steps up. Thank the speaker for coming.

Check for understanding and proceed to the activity.

ACTIVITY

Select five students to act in a skit about classroom participation. Assign roles as Teacher and Students 1, 2, 3 or 4. Provide the actors with a copy of the script on pages 329 - 331 of the Instructor’s Guide. The script can also be downloaded at www.middleschoolguide.com. Allow a few minutes to rehearse the skit outside the classroom. Introduce the activity while the actors are rehearsing:

“Today we are watching a short skit called The Not-So-Perfect Participants of Room 141. Observe each student’s participation and citizenship skills. When the skit concludes, use the rubric on page 308 of your workbook to score each student.”

Briefly review the participation rubric before the skit begins. When the skit concludes, identify the characters as Student 1, Student 2, etc. and reveal their aka’s. Students assess the characters’ participation and citizenship skills. Work as a class, in teams, or individually to award scores.

On completion of the activity, proceed to Let’s Summarize!

LET’S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 311 of the workbook.

1. Demonstrating good participation skills includes answering your teacher’s questions, engaging in the classroom discussion, using your ______active_______ listening skills, ______taking________ notes, coming to class ______prepared_______, and taking a ______leadership________ role in a team exercise or group activity.

2. Even if your teacher assigns a low weight to participation, or awards a “satisfactory/unsatisfactory” mark, participation definitely ______impacts________ your grade to some degree.

3. In high school and college, participation expectations are ______high______; In college, you will take a class called a ______seminar_________ where participation can account for up to 50% of a your grade!
4. Good participation skills take confidence, which is earned over time with plenty of ______ effort ______ and ______ practice _______; set a goal to participate ______ twice ______ in every class.

5. Good classroom citizenship skills mean that when your class has a guest speaker, it is your ______ duty ______ to listen actively and ask at least ______ one ______ relevant question.

**READING AND HOMEWORK**

- Students read chapter 28 in the workbook to prepare for the next lesson.
- Students complete pages 309-310 in the workbook *Application of Skills*. Collect for assessment.
**THE ROLES:** (Shhh! Don’t let the audience know your aka. Reveal it at the end of the skit.)

**Teacher:** A middle school English teacher who wants her students to love literature as much as she does.

**Student 1** (aka The Slacker): Rarely does the homework or reading. Doesn’t participate in discussions. Looks at a cell phone, taps a pencil or sighs when other students are answering. Doesn’t bring materials to class. Has attitude.

**Student 2** (aka Floor Hog): Dominates the discussion. Interrupts, argues, and lets the argument get personal, but is willing to take on an unpopular or embarrassing role for the good of the classroom community.

**Student 3** (aka The Introvert): Smart and prepared, but lacks confidence. Needs time to formulate an answer.

**Student 4** (aka The Good Citizen): Prepared and polite. Takes note in class, actively listens. Makes relevant comments and encourages others to participate.

**SETTING:** A MIDDLE SCHOOL ENGLISH CLASS. STUDENTS ARE SEATED AT THEIR DESKS. EACH STUDENT (EXCEPT STUDENT 1) HAS A BOOK ON THEIR DESKTOP. STUDENT 1 HAS A PENCIL AND CELLPHONE. THE CLASS IS DISCUSSING A NOVEL. FEEL FREE TO OVERACT!
Teacher: Hello, class. We have a lot to talk about today. Last night you read pages 60-75 in our wonderful novel. I hope everyone did the reading! I love this novel and I want to hear all of your unique perspectives about our hero’s dilemma.

Student 1/Slacker: Huh? What reading? What homework?

Teacher: Who was surprised by the plot shift? Hmmm... let’s see... who will start our discussion?

Student 2/Floor Hog: (Raises hand) Oh! Oh! Call on me! Call on me! I know, I know!

Teacher: (Looking around) Anyone?

Student 2/Floor Hog: Me! Yeah, I got this.

Teacher: Alright. Go ahead...

Student 2/Floor Hog: I was not surprised at all. I predicted this plot shift by using my active reading skills. It was sooo predicable...

Student 1/Slacker: (Groans and rolls her eyes, taps her pencil, looks at her cell phone.)

