

# 5th Grade

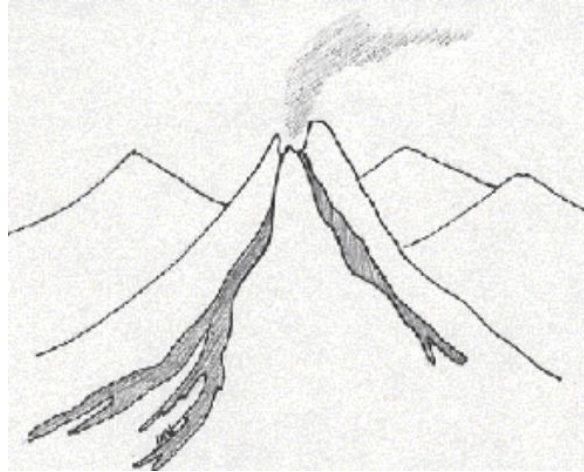
## May 4 - May 8



# Earth Science - Volcanoes

by ReadWorks

In Hawaii, there is an active volcano named Kilauea (*kill-a-way-a*). It is one of the most active volcanoes in the world.



Lynn M. Hanousek

*Illustration by Lynn M. Hanousek*

When plates in the earth spread apart, molten lava comes up from the planet's inner layers. It then spits out of the mouth of the volcano. Lava is very hot. It is 10 times as hot as boiling water. If you stand too close to flowing lava, your eyelashes and eyebrows will instantly burn off.

Lava spews out of a volcano. Sometimes it shoots high up into the air. Lava rivers quickly form and travel down the sides of the volcano. They are a grave danger to those who live on or around the volcano. Lava sets trees and houses on fire. If the flow is fast, people can die if they don't get out of the way in time.

Kilauea is a special volcano because it is on what used to be a small island. As lava rivers run into the ocean, it cools, hardens, and becomes earth, expanding the size of the island. In fact, all Hawaiian Islands were formed from the eruption of volcanoes.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Based on the text, what is Kilauea?

- A. a volcano
- B. a plate in the earth
- C. a lava river
- D. a Hawaiian island

2. Based on the text, what is the effect of molten lava coming up from the earth's inner layers?

- A. The lava becomes one of the most active volcanoes.
- B. The plates in the earth spread apart.
- C. The lava is spit out of the mouth of a volcano.
- D. The lava burns off people's eyelashes and eyebrows.

3. Read this paragraph from the text.

Kilauea is a special volcano because it is on what used to be a small island. As lava rivers run into the ocean, it cools, hardens, and becomes earth, expanding the size of the island. In fact, all Hawaiian Islands were formed from the eruption of volcanoes.

What can you conclude based on this evidence?

- A. Everytime Kilauea erupts, the size of the island it is on decreases because of the damage it creates.
- B. The number and size of Kilauea's eruptions impacts the size of the Hawaiian island it is located on.
- C. The Kilauea volcano makes the Hawaiian islands completely uninhabitable because of the toxicity of the smoke.
- D. As the lava for the Kilauea island runs into the ocean it makes the drinking water too contaminated to drink.

4. What can be inferred from the text?

- A. Living close to a volcano can be dangerous.
- B. Volcanoes usually destroy islands when they erupt.
- C. Touching molten lava would not hurt as much as boiling water.
- D. Kilauea is the only volcano on the Hawaiian islands.

5. What is the main idea of this text?

- A. Hawaii is in constant danger from the destruction of flowing lava.
- B. Volcanoes spew dangerous, molten lava and can create islands.
- C. Volcanoes only exist on islands because that is where lava is located.
- D. Kilauea is one of the most active volcanoes in the world.

6. Read these sentences from the text.

They are a **grave** danger to those who live on or around the volcano. Lava sets trees and houses on fire.

As used in these sentences, what does the word **grave** mean?

- A. small
- B. strange
- C. silent
- D. serious

7. Choose the answer that best completes the sentence.

Lava hardens when it cools, so \_\_\_\_\_ the rock can form new land.

- A. before
- B. on the other hand
- C. previously
- D. as a result

8. Based on the text, what dangers does lava cause?

9. Explain how volcanoes both create and destroy things. Use evidence from the text to support your answer.

# It Feels Good to Laugh

by Eric Messinger



## No joke: Laughter is good for you.

At age 11 in sixth grade, Jason was a very good student and an accomplished athlete. But one of his favorite talents had nothing to do with either school or sports. He loved to tell jokes.

"If the red house is made out of red bricks, and the blue house is made out of blue bricks, what's the green house made out of?" he asked me.

"Green?" I wondered aloud, sensing that it was probably a wrong answer.

