7th Grade Independent Projects

Hello Students,

This resource packet includes multiple projects that you can work on independently at home. Each project can be completed over multiple days, and the projects can be completed in any order. These projects are standards-aligned and designed to meet the Remote Learning instructional minutes guidelines by grade band.

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7th Grade Literacy Project: The Genre of Letters

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<th>Estimated Time</th>
<th>120 minutes total</th>
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| Grade Level Standard(s) | RI7.2 Determine central ideas in a text and analyze their development over the course of the text.  
RI.7.6 Determine an author’s point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.  
W.7.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience  
L.7.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. |
| Caregiver Support Option | Caregivers can read and discuss the letters and short stories with |
| Materials Needed | Paper, pen/pencil, art supplies (optional) |
| Question to Explore | What are the benefits of using letters to communicate?  
How does changing the genre of a text affect purpose? |
| Student Directions | In this project, you will explore the genre of letters. First, students will compare and contrast important letters in United States history. Second, students will read and analyze a story then write letters from the point of view of two characters. Finally, students will write their own letter to a person of their choosing. |

Activity 1: Why Letters? Think about your answers to the following questions. Discuss with a friend or family member if possible and write your answers on notebook paper.

A. What do you know about letters?
B. What purpose do they serve?
C. When are they used?

Now, answer the following question.

D. In a world of technology, why might someone write and mail a letter? In other words, besides as a form of communication, what other purposes do letters serve?

Read Sample Letter #1 and answer the questions below on notebook paper.

E. What is the tone of the letter? Tone is an attitude of a writer toward a subject or an audience. Tone is generally conveyed through the choice of words, or the viewpoint of a writer on a particular subject.

F. What words and phrases are used in the letter that stand out to you and help you understand the tone?

G. What is the purpose of the letter?

H. How might the person getting the answer respond if he/she were to answer?
Sample Letter #1 - Written in 1869 from Frederick Douglass to Harriet Tubman. She asked him to submit an excerpt for an authorized biography to be written about her.

Dear Harriet,

I am glad to know that the story of your eventful life has been written by a kind lady, and that the same is soon to be published. You ask for what you do not need when you call upon me for a word of commendation. I need such words from you far more than you can need them from me, especially where your superior labors and devotion to the cause of the lately enslaved of our land are known as I know them. The difference between us is very marked. Most that I have done and suffered in the service of our cause has been in public, and I have received much encouragement at every step of the way. You, on the other hand, have labored in a private way. I have wrought in the day- you in the night. I have had the applause of the crowd and the satisfaction that comes of being approved by the multitude, while the most that you have done has been witnessed by a few trembling, scarred, and foot-sore bondmen and women, whom you have led out of the house of bondage, and whose heartfelt "God bless you" has been your only reward. The midnight sky and the silent stars have been the witness of your devotion to freedom and of your heroism.

Much that you have done would seem improbable to those who do not know you as I know you. It is to me a great pleasure and a great privilege to bear testimony for your character and your works, and to say to those to whom you may come, that I regard you in every way truthful and trustworthy.

Your friend,

Frederick Douglass

Excerpt from commonlit.org

Read Sample Letter #2 and answer the questions below on notebook paper.

I. What is the tone of the letter?

J. What words and phrases are used in the letter that stand out to you and help you understand the tone?

K. What is the purpose of the letter?

L. How might the person getting the answer respond if he/she were to answer?

Sample Letter #2 - Lowell, Massachusetts - September 21, 1835

Dear Mama,

I have arrived in Lowell at last. My, what a lot I have to tell you!

The journey here seemed mighty long. Bumping along in the wagon and then the train, I couldn’t help but think how every mile was carrying me farther away from home.

Cousin Abigail met me at the depot. I knew her by her red hair—just like Papa’s. She took me straight to her boardinghouse, so I only got a quick peek at the town. How I longed to stop and just stare at it all! The streets are lined with building after building, all crowded and close together. And so many people and horses and carriages hurrying here, there, and everywhere. It’s so noisy and busy and bright.

Our boarding house is built of red brick. It is three stories tall, and our unit is joined to others on both sides. Thirty-six girls live here, four girls and two beds to a room. Abigail is in a room with older girls. I share a bed with a girl named Anne, who is fourteen—just my age! She is nice and quiet. A cheery, younger girl named Mary and a fourth girl, Susan, complete our room. I shouldn’t say it, but...
Susan is a bit stuck-up. Anne whispered to me that it's because we're new girls and Susan has been here for five months. We are all crammed in like hens in the chicken coop. We have a single pitcher and basin for washing up.

Mrs. Chase keeps the house. There are such a lot of rules! We must be ever so quiet coming into the house and hang up our bonnets, shawls, and coats in the entry. We must never be rude or loud. And we must all be in bed by 10 o'clock.

I must say they feed us plenty. Yesterday's noon dinner was codfish hash and apple pie and warm biscuits and hot coffee.

One nice surprise is there are some books here we can borrow. I know Papa used to think me too bookish for a farm girl but, oh, Mama, I am so eager to read them.

Well, I had better stop. It's almost bedtime, and tomorrow I go to the mill to see about getting a position.

