At Home Learning Resources

Grade 8 - Week 7

<table>
<thead>
<tr>
<th>Content</th>
<th>Time Suggestions</th>
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<tbody>
<tr>
<td><strong>Independent Reading</strong></td>
<td>At least 20 minutes daily (Could be about science, social studies, etc)</td>
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<td>(Read books, watch books read aloud, listen to a book)</td>
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<tr>
<td><strong>ELA</strong></td>
<td>45 minutes daily</td>
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<td><strong>Math</strong></td>
<td>45 minutes daily</td>
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<tr>
<td><strong>Science</strong></td>
<td>45 minutes daily</td>
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<tr>
<td><strong>Social Studies</strong></td>
<td>45 minutes daily</td>
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<tr>
<td><strong>Arts, Physical Education, or Social Emotional Learning</strong></td>
<td>30 minutes daily</td>
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These are some time recommendations for each subject. We know everyone’s schedule is different, so do what you can. These times do not need to be in a row/in order, but can be spread throughout the day. Teachers will suggest which parts of the packet need to be completed or teachers may assign alternative tasks.
Grade 8 ELA Week 7

Your child can complete any of the activities in weeks 1-6. These can be found on the Lowell Public Schools website: https://www.lowell.k12.ma.us/Page/3804

This week begins a focus on memoir reading and writing. Your child should be reading, writing, talking and writing about reading, and exploring new vocabulary each week.

**Reading:** Students need to read each day. They can read the memoir included in this packet and/or read any of the memoir books that they have at home, or can access online at Epic Books, Tumblebooks, the Pollard Library online, or other online books. All resources are on the LPS website. There is something for everyone.

**Talking and Writing about Reading:** As students are reading, they can think about their reading, then talk about their reading with a family member and/or write about their reading using the prompts/questions included.

**Writing:** Students will be working on memoir writing for the next few weeks. The resources in this packet will be the same for next week for writing as well. These resources are charts with examples to help your child write. They are available online in an interactive form with video tutorials here: Memoir Writing Choice Board. This writing should last throughout the weeks. Students will be planning their writing, then writing, then making it even better by revising, writing some more, and at the end, fixing it up by editing. Your child might write 1 memoir and work to refine it throughout, or might write multiple memoirs, getting better each time.

**Word Work:** Students can work on learning new vocabulary about a topic they are interested in. Students can also explore roots and see where they find them in their reading. Students can create lists of other words with the same root and then write a new sentence using these words.
Students in grade 8 have read memoirs this year.

A memoir provides factual information in a narrative style about a significant time, place, person, or event in the author’s life, and explains the significance.

Memoirs:
- Tell the story (memoir) of a significant time, place, or person, or event in a subject’s life
- Are told by a subject
- Use a narrative structure
- Provide factual information about the subject’s life
- Tell why the time or event is important enough to be written about
- Are written in first person
- Have a limited perspective (subjective)

Often:
- Include direct quotes
- Have photographs
- Tell the story at a significant point in subject's life
- Tell the setting and the culture the person lived in and what influenced the subject
- Add factual statements as additional information
- Convey a larger message

The above taken from Genre Study, Fountas & Pinnell

As you are reading and writing memoirs, keep in mind the following questions:

1. Why read memoir?

2. What makes memoir unique?

3. What calls a person to write his or her own story, a memoir?

After reading Fences or another memoir, answer the following question in writing:

Based on the text, determine how the character (memoir author), setting, and events contribute to the development of the theme over the course of a text.*
FENCES

Fences never stopped me.

Wood slat, chain link, barbed wire — it made no difference: fences were my trusted companions. They were my step ladders, my playground equipment, my launching pads. As a fearless six year old, I knew nothing of barriers and boundaries and borders. I knew trampolines and trapezes and tree forts. Fences existed for my entertainment and recreation, enhancing rather than enclosing my expanding existence. I had never met a fence I had not crawled or climbed or conquered.

That is, until fences became deadly.

My world without limits started to collapse the day my mother warned me about a new kind of fence, one with electric current surging through its wires. "These electric fences are very dangerous, David," she said, looking me dead in the eyes. "If you ever touch one, it can kill you."

It could not be true. Beyond the occasional splinter or scratch, I believed fences to be utterly harmless. They were nothing like scary monsters or speeding cars or that blue stuff in the bottle under the sink — those were the dangerous things. Fences were entirely different. Fences were my friends.

For weeks my mother's words haunted me, hovering around me as I played near my house, making me suddenly cautious and hesitant in the world I had previously roamed imperiously. She had said that if you listened carefully, you could tell an electric fence because it made a humming sound. Instead of leaping ferociously onto fences as I once had, I would stand paralyzed near any suspicious barrier, holding my breath and listening for the quiet hum of death. I never thought I heard the hum, but I usually backed away from the fences carefully rather than taking a chance; after all, dying seemed to be about the worst thing that could happen to you.

As the days passed and I failed to discover even one certified death fence, I regained some of my old adventurousness. Some days I would forget my mother's warning
entirely, pouncing eagerly on anything that stood in my path. But as any parent will attest, you should never forget your mother’s advice.

One sweaty summer day I left my mother’s words behind as my best friend Paul and I walked out of my backyard and across the corn field that stretched toward the mountains. Paul was always an eager accomplice, and we had watched as the field became more and more alluring as the corn grew higher and higher. That day it was nearly up to our shoulders as we darted in and out of the rows, hiding from and catching each other, moving farther and farther from my house. As our spontaneous game of tag became more competitive, I discovered a successful strategy to avoid being caught. I would duck my head and cross over several rows of corn before dashing full speed down a corn corridor, never lifting my head above shoulder level as I ran. Certain I had left Paul far behind, I felt the giddy thrill of victory as I flew through the stalks and ears.

I never saw it coming.

