# Weekly Enrichment Plan: Week of April 20

**Grade: 7**

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
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</thead>
<tbody>
<tr>
<td><strong>Math (45 Minutes)</strong></td>
<td><strong>Math (45 Minutes)</strong></td>
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<td><strong>Math (45 Minutes)</strong></td>
<td><strong>Math (45 Minutes)</strong></td>
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</tbody>
</table>
| Topic: Analyze Surface Area and Volume  
Khan Academy Video: “Volume of Triangular Prism and Cube”  
Activity: Derive and Apply a Formula for the Volume of a Right Prism (11.3 Reteach) | Topic: Analyze Surface Area and Volume  
Read from ck12: “Volume of Triangular Prisms”  
Watch embedded video and do review problems | Topic: Analyze Surface Area and Volume  
Read from ck12: “Volume of Triangular Prisms”  
Watch embedded video and do review problems | Topic: Analyze Surface Area and Volume  
Activity: Solve Multi-Step Problems with Surface Area and Volume (11.4 Reteach) | Topic: Analyze Surface Area and Volume  
Activity: Solve Multi-Step Problems with Surface Area and Volume (11.4 Additional Practice) |
| **Physical Education (15 Minutes)** | **Physical Education (15 Minutes)** | **Physical Education (15 Minutes)** | **Physical Education (15 Minutes)** | **Physical Education (15 Minutes)** |
| Physical Activity –  
• Go for walk/run  
• YouTube – [Kidz Bop Dance](#)  
• YouTube – [Kids Workout](#) | Physical Activity –  
• Go for walk/run  
• YouTube – [Kidz Bop Dance](#)  
• YouTube – [Kids Workout](#) | Physical Activity –  
• Go for walk/run  
• YouTube – [Kidz Bop Dance](#)  
• YouTube – [Kids Workout](#) | Physical Activity –  
• Go for walk/run  
• YouTube – [Kidz Bop Dance](#)  
• YouTube – [Kids Workout](#) | Physical Activity –  
• Go for walk/run  
• YouTube – [Kidz Bop Dance](#)  
• YouTube – [Kids Workout](#) |
<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Weekly Enrichment Plan: Week of April 20</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Grade: 7</strong></td>
<td></td>
</tr>
<tr>
<td><strong>English Language Arts</strong></td>
<td>(60 Minutes)</td>
</tr>
<tr>
<td><strong>Reading Comprehension:</strong></td>
<td>Wit and Wisdom Module 4: Lesson 1 part 2</td>
</tr>
<tr>
<td><strong>Reading Comprehension:</strong></td>
<td>Wit and Wisdom Module 4: Lesson 2 part 1</td>
</tr>
<tr>
<td><strong>Reading Comprehension:</strong></td>
<td>Wit and Wisdom Module 4: Lesson 2 part 2</td>
</tr>
<tr>
<td><strong>Reading Comprehension:</strong></td>
<td>Commonlit: “The Story of Ida B. Wells” Text and Comprehension Questions Khan Beta ELA – Key Ideas: Realistic Fiction Vocabulary Practice: Membean: If you are a first time user, follow this link: Click Here for Membean.com and enter code: CJNQBPN</td>
</tr>
<tr>
<td><strong>Writing:</strong></td>
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<tr>
<td><strong>Vocabulary Practice:</strong></td>
<td>Membean: If you are a first time user, follow this link: Click Here for Membean.com and enter code: CJNQBPN</td>
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<tr>
<td><strong>Grammar Practice:</strong></td>
<td>Khan Grammar</td>
</tr>
<tr>
<td><strong>Writing Practice:</strong></td>
<td>Writable 7th grade join code is LGZQV. This week’s assignment is Narrative Skills Activities: Middle School: Skill: Use Sensory Language (Print copies available at meal site) * This assignment will take more than one day.</td>
</tr>
<tr>
<td><strong>Independent Novel Reading:</strong></td>
<td>Novels available at meal sites Read for 20 minutes and spend 10 minutes answering the reading comprehension questions that you are able to each day. You can write a summary of what you read, write a critique or review, or call a friend and tell him or her about what you read as well.</td>
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<td>Time</td>
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<tr>
<td></td>
<td><strong>Fine Arts</strong></td>
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<tr>
<td><strong>(15 Minutes)</strong></td>
<td>Art</td>
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<tr>
<td></td>
<td>Music</td>
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<tr>
<td></td>
<td>Art</td>
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<tr>
<td><strong>(30 Minutes)</strong></td>
<td>Science</td>
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### Social Studies (30 Minutes)

**Census 2020**
- Read the [Census Facts](#) to learn facts about the Census.
- After reading the Census facts, create a poster to explain the importance of the 2020 Census to your peers and family members.

**Census 2020**
- Reread the [Census Facts](#) from 4/2/20 and imagine that you were given the task of developing questions for the Census questionnaire.
  - Create nine questions that could be used to obtain information needed to accomplish the tasks given in the Census facts.

**Census 2020**
- Examine the [2020 Census questionnaire](#) and do the following:
  - Compare your questions with the 2020 Census questionnaire.
  - Write how your questions are like the questionnaire.
  - Write how your questions are different from the questionnaire.

**Census 2020**
- Examine the Census questionnaires of 2000, 2010 and 2020 and answer the following:
  - How has the definition of race changed?
  - How do the questions about race and ethnicity differ in 2000 and 2020 Census questionnaires?
  - What groups identified as white in 2000?
  - What groups identified as black in 2000?
  - How many questions are on the 2000, 2010, and 2020 Census questionnaires?

### Social Emotional Learning/Reflection (15 Minutes)

**Self-Awareness**
- Write about a unique quality you have that makes you special.

**Self-Awareness**
- Write a letter introducing yourself to your favorite fictional character. Tell him or her about yourself and describe a few things you have in common.

**Self-Awareness**
- Think of a stressful situation that happens to you repeatedly. List 3 examples of things you’d like to try as ways of coping with the situation.

**Empathy & Communication**
- Leave a kind note somewhere for a family member to find.

**Self-Awareness**
- Make a list of things for which you are grateful.

### Student Daily Check-Off

- **Math**
- **English**
- **Physical Ed.**
- **Fine Arts**
- **Science**
- **Social Studies**
- **SEL/Reflection**

- **Math**
- **English**
- **Physical Ed.**
- **Fine Arts**
- **Science**
- **Social Studies**
- **SEL/Reflection**

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- **English**
- **Physical Ed.**
- **Fine Arts**
- **Science**
- **Social Studies**
- **SEL/Reflection**

- **Math**
- **English**
- **Physical Ed.**
- **Fine Arts**
- **Science**
- **Social Studies**
- **SEL/Reflection**
### Suggested Daily Schedule: Grades 6-8

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 9:00 am</td>
<td>Wake up, make your bed, eat breakfast and get ready for an awesome day!</td>
</tr>
<tr>
<td>9:00 – 9:45 am</td>
<td>Mathematics</td>
</tr>
<tr>
<td>9:45- 10:00 am</td>
<td>Physical Activity</td>
</tr>
<tr>
<td>10:00– 10:45 am</td>
<td>English Language Arts – Reading Comprehension</td>
</tr>
<tr>
<td>10:45 – 11:00 am</td>
<td>15-Minute Break</td>
</tr>
<tr>
<td>11:00 – 11:15 am</td>
<td>Art</td>
</tr>
<tr>
<td>11:15 am – 12:00 pm</td>
<td>English Language Arts - Novel</td>
</tr>
<tr>
<td>12:00 – 1:00 pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 – 1:30 pm</td>
<td>Science</td>
</tr>
<tr>
<td>1:30-1:45 pm</td>
<td>15-Minute Break</td>
</tr>
<tr>
<td>1:45-2:15 pm</td>
<td>Social Studies</td>
</tr>
<tr>
<td>2:15-2:30 pm</td>
<td>Social-Emotional Learning/Reflection</td>
</tr>
</tbody>
</table>
**Family Suggestions**