Your loving Grace

Source: Newsela.com

Compare the two letters.

M. What did they have in common?

N. How were the letters different?

**Activity 2: Explore Stories through Letters** - Now that you have read two letters you know more about this genre. People often write letters to describe their lives, share their experiences, make connections with people who they are not able to see every day, and ask for help or advice.

A. You will read the short story below. Pay attention to the characters. Think about their perspectives and how they might use letters to communicate.

B. After you have read, choose two different characters. You will write two letters, one from each of your two chosen characters’ perspective. Consider the following:
   - Which characters will you select?
   - Who will each character write letters to?
   - What moment or time from the story do you want to use as a focus?
   - What will be the purpose of the letter?
   - What will be the tone of the letter?

C. After you write, check your letters for the following elements. Make any revisions you need to improve your letters.
   - Date, greeting, body and closing
   - At least two paragraphs
   - Sentence variety
   - Descriptive language
   - Correct spelling, punctuation and capitalization

“Names/Nombres” by Julia Alvarez

When we arrived in New York City, our names changed almost immediately. At Immigration, the officer asked my father, Mister Eltures, if he had anything to declare. My father shook his head no, and we were waved through. I was too afraid we wouldn’t be let in if I corrected the man’s pronunciation, but I said our name to myself, opening my mouth wide for the organ blast of the a, trilling my tongue for the drumroll of the r, All-vah-rrr-es! How could anyone get
Elbures out of that orchestra of sound?

At the hotel my mother was Missus Allburest, and I was little girl, as in “Hey, little girl, stop riding the elevator up and down. It’s not a toy.”

When we moved into our new apartment building, the super called my father Mister Alburase, and the neighbors who became my mother’s friends pronounced her name Jew-lee-ah instead of Hoo-lee-ah. I, her namesake, was known as Hoo-lee-tah at home. But at school I was Judy or Judith, and once an English teacher mistook me for Juliet.

It took a while to get used to my new names. I wondered if I shouldn’t correct my teachers and new friends. But my mother argued that it didn’t matter. “You know what your friend Shakespeare said, ‘A rose by any other name would smell as sweet.’” My family had gotten into the habit of calling any literary figure “my friend” because I had begun to write poems and stories in English class.

By the time I was in high school, I was a popular kid, and it showed in my name. Friends called me Jules or Hey Jude, and once a group of troublemaking friends my mother forbade me to hang out with called me Alcatraz. I was Hoo-lee-ah only to Mami and Papi and uncles and aunts who came over to eat sancocho on Sunday afternoons- old world folk whom I would just as soon go back to where they came from and leave me to pursue whatever mischief I wanted to in America. JUDY ALCATRAZ: the name on the wanted poster would read. Who would ever trace her to me?

My older sister had the hardest time getting an American name for herself because Mauricia did not translate into English. Ironically, although she had the most foreign-sounding name, she and I were the Americans in the family. We had been born in New York City when our parents had first tried immigration and then gone back “home”, too homesick to stay. My mother often told the story of how she had almost changed my sister’s name in the hospital. After the delivery, Mami and some other new mothers were cooing over their new baby sons and daughters and exchanging names and weights and delivery stories. My mother was embarrassed among the Sallys and Janes and Georges and Johns to reveal the rich, noisy name of Mauricia, so when her turn came to brag, she gave her baby’s name as Maureen.

“Why’d ya give her an Irish name with so many pretty Spanish names to choose from?” one of the women asked her.

My mother blushed and admitted her baby’s real name to the group. Her mother-in-law had recently died, she apologized, and her husband had insisted that the first daughter be named after his mother, Mauran. My mother thought it the ugliest name she had ever heard, and she talked my father into what she believed was an improvement, a combination of Mauran and her own mother’s name, Felicia.

“Her name is Mao-ree-shee-ah”, my mother said to the group.

“Why, that’s a beautiful name,” the new mothers cried. “Moor-ee-sha, Moor-ee-sha” they
cooed into the pink blanket. Moor-ee-sha it was when we returned to the States eleven years later. Sometimes, American tongues found even that mispronunciation tough to say and called her Maria or Marsha or Maudy from her nickname Maury. I pitied her. What an awful name to have to transport across borders!

My little sister, Ana, had the easiest time of all. She was plaine Anne- that is, only her name was plain, for she turned out to be the pale, blond “American beauty” in the family. The only Hispanic-seeming thing about her was the affectionate nicknames her boyfriends sometimes gave her, Anita, or as one goofy guy used to sing to her to the tune of the banana advertisement, Anita Banana.

Later, during her college years in the late 60’s, there was a push to pronounce Third World names correctly. I remember calling her long distance at her group house and a roommate answering.

“Can I speak to Ana?” I asked, pronouncing her name the American way. “Ana?” The man’s voice hesitated. “Oh! You must mean An-nah!”

Our first few years in the States, though, ethnicity was not yet “in”. Those were the blond, blue-eyed, bobby-sock years of junior high and high school before the 60’s ushered in peasant blouses, hoop earrings and sarapes. My initial desire to be known by my correct Dominican name faded. I just wanted to be Judy and merge with the Sallys and Janes in my class. But inevitably, my accent and coloring gave me away. “So where are you from, Judy?” “New York” I told my classmates. After all, I had been born blocks away at Columbia Presbyterian Hospital. “I mean originally.”