Teacher: (To Student 1) Do you have something to say?

Student 1/Slacker: Huh? No.

Student 2/Floor Hog: I do! I have more to say...

Teacher: Does anyone else think this was plot shift was predicable?

Student 2/Floor Hog: Wait! I have more to say!

Introvert raises his/her hand.

Teacher: Yes?

Student 3/Introvert: I... umm... I think that the... No, wait, let me start over. I think that... I umm... (Pauses, sighs, looks uncomfortable. After several attempts to formulate an answer, gives up.) Oh well, nevermind...!

Slacker and Floor Hog laugh slightly.

Student 2/Floor Hog: I know what she was going to say. I’ll answer for her!

Good Citizen raises her/his hand.

Teacher: Yes?

Student 4/Good Citizen: I agree with my classmate. It was predicable. Good call. The story is a disappointment because it seems like an obvious way to resolve the conflict between the characters. Before class I was talking to my friend (point to The Introvert) who had a different opinion and made an interesting point.

Teacher: (To The Introvert) Great! Will you share your opinion with the class?
**Student 3/Introvert:** (Looks at notes, now more confident.) Ok, thanks. I said that this event, even though predictable, provides valuable insight into the protagonist’s motives and...

**Student 2/Floor Hog:** No it doesn’t.

**Student 1/Slacker:** Don’t interrupt you idiot!

**Student 2/Floor Hog:** Are you still mad about what happened at the mall on Saturday?

**Student 1/Slacker:** You’re such a jerk. I can’t believe we’re banned from the Yu-Gi-Oh store forever.

**Teacher:** Oh dear! Let’s move on. How about some comments about the new character? Did everyone read page 71?

**Student 3 /Introvert:** Uh-oh I forgot to read that!

**Student 2/Floor Hog:** Uh...no.

**Student 4 /Good Citizen:** Oops! Missed that page.

**Teacher:** May I have a volunteer to read the poem on page 72? Everyone, please take out your books and open to page 72.

_Students open their books._

**Student 1/Slacker:** Book? What book? I didn’t know I had to bring a book to class.

**Teacher:** This poem is so romantic! It’s one of my favorites. Would someone read this aloud? Anyone? Please?

_Students 1 and 3 mouth “no,” shake their heads and laugh. Students 2 and 4 pause. Looking uncomfortable, they raise their hands._

**Student 2/Floor Hog:** O my Luve’s like a red, red rose
That’s newly sprung in June;
O my Luve’s like the melodie
That’s sweetly played in tune

_Students clap._

**Student 1/Slacker:** (Laughs, rolls her eyes and says “Lame.”)

**Student 4 /Good Citizen:** You read poetry very well. You should do it more often!

**Teacher:** Thank you. That was very helpful. Ok, we will continue this discussion tomorrow. Class is over. Thanks for coming.

_The End_
Observe The Not-So-Perfect-Participants of Room 141. Consider each student’s preparedness, speaking, behavior and involvement in activities. Use the Classroom Participation and Citizenship rubric on page 308 to assess and score their skills.

**Student 1 Score: _______. AKA: ________________________**

What are Student 1’s participation and citizenship errors?
_______________________________________________________________________________________
_______________________________________________________________________________________

How can Student 1 improve his/her participation and citizenship skills?
_______________________________________________________________________________________
_______________________________________________________________________________________

**Student 2 Score: _______. AKA: ________________________**

What are Student 2’s participation and citizenship errors?
_______________________________________________________________________________________
_______________________________________________________________________________________

How can Student 2 improve his/her participation and citizenship skills?
_______________________________________________________________________________________
_______________________________________________________________________________________

**Student 3 Score: _______. AKA: ________________________**

What are Student 3’s participation and citizenship errors?
_______________________________________________________________________________________
_______________________________________________________________________________________

How can Student 3 improve his/her participation and citizenship skills?
_______________________________________________________________________________________
_______________________________________________________________________________________

**Student 4 Score: _______. AKA: ________________________**

What are Student 4’s participation and citizenship errors?
_______________________________________________________________________________________
_______________________________________________________________________________________

How can Student 4 improve his/her participation and citizenship skills?
_______________________________________________________________________________________
_______________________________________________________________________________________
### Participation and Citizen Rubric