"Glass!" he responded. "Get it? It's a greenhouse, with plants and everything."

Jason told all kinds of jokes, from silly ones with stupid punch lines to others that had clever wordplays. "I like to make my friends laugh," he said, "and sometimes I like telling jokes because it makes people feel better, like if someone's a little sad."

Jason may even be a better friend than he realized. Making people laugh not only improves moods but may also improve health. Several studies have found that laughter has a positive

effect. A good laugh boosts the *cardiovascular system*. That's your heart and blood. It also helps the *immune system*, your disease fighters. Laughter may even help you withstand pain.

## Health Screenings

Dr. Michael Miller has been studying laughter's influence on the heart and blood system. He teaches at the University of Maryland School of Medicine. In one of his studies, Miller had people watch two movies. One movie was very serious. The second was very silly. He then measured how much their blood vessels expanded after watching each kind of movie.

That is important information to know. When a blood vessel expands, it's often a sign that certain chemicals are being released into the blood. Those chemicals help a person maintain a healthy heart. They prevent blood from clotting where it shouldn't and arteries from becoming clogged with *plaque*. That's a sticky substance that can build up on artery walls.

Miller found that when people watched a funny movie, their blood vessels expanded and blood flow increased. How much? As much as it would have if they had gone to the gym for a 15- to 30-minute workout.

"Laughter should not replace exercise, but it certainly should be part of a healthy lifestyle," says Miller. "Everyone should try to get a good laugh in every day."

## Laugh to Feel Better

Like a multivitamin, laughter brings a range of health benefits into your daily life. Laughing boosts your immune system. Just look at the work of Dr. Lee Berk, of Loma Linda University in California. He is, by the way, a friend of Hunter "Patch" Adams's. If that name sounds familiar, it's because Adams is a funny doctor who became so famous that a movie was made about him. His interactions with his patients were like comedy routines.

Berk doesn't do bedside standup, but he does research humor. He has shown that laughing can lead to an increase in antibodies and other cells that fight bacteria, viruses, and other body "invaders."

Other studies show that laughter might be helpful for people in hospitals. An organization called Rx Laughter (*Rx* is the medical abbreviation for "prescription") sponsored a study about humor in the hospital. The results suggest that laughter might help children deal with painful medical

treatments.

The study involved children between the ages of 8 and 14. The kids placed their hands in cold water for as long as they could while watching funny old TV shows, such as *Love Lucy*. Guess what happened? The kids were able to withstand pain for a longer period of time when they were watching a funny video than when watching no video. Those who laughed more felt less pain.

"This means that humor can distract you from thinking about a painful procedure but also has the potential to make it seem less painful," says Dr. Margaret Stuber, the main researcher for the study. She works at the University of California at Los Angeles.

## Good Humor

As Stuber also points out, an "injection" of humor may even be good for your emotional health. Physical and emotional health are connected. "If you can say to yourself that [a medical treatment] wasn't as bad as you thought it would be, then you're less likely to have nightmares, fears about going to the doctor, and other related anxieties," she says.

No one is saying that laughter can cure a horrible disease. But given how much anxiety health problems can cause, researchers like Stuber are looking closer at laughter. They think laughter can almost always play a helpful role in someone's medical treatment. "Humor ... allows you to take a step back and relax," she says.

## You Think You're Funny?

Some people seem funnier than others. But you know what? Most people can improve their sense of humor with a little practice. How? Here are some tips.

- **Look for humor all around you** Sometimes it is obvious, such as the jokes people tell. Other things are not necessarily intended to be funny but can be if you look at them in a slightly different way. Funny things can include newspaper headlines or something someone says that could be interpreted more than one way.
- **At dinnertime, share the funny things you observed or heard during the day with the rest of your family.**
- **Set up a humor center at home** such as a bulletin board or the refrigerator, where you can post funny things you want to share.
- **Read a joke book.**

- If something makes you laugh, think about what would have made it even funnier.
- Take photographs or pictures from magazines and make up your own funny captions.
- Hang around with people you think are very funny.

The tips are from Louis Franzini. He's the author of *Kids Who Laugh: How to Develop Your Child's Sense of Humor*.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. According to the text, what is often a sign that certain chemicals are being released into the blood?

- A. when blood clots where it shouldn't
- B. when arteries are clogged with plaque
- C. when a blood vessel expands
- D. when a person watches a serious movie

2. Based on the text, what effect did funny movies have on blood vessels?

- A. It caused more anxiety.
- B. It created more antibodies.
- C. It made the blood vessels expand.
- D. It made the vessels laugh.

3. If you can make people laugh, they may be able to handle pain for a longer period of time.

What evidence from the text supports this conclusion?