“From the Caribbean,” I answered vaguely, for if I specified, no one was quite sure what continent our island was located on.

“Really? I’ve been to Bermuda. We went last April for spring vacation. I got the worst sunburn! So, are you from Portoriko?”

“No,” I shook my head. “From the Dominican Republic.”

“Where’s that?”

“South of Bermuda.”

They were just being curious, I knew, but I burned with shame whenever they singled me out as a “foreigner,” a rare, exotic friend.

“Say your name in Spanish, oh please say it!” I had made mouths drop one day by rattling off my full name, which, according to Dominican custom, included my middle names, Mother’s and Father’s surnames for four generations back.

“Julia Altagracia Maria Teresa Alvarez Tavarez Perello Espiaillat Julia Perez Rochet Gonzalez.” I pronounced it slowly, as name as chaotic with sounds as a Middle Eastern bazaar or market day in a South American village.
I suffered most whenever my extended family attended school occasions. For my graduation, they all came, the whole noisy foreign-looking lot of fat aunts in their dark mourning dresses and hair nets, uncles with full, droopy mustaches and baby-blue or salmon-colored suits and white pointy shoes and fedora hats, the many little cousins who snuck in without tickets. They sat in the first row in order to better understand the American’s fast-spoken English. But how could they listen when they were constantly speaking among themselves in florid-sounding phrases, rococo consonants, rich, rhyming vowels? Their loud voices carried.

Introducing them to my friends was a further trial to me. These relatives had such complicated names and there were so many of them, and their relationships to myself were so convoluted. There was my Tia Josefina, who was not really an aunt but a much older cousin. And her daughter, Aida Margarita, who was adopted. My uncle of affection, Tio Jose, brought my madrina Tia Amelia and her comadre Tia Pilar. My friends rarely had more than their nuclear family to introduce, youthful, glamorous-looking couples (“Mom and Dad”) who skied and played tennis and took their kids for spring vacations to Bermuda.

After the commencement ceremony, my family waited outside in the parking lot while my friends and I signed yearbooks with nicknames which recalled our high school good times. “Beans” and “Pepperoni” and “Alcatraz”. We hugged and cried and promised to keep in touch.

Sometimes if our goodbyes went on too long, I heard my father’s voice calling out across the parking lot. “Hoo-lee-tah! Vamanos!”

Back home, my tios and tias and primas, Mami and Papi, and mis hermanas had a party for me with sancocho and a store-bought pudin inscribed with Happy Graduation, Julie. There were so many gifts- that was a plus to a large family! I got several wallets and a suitcase with my initials and a graduation charm from my godmother and money from my uncles. The biggest gift was a portable typewriter from my parents for writing my stories and poems. Someday, my family predicted, my name would be well-known throughout the United States. I laughed to myself, wondering which one I would go by.

Activity 3: Express yourself
A. Pick someone in your life who might appreciate a letter from you. Then, choose one of the following and write a letter:
   ● A moment in your life where someone did something special for you
   ● An apology to someone you disappointed
   ● A wish or goal you have for yourself or someone you care about
   ● An exploration of your thoughts, feelings, and life right now
B. Check your letter for the following elements. Make any revisions you need to improve your letter.
   ● Date, greeting, body and closing
   ● At least two paragraphs
   ● Sentence variety
   ● Descriptive language
C. If possible, share your letter with the person you wrote it for; maybe read it out loud!

Activity 4: Reflection
Answer the following questions on a separate piece of paper.
A. What do you know now about letters that you didn’t know before?
B. In what ways are letters a unique genre?
C. When and why might you use letters in your life?

Cross Content Connection:
- **Social Science:** Write a letter to someone you know that lives in another place. Find that place on a map or talk with a friend/family member about that place. Compare and contrast it to where you live. Or, write a letter to your Congressperson about an issue that matters to you.
- **Visual Arts:** Use materials available around your house (be creative!) to create images to accompany your letters. Bind them together to create a book.

Adapted from readwritethink.org
# 7th Grade Math Project: Application of Percents

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<th>Estimated Time</th>
<th>120 minutes</th>
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| **Grade Level Standard(s)** | 7.EE.A: Use properties of operations to generate equivalent expressions.  
7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients  
7.EE.B: Solve real-life and mathematical problems using numerical and algebraic expressions and equations. |
| **Caregiver Support Option** | Caregivers can support by explaining how sales tax works as well as what happens when a coupon is applied to a total. |
| **Materials Needed** | Pencil, calculator (optional) |
| **Question to Explore** | How do you use percent in everyday life? |
| **Student Directions** | You will look at several real-world situations that can be represented by an expression with a variable. You will have to decide whether each of the expressions are equivalent to a given expression. You will then write expressions corresponding to two ways of doing a real-world calculation, and explain why the two ways are equivalent. Unless otherwise indicated, provide your responses on a separate sheet of paper. |
| **Activity 1: Open Middle (10 minutes)** | **A. Equal Tips**  
Directions: Using the digits 1 to 9 at most one time each, fill in the lines to complete the following statement:  
Leaving a ___ dollar tip for a bill of ___ is the same as leaving a ___ dollar tip for a bill of ___. |
B. Percents on a Linear Model
Directions: Using the digits 0-9, at most one time each, fill in the boxes to create an accurate number line.