It was only two wires, one at my ankles, one at my chest. By the time I saw the top wire - too late! -- grabbing onto it seemed my only option, a reflex more than a decision. But before I could vault over the almost invisible line, I felt a shocking surge, a surging shock. My entire body froze, my hands gripping the wire in an involuntary contraction. And then my body recoiled, falling back into the field of corn and dirt. A low hum hung in the air. Shock waves raced through my veins, and my brain registered the most terrible truth: I had touched an electric fence. I was going to die.

Paul found me lying on the ground, a mass of despair. I could not hold back the sobs, but I could not find the words to tell my friend that I was going to die. I ran wildly toward my house, husks slapping my skin and tears blurring my vision. When I threw open the back patio door, I wanted my mother to rush to me and scoop me up in her arms, holding me as the world faded to black around me. I wanted to tell her that I hadn’t meant to touch the electric fence, that I was afraid to die. But there was no one to witness my agony and distress; I stood alone in the silent house, listening to my breathing become slower and slower. Then I heard the low whisper of music coming from my mother’s basement sewing room, but I no longer wanted her comfort or protection. A realization rose within me: I would need to face my death alone, with bravery and strength, like my heroes on movies and television.
Resolved to die like a man, I retreated miserably but noiselessly to my bedroom. I sat on the edge of my bed, trying to feel the beginning stages of death in my body. My foot felt numb -- is that how it starts? Then a tingling in my arm -- is that what's next? I was sure my pulse was weakening. I knew I could not lie down, because if I fell asleep, I would never wake up. And who wants to die without even knowing it? I propped myself against the wall next to my bed and tried to feel the clock ticking inside me: would I make it to dinner, which was still several hours away?

The knock on my door jolted me back into awareness, and I looked frantically at the clock on my nightstand. It was 5:30. Had I fallen asleep? Or was I almost dead? My mother's voice asked me where I had been, told me that dinner was ready. I mumbled that I was coming, and she retreated to the kitchen. I felt my limbs, my lungs, my heart -- I knew I didn't have much longer to live. I thought about how awful it would be to die at dinner, food on my plate and my parents watching on in horror. Would I slump slowly to the floor, my parents sitting helplessly as I waved my napkin in a final surrender? Would my face suddenly pitch forward into my meatloaf and mashed potatoes as my parents gasped in disbelief? I decided I couldn't face such an undignified conclusion. So I stayed in my room, thinking I might die before they came to call me a second time, which would save all of us the pain and sadness of a death at dinner.

But when my mother knocked at my door again, I began to cry out loud, and she heard me. She rushed into my room, putting her hands on my shoulders and asking me what was wrong. I didn't want to tell her -- I didn't want her to be mad at me for touching the fence, I didn't want her to be sad that I was going to die -- but her voice was so warm and nice, and she was my mother, after all. So I told her everything -- that I touched an electric fence even though she told me it could kill me, that I could feel death coursing through my body, that I didn't want to die at dinner. She started making a sound that I thought was crying, and I saw tears in her eyes. But then I realized she wasn't crying at all -- she was laughing. And I didn't see why me dying was all so very funny, so I started crying even more.

And then I heard her saying the same words, over and over again. "David, you are not going to die." What she was saying sounded impossible, and I reminded her that she had said touching an electric fence would kill you.
“It would have killed you right away, honey,” she assured me, holding my head against her shoulder and stroking my hair. “It can only kill you while you are touching the fence.”

It took even more convincing before I mostly believed that I wasn’t going to die that night. Hours later, stuffed with meatloaf and potatoes, I was still afraid to let myself fall asleep. I lay in bed, feeling for even the slightest spark inside me, convinced I could defeat sleep just that one time.

And then it was morning, the sun streaming through the crack in my curtains. I was awake and alive, but somehow my life would never be the same. More fences were waiting out there, some of them humming with danger, and I would never roam the world so freely again.

David Rowe
What is Memoir Writing?

Essential Questions

- How do writers convey what they know?
- How do writers write focused memoirs with a point of view that reveals an important message?
- How do writers use the details of the time period to shape a story?

Examples
Memoir 1, Memoir 2, Memoir 3

MEMOIR ESSENTIAL QUESTIONS
What is a Memoir?

- When working on memoir, you as a writer are more likely to start with some big, important idea that you want to explore and to communicate—something that says to the world, “This is who I am.”

- Your idea will come first, and then you will begin to collect small moments around your idea, you will bring out themes through a variety of narrative and expository techniques you have already learned.

- You will draw on all you know about forwarding meaning through both storytelling and exposition and to weave these two together to craft a text that is ALL ABOUT YOU!

- For this reason you as a writer do not say that memoir belongs to the narrative genre or the opinion/argument genre, but rather it is created from the combination of the two.

Mentor Texts

MENTOR TEXTS AND ANTHOLOGIES:

- The Dumbest Idea Ever by Jimmy Gownley
- Brown Girl Dreaming by Jacqueline Woodson
- Enchanted Air: Two Cultures, Two Wings or Soaring Earth by Margarita Engle
- Under the Royal Palms by Alma Flor Ada
- Where the Flame Trees Bloom by Alma Flor Ada
- Marshfield Dreams by Ralph Fletcher
- Life in Motion: An Unlikely Ballerina by Misty Copeland
- Born a Crime by Trevor Noah (YA Version) by Trevor Noah
- When I Was Your Age by Amy Erlich
- El Deafo by Cece Bell
- Real Friends by Shannon Hale
- Guts by Raina Telgemeir
Memoir Structures

- **Chronological** - This is where you tell your story in the order in which it happened.
- **Before and After** - Tell your story as a big event, and explain the significance and impact it had on you.
- **Character Study** - This structure focuses on an important figure in your life. Share several moments that reveal who this person is and what they mean to you.
- **Symbolism** - Anchor you in an item or other symbol. Return to it throughout.
- **The List** - Create a list (of events, items, ideas, etc.) and explore how they are connected.
- **Journey Structure** - Start with an anecdote in which you, the writer, are on the cusp of learning.
- **Circular Structure** - Begin and end with a repeated image, scene or line.