<table>
<thead>
<tr>
<th>Parent Suggestions</th>
<th>Student Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How can I support my student as a learner outside of school?</strong></td>
<td><strong>How can I continue learning outside of school?</strong></td>
</tr>
<tr>
<td>€ Familiarize yourself with your child’s learning calendar.</td>
<td>€ Complete work on your suggested learning calendar.</td>
</tr>
<tr>
<td>€ Encourage your child to do their best when completing tasks and assignments.</td>
<td>€ Put in your best effort when completing tasks and assignments.</td>
</tr>
<tr>
<td>€ Contact your child’s teacher or the district’s homework hotline when you or your child have questions or need feedback.</td>
<td>€ Ask an adult to contact your teacher when you need help. Teachers are available via e-mail, your school’s online learning program or on the district’s homework hotline.</td>
</tr>
<tr>
<td>€ Support your child in starting the daily work early in the day. Waiting until the late afternoon or evening to start work adds unnecessary stress and creates missed opportunities for collaboration and feedback.</td>
<td>€ Let your teacher know if you have access to a phone or computer.</td>
</tr>
<tr>
<td>€ Remind your child to take frequent breaks to stay focused.</td>
<td><strong>How can I stay organized?</strong></td>
</tr>
<tr>
<td>€ Consider designating a dedicated workspace to maximize time on task and facilitate learning.</td>
<td>€ Start your work early. Waiting until the late afternoon or evening to start work adds unnecessary stress and creates missed opportunities for collaboration and feedback.</td>
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<tr>
<td></td>
<td>€ Take short breaks to increase focus and stay motivated to complete tasks on time.</td>
</tr>
<tr>
<td></td>
<td>€ Find a quiet place to complete your work.</td>
</tr>
</tbody>
</table>

**Individual Support**

**Individualizing Supports**

- See “Individualizing Supports for Students” for more information on how to support your child at home with these assignments.
- Additional materials are available online and at school meal sites:
  - “Specially Designed Instruction for Students with IEPs” packets with instructional routines that can be used at home to address students’ IEP goal areas.
  - Materials and resources for students with life skills needs and significant disabilities will also be available.
### English Language Learners

<table>
<thead>
<tr>
<th>Enrichment Packet</th>
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</thead>
<tbody>
<tr>
<td>Daily language learning is important! The following links/resources are available for students to access daily.</td>
</tr>
<tr>
<td>¡El aprendizaje diario de idiomas es importante! Los siguientes enlaces/recursos están disponibles para que los estudiantes accedan al aprendizaje diario de idiomas.</td>
</tr>
<tr>
<td>Kujifunza lugha ya kila siku ni muimu! Viungo vifuatavyo/rasilimali vinapatikana kwa wanafunzi kupata mafunzo ya lugha ya kila siku.</td>
</tr>
<tr>
<td>दैनिक भाषा सिक्न महत्वपूर्ण छ तलका लिंकहरू / सोटहरू विद्यार्थीहरूको लागि दैनिक भाषा सिक्ने पहुँचको लागि उपलब्ध छ।</td>
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المورد التالية متاحة للطلاب

المورد التالية متاحة للطلاب

للوصول إلى تعلم اللغة اليومي.
Individualizing Support for Students in Grades 6-12

For Students Who Struggle with Reading

Before Reading:

- For content area reading (nonfiction), provide some background information about the topic addressed in the text. The scholar can go online to look up information on the topic. Have scholar find resources in his/her preferred learning modality (videos, simplified text, activities) and summarize the new information learned.
- Look through the reading passage or book and look at pictures, graphics, and text features such as headings, captions, bolded words, etc. Discuss what you see and make a prediction about what you think will happen. During and after reading, adjust the prediction based on what you read.
- Look through the reading passage or book and identify difficult or unusual words. Have scholar practice decoding these words (reading them aloud). Provide meanings for these words. Create a vocabulary dictionary of these words to refer to later.

During Reading:

- Accommodations: Allow scholar to read aloud if they need to. Provide an audio recording of the text if available.
- Chunking: Read one paragraph or section at a time, and check for understanding by asking student to summarize or paraphrase what was read before moving to the next section.
- Make real-world connections (does the book remind you of something in your life? Another book, a movie, etc.)
- Stop and ask questions while reading. Ask questions with answers that can either be found in the reading or could be predictions about what might happen after the passage/story ends.

After Reading:

- For literature/fiction reading, have your scholar summarize what they read. Use the “5 W’s”
  - Who was the story/passage about?
  - What was the story/passage about? Make sure to include the main idea, some details, and how the story/passage ended
    - What did the character(s) learn?
    - What would be a good title for the story/passage? If one is provided already, what would be a different title you would give the story/passage?
  - When did the story/passage occur? This would be most important for informative and historical passages
  - Where did the story/passage occur?
  - Why? This can be many things, why did a specific character act in a certain manner? Why was a decision made? etc.
  - How? If there was a problem discussed ask how your scholar would have solved the problem differently, or how did that make you feel?
- For nonfiction reading/content area reading, have your scholar summarize what he/she has learned from the text and how he/she would apply the learning to real life.
- Allow an “open book” policy. Make sure that the scholar shows exactly where in the text he/she is getting the information to answer whatever question has been posed.
For Students Who Struggle with Written Assignments

- Have scholar dictate assignments into a phone’s “notes” app or computer with speech-to-text technology. Most speech-to-text will also respond to commands to add punctuation (by saying “comma,” “period,” etc.). Student can then print out their writing, or copy it into their own handwriting.
- Write one sentence at a time, then have someone read it aloud to make sure it makes sense.
- Provide examples of quality writing that meets the task criteria.
- Accept a written assignment that is shorter than what is expected, as long as the task criteria are met.

For Students Who Struggle with Math Assignments

- Find a video of someone completing a similar task and have scholar watch it multiple times. Excellent resources for this are YouTube, Khan Academy, and LearnZillion.
- Talk about math: Have student explain a problem and its solution in mathematical terms. Have student teach a skill to another student. If they can teach it, they understand it.
- Accommodations: For tasks that require problem-solving, allow use of a calculator. Teach student how to use the calculator to accurately solve problems with multiple steps. Also provide access to anchor sheets for math procedures that may not be memorized, such as formulas.
- Chunk assignments for easier completion/to ease frustration: If there are 20 math problems to solve, complete 10 and take a break to move around. After the break go back and finish the other 10.
- Fractions: use round food items to discuss fractions. Example: Cut a frozen pizza into 8 pieces and talk about pieces individually (1 piece is 1/8) or in parts together (2 pieces is 2/8 or ¼). Compare and contrast pieces of different sizes.
- Graph paper: use graph paper to organize work and problems, and to model mathematical situations visually.
- Manipulatives: any small item can be used as a manipulative to help with basic facts. Examples: coins, blocks, pieces of paper cut into smaller pieces. There are also virtual manipulatives online (Google “virtual math manipulatives”).
- Measurement, Money, and Time:
  - Bake something and have your child measure out all of the ingredients for the recipe.
  - Have your child measure different items around the house and compare the sizes (What is bigger? What is smaller? How many ___ does it take to measure the couch?)
  - Take a walk outside for a movement break. While walking have them time how long it takes to go for the walk and get back home. Pick something outside like houses and have them count how many they pass while walking. You can also practice skip counting while you walk (example: for each step you take count by 2s, or 5s, or 10s).
  - Create a store using items around your house. Label each item with a dollar amount and have your child “shop” in your store or have them act as the cashier and make change.
  - Create a schedule for the day with times attached. Start with times on the hour and then get progressively more difficult with times on the half hour and quarter hour. Give a specific time they can play a game or use tech. This will help work on math skills and will also help keep your child focused on different tasks throughout the day!
- Reference materials: create a number line, hundreds chart, or anchor charts (worked examples) to help with math calculation, counting, and problem-solving.
- Patterns: use blocks or toys of similar colors to make a pattern. Example: 3 red Legos, 2 blue Legos, 3 yellow Legos, repeat.
- Sorting: Gather a group of toys and have your child sort them based on similar attributes (color, size, shape, etc.). Do the same with a set of books and have your child sort them based on fiction vs. nonfiction, type of book, etc.
• **Make it fun!** Practice math skills using games and things you might already have around the house and turn real-life activities into mathematical opportunities.
  o A deck of cards: each person draws 2 cards and then adds, subtracts, or multiply the numbers reflected on the cards.
  o Dice: can be used the same way as a deck of cards to work on basic facts or create multi-digit problems to solve.
  o Yahtzee: basic addition
  o Connect Four, Othello: problem solving, and strategic thinking
  o Puzzles: perfect for working on spatial awareness, which is key to geometry
  o Monopoly: have your child be the “banker” to work on money skills
  o Battleship: graphing coordinates
  o Uno: use numbers on cards to create calculation problems

**For Students Who Struggle with Focus, Attention, and/or Study Skills**
• Given scholar very clear written (or visual) directions of what to work on and what successful completion of the task looks like. Have scholar self-monitor whether or not he/she has completed all parts of the task.
• Use a timer, starting with a very brief amount of time (even 5-10 minutes is ok). After the timer “beeps,” provide student with a brief break (5 minutes) before continuing. Work to increase the amount of time for each work interval, up to 25 minutes.
• Provide a reward, such as a sticker or carrot, for every successful interval of on-task behavior.
• Only give one assignment or task at a time, but also provide scholar with a calendar or daily schedule to refer to so it is clear what to expect next.
• Have older students model study skills for younger children.
In 1975, a scientist named Wallace "Wally" Broecker wrote a paper in which he asked a simple question: was the Earth getting warmer? When the paper was published, some of Broecker's colleagues laughed at him. Many of them believed that the world was actually cooling.