How many solutions can you find?

C. Related Percentages
Directions: Using the digits 0-9 as many times as you want, fill the boxes to create a correct number sentence.

Activity 2: Algebra Talk! Equivalency (15 minutes)
Decide whether each expression is equivalent to 0.75t - 21 and explain how you know
A. t - 0.25t - 21
B. 0.75(t - 28)
C. \( \frac{3}{4} \) (t - 21)
D. \( \frac{3}{4} \) t - 21

Activity 3: Two Ways to Calculate (20 minutes)
Usually, when you want to calculate something, there is more than one way to do it. For the following situations, show how the two different ways of calculating are equivalent to each other.
A. Estimating the temperature in Fahrenheit when you know the temperature in Celsius (Use 30 degrees Celsius)
   a. Double the temperature in Celsius then add 30
   b. Add 15 to the temperature in Celsius then double the result

B. Calculating a 15% tip on a restaurant bill (Your bill was $56.93)
   a. Take 10% of the bill amount, take 5% of the bill amount, and add those two values together
   b. Multiply the bill amount by 3, divide the result by 2, and then take 1/10 of that result

C. Changing a distance in miles to a distance in kilometers (You went 45 miles)
   a. Take the number of miles, double it, then decrease the result by 20%
   b. Divide the number of miles by 5, then multiply the result by 8

Activity 4: Which Way (55 minutes)
A. You have two coupons to the same store: one for 20% off and one for $30 off. The cashier will let you use them both and will let you decide in which order to use them.
   - Mai says that it doesn’t matter in which order you use them. You will get the same discount either way.
   - Jada says that you should apply the 20% off coupon first, and then the $30 off coupon.
   - Han says that you should apply the $30 off coupon first, and then the 20% off coupon.
   - Kiran says that it depends on how much you are spending.

Do you agree with any of them? Explain your reasoning and provide evidence as to why you support or disagree with each person.

B. Katie and Margarita have $20.00 each to spend at Students' Choice book store, where all students receive a 20% discount. They both want to purchase a copy of the same book which normally sells for $22.50 plus 10% sales tax.
   - To check if she has enough to purchase the book, Katie takes 20% of $22.50 and subtracts that amount from the normal price. She takes 10% of the discounted selling price and adds it back to find the purchase amount.
   - Margarita takes 80% of the normal purchase price and then computes 110% of the reduced price.
Who is correct, Margarita or Katie? Compute both Katie’s and Margarita’s total and then explain how you know which person is correct. What mistake, if any, was made?

C. If you weren’t sure how much an item costs, and you had a 30% coupon for it, could you create an algebraic expression to help identify how much your total would be so that when you found out the item’s price you could just plug it into your expression? What about 15%? 45%?

Optional Extension: Track Your Day! (30 minutes)
Create a bar graph about your day to day activities. Let your x-axis represent the different activities you do and the y-axis represent percent from 0-100. A chart and graph are provided below. Think about some of the activities you do per day such as school work, sleep, exercise, and eating. Pick 10 different things you do on a given day. What percentage of the day are you doing these activities?

Example: there are 24 hours in a day, if I get 8 hours of sleep that would be \( \frac{8}{24} \) hours which when reduced is \( \frac{1}{3} \) or in percent, you slept for 33% of the day.

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<thead>
<tr>
<th>Activity</th>
<th>Minutes per Day</th>
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<th>Percentage of Day</th>
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7th Grade Science Project: How did the Manpupuner Rock Formations form?

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<tr>
<th>Estimated Time</th>
<th>120-130 minutes</th>
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<tbody>
<tr>
<td>Grade Level Standard(s)</td>
<td>MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.</td>
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<tr>
<td>Caregiver Support Option</td>
<td>Provide support as needed with reading and carrying out directions, reading texts, and discussing questions throughout the project packet.</td>
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<tr>
<td>Materials Needed</td>
<td>Paper, Pen or Pencil</td>
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<tr>
<td>Question to Explore</td>
<td>How did the Manpupuner Rock Formations form? How do sedimentary rock and igneous rock form? Where does the energy come from that drives these processes?</td>
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<tr>
<td>Student Directions</td>
<td>Directions for you to follow are provided in each activity. Answer any questions for which space is not provided on a separate sheet of paper. Let's do some science!</td>
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Activity 1: My Initial Ideas About Rock Formations (10 min.)
[Adapted from: Wonder of Science: https://docs.google.com/document/d/1DQNd3F4j_iX12TU9pRo7_Gsaco-AEMWNTv0Yga8xkU/edit]

A. Read and observe the information below, and then complete the task that follows on a separate sheet of paper.

The Manpupuner Rock Formation is found near the Ural Mountains in Russia.