What’s your story? Developing your ideas

"**Writer’s rely on what they already know.**”

To help you:

List out the strategies you’ve learned for collecting small moments

- **First times, last times, important people, places, things, issues**
  - Write these in your notebooks and use these to quickly develop new topics to write about.
- **Other ways to generate ideas include:**
  - "Issues relating to what’s right and wrong, what’s difficult, what’s fair and unfair, or what people should or shouldn’t do"
Just Focus on Yourself

- Finding moments that matter
- Moments that reveal something essential (very important) about who you are
- To think thematically (in a way that relates to you)
- Getting to the heart of it

Growing our Memoirs

Prompts to Push Our Thinking

I used to think…
But now I’m realizing…

My ideas about… are complicated.
On the one hand I think… On the other hand, I think…

Some people think…
But I believe…

When I first… I thought…
But now when I … I realize that really…
Revision Strategies

1. Including details in your writing

- One time...
- Hint at the trouble right from the start...
- What were you thinking?
- What was being said?
- What did you do?
- Build out the world of the story. Where were you? What did it sound like? Look like?

2. Reading it out loud to self

- “It helps to read it out loud to hear the sound of each word and rhythm of the sentences.”
- “The sound of our words is powerful. Writer’s communicate with readers by choosing words that convey not only the content but also the mood, the tone, and the feeling they want to convey.”

Example: Original sentence: He was there when I was born I think.

Listening to my sentence it wasn’t creating the mood I wanted so I reworded: You were there when I was born, so I’ve been told.

Editing

Today I want to teach you that a great way to ensure that your editing choices are clear and powerful is to use checklist as your editing guide, zooming especially into the conventions section of your checklist.

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<thead>
<tr>
<th>Narrative Writing Checklist (continued)</th>
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<tbody>
<tr>
<td><strong>Conventions</strong></td>
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<tr>
<td>Grade 7</td>
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<tr>
<td>Spelling</td>
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<td>I used the Internet and other sources at hand to check spelling of literary and high-frequency words.</td>
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<tr>
<td>Punctuation and Sentence Structure</td>
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<tr>
<td>I varied my sentence structure, sometimes using simple and sometimes using complex sentence structure.</td>
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<tr>
<td>Grade 8</td>
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<tr>
<td>Conventions</td>
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<tr>
<td>I used the Internet and other sources to check the spelling of literary, historical, and geographical words.</td>
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<td>I used different sentence structures to achieve different purposes throughout my piece.</td>
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<td>I used verb tenses that shift when needed (such as when moving from a flashback back into the present tense of the story), deciding between active and passive voice where appropriate.</td>
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<td>Structure</td>
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The time I almost Died

It was the Winter of 2016. My family and I were on our way to have a fun day of snowboarding at Wildcat mountain. As I stepped out of the car, a chilling wind struck my face. I waddled over to the trunk, wearing my gear, and hopped onto the tailgate of our Zaffre blue truck. The sides of the truck are heavily dusted with road salt. I pressed my finger against the side of the truck, wiping off the salt and drawing a smiley face, leaving my finger white.

My brother moved aside and I stretched into the trunk and yanked my snowboard out from underneath other snowboards and gear. "MOM" My brother called out in his annoying voice, "I need help!" My mom sighed in annoyance and went around the truck to help him. Once we were finally ready to head up to the mountain for a fun day of snowboarding.

Me and my dad were sitting side by side on the rickety chairlift mostly in silence. I looked down at my weird tan colored snowboard dangling from my left foot. Skiers rode quickly below us down the mountain and they occasionally fell and me and my dad both pointed and laughed (I know we are great people). The conditions weren't great. It had rained the night before we went so ice coated the snow, making the snow shine. I was looking around as we slowly traveled up the mountain and I started thinking. "What would happen if you fell off the side of the trail?" I suddenly ask. "You'll die." he responds. A chilling shiver goes up my spine and I almost picture slipping off the edge, slamming into trees until I look consciousness and fall hundreds of feet down. Thankfully the thought disappears faintly as we reach the top. I'm nervous to get off the side of the trail.

Almost before I can even process what is happening I slam into a tree. Thankfully the tree stops me from sliding any further. I still see the top and the hammering in my heart slows a little. I try to jump, still wearing my board, but I struggle. I try to jump again and slide right back down, almost passing the tree and sliding down the mountain. Tears fill my eyes and everything turns blurry. My parents were already too far ahead to see or hear me. I scream for help as I start to slide more down the mountain. Nobody stops to help me so I scream louder, when suddenly a small figure appears. It's my brother. For a second it seems like everything was going to be okay, but I forgot one thing, he's an idiot. "What are you doing?" he yells down to me with worry in his voice, making it almost shaky. "I fell!" I cry out. "Take off your board!" He instructed me. "No!" I yell back. Then my brother took off his board and slid down the icy hill. "What are you doing?" I ask, he doesn't respond and then he starts trying to climb back up in his snowboard boots but he keeps sliding back down. Soon we are both screaming until finally my dad comes sprinting up the mountain.

He looked as worried as he did the day that I ran into his room yelling "FIRE!" He saw us down the hill and immediately tried to help us. My mom came running up a little later but by then my dad had already helped us up. Now I never go near the edges and I realize now that the only reason that I was so scared was because my dad told me that I would die if I fell off the edge.
It was a normal day after school, and I was up in my room. The exact day? I can’t remember. I think it was in September, maybe October. Anyway, I was in my room, doing anything I could to skip homework. Most likely looking at something One Direction related on Instagram. As I scrolled through the endless abyss, I could suddenly hear loud rock music playing outside. I could immediately tell that it was my uncle, he always has music playing in his car. I usually go downstairs to see him, but I don’t know, I was apparently too busy to go down to see him right away. So I just stayed where I was, looking at my phone.