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent</th>
<th>Good</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparedness</td>
<td>Brings materials to class. Does reading and homework. Fully prepared for class discussion. Anticipates questions/discussions and prepares in advance of class. <strong>3 pts.</strong></td>
<td>Usually brings materials to class. Usually does reading and homework. Usually prepared for class discussion. <strong>2 pts</strong></td>
<td>Preparation is inconsistent. Student is rarely or never prepared. Rarely/never brings materials to class. <strong>0 pts.</strong></td>
</tr>
<tr>
<td>Speaking</td>
<td>Regularly participates in discussions; makes thoughtful, insightful comments relevant to the reading or topic under discussion. Consistently exhibits interest in the discussion topic. Doesn’t dominate the discussion. <strong>3 pts.</strong></td>
<td>Usually participates in discussions; Comments are basic, but accurate and moderately insightful. Comments are usually relevant to the discussion topic or reading. Exhibits moderate interest in the discussion topic. <strong>2 pts.</strong></td>
<td>Rarely or never participates in discussion. If so, comments are inaccurate and irrelevant. Indicates little thought, insight, or interest in the discussion topic. Dominates the discussion. <strong>0 pts.</strong></td>
</tr>
<tr>
<td>Behavior</td>
<td>Actively listens to teacher and classmates. Does not interrupt when others are speaking. Engages respectfully with classmates. Encourages the participation of other students by exhibiting interest in comments and opinions. Polite to classmates and teacher. <strong>3 pts.</strong></td>
<td>Usually listens actively to teachers and classmates. Is occasionally distracted; Sometimes interrupts speaker. Usually voices disagreement respectfully and is tolerant of other students’ comments and opinions. Usually polite to classmates and teacher. <strong>2 pts.</strong></td>
<td>Does not use active listening skills. Engages in disrespectful behavior when other students are speaking. Such as eye rolling or making disrespectful noises. Impolite. Argues with classmates and interrupts. <strong>0 pts.</strong></td>
</tr>
<tr>
<td>Activities</td>
<td>Always engages enthusiastically in class activities and exercises. Always takes a leadership role and encourages other students. <strong>3 pts.</strong></td>
<td>Usually engages enthusiastically in class activities and exercises. Sometimes takes a leadership role. <strong>2 pts.</strong></td>
<td>Never/rarely engages in class activities and exercises. Avoids taking a leadership role. <strong>0 pts.</strong></td>
</tr>
</tbody>
</table>
# APPLICATION OF SKILLS

Name: ________________________________

*Are You a Good Citizen and a Perfect Participant?*

In high school and college, participation and citizenship skills are important to your success. Do you regularly participate in classroom discussions and activities? Assess your skills, and make a plan for becoming a good citizen and a perfect participant.

## CLASSROOM PARTICIPATION AND CITIZENSHIP SKILLS

- Prepare for class by doing the reading and homework
- Prepare notes as cues to answer questions
- Ask relevant questions
- Encourage others to speak
- Be polite to classmates
- Don’t judge yourself or others as cool or uncool
- Speak respectfully to your teacher
- Don’t interrupt
- Be respectful of other’s opinions
- Set daily participation goals
- Leave schoolyard animosities out of the classroom
- Ask questions when you have a guest speaker
- Make relevant comments
- Don’t hog the floor
- Elevate the discussion
- Compliment another speaker
- Anticipate teacher’s questions/discussions
- Take a leadership role in an activity
- Be patient when others speak
- Listen actively
- Make eye contact with your teacher
- Thank a guest speaker

1. What is your most difficult class? ____________________________________________

2. Review *The Participation and Citizenship Rubric* on page ___. With regard to the class you identified in question 1, what score would you give yourself for *preparedness*? _______.

3. What score would you give yourself for *speaking*? _______.

4. What score would you give yourself for *behavior*? _______.

5. What score would you give yourself for *activities*? _______.

---

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Use the Classroom Participation and Citizenship Skills Chart for questions 6-9.