<table>
<thead>
<tr>
<th>Highest point</th>
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<tr>
<td>Prominence</td>
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<tr>
<td>Coordinates</td>
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</table>

Geography

Location in Russia

Location
- Troitsko-Pechorsky District, Komi Republic, Russia

Geology

Age of rock
- 200 million years
Luis read this information to himself. He thought that the structures were so out of place because they seem in the middle of nowhere and there aren’t any big mountains or anything around. So he wondered: How did the Manpupuner Rock Formation form, and why is it shaped the way it is? He showed the picture to his friends and here’s what they said:

- Alejandro: “I think that the weather caused the rocks to look the way they do.”
- Alma: “I think they formed from magma that came up from under the earth and cooled.”
- Jayla: I think plate tectonics had something to do with how they formed."
- Terrence: “I don’t agree with any of your ideas. I think it formed some other way.”

1. Which friend do you agree with most? ______________________________. On a sheet of paper explain why you agree with that friend the most.

**Activity 2: How Do Rocks Form? (40 min.)**

A. Analyze the 3 figures below and then answer the questions that follow on a sheet of paper:

![Diagram of rock formation](image)

**Figure 1:**
B. Observe Figure 2 on the previous page and answer the questions below on a sheet of paper:

1. How does sediment form?

2. Observe the zoom-in’s (close-up’s) of Figure 2a and 2c below:
a. In figure 2c, why do you think the middle, Shale, layer looks the way it does?
b. Describe how you think sedimentary rock forms.

3. What drives the formation of sediment and, therefore, sedimentary rock? Choose one:
   ■ Energy from the Sun (which drives our weather)
   ■ Energy from Earth’s interior (which is very, VERY hot)

C. Observe Figure 3 on the previous page and answer the questions below on a sheet of paper:

4. How does igneous rock form?

5. What drives the formation of igneous rock? Choose one:
   ■ Energy from the Sun (which drives our weather)
   ■ Energy from Earth’s interior (which is very, VERY hot)

D. Make connections to the Manpupuner Rock Formations (from Activity 1):

6. Based on your observation of the figures in Activity 2, what new ideas do you have about how the Manpupuner Rock Formations formed?
   a. Be sure to use evidence to support your ideas.
   b. Draw if that helps you explain your ideas.

Activity 3: Rocks In My Neighborhood (15 min.)
[Source: Amplify Science - Rock Transformations Unit]

A. Work with a member of your household (or on your own) to examine rocks that you find near your home.
   a. Find two rocks that look different from each other.
   b. Discuss each rock with your family member and work together or on your own to describe what it looks and feels like.
   c. Then, think about how each rock you chose might have been formed. Explain to the member of your household how you think it might have been formed and describe what evidence you are using to decide how each rock might have been formed.
   d. Use the chart below to put down a few notes about your conversation.

- You may work with more than one member of your household.
- You might need to explain a little about how rocks are formed in order for the member of your household to be able to work with you.
Describe what you observe:

<table>
<thead>
<tr>
<th>Rock</th>
<th>Description of the rock:</th>
<th>How do you think it was formed? What is your evidence?</th>
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Activity 4: Devil's Tower Reading:

A. Take a look at this famous rock formation just a couple hours’ drive north of Chicago. Read and annotate the text, looking for information that describes weathering and melting.

Devils Tower [Source: Amplify Science - Rock Transformations Unit]

Far out in the wilderness of Wyoming, a giant rock formation towers above the landscape. Devils Tower is a natural wonder visited by thousands of tourists, hikers, and climbers each year. The Lakota and other American Indian tribes in the area consider the rock formation a sacred site. Legends describe
the columns of the tower being formed by the claws of a bear, and the Lakota name for the formation is Mato Tipila, which means “Bear’s Lodge.” In 1875, Mato Tipila was incorrectly translated into Bad God’s Tower, which later became Devils Tower. The formation has been a national monument since 1906, but people have been visiting this huge tower of rock for thousands of years. How did Devils Tower form, and why is it so much taller than the surrounding landscape?

Devils Tower is made of igneous rock, but is surrounded by sedimentary rock. These types of rock are formed by different processes. Exploring the different geological processes that formed Devils Tower can help explain its history.

This climber looks tiny compared to Devils Tower!

Devils Tower formed when magma pushed up through Earth’s surface and cooled into hard rock. Over time, the land around it eroded away, leaving a tower looming over a flat landscape.

When you first see Devils Tower rising up above the dry landscape, it’s hard to imagine that the whole region was once underwater. However, two hundred million years ago, this area of Wyoming was covered by a shallow sea. Blowing wind and falling rain weathered nearby rock formations over and over, causing small pieces to break off and become sediment. As bits of sediment ran into each other, they became smaller and smaller. They were driven downward by moving water and gravity. This erosion carried the sediment to the bottom of the sea. Over millions of years, compaction and cementation turned the sediment into solid sedimentary rock. Gradually, the sea drained away, leaving dry land in its place. That’s how the land around Devils Tower formed.