- A. "No one is saying that laughter can cure a horrible disease. But given how much anxiety health problems can cause, researchers like Stuber are looking closer at laughter."
- B. "The kids were able to withstand pain for a longer period of time when they were watching a funny video than when watching no video."
- C. "Making people laugh not only improves moods but may also improve health. Several studies have found that laughter has a positive effect."
- D. "Miller found that when people watched a funny movie, their blood vessels expanded and blood flow increased."

4. Based on the text, why is laughter like a multivitamin?

- A. Laughter helps people remember their pain.
- B. Laughter clogs arteries with plaque like a multivitamin.
- C. Laughter helps build a healthy heart like a multivitamin.
- D. Laughter helps build a healthy immune system like a multivitamin.

5. What is this text mostly about?

- A. why laughter is good for health
- B. why some people are funnier than others
- C. how to tell a good joke
- D. why doctors are good comedians

6. Read these sentences from the text.

At age 11 in sixth grade, Jason was a very good student and an **accomplished** athlete. But one of his favorite talents had nothing to do with either school or sports.

As used in these sentences, what does the word "**accomplished**" mean?

- A. healthy and strong
- B. very good at something
- C. very funny
- D. cares about other people

7. Choose the word that best completes the sentence.

Laughter can increase blood flow like a workout, \_\_\_\_\_ it should not replace exercise.

- A. after
- B. although
- C. so
- D. because

8. Which two human systems does laughter have a positive effect on?

9. How could laughter possibly help prevent a cold? Use evidence from the text to support your answer.

# Ready for a Powwow



Don Heiny for Weekly Reader

*Nantai wears special Native American clothes at the powwow.*

The Quabbin Lake Singers are in tune with their culture. The group sings **powwows** or gatherings, to celebrate their Native American traditions. *Weekly Reader* was invited to a powwow in Connecticut where the singers recently performed.

In the past, powwows were religious ceremonies for Native Americans. Today, they are joyful, festive events that honor Native American life.

The Quabbin Lake Singers are all members of the Mann family. They are part of the Historical Nipmuc tribe in Massachusetts. *Nipmuc* means "freshwater people." The family includes three brothers: Sahyeed, 9; Nantai, 8; and Anoki, 7. Along with their parents, the boys sing at powwows in the Native American language of Nipmuc.

During the summer and on school vacations, the family travels around the United States and Canada. They combine old customs with new ones. The family performs ancient Native American songs and writes their own music. "Not only are we having fun," their dad told *Weekly Reader*, "but we're keeping our culture alive."

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Who are the Quabbin Lake Singers?

- A. two children who sing instead of going to school
- B. Native Americans who are part of a historic tribe in South Dakota
- C. members of a family who sing at powwows
- D. a family that lives in Canada but visits the United States during the summer

2. What does this passage describe?

- A. This passage describes the history of the Nipmuc Tribe in Massachusetts.
- B. This passage describes the Quabbin Lake Singers and powwows.
- C. This passage describes the mother of Sahyeed, Nantai, and Anoki Mann.
- D. This passage describes the dancing that takes place at powwows in Connecticut.

3. The Quabbin Lake Singers keep their Nipmuc culture alive by performing songs.

What evidence from the passage supports this statement?

- A. The Quabbin Lake Singers are all members of the Mann family, which includes three brothers.
- B. The Quabbin Lake Singers are all members of the Historical Nipmuc Tribe in Massachusetts.
- C. The songs performed by the Quabbin Lake Singers are in the Native American language of Nipmuc.
- D. During the summer and on school vacations, the Quabbin Lake Singers travel around the United States and Canada.

4. Based on the passage, how important are songs to Native American life and culture?

- A. very important
- B. slightly important
- C. not important
- D. less important than they used to be

5. What is this passage mostly about?

- A. the Quabbin Lake Singers, the songs they perform, and powwows
- B. Native American religion and how it has changed over the years
- C. what Sahyeed, Nantai, and Anoki Mann are studying in school
- D. a powwow in Connecticut where the Quabbin Lake Singers performed

6. Read these sentences: "Members of the family perform ancient Native American songs and write their own

music. 'Not only are we having fun,' the family's dad told Weekly Reader, 'but we're keeping our **culture** alive.'"

What does the word "**culture**" mean?

- A. people who move from one country to another
- B. money that singers and musicians make from concerts
- C. natural disasters that result in death and destruction
- D. the arts and customs of a group of people

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

Powwows were once religious ceremonies for Native Americans; \_\_\_\_\_, they are festivals that honor Native American life.

- A. previously
- B. currently
- C. soon
- D. never

8. What is a powwow?

9. According to the article, who recently performed at a powwow in Connecticut?

10. The passage describes powwows as "joyful, festive events that honor Native American life." Use evidence from the text to explain how powwows honor Native American life.