Historically, there have been periods in which the Earth's temperature has slowly risen and cooled over thousands of years. This is a natural process that can be caused by many factors, including changes in radiation from the Sun, changes in the Earth's orbit, and volcanic activity.

However, climate change can also be caused by changes in the amount of certain gases in the atmosphere. Broecker had noticed that the amount of carbon dioxide - a colorless, odorless gas -- was slowly building up. While some carbon dioxide is produced through natural processes, large quantities of it are also produced by humans. Carbon dioxide is generated in especially large amounts when we burn fossil fuels, such as oil, coal, and natural gas. This burning happens when we drive cars, use electricity, and make certain products. When released into the atmosphere, carbon dioxide traps heat. Broecker reasoned that if people produced a lot of carbon dioxide, then enough
heat would be trapped that the Earth would begin to warm. He called this "global warming."

Several decades later, many climate scientists agree with Broecker: the Earth is heating up and humans are largely responsible. This warming process is often referred to as "climate change." More carbon dioxide is being produced than ever before. Every year, humans produce about 8 billion metric tons of carbon. 2012 was the hottest year in recorded history. Recently, scientists estimated that more carbon dioxide exists in the atmosphere than has in over three million years.

While scientists understand how climate change works, some of its effects are still difficult to predict. Some scientists expect an increase in so-called "extreme weather" events, such as hurricanes and floods. Others foresee a rise in levels of sea water. While exactly what changes will happen are unclear, Broecker has warned that people should be prepared for some large disturbances. In an interview with the Guardian, a British newspaper, in 2008, he compared the Earth's climate to a wild animal. Sometimes, when provoked, the animal will react violently and unpredictably.

"If you're living with an angry beast, you shouldn't poke it with a sharp stick," he said.

Why are scientists able to understand some phenomena, like climate change, in a general way, but aren't able to predict the changes they will have on the Earth? Part of the reason is because many large Earth systems involve "feedback loops" - processes that help amplify (positive feedback loops) or diminish (negative feedback loops) certain changes.

Feedback loops can occur in the climate system, too. If the temperature of the Earth rises, it can change the environment so that it produces even more heat.

There are a number of different ways in which this phenomenon occurs. Scientists who work in the Arctic, at the northern end of the Earth, have been reporting that, every year, more and more floating sea ice melts. In the last 30 years, more than one-third of the ice that appears in the Arctic during the summer has melted away.

This worries scientists because Arctic ice plays an important role in cooling the Earth - although not in the way you might think. While we add ice to our drinks to make them colder, Arctic sea ice cools the Earth in a different way. Ice, which is white colored, reflects light. This means that much of the sunlight that hits ice bounces off and is sent right back to space. Reflecting light away helps keep the Earth cool.

However, as the Earth heats up, ice begins to melt. As ice melts, this reveals more of the darker-colored land or ocean water, which doesn't reflect heat, but absorbs it. So, less light is reflected back into space, causing the climate's temperature to increase. As the world gets hotter, this causes the ice to melt even faster. This increase in temperature causes still more ice to melt, which causes the world to get hotter, etc... This is an example of a positive feedback loop, in which heat produces more heat.

Similarly, there are other climate systems that can get caught in feedback loops. There are many gases that, like carbon dioxide, contribute to global warming. Some of these gases are trapped in the frozen tundra across Alaska, Canada, Russia, and other northern lands. This soil, whose temperature is below freezing, is called permafrost. When permafrost melts, much of this gas is released into the atmosphere. This causes the atmosphere to warm up, which melts more permafrost, which heats up the atmosphere, etc... Again, a feedback loop ensues, in which a warm climate leads to the creation of an even warmer climate.
A more complex example of a similar phenomenon involves the Amazon rainforest. When temperatures rise, the rainforest experiences more droughts and wildfires. This causes more trees to burn down. Just as when humans burn fossil fuels, the burning of trees causes large amounts of carbon dioxide to be released into the world. Trees play two important roles in preventing global warming: they help absorb carbon dioxide, which prevents it from trapping heat in the atmosphere, and rainforest trees help pump water into the atmosphere. When trees burn down, less water is pumped into the atmosphere, which leads to less rainfall, which leads to more trees burning - which leads to more carbon dioxide being produced. These are both examples of positive feedback, but feedback can be negative too. When negative feedback occurs, an original effect is diminished.

Both positive and negative feedback loops can occur in all kinds of Earth systems, not just in a system related to the climate. For example, the relationship between different species of animals is a kind of system as well. Periodically, the populations of certain animals will wax and wane. In some cases, the population of a species can become stuck in a negative feedback loop. This can occur if a predator becomes too powerful and its prey becomes too weak. For example, in the early 19 century, humans began hunting a species of bird known as passenger pigeons. Soon, fewer birds existed, which made it more difficult for the species to mate. As mating declined, fewer birds were born, which made it still more difficult for the birds. This created a negative feedback loop in which the population of the birds continued to fall until they are now extinct.

While scientists understand some of how these feedback loops work, they lack a deep knowledge of them, making them extremely unpredictable. This is because, like any complex system, these feedback loops include many variables. Many of these systems are also interdependent, which means that many of these feedback loops affect each other. For example, when permafrost melts, it makes the whole world hotter, not just the area around the permafrost. And these changes are not just limited to temperature. Changes in the amount of rainfall an area receives can lead to changes in its atmosphere. This, in turn, can affect the Earth's temperature, which can affect how much ice melts, which can affect how much rain falls, and so on. So, a small change to a very complex system can lead to very big consequences. This makes predicting the behavior of large systems incredibly difficult.

Some skeptics about climate change point to this uncertainty as a way of casting doubt on whether the world is actually warming. However, being unable to predict the effects of climate change does not mean that it is not happening. Think back to Broecker's analogy. If you poke a wild animal with a sharp stick, you may not be able to guess exactly how it will react. However, even if you don't know precisely what the animal will do - it may bite you or scratch you or just growl - it's still a very bad idea to provoke it.

Scientists continue to debate exactly what happens as the Earth's temperature rises. Among the most popular ideas are that dry areas will become increasingly dry, while wet areas will become increasingly wet; oceans, seas, and lakes will rise; and glaciers, ice caps and snow-covered areas will become smaller. However, many climate scientists agree that a potential way of reducing the effects of climate change is to cut down the amount of carbon dioxide in the atmosphere.
1. According to the passage, which gas is generated in especially large amounts when we burn fossil fuels?
   A. carbon dioxide
   B. methane
   C. carbon monoxide
   D. sulfur dioxide

2. The increase of carbon dioxide in the atmosphere has had which effect on the Earth's climate?
   A. Average rainfall has decreased.
   B. Extreme weather has become less common.
   C. The Earth's temperatures are rising.
   D. The Earth's temperatures are falling.

3. Arctic ice plays an important role in cooling the Earth. Which evidence from the passage best supports this statement?
   A. In the last 30 years, more than one-third of the ice that appears in the Arctic during the summer has melted away.
   B. Arctic ice reflects the Sun's light.
   C. When Arctic ice melts, it reveals more of the darker-colored land or ocean water.
   D. Darker-colored land absorbs the Sun's light, causing the climate's temperature to increase.

4. Some of the gases that contribute to global warming are trapped in permafrost. When permafrost melts, many of these gases are released into the atmosphere. This leads to an increase of the atmosphere's temperature, which causes more permafrost to melt.

What type of feedback loop is this an example of?
   A. negative feedback loop
   B. complex feedback loop
   C. both a positive and negative feedback loop
   D. positive feedback loop
5. What is the main idea of this passage?

   A. Climate change is a complex and unpredictable process involving feedback loops.
   B. Disagreements about climate change have prevented scientists from finding real solutions to global warming.
   C. Wallace Broecker's theory may have been incorrect, but he presented some worthwhile ideas.
   D. Climate change can be completely reversed if carbon dioxide production is changed.