Not too long after my uncle had arrived, I heard him call my name. I have a feeling that I was probably comfortable where I was, and didn’t want to move, but I did anyway. When I got downstairs I could see him standing in the doorway between the kitchen and the porch. He said “hi” and I said “hi” back, and I walked out into the porch where him and my mom were. I automatically sensed that something was going on because of the look on my mom’s face. She was smiling, but not like she normally would. It was like the smile she had when she was lying or trying to hide something. Clearly she didn’t do a good job. I knew something was up. I was a little worried actually. I don’t think I questioned it though, I knew they would tell me eventually.

After a while of talking to my mom and uncle, my mom was still smiling like an idiot. I tried to ignore it, but it was quite annoying. Then my uncle turned his head and looked outside. “Oh, it looks like someone threw some trash in the yard.” He said, glancing at my mom. “Go pick it up before Paul gets upset.” Oh yeah, like this wasn’t suspicious at all. I looked at him with a questioning look, and stepped outside toward whatever my uncle had planted in the yard (I knew it wasn’t trash). As I got closer, I realized it looked familiar.

On multiple occasions, all of my family members have gone to concerts. A lot of those times, I had seen the tickets when they arrived at the house. All of them were in the same thin envelope, that was much bigger than the tickets themselves. As I approached the object that was sitting in the yard up against the fence, I realized why it looked so familiar. I suddenly became very hopeful. This couldn’t actually be what I think it is, could it?

I picked up the object, and sure enough it was the same envelope that I had seen a few times before. This one however, was folded. Probably to make me think that it was just trash that has been thrown into the yard. I still knew what it was though, despite this. I mean there was a part of me wondering what concert tickets were inside, but I had a feeling of who it was. “Oh, uh, why don’t you open it? I mean I don’t know, there could be something interesting in there.” Said either my mom or uncle, I can’t remember. I smiled because one, I knew what was in the envelope, and two, because of how bad they were at trying not to give it away.

I unfolded the envelope, and began to open it. I stuck my hand into the cardboard envelope but at first didn’t feel anything. It’s not like what was in it was very big and obvious to find, it’s pieces of paper. Eventually I found what was inside, down near the bottom. I pulled them out, smiling. I could sense that my mom and uncle were smiling too. There was a lot of small words printed on the tiny rectangular pieces of paper, but the only ones I really noticed were “NIALL HORAN” printed in all caps. Even though I expected this since I recognized what was in the yard, I was still shocked. I never really expected to get tickets since they had sold out so fast!

I didn’t know how to react. I’ve always felt weird with people watching me when opening presents, like on Christmas or my birthday. My family always expects big reactions to things, but as long as people are watching me, I’ll most likely stay silent. Obviously on the inside I was extremely happy. I’m going to see Niall Horan, why wouldn’t I be? But of course, me being me, with people watching, I didn’t really show how happy I was. I remember shaking a little bit, but I didn’t scream or cry or anything. I basically just stood there staring at the tickets and smiling.

I had realized that I did in fact actually have tickets to see my favourite One Direction member in concert, and my uncle explained some non-important stuff, I ran to my phone. That’s when I really showed how happy I was. I was jumping around in the living room, trying to put my password into my phone. The first thing I did was text my friend Christina, in all caps, misspelling pretty much every word. Despite all the spelling mistakes, she knew what was happening and responded in all caps as well. After I was done screaming at Christina, I told my other friend Amanda, with the same amount of spelling mistakes. She was just as happy as me and Christina were. Maybe a little more, since she wanted me to be able to go to the concert so bad too.

The next day at school I told the rest of my friends who I didn’t already tell. Some of them were happy for me, some of them told me I was crazy. Either way, I was still happy and very excited for the concert, that was months away.
Look ALL Around a Word for Clues

- Are there direct clues?
  - Synonyms?
  - Antonyms?
  - Gist clues?
  - Definitions?

- What do you envision?

- Is the word or phrase positive or negative?
  - Productive
  - Debilitating

- What type of word is it?
  - Noun
  - Verb
  - Adjective

Use these resources to help you learn new vocabulary and think about the root of the words you encounter.
Ways to Sort Key Vocabulary

Unfamiliar/Familiar Words
- organism
- transgenic
- regulation
- biofuels

According to Central Ideas
- People are conflicted about GMOs

Positive/Neutral/Negative Words
- productive
- debilitating

Chronologically
- 1900
- 1950
- 2000

By Subtopic
- Plants
- Animals

By Part of Speech
- Nouns
- Describing Words
- Verbs
<table>
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Reflect Shape A over the reflection line. Label the image A'.

Reflect Shape B over the reflection line. Label the image B'.

Reflect Shape C over the reflection line. Label the image C'.

Reflect Shape D over the reflection line. Label the image D'.

Reflect Shape E over the reflection line. Label the image E'.

Reflect Shape F over the reflection line. Label the image F'.
Reflect Shape A over the line $y=1$. Label the image $A'$

Reflect Shape B over the line $y=x$. Label the image $B'$

Reflect Shape C over the Y axis. Label the image $C'$

Reflect Shape D over the line $y=-1$. Label the image $D'$

Reflect Shape E over the line $x=-1$. Label the image $E'$

Reflect Shape F over the line $y=-x$. Label the image $F'$
Draw the line of reflections that reflects white onto red.

Draw the line of reflections that reflects white onto red.

Draw the line of reflections that reflects white onto red.

Draw the line of reflections that reflects white onto red.
1. Line AB, A(5, 1), B(2, -3), is rotated 270 degrees clockwise. What are the coordinates of B’?