6. Select two things from the chart that you will do to improve your *preparedness* skills in each of your classes:

_________________________________________________________________________________
_________________________________________________________________________________

7. Select two things from the chart that you will do to improve your *speaking* skills in each of your classes:

_________________________________________________________________________________
_________________________________________________________________________________

8. Select two things from the chart that you will do to improve your *behavior* skills in each of your classes:

_________________________________________________________________________________
_________________________________________________________________________________

9. Select two things from the chart that you will do to improve your *engagement in activities* in each of your classes:

_________________________________________________________________________________
_________________________________________________________________________________

10. In which of your classes are you most comfortable participating? In which class are you least comfortable participating? Discuss and compare what makes you feel comfortable participating in a class, and what inhibits your participation. Confirm your goal to participate twice in every class.

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
PRODUCT PREVIEW
AJ's progress report wasn't the news he'd hoped for...

U.S. SMART MIDDLE SCHOOL PROGRESS REPORT
ENGLISH C
ARITHMETIC C
HISTORY C
FRENCH C
SLEEPING IN CLASS A

HELP!
MY GRADES HAVE FALLEN AND THEY CAN'T GET UP!
This lesson corresponds to Chapter 28 of *The Middle School Student's Guide to Study Skills*.

**MATERIALS**

- Computer/whiteboard display with internet access.
- Webslides 28A-E (www.middleschoolguide.com)
- Workbook pages 314-326.

Questions 1-4 of the activity for this lesson require internet access to view J.K. Rowling's 2008 Harvard University commencement speech "The Fringe Benefits of Failure." The video can be found at Ted.com and at http://harvardmagazine.com/2008/06/the-fringe-benefits-failure-the-importance-imagination. View the first 12 minutes. If you do not have access to the internet, proceed directly to question 5 on the activity worksheet.

**OBJECTIVES**

By the end of this lesson the student will be able to:

- compare failure vs. set back.
- set grade goals for success.
- recognize the relationship of poor study skills to the failure to meet grade goals.
- list potential benefits of failure.

**GAINING ATTENTION**

In the previous lesson, students learned the importance of developing good classroom participation and citizenship skills. In high school and college, participation and citizenship skills are important to a student’s success. Answering questions and making relevant, thoughtful comments demonstrates good participation and citizenship skills. Students also demonstrate these skills by actively listening, coming to class prepared, and enthusiastically engaging in class activities and exercises. Make a goal to participate in every class. Participation impacts your grade. It also helps you learn, and is good practice for high school and college.
Engage students in a discussion: Drum roll, please! We have reached the final lesson in the study skills course and will conclude with a lesson about failure. What is failure? What does failure mean to you? [Take answers]

**COMMUNICATE LEARNING GOALS**

Your learning goals for this lesson are to be able to define failure, understand the importance of grade goals to analyzing failure, understand the impact of study skills on long term grade goals, and list potential benefits of failure.

**PRESENTATION OF CONTENT**

Do you know there are scientists who study only failure? They are called failure analysts. It’s their job to figure out why something failed, such as the collapse of a building or bridge. Failure analysts systematically gather and review data to identify the root cause of a failure, hoping to prevent future failures. Almost every industry uses failure analysts. In business they may study why a product isn’t selling. The military uses failure analysts to understand why a strategy did not succeed. Principles of failure analysis apply to academics too. When you experience failure, don’t let it defeat or define you. Gather and review data, determine why you failed, and how you can succeed in the future.

**What is failure?**

A simple definition of failure is “a lack of success.” But isn’t success a subjective concept? Your notion of success could be quite different from your friend’s. One student may consider passing a very difficult math class with a C+ and their sanity intact, as a great success. On the other hand, a student who accepts nothing less than straight A’s would consider that grade closer to failure. Failure, like success, is a subjective concept. For students, a good definition of failure is not meeting your personal goals for success in school.