6. Read the following sentences: "Some scientists expect an increase in so-called 'extreme weather' events, such as hurricane and floods. Others foresee a rise in levels of sea water."

Which word could best replace "foresee" as used in this sentence?

   A. forecast
   B. glimpse
   C. pretend
   D. discover

7. Choose the answer that best completes the sentence below.

Trees play important roles in preventing global warming, ________ absorbing carbon dioxide and pumping water into the atmosphere.

   A. thus
   B. finally
   C. as a result
   D. including

8. How does carbon dioxide increase the Earth's temperature?

9. What is a feedback loop?

10. How can heat produce more heat? Use information from the passage to support your answer.
Lesson: Writing Concisely and Precisely

Learning Target

• Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.

Think of your writing as a machine for communicating ideas. Well-designed machines have exactly as many parts as they need to function properly. In the same way, your writing should contain only precise language that accomplishes what you need it to; it should not contain extra words.

Writing Concisely

The word *concise* means “expressing much in a few words” or “brief but complete.” Writing that is concise is clear and complete and not wordy. To write concisely,

• Use only the words you need to make your point.
• Avoid using long, difficult words when short, simple ones will do.
• Do not repeat words except when necessary to help your reader understand your point.

You can often delete unnecessary words or word groups, or you can replace clauses with phrases, phrases with words, and long words with shorter words.

**Unnecessary words:** In the future, please turn in assignments on time, by or on the deadline.

**Removed unnecessary words:** Please turn in assignments on time.

**Clause:** I finished my math and science homework while I was in study hall.

**Replaced with a phrase:** I finished my math and science homework in study hall.

**Phrase:** We outlined the letters for the banner in a careful way.

**Replaced with a word:** We outlined the letters for the banner carefully.

**Long word:** Use a diminutive word, please.

**Replaced with a shorter word:** Use a small word, please.

There are many wordy expressions that can be replaced with shorter ones:
Writing Precisely

The word **precise** means “carefully distinct” or “definitely or exactly stated or defined.” Choose precise words: words that express exactly what you mean.

**Imprecise:** I delivered all of the building stuff to the guy who’s in charge.

**Precise:** I delivered the instruction booklets and tools to the project leader.

**Imprecise:** The fictional book she was talking about to us is really very good.

**Precise:** The novel she recommended is exciting and well-written.

Check Your Understanding

Rewrite the following sentences on a separate sheet of paper to make them more concise and precise. (You may need to invent some details to make the language more precise.)

1. I have three siblings, who are two brothers and one sister.
2. Any and all of the supplies that you have been using for art class should be put away before you depart from the classroom.
3. Carol will be at the bus stop that is located near the part of town called the Arbor Heights neighborhood.
4. The icicles that are hanging from the gutter are actually really long.
5. Robert is wondering if you could possibly expend a few minutes of your time responding to his email messages.
Ida B. Wells (1862-1931) was an African-American journalist, editor, suffragist, sociologist, and an early leader in the Civil Rights Movement. The following is a short biography of Ida B. Wells and the personal tragedy she experienced that pushed her to raise national awareness about violence and discrimination against African Americans. As you read, take notes on the examples of prejudice and discrimination that Wells experienced, and how she worked towards ending them.

[1] Ida B. Wells, the young journalist from Memphis, Tennessee, stepped out of the Natchez, Mississippi church with a smile on her face. She had just signed up twenty new subscribers for Free Speech, the black newspaper she owned with her business partner, J. L. Fleming. Since she had begun traveling up and down the Mississippi Valley seeking new subscriptions, the Memphis weekly’s readership had more than doubled.

The minister of the church walked up to Ida with a newspaper in his hand. “Miss Wells, something bad's happened in Memphis.”

A bolt of fear shot through Ida. Her hand shook slightly as she took the 10 March 1892 edition of the Memphis Commercial.

The night before, a mob of white men had seized three black grocery store owners, dragged them down to the railroad tracks, and shot them to death. One of the store owners, Thomas Moss, had begged for his life for the sake of his wife, daughter, and unborn child. When he realized he was going to die, he said, “Tell my people to go West—there is no justice for them here.”

[5] Ida's heart nearly stopped. She looked up into the minister's solemn face.

“It can't be!” Ida's eyes welled with tears. “Thomas Moss and his wife are my good friends. I'm godmother to their daughter, Maurine. This can't have happened to him!”

Ida caught the next train back to Memphis. During the trip, she battled feelings of anger, shock, and grief. This was not the first time she had been touched by tragedy. Nor was it the first time she had experienced the injustices against blacks in the post-Civil War South.
Ida was born the daughter of slaves in Holly Springs, Mississippi, in 1862, three years before the end of the Civil War. After emancipation, her father worked as a carpenter. He built the house in which he and his wife raised their eight children. As a child, Ida attended the elementary school at Rust College, which had been founded in 1866 by Methodist missionaries from the North.

Many white Southerners rebelled against citizenship for former slaves. Ida remembered hearing about midnight raids by the Ku Klux Klan, a terrorist group bent on maintaining white supremacy. Ida's mother used to pace the floor at night, waiting for her husband to come home from his political meetings.

In 1878 a yellow fever epidemic swept through Holly Springs. Both of Ida's parents and her baby brother perished. At age sixteen, she quit school to take care of her six brothers and sisters.

In 1883, when Ida was twenty-one, she packed up and moved herself and her two youngest sisters to Memphis, Tennessee, to live with a widowed aunt. She accepted a teaching position in a rural school in Woodstock and commuted to and from work by train. That same year the Supreme Court ruled that the Civil Rights Act of 1875, which prohibited segregation in transportation and public places, was unconstitutional. Southern legislatures had already passed laws that barred blacks from voting. Now the way was paved for a rigid system of segregation, beginning with the railroads.

In May 1884, Ida was traveling from Memphis to Woodstock when the conductor approached her. “I can't take your ticket here,” he told her. “You'll have to move to the smoking car.”

“I have a first-class ticket,” Ida replied. “This is my rightful seat.”

The conductor disappeared. A few minutes later he returned with two baggage clerks. The three men dragged Ida from her seat while the white passengers clapped. Ida refused to go into the smoking car; instead she got off the train at the next station. Although she hired a lawyer and sued the Chesapeake and Ohio railroad for discrimination, she lost her case in 1887.

Now, riding from Natchez back to Memphis, Ida was about to face the third test in her life.

Ida arrived in Memphis too late to attend Thomas Moss's funeral, but she went straight to comfort his pregnant widow, Betty, and their daughter, Maurine. She later wrote: “I have no power to describe the feeling of horror that possessed every member of the race.” Brutal killings of blacks in the South were on the rise, and they were going unpunished by the law.

“Betty,” Ida said to the tearful widow, “I'll never forget the talks Thomas and I had when he delivered mail to the Free Speech every day. He believed that we should defend the cause of right and fight wrong wherever we saw it.”

Ida fought injustice against blacks in the best way she knew how—with her pen. The first article she'd ever published had been about her incident with the railroad. Subsequent stories dealt with education and religion. She was now about to tackle the biggest issue of her career.

1. referring to the historical abolishment of slavery and freeing of slaves following the Civil War
2. the separation of races, classes, or ethnic groups
3. not according or consistent with the constitution; what is or is not deemed constitutional is dependent on the judgement of a certain group (i.e. the Supreme Court)
4. Discrimination (noun): the unjust or unfair treatment of people based upon race, gender, religion, age, etc.
The Free Speech published Ida’s editorial. It said in part:

The city of Memphis has demonstrated that neither character nor standing avails the Negro if he dares to protect himself against the white man or become his rival.... There is therefore only one thing left that we can do; save our money and leave a town which will neither protect our lives and property, nor give us a fair trial in the courts, but takes us out and murders us in cold blood when accused by white persons.

After Betty Moss gave birth to a son, Thomas Moss Jr., the widow moved her family to Indiana. Many other black citizens were packing up and leaving Memphis as well. This exodus got the attention of the white businessmen and city officials. They were losing labor and the money of the black people. The daily papers printed editorials urging black citizens to stay. Ida countered with her own articles describing the new lives people were making for themselves in Oklahoma Territory.

Those who remained in Memphis boycotted the newly opened streetcar line. Two officials from the City Railway Company came to the Free Speech office and asked Ida to tell her people to ride the streetcars again. In her next article for the Free Speech, she told her readers to keep up the boycott.

Ida was trying to decide where she herself wanted to go. A few years before, she had met T. Thomas Fortune, a New York newspaper editor, at a press convention. Fortune wrote Ida and asked her to come look at New York City before she decided where to settle down. Ida had already planned to attend an African Methodist Episcopal conference in Philadelphia. From there she took a train east to visit New York.