However, Devils Tower itself is not sedimentary rock. About 50 million years ago, rock underneath Earth’s outer layer in this region melted into magma. This only happens when rock gets up to very high temperatures—in the hundreds of degrees Celsius. Magma can cool to form different igneous rocks, depending on the way it melts. A column of the hot magma forced its way up into the layer of sedimentary rock, then cooled and became hard igneous rock called phonolite (FO-no-lite). After the magma solidified, it cracked into columns of rock. Over time, the sedimentary rock that
covered the igneous rock was weathered and eroded away by wind and water, leaving a tower of hard igneous rock standing like a skyscraper above the surrounding land.

The weathering of rocks into sediment isn’t uncommon—it happens to rocks all over the place. However, the revealing of the columns in Devils Tower as the sedimentary rock around it weathered and eroded away has made it a dramatic sight and attracted visitors from all over the world.

Even though the igneous columns of Devils Tower are very hard, they are slowly being weathered and eroded—that is, they are being worn away as wind and water remove bits of sediment from them. The tower that now stands is much smaller than the original mass of magma that pushed up from below. Millions of years from now, Devils Tower will be completely weathered and eroded away.

B. Based on the reading, describe at least two ways energy transformed rock matter as Devils Tower formed. Write your response on a sheet of paper.

Activity 4: Manpupuner Rock Formations

A. Read the information below:

The Manpupuner Rock Formation is found near the Ural Mountains in Russia. Over the past 200 million years the mountains around the rock structures have eroded away by weathering leaving these large pillars that are 30-40 meters in height. We will be attempting to determine the processes that formed the rocks in these formations.
B. In the box below draw a model of what this area may have looked like 20,000 years ago.

20,000 years ago

Today

Weathering

Geologists have determined that the Manpupuner Rock Formations are composed of solid sericite-quartzite schists (a type of metamorphic rock) which formed from sedimentary rocks in the area.

C. Using the diagram below, draw arrows to create a model showing a possible sequence of processes forming the Manpupuner Rock Formations starting with Magma.

D. Label each arrow with a number indicating the step in the process the arrow represents (i.e., 1, 2, 3, etc.).
E. Using the word bank below, identify the rock process that is causing the change by writing it next to the number.

Word Bank:
- cooling
- melting
- weathering
- compaction
- cementation

F. Choose two of the Earth processes identified in the model on the previous page.
   a. Write the number and name of the processes you choose in each table below.
   b. Location on Earth: Place an “x” on the appropriate box in the table.
   c. Energy Source: Place an “x” on the appropriate box in the table.
   d. Develop a model in the space provided that shows the process you selected.

<table>
<thead>
<tr>
<th>#</th>
<th>Process Name</th>
<th>Location on Earth</th>
<th>Energy Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>❑ surface ❑ Interior</td>
<td>❑ Sun ❑ Earth’s hot interior</td>
</tr>
</tbody>
</table>

Develop a Model

Using your rock cycle model from above, complete the table on the next page.
<table>
<thead>
<tr>
<th>#</th>
<th>Process Name</th>
<th>Location on Earth</th>
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</tr>
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<tr>
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</tr>
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<td></td>
<td></td>
<td>Interior</td>
<td>Earth’s hot interior</td>
</tr>
</tbody>
</table>

Develop a Model
7th Grade Social Science Project: Documenting and Remembering Events in History

Estimated Time | 120 minutes
Grade Level Standard(s) | SS.IS.4.6-8.LC. Determine the value of sources by evaluating their relevance and intended use.
| SS.IS.5.6-8.MdC. Identify evidence from multiple sources to support claims, noting its limitations.
| SS.IS.6.6-8.LC. Construct arguments using claims and evidence from multiple sources, while acknowledging their strengths and limitations.
Caregiver Support Option | It will be beneficial if the caregiver can read over the instructions, read articles with the student, and monitor vocabulary understanding.
Materials Needed | Paper (Notebook), pencil
Question to Explore
| ● What is the best way to remember events in history?
| ● What can history teach us about people and how they experience major events?
Student Directions
In this project, students will explore and evaluate ways we remember events in history. First, students will learn how diary entries are important for better understanding people’s experiences in the past. Secondly, students will analyze photos and the role of social media as ways of helping us learn about and remember moments in history. Lastly, students will write a diary entry that reflects how they are thinking about the power in documenting and remembering history.

Activity 1: Unpacking the Essential Questions - What is the best way to remember events in history? and What can history teach us about people and how they experience major events?

Think about a major event in your life history that you remember well.

A. Do you have anything from that time that helps you to remember what your experiences were and how you were feeling at the time? Is it a photo? A story that gets retold? An actual object or personal artifact?
B. Why do you think you decided to keep that item or retell that story?
C. Why do you think we hold on to items or stories after the event has passed?

Answer the following questions in your notebook.

D. What is a diary and why do people use them?
E. How do you keep records of a major moment or time in your life? Social media profile? Photos on your phone? Journaling? Which do you use most often and why?
F. What are some specific events during the Covid-19 pandemic that you think you will always remember? Have you recorded or documented them in some way? Or are the items you will hold onto after this time has passed?
G. Now, have a discussion with a family member or a friend - How do your answers compare?
H. Read and annotate the excerpts from the diary entries (Sources A and B) on the next page.