**How to analyze failure**

**Set Grade Goals!**

To analyze failure, you must first know what you wanted to achieve. To do this, you need a grade goal for every class. Without setting grade goals, successes and failures are hard to measure. Don’t just pick a grade goal out of the air. Your grade goal is the final grade you can expect to receive in a class by making your very best effort in the class. Don’t set grade goals so high as to be unattainable, making failure inevitable. Never set a grade goal too low. Always challenge yourself to be the very best student you can be.
Action Steps = Study Skills

The path to your grade goal is paved with many action steps. Those are the study skills and strategies you learned in this course, which you must use everyday to meet your grade goal! Sticking to a homework routine, thinking about your thinking, using time-spaced learning to study for tests and quizzes, preparing for every class, exhibiting good citizenship and participation skills, taking notes in class, using your critical thinking skills, etc. are the action steps that will lead you to success in school. Sometimes students focus only on their grade goal for a class and overlook the constant daily effort and diligence it takes to reach it.

Find the root cause of the failure.

Keep your eyes on your grades. When your grade in a class starts heading south, morph into failure analyst mode. Get to the root cause. Focus your investigation on your study skills. A falling grade in a class is a warning sign that you are not completing one or more of the many action steps to your goal. Never shrug off a poor grade or score with a vague vow to “do better next time.” Analyze your performance. Somewhere in the process of learning, studying, taking a test or quiz you made one or several action step (study skills) errors. Ask yourself: Did I not actively read the textbook chapter? Did I not actively listen in class? Did I cram instead of study over time? Would using mnemonics have helped me master the information? Should I have used a supplemental or tutorial resource, or outlined the chapter? Did I fail to use good test-taking strategies? Did I not put in enough effort? Once you identify the root cause (or causes) of a failure, apply the appropriate study skills so you do not repeat it.

What is not failure?

Failure ≠ Not succeeding. True and permanent failure is rare. We mostly experience setbacks by not succeeding on a first, second, or even third try. It often takes more than one attempt to succeed at something. Think about the first time you tried to swim the full length of the pool or ride a bike. When you didn’t succeed on the first try, did you say “What a failure! I’ll never try that again!”? Success is incremental. For most things in life, including learning, it takes sustained effort and sometimes several setbacks before success is achieved.

Failure is not rejection. Ouch! Sometimes failure hurts. People often equate failure with rejection or as judgement of their value as a person. When you get a poor grade on a paper, project, or test, or experience any other setback in school, it is not rejection of you or a measurement of your value as a person. It’s an indication that somewhere in the process of learning or completing the project or paper or preparing for or taking a test, you made one or more errors.

Failure is not you. Failure does not define you. In fact, out of failure often emerges a stronger, smarter, and more resilient student. The only failure that defines you is the failure that results from not caring about learning, not making an effort to learn, and not trying again (and again and again) to succeed at learning.

Failure is not the end of the world. Some things in life (or school) come with a do-over, some don’t. When you encounter the latter, accept responsibility and the consequence of the failure and move on. Look forward to the many more opportunities to learn and succeed that will come your way.
Will you fail?

Yes. You are going to fail. At some point in your life as a student you will suffer a setback that you consider a failure. It might be a terrible grade on a paper or project, it could be failing a test, even a class. It could be in high school, college, or graduate school. It could happen more than once. It could be a big failure. It could be a small failure. No one wants to fail, but when you do fail, how you handle it is important. Nobody enjoys failing, but believe it or not, there are some benefits to it.

What are the benefits of failure?

**Self-sufficiency.** Failure provides you with an opportunity to learn how to fix something yourself. When you suffer a failure or setback, own it. Don’t pass it off on someone else. Don’t blame your teacher. Ask your parents not to intervene to cover your every failure or constantly smooth the road ahead of you. They mean well, but when you get to high school, college and career, you’ll be glad you learned to handle small failures and setbacks on your own.

**Resilience.** Students who have experienced failure understand that while unpleasant, it will not kill you. Students who have pulled themselves up from the pit of failure once or twice understand that the experience can be sort-of like a failure vaccine enabling them to recover faster and stronger from subsequent failures.

**Clarity.** Some of the world’s greatest inventors, innovators, leaders and athletes have suffered epic and occasionally very public failures. Thomas Edison, J.K. Rowling, Steve Jobs, Abraham Lincoln all failed several times before achieving success. Each recovered from failure with a clearer and stronger vision of their goal.

**Perspective.** Failure puts success into proper perspective. Too many people expect immediate success, and when it doesn’t happen right away, they give up. Failure provides the perspective that success is a process, sometimes a very long one, but the rewards are sweet.