# Unit 5 Writing Prompt

## Research Paper

### Week 1 and 2

Week 1 and 2: Pick a topic and draft your Research Paper

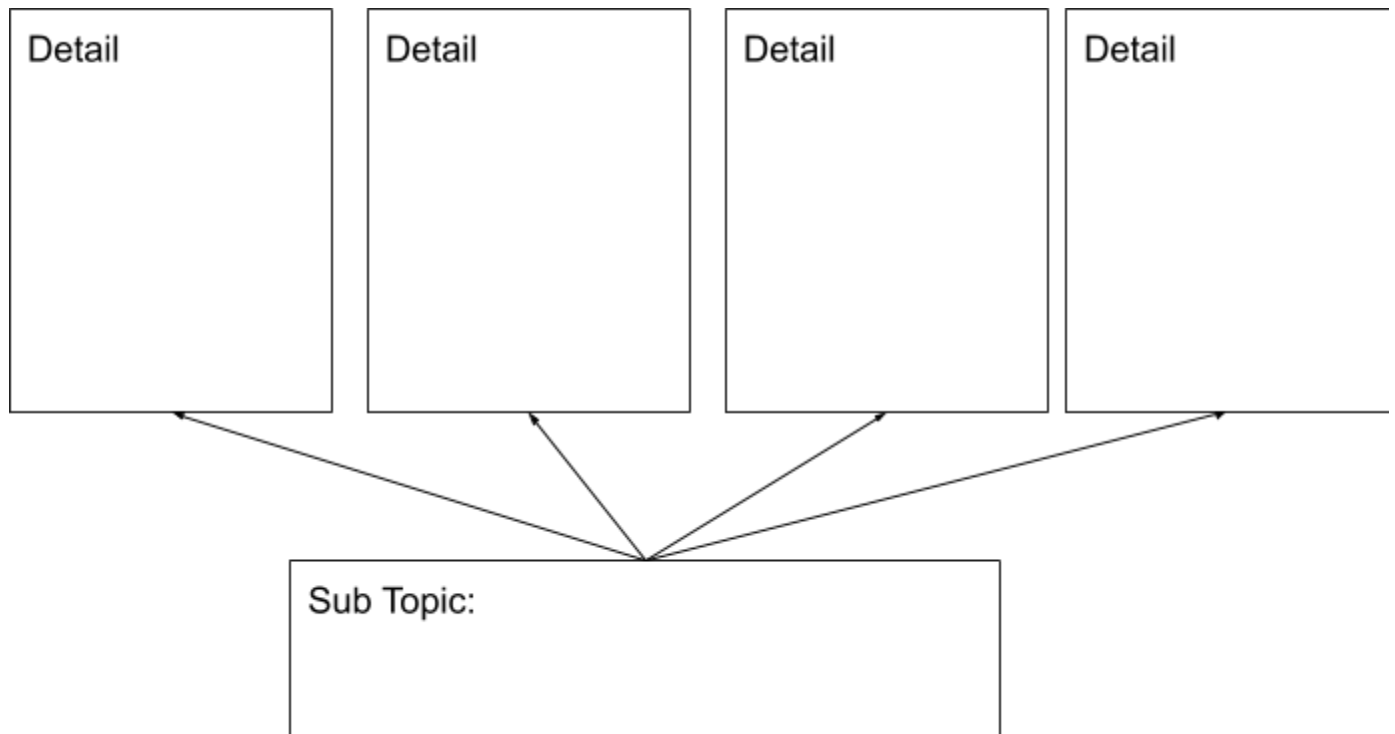
*Write about one science or technology topic. Write a research report telling about this topic.*

To help come up with an idea, ask yourself what you are interested in and what do you want to learn about this topic?

Examples of Scientific or Technological Topics you could write about:

- The discovery of the planets
- The invention of the world wide web
- How video games are developed
- Mammals of the sea

Week 1 - Use a graphic organizer like the one below to record some facts about your topic. You should come up with three subtopics within your main topic. Then the subtopic can be your Topic Sentence of each paragraph followed by details.



Week 2 - Continuing researching your topic and writing the rough draft.