Fortune met her at the train station. “Well, I've been trying for a long time to get you to New York,” he said, “but now that you are here, I'm afraid you'll have to stay.”

Ida said, “I don’t understand what you mean.”

“That ruckus you kicked up in Memphis. When I heard about it, I knew it had to be you because it sounded so like you.”

Ida was totally bewildered. “What are you talking about?”

“Haven't you seen the morning newspaper?” Fortune asked.

“No.”

He handed her a copy of the New York Sun.

A group of Memphis citizens had stormed the offices of the Free Speech during the night. They had destroyed all the equipment and run Ida's business partner, J. L. Fleming, out of town. They left a note among the ruins: anybody who tried to publish the paper again would be punished by death.

Alarmed, Ida sent a telegram to her lawyer to find out if her partner was safe. Friends sent letters and telegrams back to her. Fleming had escaped Memphis unharmed. Her friends begged her not to return, since white men with guns were watching the train stations and her house. They had orders to kill her on sight.
Ida B. Wells never went home. She stayed on in New York, then moved to Chicago where she married Ferdinand Barnett, a lawyer and journalist. Ida devoted the rest of her life to investigating, reporting, and lecturing on the growing numbers of lynchings of black citizens. She toured England twice and became famous in America and England for her anti-lynching crusade.

Her speeches raised the consciousness of the nation. Condemnation from the North as well as England forced Southerners first to justify lynching, then publicly to deplore it. Between 1893 and 1898, several Southern states passed anti-lynching laws.

The day that Ida B. Wells heard the terrible news about her friend Thomas Moss was a day that changed her life forever. Experience had taught her strength and courage. She needed both for her tireless and fearless work, telling the nation about crimes against black citizens and asking U.S. Courts to punish the perpetrators. Change came slowly. It wasn't until decades after her death in 1931 that lynchings of black people almost completely stopped. In 1942 a Gallup poll showed that a majority of Americans favored making lynching a federal crime. Ida launched the movement that changed public sentiment and led to the time when the atrocities would end. Personal tragedy inspired Ida B. Wells to work heroically to bring about justice for her people.

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which of the following statements best describes a central idea of the text?
   A. Ida B. Wells was an amazing journalist and should be better appreciated.
   B. Escaping a problem doesn't solve it, even if it keeps you safe.
   C. Post-Civil War United States, especially in the South, was an unjust place for former slaves.
   D. Ida B. Wells faced discrimination and, spurred by tragedy, spoke out against it.

2. PART B: Cite a piece of evidence from the text that supports the answer to Part A.

3. How does the train scene contribute to the author's explanation of Ida B. Wells' lifetime?
   A. The scene illustrates the unfair treatment and hostility people of color faced and against which Ida B. Wells fought.
   B. The scene serves as the last straw, motivating Ida B. Wells to speak out against injustice.
   C. The scene on the train illustrates the heightening tensions between blacks and whites during Wells' life.
   D. The scene on the train provides an example of the daily injustice of segregation in transportation, which, according to the text, was just starting at this time in Wells' life.

4. PART A: What does the term "exodus" most closely mean as used in paragraph 20?
   A. Freedom (from enslavement)
   B. Mass movement or immigration
   C. Decrease in money or income
   D. A story of a long, departing journey

5. PART B: Which of the following quotes best supports the answer to Part A?
   A. “the widow moved her family to Indiana”
   B. “Many other black citizens were packing up and leaving”
   C. “losing labor and the money of the black people”
   D. “the new lives people were making for themselves"
6. Although this text is non-fiction, much of it is told like a story. What is the author’s most likely purpose for writing the text in this way?
Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. In the context of this passage, what are the effects of prejudice? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.

2. In the context of this passage, how has America changed over time? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.

3. In the context of this passage, how do people create change? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.

4. In the context of this article, what makes a hero? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.
Sonnet
By James Weldon Johnson
1893

James Weldon Johnson (1871-1938) was an American writer and civil rights activist. Johnson served a vital role in the National Association for the Advancement of Colored People (NAACP). The following poem by Johnson is a sonnet, which consists of fourteen rhyming lines. As you read, take notes on how the speaker's uses imagery in the poem.

My heart be brave, and do not falter\(^1\) so,
Nor utter more that deep, despairing wail.
Thy way is very dark and drear I know,
But do not let thy strength and courage fail;

For certain as the raven-winged night
Is followed by the bright and blushing morn,
Thy coming morrow will be clear and bright;
‘Tis darkest when the night is furthest worn.

Look up, and out, beyond, surrounding clouds,
And do not in thine own gross darkness grope,\(^2\)
Rise up, and casting off thy hind'ring shrouds,\(^3\)
Cling thou to this, and ever inspiring hope:
Tho' thick the battle and tho' fierce the fight,
There is a power making for the right.

---

1. **Falter** (*verb*): to start to lose strength; to hesitate
2. **Grope** (*verb*): to feel about blindly
3. **Shroud** (*noun*): a length of cloth

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Sonnet by James Weldon Johnson is in the public domain.
Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which of the following best describes a theme of the poem? [RL.2]
   A. Tragedy and adversity builds character by testing people's patience.
   B. Resiliency and hope will help people get through even the toughest of times.
   C. The experience of fighting and war should teach everyone the importance of peace.
   D. Life should be spent celebrating rather than mourning, because adversity is temporary.

2. PART B: Which of the following quotes best supports the answer to Part A? [RL.1]
   A. “My heart be brave, and do not falter so, / Nor utter more that deep, despairing wail.” (Lines 1-2)
   B. “Look up, and out, beyond, surrounding clouds, / And do not in thine own gross darkness grope” (Lines 9-10)
   C. “Rise up, and casting off thy hind'ring shrouds” (Line 11)
   D. “Tho' thick the battle and tho' fierce the fight, / There is a power making for the right.” (Lines 13-14)

3. How does the word choice in the poem contribute to its tone? [RL.4]
   A. The poem uses phrases such as “bright and blushing morn,” suggesting that the speaker is excited for what will happen in the future, contributing to a gleeful tone.
   B. The poem uses words such as “despairing” and “drear,” revealing that the speaker is upset about the current situation, conveying a pessimistic tone.
   C. The poem uses phrases such as “my heart,” implying that the speaker is addressing a loved one, contributing to an affectionate tone.
   D. The poem uses phrases such as “rise up” and “fierce the fight,” suggesting the speaker feels inspired to act, contributing to an impassioned tone.

4. How does the poem's use of imagery develop the theme of the poem? Cite evidence from the text in your answer.
5. How does the structure of the poem contribute to its meaning? Cite evidence from the text in your answer.
Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. Why do you think the speaker cautions the reader not to “grope” in their own “darkness”? What does this mean?

2. In the context of this poem, how does a person overcome adversity? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.

3. In the context of this poem, what does it mean to be brave? Cite evidence from this text, your own experience, and other literature, art, or history in your answer.
Pairing Questions for "The Story of Ida B. Wells" and "Sonnet"

Directions: After reading the texts, choose the best answer for the multiple-choice questions below and respond to the writing questions in complete sentences.

1. Which statement best identifies a similar central idea in both “The Story of Ida B. Wells” and “Sonnet”?  
   [RI.2, RL.2]
   - A. Fighting for a moral cause empowers people to act bravely in the face of threats.
   - B. Setbacks are a normal part of life and can be overcome with hard work.
   - C. Justice will prevail.
   - D. It is important to speak up for what one believes in.

2. What motivates the speaker in “Sonnet” and Ida B. Wells to act heroically?  
   [RI.9, RL.9]
7th Grade Week 3 Writing: Narrative Skills Activities:
Middle School: Skill: Use Sensory Language

Directions: Read the prompt below, and then read and analyze the 7th grade student sample narrative writing. Use the provided graphic organizer to analyze the use of sensory language, figurative language, and word choice in the sample writing. Next, plan your own descriptive paragraph using the prompting from the graphic organizer to brainstorm. Finally, write your own descriptive paragraph.
In this narrative Student Sample, the writer tells the story of a girl and her family caught in the days of the Dust Bowl. In the 1930s, severe dust storms swept through the American prairies.