2. Triangle ABC, A(2, 5), B(5, 7), C(8, 1), is translated three units to the left and four units down. Then, that shape is rotated 90 degrees counter clockwise around the origin. What are the coordinate of B’’?
3. Point A(2, 2) goes through a rotation and a translation, then ends up at A''(-4, -2). What two transformations take Point A to Point A''?

```
Point A    Point A'    Point A''
(2, 2)    ?        (?, ?)    (-4, -2)
```

4. Line AB, A(-2, 3) B(4, -3), is translated by the rule \((x, y) \rightarrow (x - 2, y + 1)\), then it is rotated by 180 degrees. What are the coordinates of A'' and B''?

5. Create your own polygon with up to six points on the coordinate grid below. Apply two different transformations to your polygon. Draw the final shape on the grid, and explain what your transformations were.

6. Experiment with reflections and rotations. In your own words, explain what each means.
Translations Quiz

**Matching:**
Match the rule on the right to the correct directional term

1. \((x, y) \rightarrow (x + 4, y - 5)\)____
2. \((x, y) \rightarrow (x - 4, y + 5)\)____
3. \((x, y) \rightarrow (x + 4, y + 5)\)____

Match the directional term to the correct rule

4. To the left 6, down 10____
5. To the left 6, up 10____
6. To the right 6, down 10____

**Multiple Choice:**
Circle the best answer.

8. Triangle JKL has points J(2,4), K(3,1), and (3,3). A translation maps the point J to J'(3,3). What are the coordinates of K’?
   a. (-3,1)
   b. (2,2)
   c. (3,2)
   d. (4,0)

9. The marching band enters the gym and marches across the gym **without** turning. Which of these describes the transformation?
   a. Dilation
   b. Reflection
   c. Rotation
   d. Translation

**Short Answer:**

10. Write a general rule which describes the translation shown below. \(\Delta LMN\) is the original triangle.

\[(x, y) \rightarrow (\phantom{00000} , \phantom{00000})\]
8.G Cutting a rectangle into two congruent triangles

Alignments to Content Standards: 8.G.A.2

Task

Below is a picture of rectangle $ABCD$ with diagonal $AC$.

\[ \text{a. Draw the image of triangle } ACD \text{ when it is rotated 180° about vertex } D. \text{ Call } A' \text{ the image of point } A \text{ under the rotation and } C' \text{ the image of point } C. \]
b. Explain why $\overrightarrow{DA'} \cong \overrightarrow{DA}$ and why $\overrightarrow{DC'}$ is parallel to $\overrightarrow{AB}$.

c. Show that $\triangle A'C'D$ can be translated to $\triangle CAB$. Conclude that $\triangle ACD$ is congruent to $\triangle CAB$.

d. Show that $\triangle ACD$ is congruent to $\triangle CAB$ with a sequence of translations, rotations, and/or reflections different from those chosen in parts (a) and (c).
8.G Triangle congruence with coordinates


Task

Triangles $ABC$ and $PQR$ are shown below in the coordinate plane:
a. Show that $\triangle ABC$ is congruent to $\triangle PQR$ with a reflection followed by a translation.

b. If you reverse the order of your reflection and translation in part (a) does it still map $\triangle ABC$ to $\triangle PQR$?

c. Find a second way, different from your work in part (a), to map $\triangle ABC$ to $\triangle PQR$ using translations, rotations, and/or reflections.
Transformation Aquarium

Materials: graph paper, lined paper, colored pencils, notes, and pencil.

1. Create “an aquarium” for your fish by drawing the coordinate plane. Number each axis up to 18. Label the quadrants

2. A) plot the following points A(-6, 8) B(-5, 7) C(-4, 8) D(-3, 7) E(-4, 6) F(-6, 6).

   Connect the lines creating a fish. Here is an example of what it should look like:

   B) Translate the fish 18 units to the right and 3 units down. (Make sure to color/decorate the fish the EXACT same as the “pre-fish” aka preimage. Make sure to label each point and the new points as prime (’)

   C) Using an arrow, identify the transformation as a translation and label it and include the algebraic rule/representation (x, y)-> ______

3. A) Plot the following points: A(12, 12) B(13, 11) C(14, 12) D(15, 11) E(14, 10) F(12,10).

   Create a new fish and make sure to color this fish a different color

   B) Reflect the fish over the x-axis labeling the new vertices as prime (‘). **make sure it is the same color after the reflection.

   C) Using an arrow, label the transformation as Reflection over the X-axis and include the algebraic rule/representation (x, y)-> ______

   D) Reflect the new “fish”/new image you just created over the y-axis and label the new vertices and mark them as double prime (“) **must be the same color

   E) Using an arrow, label the transformation as Reflection over the Y-axis and include the algebraic rule/representation (x, y)-> ______

4. A) Plot the following points: A(-15, 4) B(-14, 3) C(-13, 4) D(-12, 3) E(-13, 2) F(-15, 2)

   Create a new fish and color it a different color.

   B) Rotate the fish 90 degrees clockwise. Label the new vertices as prime ‘
   ● Using an arrow, Label the transformation as a 90° clockwise rotation and its algebraic rule (x, y) -> ______.

   C) Rotate the fish 180 degrees. Label the new vertices as double prime “
   ● Using an arrow. Label the transformation as a 180° clockwise rotation and its algebraic rule (x, y)-> ______.

   D) Rotate the fish 270 degrees. Label the new vertices as triple prime “’.
   ● Using an arrow, Label the transformation as a 270° clockwise rotation and its algebraic rule (x, y)-> ______.

5. A) On a separate sheet of paper, explain the effect of the transformation and create a table explaining how the rule applied to each point. (example: Translations: the fish “slid” 18 units right and 3 units up. 