Follow an outline like this when writing your research paper

Informational Writing

- 1. Introduction** 2-3
  - Lead / hook / grabber
  - Topic Sentence - Subtopics
- 2. Sub Topic 1** 5+
  - Topic Sentence
  - 3 or more details or facts
  - Closing Sentence
- 3. Sub Topic 2** 5+
  - Topic Sentence
  - 3 or more details or facts
  - Closing Sentence
- 4. Sub Topic 3** 5+
  - Topic Sentence
  - 3 or more details or facts
  - Closing sentence
- 5. Closing** 2-3
  - Tie it together
  - Mention 3 subtopics

Body

# Sheet for Rough Draft

Topic:

Introduction:

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Paragraph 1 (subtopic 1 with details)

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Paragraph 2 (subtopic 2 with details)

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Paragraph 3 (subtopic 3 with details)

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Conclusion:

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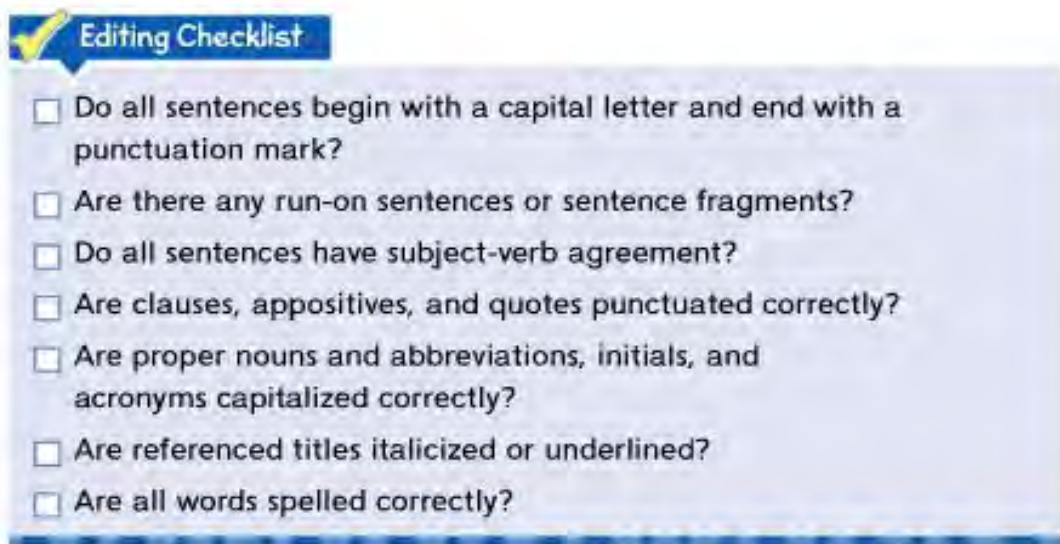
## Unit 5 Writing Prompts

### Research Paper

#### Week 3 and 4

#### Week 3 and 4 - Revising and Final copy

1. Now that you have your rough draft done. Make sure you have it in a 5 paragraph writing form. Once you are done with your draft. Have a family member read it and have them look for the following editing skills.



**Editing Checklist**

- ☐ Do all sentences begin with a capital letter and end with a punctuation mark?
- ☐ Are there any run-on sentences or sentence fragments?
- ☐ Do all sentences have subject-verb agreement?
- ☐ Are clauses, appositives, and quotes punctuated correctly?
- ☐ Are proper nouns and abbreviations, initials, and acronyms capitalized correctly?
- ☐ Are referenced titles italicized or underlined?
- ☐ Are all words spelled correctly?

2. Once you have checked your grammar using the editing checklist, write your final paper or type it. Make sure your paper follows these guidelines.
  - a. Guidelines for the Research Paper:
    - i. Introduces the topic in a way that captures readers' attention and clearly states the purpose of the report.
    - ii. Provides research facts, specific details, examples, and explanations relevant to the topic.
    - iii. Information is presented in a logical order
3. Publish your paper to your teacher. Here are different ways your teacher would love to see your research paper.
  - a. Email it to your teacher
  - b. Share it, if you typed it in google docs.
  - c. Take a picture of it and send it to your teacher through dojo messenger.

# Final Copy Sheet

Topic:

Introduction:

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Paragraph 1 (subtopic 1 with details)

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Paragraph 2 (subtopic 2 with details)

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Paragraph 3 (subtopic 3 with details)

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Conclusion:

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# Fifth Grade Writing Prompts

## Persuasive Essay Writing Prompts

Persuasive essays are those written to convince another person to agree with the writer or take action. These persuasive essay prompts inspire 5th graders to share their passions with an audience.