Dust Storm

My family thought our lives were absolutely perfect. My twelve year old mind thought so too, until our Sunday paper arrived. I heard the clunk of the mail slot, and sprinted to get the first peek of the paper. People on the first page were being interviewed by frantic news reporters, wanting to know reasons for our year long hot weather. I thought they were crazy, until they were right.
Days went by, and the hot temperatures got worse. Hot baths were long gone, replaced with iced cold water. We ate all the cold foods we could eat, no more ovens or fires, if you were rich enough. Our family had a fire, and a pan. We stopped doing that yesterday. I slipped out of my thoughts as my younger sister, Leesh, yelled out names. "Mom! Dad! Mary! Come see this!"

The yell was far distance, followed by a scream so high pitched, I sprinted outside, into the woods to find Leesh. Mom and Dad followed, pale with panic and worry. I smelled my own blood, from all the thorns in our woods. I felt the trickling on my legs, my bare legs, and arms, lucky my sundress hasn't yet ripped. "Leesh! Leesh - where are you?" I saw our fallen treehouse, and something a little beyond the trees.
"Mom, Dad, get Leesh down. I think I see something beyond the trees!" They opened their mouths to say something, but they were lost for words, as I ran. Tree branches, sticks, thorn bushes, and stumps were my obstacles. I noticed the animals all ran the opposite way, with fear and shock in their faces and eyes. I got to the end, staring in shock at the terrifying sight in front of me.

Over the hills, rather than sun and clouds, I saw it. A big, pitch black cloud, thousands and thousands of feet tall, making any tree look like action figures. It moved with the wind blowing its way towards me. It came up the last hill, the one I stood on. The dust cloud swallowed me, and it whipped me in the face, stinging me like needles piercing every inch of my helpless body. I still sprinted, as fast as my legs could take me, swallowing the dust in my mouth, nose, and burning eyes. I wheezed, coughed, and barely breathed. I felt myself suffocating, remembering my name, will myself I would make it. You can do this Mary, you can get out of this. I opened my mouth to scream, instead filling myself with gallons of dust in my throat and lungs. I realized I was finally back in the woods, almost reaching my terrified family. I took a huge rock, and wrote with saliva and dust. My vision blurred and I tripped over tree branches, rocks, and anything in my way. I tumbled over my head, crashing on the ground. I felt myself suffocate before my head hit the rock, never seeing light or dust, as my body shut down.
## Analyze the Student Sample

Use this chart to analyze the language in the Student Sample.

<table>
<thead>
<tr>
<th><strong>Sensory Language:</strong> Sensory language is based on the five senses: sight, smell, sound, taste, and touch.</th>
<th>What sensory language can you find in the text?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Figurative Language:</strong> Figurative language includes metaphor and personification.</th>
<th>What figurative language can you find in the text?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Word Choice:</strong> Precise language gives you an exact idea of what the writer means. It is specific rather than vague.</th>
<th>What are some examples of precise word choice in the text that describe the event or experience?</th>
</tr>
</thead>
</table>

## Plan Your Descriptive Paragraph

Use the chart below to plan your Descriptive Paragraph. When you are finished, use your answers to help you write.

<table>
<thead>
<tr>
<th><strong>Prewriting:</strong> Choose your topic.</th>
<th>What weather event or natural disaster will you write about?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Sensory Language:</strong> Write some sensory details here.</th>
<th>What did it look, sound, taste, feel, or smell like?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Figurative Language:</strong> Write a metaphor comparing what you are describing with something else. Use personification to describe the event, giving it human qualities.</th>
<th>What figurative language can you use to describe the experience?</th>
</tr>
</thead>
</table>
**Other Precise Words and Phrases** You may wish to describe how the event started, how long it lasted, and how big or strong the impact was. Be specific.

| What else do you want readers to know about your topic? |  |
Derive and Apply a Formula for the Volume of a Right Prism

The volume of a three-dimensional figure is the amount of space it takes up. Volume is measured in cubic units.

The volume of a prism is the area of its base times its height.

Find the volume of the prism.

A. Find the area of the base.

The shape of the base is a triangle. The area of the base is

\[ B = \frac{1}{2}bh; \quad B = \frac{1}{2} \times 6 \times 3 = 9 \text{ in}^2. \]

B. Multiply the area of the base by the height.

\[ 9 \times 5 = 45 \text{ in}^3 \]

The volume of the prism is 45 in³.

Find the volume of each prism.

1. \( 7 \text{ in.} \times 3 \text{ in.} \times 4 \text{ in.} \)

2. \( 9 \text{ cm} \times 8 \text{ cm} \times .5 \text{ cm} \)

3. \( 8 \text{ m} \times 6 \text{ m} \times 4.5 \text{ m} \)

4. \( 20 \text{ cm} \times 4 \text{ cm} \times 9 \text{ cm} \)
Solve Multi-Step Problems with Surface Area and Volume

1. A regular hexagonal prism has a surface area of 444 square centimeters. The base of the prism measures 42 square centimeters
   A. What is the height of the prism?

B. What is the volume of the prism?

2. Michael draws a scale model of a shed for his engineering class. It is made from a triangular prism on top of a rectangular prism. The volume of the shed is 966 cubic inches. The congruent sides of the triangle are 7.8 inches.
   A. What is the depth of the shed?

B. What is the surface area of the shed?

   Explain how you found your answer.

3. A prism with a rectangular base has base edge lengths of 6 inches and 9 inches and a height of 15 inches.
   A. What is the surface area of the prism?

B. What is the volume of the prism?

4. A cube has a surface area of 181.5 square meters. Find the volume of the cube.
Solve Multi-Step Problems with Surface Area and Volume

You can solve multi-step problems involving surface area and volume by deriving the values of the variables in one equation to use in the other.

The volume of the rectangular prism shown is 126 cm³. What is the surface area of the figure?

A. Use the volume formula for a rectangular prism to find the unknown length of the rectangular prism.

\[ V = lwh; \quad 126 = l \cdot 3 \cdot 7; \quad \frac{126}{21} = \frac{21l}{21}; \quad l = 6 \]

B. Find the surface area of the figure.

- 2 bases — \( 2 \times (6 \times 3) = 36 \text{ cm}^2 \)
- 2 sides — \( 2 \times (3 \times 7) = 42 \text{ cm}^2 \)
- front and back — \( 2 \times (6 \times 7) = 84 \text{ cm}^2 \)
- \( 36 + 42 + 84 = 162 \text{ cm}^2 \)

The surface area of the rectangular prism is 162 cm².

1. An ice cube tray holds 12 ice cubes. If the total volume of the ice in the tray is 12 in³, what is the total surface area of the ice cubes?

2. A rectangle prism with a length of 12.5 cm and a width of 7.5 cm has a volume of 937.50 cm³. What is the height of the rectangular prism?

3. A shipping crate has a volume of 96 ft³ and holds 12 cube-shaped boxes. What is the surface area of one of the boxes?

4. A triangular prism has a triangular base with dimensions of 3” by 4” by 5” and a volume of 210 in³. What is the surface area of the triangular prism?
Volume of Pyramids
cK-12 Review Problems

To find the volume of the pyramid, take the area of the base, $B$ and multiply it times the height and then multiply it by $\frac{1}{3}$. Here is the formula for finding the volume of a pyramid.

$$V = \frac{1}{3}Bh$$

One thing to keep in mind is that pyramids can be tricky because they can have many different bases. $B$ in the formula means that you need to find the area of the base.

If the base is a square, you will need to use the formula for area of a square, $B=s^2$. If the base is a rectangle, the area of the base is $B=lw$. If the base is a triangle, use the formula $B=\frac{1}{2}bh$.

Making sure that you have the correct formula is essential in your work with pyramids.

Find the volume of each of the following pyramids.

1. A square pyramid with a base of 6 ft and a height of 9 ft.

2. A square pyramid with a base of 8 m and a height of 10 m.

3. A square pyramid with a base of 11 in and a height of 13 in.

4. A square pyramid with a base of 9 ft and a height of 14 ft.

5. A square pyramid with a base of 4.5 in and a height of 5 inches.
6. A rectangular pyramid with a base length of 4 in, a base width of 3 in and a height of 5 in.