Check for understanding and proceed to the activity.

**ACTIVITY**

View the first 10-12 minutes of J.K. Rowling’s famous 2008 commencement speech at Harvard University, “The Fringe Benefits of Failure.” Engage students in a discussion about the relationship of failure to achievement. Direct students to page 319 of the workbook. Introduce the activity. Complete the activity as a class, discussing the worksheet questions. (e.g. “What do you think ‘stripping away of the inessential’ means?”) On completion of the activity, proceed to Let’s Summarize!
LET'S SUMMARIZE

Display the slide on the whiteboard. Read aloud. Guide students to verbally complete the blanks. Use this exercise to complete the Letter to Parent on page 324 of the workbook.

1. Failure analysts study failure, systematically gathering and reviewing data to identify the root cause of a failure, hoping to prevent future failures.

2. True and permanent failure is rare. We mostly experience setbacks. It takes sustained effort and often several attempts to succeed.

3. A falling grade in a class is a warning sign that in some way, you are failing to meet your action steps (ie. not consistently using the study skills and strategies learned in this class.) When that happens, morph into failure analyst mode and get to the root cause(s) of the problem.

4. The skills and strategies you've learned in this study skills class provide you with all of the action steps (skills and strategies) you need to meet your grade goals.

5. While no one enjoys failure, there are some potential benefits: failure provides an opportunity to develop self-sufficiency skills (the ability to handle something yourself); overcoming failure builds resilience (the ability to recover from setback), and often provides a clearer vision of your goals.

READING AND HOMEWORK

- Students complete pages 321-323 in the workbook Application of Skills [Get'n Your Grade Goals On.]
- Unit 8 Quiz: Students complete pages 325-326 in the workbook [What Did You Learn About Wrapping Up for College Readiness?]
The Benefits of Failure

Harry Potter author, J.K. Rowling, came from an impoverished background in Britain. She suffered many failures before achieving great success. In a famous 2008 Harvard University commencement speech, “The Fringe Benefits of Failure,” she shared her insights into failure. Watch the video (mins. 1-12), then answer questions 1-4 below:

1. What does Ms. Rowling mean when she says “failure means a stripping away of the inessential”?
   Student's discretion.

2. What does Ms. Rowling mean when she says “Rock bottom became the solid foundation upon which I rebuilt my life”?
   Student's discretion.

3. According to Ms. Rowling, how is failure related to achievement?
   Student's discretion.

4. Ms. Rowling told the graduates that “there is an expiry date for blaming your parents for steering you in the wrong direction.” Comment.
   Student's discretion.
5. Why is failure a topic in your study skills course?

*Student’s discretion; Example: Developing the ability to recover from failure and setback is a good skill because it teaches resilience and the importance of long term effort to meet long term academic goals. Achievement is often the end-result of many setbacks. Failure teaches you to review and assess your strategy, and work more efficiently.*

Below are some famous quotes about failure. Read them, and select a quote that you find particularly meaningful. Discuss why it appeals to you. Then create your own quote about the meaning of failure. Share your quote with your classmates.

“All success is not final, failure is not fatal: it is the courage to continue that counts.”
– Winston Churchill

“It is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all - in which case, you fail by default.”
– J.K. Rowling

“Failure is simply a few errors in judgment, repeated every day.”
– Jim Rohn

“I can accept failure, everyone fails at something. But I can’t accept not trying.”
– Michael Jordan

*This quote is meaningful to me because:*

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

*My personal quote about failure:*

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
## APPLICATION OF SKILLS

Name: __________________________________________________________

### Get’n Your Grade Goals On

Students should have a grade goal for every class. Don’t just pick one out of the air! A grade goal is the final grade you can expect to receive for making your best effort in a class.

1. List each of your classes, then write the grade you expect to receive for making your best efforts in the class.

<table>
<thead>
<tr>
<th>Name of Class</th>
<th>Grade Goal</th>
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</tbody>
</table>

2. Grade goals are reached by achieving many action steps, including making good study skills a daily habit. Do all of the assigned reading and homework, prepare for class, establish (and stick to) a study routine, participate in class, use SQ3R active reading skills, limit breaks when you study, etc. Select one of the classes above and list your study skills action steps for meeting your grade goal:

<table>
<thead>
<tr>
<th>Study skills action steps</th>
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3. How do study skills action step failures impact long term grade goals?