1. **Pets Day.** You've just gone to work with your parent for "bring your child to work day." Write an essay convincing your school to have a "bring your pet to school" day.
2. **Yuck.** What is your least-favorite cafeteria food? Give three compelling reasons why your school should quit serving it.
3. **Let's Trade.** Your friend's lunches from home always look better than yours. Write an essay convincing your buddy that you should start swapping meals every day. Be sure to highlight the benefits of the food you bring!
4. **Home Alone.** Write an essay convincing your parents that you are old enough and responsible enough to stay at home alone.
5. **Sunny Day.** The weather outside is beautiful for the first time in weeks. Persuade your teacher not to assign any homework so that you'll have time to go out to play.
6. **The Sequel.** The long-awaited sequel to your favorite book or video game is now available. Convince your brother or sister to do your chores this week so that you have plenty of time for reading or gaming.
7. **Seating Chart.** Because of your teacher's seating chart, you're not going to be able to sit next to your friend all year! Persuade your teacher to let students choose their seats.
8. **Birth Order.** Are you an only child, the oldest sibling, the youngest, or the middle? What makes your birth order the best?
9. **The Ultimate Game.** What is the best video game on the planet? Explain why it's better than similar games.
10. **Life Lessons.** What are the three most important lessons parents should teach their children and why?

11. **Test Time.** Do you think standardized tests are helpful or harmful? Explain your answer.
12. **Tunes.** Some studies have shown that listening to music can help students concentrate. Should students be allowed to listen to music using headphones during independent work times at school? Persuade the reader of your answer.
13. **Catch-22.** You're not a big fan of writing. Write an essay convincing your teacher that you shouldn't have to write any more essays this year.

## Expository Essay Writing Prompts

Expository essays are often called how-to essays. They usually teach the reader something or provide facts about a particular topic.

1. **Let's Play.** Your family frequently attends community theater productions, but your friend has never seen one. Write an essay describing what he or she can expect during the evening.
2. **Band.** You're graduating elementary school, and a younger student is taking your spot in the school band. Explain to him or her how to clean and care for your musical instrument.
3. **Lessons Learned.** Write an essay to a younger sibling explaining two or three key strategies for having a positive 5th-grade experience.
4. **Class Pet.** You've cared for your class pet this week, but now it's another classmate's turn. Explain how to feed and care for the pet properly.
5. **Upgrade Ahead.** You have an idea to improve your school. Explain it.
6. **Safety Zone.** Explain three of the best steps kids can take to be safe online.
7. **Family Traditions.** Does your family have any customs or traditions that might be unfamiliar to a classmate? Describe them.
8. **Pen Pal.** Describe for your pen pal who lives in another state an animal native to your area, including its physical characteristics, behaviors, and any sounds that it makes.
9. **Creepy Crawlies.** Compare and contrast two insects or animals that are similar, but have different characteristics such as a bumblebee and a

yellow jacket or a horse and a mule. How are they alike and how are they different?

10. **Clean Up.** Your class is going to spend a day cleaning up at a local park. You've done this with another group before, but some of your classmates haven't. Explain the process.
11. **Action.** Your favorite book was made into a movie. Compare and contrast the film and book versions.
12. **Team Players.** Explain how contributing responsibly helps or how it hurts a group when someone doesn't do his part.
13. **Tell and Show.** Your class is having a "tell and show" day. You have to describe your item in as much detail as possible without naming it. Only when the class guesses or gives up can you show your item. Write out the description of your item

Name \_\_\_\_\_

- **Comparative adjectives** compare two nouns or pronouns. Add *-er* to most adjectives to compare two items.
- **Superlative adjectives** compare more than two nouns or pronouns. Add *-est* to most adjectives to compare more than two items.
- Drop the *e* in adjectives such as *pale* before adding *-er* or *-est*: *palest*. Change the *y* to *i* in adjectives such as *sunny*: *sunnier*. For one-syllable adjectives such as *red*, double the final consonant: *reddest*.

Read each sentence. Write the proper form of the adjective in parentheses on the line provided.

1. My cousin is the (funny) person I know. \_\_\_\_\_
2. She is also a (strong) swimmer than I am. \_\_\_\_\_
3. She lives in a (large) town than ours. \_\_\_\_\_
4. Her school has a (big) campus than we do. \_\_\_\_\_
5. Our school has the (small) stadium in the state. \_\_\_\_\_
6. We have (pretty) parks than her town, though. \_\_\_\_\_
7. Our town's lake has one of the (sandy) beaches around. \_\_\_\_\_
8. The water also tends to be the (cold) of all, too. \_\_\_\_\_
9. This year, I spent a (short) amount of time with my cousin than last year.  
\_\_\_\_\_
10. We have already scheduled a (lengthy) visit than our last one. \_\_\_\_\_



In your writer's notebook, write a short passage describing a family member or friend. Describe this person using two comparative adjectives and two superlative adjectives. Edit and proofread your work using the spelling rules for forming adjectives.



Name \_\_\_\_\_

- Use **more** in front of most long adjectives to compare two items.

*This book is more interesting than the last one I read.*

- Use **most** in front of most long adjectives to compare more than two items.