<table>
<thead>
<tr>
<th>Source ADiary Entry #1: Excerpts from Extracts from the diary of Anne Frank (1942-44)</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://alphahistory.com/holocaust/anne-frank-diary-1942-44/">https://alphahistory.com/holocaust/anne-frank-diary-1942-44/</a></td>
</tr>
</tbody>
</table>

The following diary entry excerpts are taken from Anne Frank between 1942 and 1944, when she lived in hiding in Amsterdam with her family. The Franks were discovered, arrested and transported to Auschwitz on August 4th 1944 during World War II.

October 20th 1942: “My hands still shaking, though it’s been two hours since we had the scare… The office staff stupidly forgot to warn us that the carpenter, or whatever he’s called, was coming to fill the extinguishers… After working for about fifteen minutes, he laid his hammer and some other tools on our bookcase (or so we thought!!) and banged on our door. We turned white with fear. Had he heard something after all and did he now want to check out this mysterious looking bookcase? It seemed so, since he kept knocking, pulling, pushing and jerking on it. I was so scared I nearly fainted at the thought of this total stranger managing to discover our wonderful hiding place…”

November 19th 1942: “Mr. Dussel has told us much about the outside world we’ve missed for so long. He had sad news. Countless friends and acquaintances have been taken off to a dreadful fate. Night after night, green and grey military vehicles cruise the streets. They knock on every door, asking whether any Jews live there. If so, the whole family is immediately taken away. If not, they proceed to the next house. It’s impossible to escape their clutches unless you go into hiding. They often go around with lists, knocking only on those doors where they know there’s a big haul to be made. They frequently offer a bounty, so much per head. It’s like the slave hunts of the olden days… I feel wicked sleeping in a warm bed, while somewhere out there my dearest friends are dropping from exhaustion or being knocked to the ground. I get frightened myself when I think of close friends who are now at the mercy of the cruelest monsters ever to stalk the earth. And all because they’re Jews.”

May 18th 1943: “All college students are being asked to sign an official statement to the effect that they ‘sympathize with the Germans and approve of the New Order.’ Eighty percent have decided to obey the dictates of their conscience, but the penalty will be severe. Any student refusing to sign will be sent to a German labour camp.”

March 29th 1944: “Mr. Bolkestein, the Cabinet Minister, speaking on the Dutch broadcast from London, said that after the war a collection would be made of diaries and letters dealing with the war. Of course, everyone pounced on my diary.”

February 3rd 1944: “I’ve reached the point where I hardly care whether I live or die. The world will keep on turning without me, and I can’t do anything to change events anyway. I’ll just let matters take their course and concentrate on studying and hope that everything will be all right in the end.”

July 15th 1944: “It’s utterly impossible for me to build my life on a foundation of chaos, suffering and death. I see the world being slowly transformed into a wilderness, I hear the approaching thunder that, one day, will destroy us too, I feel the suffering of millions. And yet, when I look up at the sky, I somehow feel that everything will change for the better, that this cruelty too will end, that peace and tranquility will return once more. In the meantime, I must hold on to my ideals. Perhaps the day will come when I’ll
be able to realize them."

Source B Diary Entry #2: Excerpt from Pandemic Influenza Outbreak on a Troop Ship—Diary of a Soldier in 1918 by Jennifer A. Summers, November 2012, Another Dimension, Centers for Disease Control and Prevention https://wwwnc.cdc.gov/eid/article/18/11/ad-1811_article This is a diary from a soldier in 1918 who describes aspects of a troop ship outbreak of the Spanish Flu of 1918. The soldier caught the flu, but did not die from it.

This diary is the only known document that describes this outbreak and provides information not officially documented concerning possible risk factors such as overcrowding and the suboptimal outbreak response by military leaders.

27 August (diary entry; 1 day after setting sail from Freetown, Sierra Leone):

Fairly warm and showers of rain occasionally. An epidemic of influenza seems to have broken out on board. Sixty odd on this morning’s sick parade and 24 admissions to the hospital. Have caught it myself of course but so far am able to get about & think I will hang out all right but feel very crook. Saw a few porpoises quite near the boat today. We are still travelling in the same formation but the distances from each boat varies. No band this morning, as a lot of the members are not well. This afternoon we pasted some music on to cards instead of practicing. This morning we had a lecture for half an hour on transport etc in England and was a most idiotic lecture too. Had no object in it that I could see.

10 September (diary entry; arriving in England):

Fine but very cold & sea fair. Land was in sight this morning and all very excited in the thought of getting on land again for good…. The country here looks really beautiful green fields and ploughed land with forests here and there. … One man died as we were coming into port.

I. Complete the graphic organizer and answer the questions.

<table>
<thead>
<tr>
<th>What are the events and feelings Anne Frank is documenting in her diary entry?</th>
<th>What are the events and feelings that the soldier is documenting in his diary entry?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
</tbody>
</table>

Answer the following in your notebook.

J. What information did you find most valuable from these sources? Why?
K. Why do you think we use diary entries as a way to study history?

Activity 2: Analyzing multiple sources to address the Essential Questions
Photo Analysis - Find two personal pictures. Answer in your notebook.

A. What was happening and what were you feeling during this time in your life?
Then, look at the following photos, Sources C, D, and E, and answer the following questions. Feel free to annotate the images - ask questions, circle powerful parts of the photos, write down how you feel.