Study skills action step failures will cause a student’s overall grade in a class to fall, resulting in grade goal failure.
4. Review each chapter of *The Middle School Student’s Guide to Study Skills*. List the study skills (action steps/strategies) you have learned to help you successfully reach your grade goals.

Identify learning goals, adjust thinking and learning environment to optimize learning, gauge progress toward learning goals, be a self-aware student, understand the role of effort in success, being an incremental learner, accepting challenge, avoiding procrastination, using style-compatible resources and strategies, being a multimodal learner, developing my unique intelligence, activating my schema before learning, establishing a study routine, having an organized and stocked workspace, reading the syllabus, knowing my teacher’s grading plan, making a to-do list, being an active learner by connecting learning to the real world, taking learning personally, preparing for college, preparing for class, being open-minded, being an SQRRRR reader, actively listening in class and controlling behaviors and attitudes which prevent me from actively listening; taking notes in class, using abbreviations, listening for ideas, asking questions to clarify, reviewing my notes within 24 hours, using Cornell or Matrix note-taking format or designing my own notes; printing copies and storing blank note forms in my binder, outlining my textbook chapters, using acrostics, acronyms, name-trait, spelling or rhyme/song mnemonics to improve recall; not cramming; using time-spaced learning, making a study plan, using test-taking strategies such as studying holistically and using multiple choice process of elimination techniques; understanding how to answer multi-segmented true/false questions, identifying action and key words, using a basic five-paragraph essay to develop my skills; being relevant when answering a question; making an outline before answering on an essay test; practicing and preparing before an oral presentation, using cue cards, not memorizing, using speaking skills like voice intonation, eye contact, relevant and synched visual aids; understanding how to control test anxiety, especially making a study plan and sticking to it; knowing the benefits and challenges of distance learning such as anticipating that DL classes are time consuming and sometimes hard to navigate, making a copy of written work before clicking “submit”; understanding the importance of developing higher order thinking skills, particularly how to apply logical reasoning, objective thought and unbiased judgment to reach a conclusion; knowing the types of sources and how to find them when researching, how to use search terms, how to assess information for credibility, reliability and bias; effectively participating in class and exhibiting good citizenship skills; setting goals for success in school, and identifying the grade I can expect to receive by using my best efforts; understanding how to recover from a set back, learning how to handle setbacks on my own, etc.
5. In Chapter 1 you learned that the term *study* skills is misleading, because study skills apply to all aspects of learning. How have you applied the skills you have learned in this class to all aspects of your learning?

___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

6. In Chapter 1, you learned that good study skills make you a *faster, more efficient and effective student*. How are you a faster, more efficient and effective student since learning good study skills? Provide examples.

___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

7. In Chapter 1 you identified your three worst study habits. Have you replaced your poor study skills and habits with productive habits? Provide examples.

___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

8. What grade would you give your current study skills and habits?

A+   A   A-   B+   B   B-   C+   C   C-   D+   D   D-   F

* Bonus: When you notice that your grade in a class is falling, what should you do? *Morph into failure analyst mode to get to the root cause of the problem. Determine what action step/study skills strategy errors you have made. Examine where, in the process of studying, preparing for or taking a test, or completing a project, you failed to use the appropriate study skill or apply enough effort. Review your study skills and commit to using your skills to improve your grade.*
Blog/Debate/Discuss

- When does a setback become a failure?
- What is your pet peeve about classroom participation (or other participants)?
- Tell about an epic failure you've experienced and how you benefited from it.
- Can an information source ever be completely free of bias?

Practice, Practice!

- What Did You Learn About Ramping Up for College Readiness?
- Agatha Christie's crime novels are a great means of exploring critical thinking. They're fun, G-rated, and students can apply critical thinking skills to solve the crimes.
- Search “Fact vs. opinion exercises” online and engage your students in weekly challenges.

It's a Team Effort!