7. A rectangular pyramid with a base length of 5 ft, a base width of 4 ft and a height of 6 ft.

8. A rectangular pyramid with a base length of 7 m, a base width of 4 m and a height of 9 m.

9. A triangular pyramid with a base length of 5 in and a base height of 4 inches with a pyramid height of 6 inches.

10. A triangular pyramid with a base length of 8 ft and a base height of 7 ft with a pyramid height of 9 ft.

11. A square pyramid with a base of 8 feet and height of 4 feet.

12. A rectangular pyramid with a length of 5 inches, a width of 4 inches and a height of 6 inches.

13. A square pyramid with a base of 3.5 feet and a height of 6.5 feet.
Volume of Triangular Prisms

Review Problems from cK-12

You still use the formula $V=Bh$. However, this time the base of the prism is a triangle, not a rectangle. Therefore, you need to use the area formula for a triangle to find the area of the base, $B$. Then you can multiply this amount by the height of the rectangle to find the volume of the triangular prism. Use the formula for the area of a triangle which is $\frac{1}{2}bh$. Remember, you use the height and base measurements for the triangular face, not the height, $H$, measurement for the whole prism which is the length of the rectangle. You need to find the area of one of the triangular bases, and then you can take that measurement and multiply it with the height of the entire prism.

$$V = BH \quad B = \frac{1}{2}bh$$

Find the volume of each triangular prism. Remember that $h$ means the height of the triangular base and $H$ means the height of the whole prism.

1. $b=6\text{ in}, h=4\text{ in}, H=5\text{ in}$
2. $b=7\text{ in}, h=5\text{ in}, H=9\text{ in}$
3. $b=10\text{ m}, h=8\text{ m}, H=9\text{ m}$
4. $b=12\text{ m}, h=10\text{ m}, H=13\text{ m}$
5. $b=8\text{ cm}, h=6\text{ cm}, H=9\text{ cm}$
6. $b=9\text{ cm}, h=7\text{ cm}, H=8\text{ cm}$
7. $b=5.5\text{ mm}, h=4\text{ mm}, H=4\text{ mm}$
8. $b=11\text{ cm}, h=9\text{ cm}, H=8\text{ cm}$
9. $b=20\text{ ft}, h=17\text{ ft}, H=19\text{ ft}$.
10. $b=20\text{ ft}, h=18\text{ ft}, H=15\text{ ft}$.
11. $b=18\text{ ft}, h=16\text{ ft}, H=17\text{ ft}$.
12. $b=24\text{ ft}, h=21\text{ ft}, H=19\text{ ft}$.
13. $b=24.5\text{ ft}, h=18\text{ ft}, H=16\text{ ft}$.
14. $b=99\text{ ft}, h=80\text{ ft}, H=75\text{ ft}$.
15. $b=100\text{ ft}, h=80\text{ ft}, H=110\text{ ft}$.
Ecology and Energy Transfer

Choose Your Meal: Energy Transfer
Complete the activities to show what you’ve learned about energy transfer.

1. Each day choose one item from each section of the menu.
2. You may be asked to submit or present your results to your teacher when you return to school.

{complete on Monday} Appetizers

____ Guess the Consumer  Make a game in which you identify types of consumers. On index cards, draw pictures of consumers. On the backs of the cards, list things the organisms eat. Ask a family member to identify each consumer. If your family member needs help, read the animal’s diet from the card.

____ Local Food Webs  Think about one local area. Make a diagram of the food web in this area. Identify each of the organisms as a producer, consumer, or decomposer.

____ Promoting Producers  Make a commercial in which you promote producers. Explain how producers make their own food and get energy. Also explain why producers are vital to their ecosystems. Give three examples of producers.

{complete on Tuesday} Main Dish

____ A Link in the Chain  Choose one food that you eat, and draw a food chain that shows how you receive energy from that food.

{complete on Wednesday} Side Dishes

____ How Will It Change?  Find an image of a food web that includes an endangered species. Cross out the endangered species and consider how the food web would change without that organism.

____ Defending Decomposers  Imagine that you are a decomposer. You believe that decomposers do not get enough respect for what they do in ecosystems. Write a persuasive speech in which you describe decomposers’ roles and the reasons that they are important in their ecosystems.

{complete on Thursday} Desserts

____ Concentrating on Consumers  Think about three types of consumers. Describe each animal’s diet and how they get energy.

____ A Producer’s Blog  You are a producer. Write a blog entry explaining how you make your own food and the role you play in food chains and webs.
Energy and Matter in Ecosystems

Take Your Pick: Energy and Matter Add Up

Take your pick from these activities to show what you have learned about the flow of matter and energy in ecosystems.

1. Choose items below for a total of 10 points.
2. Be prepared to present your results to your class when you return to school.

Write About It: 2 Points

_____ Poem of Flow Pick one ecosystem or situation involving living things and write a poem that describes the flow of matter and energy through the ecosystem.
_____ Quiz Write a quiz on the concepts that relate to the cycles of matter. Be sure to include questions on the water cycle, the nitrogen cycle, and the carbon cycle. Use a variety of question formats, such as multiple choice, fill-ins, matching, short answers, etc.
_____ Carbon Cycle Brochure Write a brochure that describes how carbon cycles through both living and nonliving things. Be sure to include all four main processes (photosynthesis, cellular respiration, combustion, and decomposition).

Draw About It: 5 Points

_____ Conservation Comic Strip Design a comic strip about the conservation of matter and energy. The characters might be the sun, carbon atom, oxygen atom, and any plants and animals you’d like to include. The basic message of the comic should focus on how matter or energy is always conserved.
_____ Pyramid Poster Choose an organism found somewhere on Earth and construct an energy pyramid that includes it. Present your energy pyramid on a poster.
_____ Water Cycle Diagram Draw a diagram using colored arrows and labels to show how water cycles through an ecosystem. Include precipitation, evaporation, transpiration, and condensation in your diagram.

Speak About It: 8 Points

_____ Flash News Report Write out and present a news report on an ecosystem that needs more matter and/or energy. Be sure to explain why the ecosystem is short on matter and/or energy, what is happening now, and what will happen if it does not get it.
_____ Matter and Energy Skit Plan and perform a mini skit of how energy from the sun ends up as energy in an animal (insects, birds, reptiles, fish, humans, etc.) that is doing something.
The 2010 census asked the following ten questions:

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2010?

2. Were there any additional people staying here April 1, 2010 that you did not include in Question 1?

3. Is this house, apartment, or mobile home: owned with mortgage, owned without mortgage, rented, occupied without rent?

4. What is your telephone number?

5. Please provide information for each person living here. Start with a person here who owns or rents this house, apartment, or mobile home. If the owner or renter lives somewhere else, start with any adult living here. This will be Person 1. What is Person 1's name?

6. What is Person 1's sex?

7. What is Person 1's age and Date of Birth?

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

9. What is Person 1's race?

10. Does Person 1 sometimes live or stay somewhere else?
### Persons 7 - 12

The Census Bureau estimates that, for the average household, this form will take about 10 minutes to complete, including the time for reviewing the instructions and filling out the form. Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget. You may be contacted by the Census Bureau for the same information about these people.

#### Person 7
- **Last Name**
- **First Name** MI
- **Age on April 1, 2000**
- **Month Day Year of birth**
- **Sex**
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

#### Person 8
- **Last Name**
- **First Name** MI
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

#### Person 9
- **Last Name**
- **First Name** MI
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

#### Person 10
- **Last Name**
- **First Name** MI
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

#### Person 11
- **Last Name**
- **First Name** MI
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

#### Person 12
- **Last Name**
- **First Name** MI
- **Race**
- **Spanish/Hispanic/Latino**
- **Telephone Number**
- **House, apartment, or mobile home owned/mortgage/loan**
- **House, apartment, or mobile home rented/cash rent**
- **House, apartment, or mobile home occupied without payment of cash rent**

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This is not an official census form. It is for informational purposes only.

The Census Bureau estimates that, for the average household, this form will take about 10 minutes to complete, including the time for reviewing the instructions and filling out the form. Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget. You may be contacted by the Census Bureau for the same information about these people.

### Start Here

1. Have you completed your Part A or Part B CENSUS 2000 questionnaire, or are you likely to do so by April 1, 2000?

2. Is this a house, apartment, or mobile home —
   - Owned by you or someone in this household with a mortgage or loan?
   - Rented for cash rent?
   - Occupied without payment of cash rent?

3. Please answer the following questions for each person living in this house, apartment, or mobile home. Start with the name of one of the people living here who owns, is renting, or is an occupant of this house, apartment, or mobile home. If there is no such person, start with any adult living or staying here. We will refer to this person as Person 1.

4. What is Person 1's telephone number?

5. What is Person 1's sex?

6. What is Person 1's age and what is Person 1's date of birth?

7. Is Person 1 Spanish/Hispanic/Latino? Yes, No

8. What is Person 1's race?

9. What is Person 1's relationship to Person 0?

10. What is Person 1's employment status?

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Thank you for completing your official U.S. Census 2000 form.

For additional information about Census 2000, visit our website at www.census.gov or write to the Director, Bureau of the Census, Washington, DC 20233.
Knowing about age, race, and Census information helps your community better meet the needs of everyone.