*This is the most interesting book I have ever read.*

**Read each sentence. Write the proper form of the adjective in parentheses on the line provided.**

1. The mountain climbers' club was planning its (exciting) trip yet.  
\_\_\_\_\_
2. It would certainly be a (dangerous) outing than the last one. \_\_\_\_\_
3. Some climbers were (worried) than others. \_\_\_\_\_
4. The (concerned) club member of all asked many questions. \_\_\_\_\_
5. The mountain had some of the (icy) slopes the group had seen. \_\_\_\_\_
6. After hearing the answers, the member felt (confident) than before.  
\_\_\_\_\_
7. The climbers discussed which tools would be (useful) than others. \_\_\_\_\_
8. They agreed that safety was the (essential) thing to consider. \_\_\_\_\_
9. People were (talkative) during the latter half of the meeting. \_\_\_\_\_
10. For many, this would be the (adventurous) thing they had ever done!  
\_\_\_\_\_



**In your writer's notebook, write a short fictional passage about an adventure you might go on with a club. Include at least five comparative or superlative adjectives. Make sure to follow the spelling rules for adjectives.**

Name \_\_\_\_\_

- Never use *more* and *-er* with the same adjective.
- Never use *most* and *-est* with the same adjective.

**Read each sentence. Choose which word or words in parentheses best complete the sentence. Write your answer on the line provided.**

- Mom gathered the (most freshest, freshest) vegetables she could find.  
\_\_\_\_\_
- She wanted to make the (more, most) delicious soup ever. \_\_\_\_\_
- First, she chose the (most ripe, ripest) tomatoes in the garden. \_\_\_\_\_
- Then she chopped up some of the (greenest, most green) peppers. \_\_\_\_\_
- It was a (healthier, more healthier) soup than the last one. \_\_\_\_\_

**Reading/Writing  
Connection**

**Read the paragraph from “Musical Impressions of the Great Depression.” Underline the superlative adjective. Then write a paragraph about how music affects you. Use three comparative or superlative adjectives. Edit and proofread your work.**

By the end of the 1930s, the hardest days of the Great Depression had passed. Times had been tough, but music had offered a way for people to share their fears and keep up their hopes. The music remains a legacy of this era that has inspired musicians to this day.

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Name \_\_\_\_\_

- **Comparative adjectives** compare two nouns or pronouns. Add *-er* to most adjectives to compare two items. **Superlative adjectives** compare more than two items. Add *-est* to most adjectives to compare more than two items.
- Use ***more*** in front of most long adjectives to compare two items. Use ***most*** in front of most long adjectives to compare more than two items.
- Never use *more* and *-er* with the same adjective. Never use *most* and *-est* with the same adjective.

**Proofread the paragraph. On the lines below, correct mistakes in adjective usage and the formation of comparatives and superlatives.**

After our ride, my bike was more dirty than a dog in a mud puddle. I thought about making it cleanest than it was before by hosing it down. My sister does that, but her bike is the most rustiest one in town. Dad usually has the usefulest suggestions in the family, so I asked his advice. He said that the hose was the quicker solution of all, but that a carefuller person than my sister would also wipe the bike dry afterward.

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Name \_\_\_\_\_

**Read the student draft and look for any corrections that need to be made. Then choose the best answer to each question.**

(1) For me, math is a hard subject than science. (2) Today's homework is even difficult than yesterday's. (3) Even the most smart student in the class had trouble! (4) Our teacher suggested an easier way to do the assignment. (5) He always has the most intelligentest solution to every problem. (6) With his help, I finished my work fastest than anyone else in the class.

1. What change needs to be made in sentence 1?
  - A Change **hard** to **harder**
  - B Change **hard** to **hardest**
  - C Change **a** to **an**
  - D Change **a** to **the**
2. What change, if any, should be made in sentence 2?
  - F Change **difficult** to **difficulter**
  - G Change **difficult** to **most difficult**
  - H Change **difficult** to **more difficult**
  - J Make no change
3. What change, if any, should be made in sentence 3?
  - A Change **most smart** to **smartest**
  - B Change **most smart** to **smarter**
  - C Change **most smart** to **most smartest**
  - D Make no change
4. How does sentence 4 need to be changed?
  - F Change **easier** to **easiest**
  - G Change **easier** to **easier**
  - H Change **easier** to **more easy**
  - J Change **easier** to **most easy**
5. What is the correct way to write sentence 5?
  - A He always has the more intelligent solution to every problem.
  - B He always has the most intelligenter solution to every problem.
  - C He always has the intelligentest solution to every problem.
  - D He always has the most intelligent solution to every problem.
6. What is the correct way to write sentence 6?
  - F With his help, I finished my work faster than anyone else in the class.
  - G With his help, I finished my work more faster than anyone else in the class.
  - H With his help, I finished my work most fastest than anyone else in the class.
  - J With his help, I finished my work faster than anyone else in the class.