<table>
<thead>
<tr>
<th>( (x, y) )</th>
<th>( (x+18, y-3) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(-6, 8)</td>
<td>(-6+18, 8-3)</td>
</tr>
</tbody>
</table>

this will help check your work and how you will be graded!!)

B) Also, explain if the fish preserved congruence and orientation after the transformation.
LUNAR PHASES

Comprehension

Read the passage below and answer the questions that follow:

It’s probably easiest to understand the moon cycle in this order: new moon and full moon, first quarter and third quarter, and the phases in between.

As shown in the above diagram, the new moon occurs when the moon is positioned between the earth and sun. The three objects are in approximate alignment (why “approximate” is explained below). The entire illuminated portion of the moon is on the back side of the moon, the half that we cannot see.

At a full moon, the earth, moon, and sun are in approximate alignment, just as the new moon, but the moon is on the opposite side of the earth, so the entire sunlit part of the moon is facing us. The shadowed portion is entirely hidden from view.

The first quarter and third quarter moons (both often called a "half moon"), happen when the moon is at a 90 degree angle with respect to the earth and sun. So we are seeing exactly half of the moon illuminated and half in shadow.

Once you understand those four key moon phases, the phases between should be fairly easy to visualize, as the illuminated portion gradually transitions between them.

An easy way to remember and understand those "between" lunar phase names is by breaking out and defining 4 words: crescent, gibbous, waxing, and waning. The word crescent refers to the phases where the moon is less than half illuminated. The word gibbous refers to phases where the moon is more than half illuminated. Waxing essentially means "growing" or expanding in illumination, and waning means "shrinking" or decreasing in illumination.
Lunar Phases

Thus you can simply combine the two words to create the phase name, as follows:
After the new moon, the sunlit portion is increasing, but less than half, so it is waxing crescent. After the first quarter, the sunlit portion is still increasing, but now it is more than half, so it is waxing gibbous. After the full moon (maximum illumination), the light continually decreases. So the waning gibbous phase occurs next. Following the third quarter is the waning crescent, which wanes until the light is completely gone -- a new moon.

Attribution:
This content was modified under a Creative Commons Attribution License 3.0. Download for free at www.moonconnection.com/moon_phases.phtml.

1. When the moon is positioned between the sun and Earth it is called a
   a) Full Moon.
   b) Waxing Gibbous
   c) First Quarter
   d) New Moon

2. Gibbous refers to when the moon is
   a) More than half illuminated
   b) Less than half illuminated
   c) Full
   d) Not visible

3. What is another name for first and third quarter moons?
   a) Quarter Moons
   b) New Moon
   c) Half Moon
   d) Waning and Waxing Gibbous

4. During a full moon....
   a) the sun is between the moon and Earth
   b) Earth is between the moon and sun
   c) the moon is between Earth and the sun
   d) none of the above

Visualization

Use your computer’s browser to watch the following video clip. Once you have watched the video, answer the questions that follow.

https://www.youtube.com/watch?v=AQ5vty8f9Xc

1. When the Earth is between the moon and the Sun, what moon phase will this be?

2. When the moon is between the Earth and the Sun what moon phase will this be?

3. Why doesn’t the Earth block out the light between the Sun and the Moon during a normal month?
Exploration
You will need to gather the following material before starting this section:
• flashlight
• golfball, pingpong ball or similar sized ball
• Soccer ball, basketball, volleyball or similar sized ball
• A second person to help
1. Setup a model of the Sun, Earth, and Moon (refer to the Image 2.1 below.)

![Image 2.1]

2. Position your eyes right behind the Earth looking towards the Sun and the moon. Is there any light on the face of the moon? When the moon is between the Earth and the Sun it is called a new moon.

3. Slowly revolve (orbit) the moon counter-clockwise around the Earth. Move behind the Earth (opposite the moon) as the moon orbits. Stop when you get to the full moon. What happens to the light as you look at the moon from Earth.

4. Continue to revolve (orbit) the moon counter-clockwise around the Earth. Stop at the new moon. What happens to the light as it rotates back to the new moon position?
**Organization**

1. Go to this Google Slide: [http://tinyurl.com/o9z63ra](http://tinyurl.com/o9z63ra).

2. Once you open the slide make a copy and rename it. (File -> Make a Copy -> Rename: First Initial, Last Name Lunar Phases)

3. In the first slide, arrange the moon phases as we would see them from Earth in their given positions.

4. For the second slide, place the moon phases in the table under the correct title of each phase.

5. When finished, share with your instructor.

**Illustration**

1. Use image below to create a model of how the moon is illuminated from the sun from the perspective of the sun. Hint, you will not see phases in this model.

![Image of Earth and Sun with phases](image_url)

**Reflection**

1. Explain why the moon looks different each night.

2. Describe what the light on the moon would look like from Earth as it goes from a new moon to a full moon.

3. Explain why we would only ever see a full moon at night.
Evaluation

1. What is the difference between waxing and waning?
   a) The light is getting bigger when it’s waning and smaller when it’s waxing
   b) The light is getting bigger when it’s waxing and smaller when it’s waning.
   c) Waxing means that there is no light and waning means that there is light
   d) Waxing comes after a full moon and waning comes after a new moon.

2. What phase comes after a waxing crescent?
   a) New Moon
   b) 3rd Quarter
   c) 1st Quarter
   d) Waning Gibbous

3. What are the position of the Earth, Moon and Sun during a Full Moon?
   a) Sun, Moon, Earth
   b) Sun, Earth, Moon
   c) Moon, Sun, Earth
   d) Earth, Sun, Moon

4. What are the positions of the Earth, Moon and Sun during a New Moon?
   a) Earth, Sun, Moon
   b) Sun, Earth, Moon
   c) Moon, Sun, Earth
   d) Sun, Moon, Earth
U.S. CONSTITUTION

"The Constitution, in all its provisions, looks to an indestructible Union composed of indestructible States.”