Your answers are important!

Every person in the Census counts.

Your answers help information about children helps your community get financial assistance for roads, hospitals, schools, and more.

What is Person 2's name? Print name below.

Mark ONE box.

How is this person related to Person 1?

Mark ONE box.

How is this person related to Person 1?

Mark ONE box.

What is this person's sex?

Mark ONE box.

What is this person's age and what is this person's date of birth?

Print numbers in boxes.

Is this person Spanish/Hispanic/Latino?

Mark the box if Spanish/Hispanic/Latino.

If NOT RELATED to Person 1:

Mark ONE box.

What is this person’s race?

Mark one or more races to indicate what this person considers himself/herself to be.

If more people live here, continue with Person 3.
Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

• Count all people, including babies, who live and sleep here most of the time.
• If no one lives and sleeps at this address most of the time, go online at my2020census.gov or call the number on page 8.

The census must also include people without a permanent place to live, so:

• If someone who does not have a permanent place to live is staying here on April 1, 2020, count that person.

The Census Bureau also conducts counts in institutions and other places, so:

• Do not count anyone living away from here, either at college or in the Armed Forces.
• Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2020.
• Leave these people off your questionnaire, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2020?

Number of people =
5. Please provide information for each person living here. If there is someone living here who pays the rent or owns this residence, start by listing him or her as Person 1. If the owner or the person who pays the rent does not live here, start by listing any adult living here as Person 1.

What is Person 1’s name? Print name below.

First Name

Last Name(s)

6. What is Person 1’s sex? Mark ONE box.

- Male
- Female

7. What is Person 1’s age and what is Person 1’s date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.

Age on April 1, 2020

Month

Day

Year of birth

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin – Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

9. What is Person 1’s race?

Mark ONE or more boxes AND print origins.

- White – Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc.
- Black or African Am. – Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.
- American Indian or Alaska Native – Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc.
- Chinese
- Filipino
- Korean
- Asian Indian
- Japanese
- Other Asian – Print, for example, Pakistani, Cambodian, Hmong, etc.
- Hawaiian
- Native Hawaiian
- Black or African Am.
- Native Hawaiian
- Other Pacific Islander – Print, for example, Tongan, Fijian, Marshallese, etc.

Some other race – Print race or origin.

If more people were counted in Question 1 on the front page, continue with Person 2 on the next page.
Andy Warhol was born to Ondrej and Ulja (Julia) Warhola. They were immigrants from Czechoslovakia. He grew up in a working-class neighborhood of Pittsburgh. As a child, he was smart. He was also creative. His mother encouraged his art. For example, she gave him his first camera when he was 9. As a boy, the future artist suffered from a nervous disorder. He often had to stay home from school. During these times, he listened to the radio and collected pictures of movie stars. He later said these early interests shaped his fascination with pop culture and celebrities.

**Early Training**

He graduated from high school in 1945, at the age of 16. He then attended Carnegie Institute of Technology. Today, it's called Carnegie Mellon University. There he received training in graphic design. Graphic design uses images to communicate messages. Shortly after graduating, he moved to New York City. There, he found work as a commercial illustrator. He created art for magazines. He designed window displays for stores. He won awards for his commercial work.
In the early 1950s, he changed his last name from Warhola to Warhol. He also set out to become a serious artist. His paintings mixed art with popular culture. He exhibited them in places around New York City. In 1956, his work appeared at the famed Museum of Modern Art. Art fans were beginning to notice him.

**Mature Period**

Around 1960, Warhol entered a very productive period. He concentrated on pop art. Pop art uses images and ideas from popular culture. For example, he used familiar advertisements and comic strips in his paintings. In 1961, he started on his famous "Campbell's Soup Cans" series. The paintings themselves look like advertisements.

Warhol also tried his hand at silk-screening. This process transfers an image onto a screen. A rubber squeegee then spreads paint or ink across the screen. Silk-screening let him perfectly repeat an image, suggesting mass production, as in a factory. Often, he would first put down a layer of color. He then added the silk-screened image.

His first silk-screened paintings were of dollar bills. He later used the process to present Coca-Cola bottles, coffee can labels and cars. He then started reproducing photographs using the same steps. Some of the images were boring; others were shocking, such as car accidents. He was gaining more and more recognition.

In 1964, Warhol moved to a new workplace. He called it "the Factory." There, he hired several assistants who helped him produce his ideas. He now could create even more repeated images. He wanted people to look at his work and ask: "What makes art art?" This idea had been introduced by Marcel Duchamp, a French-American artist whom Warhol admired.

Warhol also had a lifelong fascination with Hollywood. He created colorful images of movie stars. They included Marilyn Monroe and Elizabeth Taylor.

Warhol kept exploring different artistic media. He began experimenting with film in 1963. He created about 600 in all. They ranged in length from a few minutes to 24 hours. Most starred his friends and acquaintances. He called them the Warholstars. They were an odd and unconventional mix of people who hung out at the Factory.

In 1968, one of Warhol's acquaintances tried to kill him. Warhol was shot and nearly died. It marked the end of the Factory period.
In the 1970s, Warhol created portraits of people from instant photographs. Many critics did not like his work. They accused him of selling out his talent for money. They wondered if his best days were gone. Warhol, though, saw financial success as a worthy goal.

**Late Years And Death**

In the late 1970s, Warhol returned to painting. He created works that were more abstract. The "Oxidation Painting" series is one example. He made these paintings by urinating on a canvas. It was covered with copper paint. By the 1980s, critics were again praising him. New interest in his art was due in part from working together with younger artists.

He began including religious subjects in his art. For example, he created more than 100 versions of "The Last Supper." It is a famous painting of Jesus and his disciples by Leonardo da Vinci. Warhol added logos of companies and popular products. The work combined the holy and worldly.

Andy Warhol died on February 22, 1987. He was 58. His memorial service was held in St. Patrick's Cathedral in New York City. More than 2,000 people attended. He was buried in Pittsburgh.

**The Legacy Of Andy Warhol**

Andy Warhol was a founder of the pop art moment. His ideas and techniques made him an important artist of his time. He challenged old ways of thinking about art.

He also created some of the most recognizable images ever made. His works played with popular culture. They used new production processes. Often, the result was art that appealed to the general public. His personal oddities and connections with celebrities made him famous as well. Being a megastar of the art world was important to him.

The Warhol Foundation for the Advancement of the Visual Arts was formed after his death. In 1994, the Warhol Museum opened in Pittsburgh. It contains a large collection of his work.
Quiz

1 Read the selection from the introduction [paragraph 1].

*During these times, he listened to the radio and collected pictures of movie stars. He later said these early interests shaped his fascination with pop culture and celebrities.*

What are "celebrities"?

- (A) art schools
- (B) art museums
- (C) famous people
- (D) famous paintings

2 Read the selection from the section "Early Training."

*His paintings mixed art with popular culture. He exhibited them in places around New York City. In 1956, his work appeared at the famed Museum of Modern Art.*

Which word could replace "exhibited" WITHOUT changing the meaning of the selection?

- (A) sold
- (B) created
- (C) changed
- (D) displayed

3 Which selection explains when Warhol started making movies?

- (A) In 1961, he started on his famous "Campbell's Soup Cans" series. The paintings themselves look like advertisements.
- (B) Warhol kept exploring different artistic media. He began experimenting with film in 1963.
- (C) In the 1970s, Warhol created portraits of people from instant photographs. Many critics did not like his work.
- (D) In the late 1970s, Warhol returned to painting. He created works that were more abstract.

4 Read the paragraph from the section "Mature Period."

*Warhol also tried his hand at silk-screening. This process transfers an image onto a screen. A rubber squeegee then spreads paint or ink across the screen. Silk-screening let him perfectly repeat an image, suggesting mass production, like in a factory. Often, he would first put down a layer of color. He then added the silk-screened image.*

Which question is answered in this paragraph?

- (A) How does silk-screening work?
- (B) Did the public like silk-screened paintings?
- (C) When did Warhol start silk-screening?
- (D) What is Warhol's most famous silk-screened painting?
A MESSAGE FOR A WISER, OLDER YOU

WHAT I LOVE ABOUT YOU

HOPES I HAVE FOR YOUR FUTURE

VALUES I HOPE YOU POSSESS

LOVE,
MY FAVORITES

COLOR

MOVIE

BOOK

EMOJI

TREAT

TOY

FRIEND

ACTIVITY
GOALS FOR THE YEAR

MY GOALS FOR THE NEXT 5 YEARS

MY GOALS FOR THE NEXT 10 YEARS