Elizabeth Ann Eckford is one of the Little Rock Nine, a group of African-American students who, in 1957, were the first black students ever to attend classes at Little Rock Central High School in Little Rock, Arkansas. The integration came as a result of Brown v. Board of Education.


A shell of what was once part of the facade of one of the twin towers of New York's World Trade Center rises above the rubble that remains after both towers were destroyed in a terrorist attack Tuesday, Sept. 11, 2001. The 110-story towers collapsed after two hijacked airliners carrying scores of passengers slammed into the sides of the twin symbols of American capitalism. (AP Photo/Shawn Baldwin)
Source E: Photo from “US medical workers stand up to anti-lockdown protesters, Most Americans say they are concerned that coronavirus stay-at-home orders will be lifted too soon,” April 20, 2020, Al Jazeera

Healthcare workers stand in the street in counter-protest to hundreds of people who gathered at the State Capitol to demand the stay-at-home order be lifted in Denver, Colorado [Alyson McClaran/Reuters]

Now that you have annotated Source C, D and E, answer these questions in your notebook.

B. For each photograph, answer - What do you think people will remember about this moment in history by looking at this photograph?
C. Why do you think these have become iconic photographs in history?
D. How can a picture tell a story in a way that words cannot?
E. What questions would you ask these photographers that captured these moments in history?
F. How do diaries and photos compare in helping us to remember major events in history?

The role of social media in documenting history - Read and annotate Sources F and G.
Lasting images of the Spanish Flu pandemic of 1918 include rows of U.S. soldiers at the hospital ward at Camp Funston at Fort Riley, Kansas, or of Seattle police wearing masks to protect them from the spread of influenza. ... 

The question to ask today is how will the COVID-19 pandemic be remembered in the years, decades or centuries to come – especially as social media has allowed us to remain so in contact even in the age of social distancing. Will social media even help define this era?...

Social media allows for the instant sharing of information. ... This could impact how this current outbreak is remembered in the years to come.

"Through social media and the way we will be able to easily reference the past, people will not only be able to learn about how things unfolded via the media, historians or academia – they will also be able to witness how the general population was truly feeling and dealing with large scale events, like COVID," explained Jason Morgese, CEO & founder of Leavemark, an ad-free data storage and social media hybrid.

"They'll be able to see the recorded and unedited challenges faced from all different types of groups – from different economic statuses, different countries, even different areas within those countries (rural and urban)," added Morgese. In many ways social media could thus be the...
uncensored, unbiased look from the average person.

Now that you have annotated Source F and G, answer the following questions in your notebook.

G. How can social media help us to understand people and their experiences during major events?
H. In the future, what do you think people will remember most from this pandemic if they researched the social media posts from this time?
I. How is social media a powerful resource in documenting history? What are its limitations?
J. How do diaries, photos, and social media compare in helping us to remember major events in history?

Activity 3: Communicating Conclusions
Choose one of the options below (Option 1 or 2) to answer in your notebook - What is the best way to remember events in history? and What can history teach us about people and how they experience major events? As you think about your project, review the sources in Activities 1 and 2 and think about the power they hold in helping us to remember our history.

Option 1: Choose a character from one of the iconic photos in section A of Activity 2 and write a diary entry of that character’s point of view. Provide a date and location to be written that aligns with the time period. In your diary entry, be sure to be descriptive and address these questions
A. Who are you? A brief description about your identity as it pertains to what is happening in the photograph, i.e. “I am a teenager just trying to go to school.”
B. What is happening in the photograph? How is it making you feel?
C. What do you think about the other people in the photograph?
D. You just saw a journalist take a picture of you (this photo), what do you hope people will understand and remember about this moment in time?
E. What are your hopes for how this moment will be remembered in history?

Option 2: How do you think this pandemic will be remembered? Think about the events happening right now during the Covid-19 pandemic. Write two diary entries reflecting on two days from our time of social distancing. Please make sure to write down dates, times and location(s). As you are writing, be descriptive and address these questions and ideas
A. What events and/or news has had a major effect on you?
B. How are you feeling?
C. What have you been doing? How are you connecting with others?
D. Think about including drawings/sketches, photos, memes, social media posts in your diary. This could even be your own post. What did you include and why?
E. What are your hopes for how this is remembered in history?
F. If you were to read this 20 years from now, what would you want your future self to remember?
G. Understanding that your diary entry may be used as a primary source when historians look back at this moment in time, what will you want people to understand about you and others?

Activity 4: Reflection
A. How is writing a diary or documenting events beneficial for now and future generations?
B. What are the ways people can find solace during a crisis or pandemic?
C. What are ways youth can be involved in major events in history?

**Cross Content Connection:**
- **Social Science & Literacy:** While students are gathering evidence from various sources, they are considering the author's perspective and purpose and evaluating the credibility of the source. Students are then using sources to inform how they communicate conclusions in the form of diary entries.
- **Social Science and Art:** Students are analyzing photographs as powerful sources of information and history. Students are also provided the opportunity to draw a picture or use visuals to express how they are currently feeling or experiencing this time of social distancing.