- Salmon P. Chase

MAGNIFICENT DOCUMENTS

Some magnificent documents were written in the 1700s. One of the most treasured documents in American history is the Declaration of Independence, which Congress presented on July 4, 1776. It states "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty, and the pursuit of happiness." With the Declaration of Independence, America announced its intention to become a free and self-supporting nation, free from being persecuted. It took until 1783 to finally win that treasured independence; then, what should a young government do?

When the leaders of the country met in Philadelphia in 1787, they were already dealing with the problems of collecting taxes, enforcing the laws, and establishing trade between the states. They had originally met with the intention of modifying and amending the Articles of Confederation (1781). They realized that the Articles extended so much independence to the individual states that the national government was weak and ineffective. Through arguing and agreeing, debating and deliberating, these brilliant minds assembled what is considered one of the best governmental writings in the history of nations. Even the opening statement, or Preamble, shows the intent of these leaders to create an honorable government:

"We the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America."

The ideas behind the Constitution had been debated by many political thinkers in England before America's constitution was actually written. Englishmen such as Thomas Hobbes (1588-1679), rejected the new idea of human dignity. He wrote a book called Leviathan, which means “giant”. Hobbes believed that people had absolute liberty, in the state of nature, to be very cruel. After a time, people were willing to trade all of their liberties to the rulers of a nation in exchange for protection. The only two rights that a person retained under a government were the right of self-defense and the right to demand that the state provide protection against other people. Hobbes believed the government should be in complete control of people, since people had an "evil" nature and could not be expected to act morally, cooperate with others, and act in their own best interests. This was a sort of biblical law, based on the premise of original sin. Because of their sinful nature, humans were not able to adequately govern themselves. They needed a strong presence (like God) to rule over them. This was done through the succession of kings who, like Hobbes and others believed, were given ultimate authority to rule by God.

The Enlightenment brought about new ways of thinking and understanding. Instead of focusing on the authoritarianism of a monarch or the church, political thinkers became interested in the considerations of individuals and their rights under the law.
John Locke (1632-1704) wrote a book called *Two Treatises on Civil Government*, in which he discussed the same state of nature of which Hobbes wrote. Unlike Hobbes, who believed in the absolute authority of the state, Locke believed in the rights of people. He dismissed the principal of the divine right of kings, the philosophical idea that kings were given a divine right by God to rule over a people. Instead, Locke believed that, in the state of nature, human beings lived according to natural law and had a life that was peaceful and full of reason.

Locke said that people might have remained in this ideal state except that they must have the help and cooperation of others. He said government is born out of a social contract. In this social contract theory, people living in the state of nature would conditionally transfer some of their rights to the government. In return, the government would protect and uphold the rights of the people.

In the state of nature, according to Locke, people obeyed natural law. A person had rights and freedom equal to those of every other person, and in the state of nature, humans obeyed natural law. Locke called these rights unalienable rights. For Locke, the rights that all people inherently had were the rights to life, liberty, and property.

Locke's basic ideas were that no government can exist without the consent of the governed and that the primary purpose of the state is to protect the rights of the citizen. He believed that, if a government failed to act on behalf of the people, then the people had the right and authority to overthrow that government.

The practice of dividing the powers of a government among different branches to guard against abuse of power is known as separation of powers. This idea originated under the English common law, which sought to find a balance of power between the monarchy and parliament.

The U.S. government is separated into three branches: legislative, executive, and judicial. John Locke gave that concept more refined treatment in his *Treatise*. Locke contended that the legislative and executive powers were theoretically different but did not always have to be separate in government. Judicial power played no role in Locke's thinking. He also proposed a system of checks and balances to avoid one branch's asserting too much power over another.

Sir William Blackstone was a contemporary of Locke who lived in England. His work *Commentaries on the Laws of England* explained natural laws and the absolute rights of individuals. It was used for more than a century as the foundation of all legal education in Great Britain and, later, in America.

Baron Charles Montesquieu dealt with the modern idea of the separation of powers in *The Spirit of the Laws*. Montesquieu outlined a three-way division of powers in England among the parliament, the king, and the courts, although it didn't actually exist at the time. So, America's Founding Fathers established a three-level system of government in the Constitution.
Alexis de Tocqueville (1805-1859) was a French writer who analyzed the American governmental system in his two-volume work, *Democracy in America*. He contended that the delegation of government to the states was one of the strong points of the American system. He also was in favor of the independent judiciary system. However, he criticized America's majority rule concept as being, possibly, as unfair as a monarchy and said that public opinion could lead to dictatorship.

John Stuart Mill was an Englishman who wrote the 1869 book *The Essay on Liberty*, which is one of the most important political-science books ever written. He reasoned that the problem of freedom in a democracy is not how the nation or ruler treats the people, but how the majority of the people treat the minority. Mill reminds us that the rights that people have, such as participating in making the rules of a nation, are not absolute.

**THE UNITED STATES CONSTITUTION**

What exactly does the Constitution do? The Constitution lays down the fundamental laws of the U.S. The framers of the Constitution were men of the Enlightenment. Highly influenced by the philosophies of John Locke and his contemporaries, the Founding Fathers sought to create a government of constitutionalism. They believed that the rights and freedoms of the individual citizen, as well as the goals of the government, should be defined in a legally binding document. They also believed that a government’s powers should be legally limited in the government’s binding document. To that end, the first 10 amendments to the Constitution, the *Bill of Rights*, limit the powers of the federal government. For example, the Supreme Court has decided that neither the federal government nor the states can deprive any individual of the freedom of religion, speech, press, *petition*, or assembly, or of several other rights that pertain to the fair treatment of an accused person.