Talk with teachers at your school about establishing and enforcing a Wikipedia “Look but don’t cite” policy.

Invite the school or public librarian to talk to your students about information literacy topics, including understanding the differences between primary, secondary and tertiary sources, assessing the reliability of online sources, and how to use an online citation site.

Unit Sources


College Readiness Corner

Help students habituate good study skills. Create a study skills booster and rewards program. Hold study skills review sessions. Reward students who consistently demonstrate good study skills. Grade study skills. Reward students who show study skills improvement. Talk about study skills at parent meetings and student conferences. Include study skills tips in the school newsletter. Make good study skills part of your school culture!
Name: _____________________________

1. Why is perfecting your classroom participation skills important for high school and college readiness?
   a. High school and college teachers have higher expectations of the level and quality of students’ participation.
   b. In college seminars, participation can count toward up to 50% of your grade
   c. If you don’t participate in high school and college classroom discussions, you will not graduate.
   d. a and b

2. State five Rules of Engagement for good citizenship in the classroom:
   - Be polite: Listen when classmates speak and don’t let an argument get personal.
   - Let other students have a turn. Don’t dominate the discussion.
   - Elevate the discussion by verbalizing an alternative or even unpopular viewpoint.
   - Encourage others to participate.
   - Ask questions of speakers and say thank you.

3. Good strategies for preparing for a classroom discussion are:
   a. do the homework and reading.
   b. avoid making eye contact with your teacher until you are sure of your answer.
   c. anticipate questions or discussion topics your teacher may ask and jot down notes.
   d. a and c

4. How is the classroom a community? What responsibilities do members of the classroom community have to one another? Discuss:
   Student’s discretion. Example: The classroom is a community of learners with the common goal of education. They have a responsibility to further their mutual goals by being polite to one another, engaging in productive discussions, preparing for class, participating, not dominating the discussion, encouraging others to participate, complimenting, actively listening and contributing to the discussion.

5. Which of the following is not a benefit of distance learning:
   a. Schedule flexibility: Students can attend class 24/7
   b. Upward mobility: Students can take classes at advanced grade levels
   c. Online classes require less time.
   d. Course enrichment: Most DL classes link to interesting resources.
6. What's your advice to a procrastination-prone student who enrolls in a DL course? Be specific:

Procrastination is a challenge for many DL students. If you're procrastination-prone and need more structure, be vigilant about creating a study routine and sticking to it. Log in at regular intervals as part of your normal homework routine, track DL due dates and responsibilities in a planner or e-calendar as you would any other class; Be aware the DL courses are as much, or even more work than on-site classes.

7. Anika's progress report in algebra shows that her grade in the class is a C-. She's told her mom that she "will work harder," but doesn't understand why her grade is so low. What's your advice?

A falling grade in a class is a warning sign that in some way, you are failing to meet your study skills action steps; When that happens, morph into failure analyst mode and find the root cause of failure. Figure out exactly why your grade is low and what skills and strategies you can use to bring your grade up.

8. What are the difference between a fact and an opinion?

A fact is based on evidence that can be verified.

9. According to the National Forum on Information Literacy (NFIL), an information literate student must be able to do each of these, except:

a. identify information
b. make up information
   c. evaluate information
   d. effectively use information

True or False:

10. **True** As a middle school student, you may not yet have enough life experience to recognize bias in a source, but you certainly have enough intelligence to understand that sources can be (and frequently are) biased.

11. **False** There are no benefits to failure.

12. **True** Critical thinking is a process of gathering and assessing information, reflecting on and comparing information, discriminating between ideas, facts and opinions to reach a well-reasoned conclusion.

13. **True** Good study skills should be used everyday, as part of your normal routine.

14. **False** Higher order thinking skills recognize the static and inflexible nature of thinking.

15. **True** You have the study skills and strategies you need to be high school and college ready—provided you use the skills every day.
Congratulations!

This is to certify that ________________ has completed the lessons and activities in
The Middle School Student’s Guide to Study Skills,

has learned skills and strategies
for high school and college readiness,

and is a totally awesome middle school student!

Date: ____________________________

__________________________________
Study Skills Teacher


RECOMMENDED WEBSITES


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