1787: The Right Time to Unify the Nation Completely. Some of the signers of the Constitution were George Washington, Benjamin Franklin, James Madison, and Alexander Hamilton. As George Washington presided over the Constitutional Convention, he knew there were many obstacles to overcome. The initial assembly in Philadelphia looked like little more than a gathering of 13 independent little countries. There was scant unity among the states, with problems such as trading among one another and the printing of state currency instead of federal money. By the end of the Convention, thirty-nine delegates had signed the Constitution. Many people are not aware that there were actually some delegates who refused to sign! Elbridge Berry, George Mason, and Edmund Randolph all refused to sign the Constitution because they thought it still gave too much power to the federal government.

The two primary issues of debate at the Constitutional Convention were the influence of the federal government and the representation of states in the legislature.

The debate over a strong central government was between two groups: the Federalists and the Anti-Federalists. Led by John Jay, Alexander Hamilton, and James Madison, the Federalists believed that a strong central government was required in order to protect against complete anarchy. In contrast, the Anti-Federalists believed that a strong central government would lead to authoritarianism and the abuse of power. They held that individuals and states should have more power over governing than the federal government.
In the end, the members of the Convention agreed to adopt a Bill of Rights once the Constitution was ratified, thereby protecting the rights of individuals and maintaining a centralized government.

The first ten amendments to the Constitution, known as the Bill of Rights, speak of the protection of freedoms of the individual citizen. Some amendments may seem odd to us today, but they were especially relevant to the nation at the time of their writing. These amendments were ratified December 15, 1791. The granting of such freedoms has been a closely guarded right that has been challenged and supported through the years of growth of our country.

**The First Amendment.** The First Amendment is considered by some to be the most important of all 27 amendments. It defines some of the most essential rights of American citizens:

"Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or *abridging* the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a *redress* of grievances."

This amendment guarantees freedom of religion and gives us the right to worship where and how we want. Freedom of speech and of the press give us openness in the fields of communication to express our displeasure with the government without the fear of imprisonment. We also have the right to gather peaceably and to ask the government for justice.

Another compromise that had to be made was in the process of electing representatives to serve in the legislature. In the Virginia Plan, James Madison proposed that a popular election would decide representatives in the lower house, and that the lower house would then elect members to the upper house. Many delegates from the larger states favored an electoral process in which the number of delegates a state had in the lower house depended on the population of the state. Naturally, the smaller states objected.

In the end, the Connecticut Compromise was reached, whereby the number of representatives each state had in the House was based on population, and all states would have two representatives in the Senate.

The Constitution has been a hard-working document through the years. It has been a vital cog in the workings of the American government. The Constitution gives the general method for electing a president. It also lays out the rules for organizing Congress and the guidelines for the potential members of Congress. The Constitution explains such diverse subjects as making laws, establishing patents for inventors, and extraditing criminals back to states for trials.

The Constitution is still a “working” document. Amendments to the Constitution have been made over the years so that the document remains a relevant and vital part of the governing process. Article V of the Constitution sets forth the process for amendments.

1. An amendment can only be proposed with a two-thirds majority vote in both houses of Congress or with a constitutional convention called by two-thirds of the state legislatures.
2. Congress proposes an amendment.
3. The amendment is sent to the states.
4. The states ratify or deny the amendment.
5. An amendment is added to the Constitution after three-quarters of the State legislatures ratify it.
Currently, there are twenty-seven amendments to the Constitution.

The Constitution is a magnificent framework for forming our government. The British statesman William Gladstone appropriately called the Constitution "the most wonderful work ever struck off at a given time by the brain and purpose of man."

Directions: After reading, answer the following questions.

1. Match: match the definitions with the correct vocabulary word
   a. A request
   b. A medium of exchange for purchases
   c. To set right; correct a wrong that was committed
   d. Harassed or annoyed
   e. Reduce or cut short

2. ________ currency
   ________ persecuted
   ________ redress
   ________ petition
   ________ abridge

2. Which of the following are guaranteed by the First Amendment? Select all that apply.
   a. freedom of the press
   b. freedom of speech
   c. freedom of religion
   d. the right of the people to peaceably assemble
   e. the right to a speedy trial
   f. no taxation without representation
   g. the right to petition the government for a redress of grievances

3. The first ten amendments to the Constitution are called the:
   a. Preamble
   b. Bill of Rights
   c. Prologue
   d. Declaration of Independence

4. The U.S. Constitution addresses which of the following issues? Select all that apply.
   a. presidential elections
   b. extradition of a criminal back to a state for trial
   c. qualifications for law enforcement officials
   d. state sales tax
   e. making laws

5. At the end of the Constitutional Convention, the Constitution was signed by:
   a. all of the delegates
   b. only Washington, Hamilton, Franklin and Madison
   c. thirty-nine delegates
   d. thirteen delegates

6. How many amendments have been made to the Constitution since its ratification?
   a. 23
   b. 25
   c. 27
   d. 29
<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose a book page, magazine, or newspaper article. Tally how many times you find the words that start with letters: M R E</td>
<td>Go on a shape hunt. Find five things in your house for each shape: Hexagon Trapezoid Equilateral</td>
<td>How many words can you make from this word? educational</td>
<td>List 5 things that can be chemical changes. List 5 things that can be physical changes.</td>
<td>Imagine two of your friends went to your school when no one was there. Write or draw their adventure.</td>
</tr>
<tr>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
</tr>
<tr>
<td>Hide something in your home. Make a treasure map and let a family member try to find it.</td>
<td>Find four things in your home that are transparent. Find four things in your home that are opaque.</td>
<td>If you had your own restaurant, what would you serve? Write a description of your restaurant and create a menu with prices.</td>
<td>Make a list of all the herbivores, carnivores, and omnivores in your neighborhood.</td>
<td>Get three cups. Put a little bit of soap into each cup. Fill the cups with different amounts of water. Count the minutes it takes for the bubbles to disappear. Which cup’s bubbles disappeared first?</td>
</tr>
</tbody>
</table>