Name \_\_\_\_\_

Fold back the paper along the dotted line. Use the blanks to write each word as it is read aloud. When you finish the test, unfold the paper. Use the list at the right to correct any spelling mistakes.

- |                                  |                     |
|----------------------------------|---------------------|
| 1. _____                         | 1. sadness          |
| 2. _____                         | 2. gladness         |
| 3. _____                         | 3. needless         |
| 4. _____                         | 4. harmless         |
| 5. _____                         | 5. darkness         |
| 6. _____                         | 6. fullness         |
| 7. _____                         | 7. stillness        |
| 8. _____                         | 8. hopeless         |
| 9. _____                         | 9. fearless         |
| 10. _____                        | 10. weakness        |
| 11. _____                        | 11. bottomless      |
| 12. _____                        | 12. foolishness     |
| 13. _____                        | 13. fondness        |
| 14. _____                        | 14. effortless      |
| 15. _____                        | 15. meaningless     |
| 16. _____                        | 16. emptiness       |
| 17. _____                        | 17. forgiveness     |
| 18. _____                        | 18. motionless      |
| 19. _____                        | 19. ceaseless       |
| 20. _____                        | 20. fierceness      |
| <b>Review Words</b> 21. _____    | 21. disobey         |
| 22. _____                        | 22. mistrust        |
| 23. _____                        | 23. preview         |
| <b>Challenge Words</b> 24. _____ | 24. weightlessness  |
| 25. _____                        | 25. thoughtlessness |

Name \_\_\_\_\_

A **suffix** is a group of letters added to the end of a word. It changes the word's meaning and part of speech. Two common suffixes are *-less* and *-ness*.

- **-less** ("without"): *wireless, endless*
- **-ness** ("state of being"): *willingness*

Read each spelling word aloud.

### DECODING WORDS

Many words that end in *-y* change spelling when adding *-ness* or *-less*. In the word *mercy*, change the *y* to an *i*: *merciless*. Read *merciless* aloud and use the suffix to determine its meaning.

Write the spelling words that match the syllable pattern and suffix.

sadness	darkness	fearless	fondness	forgiveness
gladness	fullness	weakness	effortless	motionless
needless	stillness	bottomless	meaningless	ceaseless
harmless	hopeless	foolishness	emptiness	fierceness

#### two-syllable words with *-less*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### two-syllable words with *-ness*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### three-syllable words with *-less*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### three-syllable words with *-ness*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Look through this week's readings for more words with suffixes. Record the words you find in your writer's notebook. Then use your knowledge of suffixes to determine their meaning.

Name \_\_\_\_\_

A **suffix** is a group of letters added to the end of a word. It changes the word's meaning and part of speech. Two common suffixes are *-less* and *-ness*.

- **-less** ("without"): *wireless, endless*
- **-ness** ("state of being"): *willingness*

Read each spelling word aloud.

### DECODING WORDS

Many words that end in *-y* change spelling when adding *-ness* or *-less*. In the word *mercy*, change the *y* to an *i*: *merciless*. Read *merciless* aloud and use the suffix to determine its meaning.

Write the spelling words that match the syllable pattern and suffix.

sadness	darkness	fearless	fondness	forgiveness
gladness	fullness	weakness	effortless	motionless
needless	stillness	bottomless	restless	tireless
harmless	hopeless	foolishness	happiness	goodness

#### two-syllable words with *-less*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### two-syllable words with *-ness*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### three-syllable words with *-less*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

#### three-syllable words with *-ness*

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Look through this week's readings for more words with suffixes. Record the words you find in your writer's notebook. Then use your knowledge of suffixes to determine their meaning.

Name \_\_\_\_\_

**A. Write the spelling words that match the syllable pattern and suffix.**

vastness	peacefulness	sleeveless	fondness	forgiveness
eariness	numbness	weakness	effortless	motionless
breathless	stillness	bottomless	meaningless	ceaseless
harmless	merciless	foolishness	emptiness	fierceness

**two-syllable words  
with *-less***

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**three-syllable words  
with *-less***

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

**two-syllable words  
with *-ness***

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

**three-syllable words  
with *-ness***

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_

**B. Compare the words *foolishness* and *meaningless*. How are they alike? How are they different?**


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Look through this week's readings for more words with suffixes. Record the words you find in your writer's notebook. Then use your knowledge of suffixes to determine their meaning.



Name \_\_\_\_\_

sadness	darkness	fearless	fondness	forgiveness
gladness	fullness	weakness	effortless	motionless
needless	stillness	bottomless	meaningless	ceaseless
harmless	hopeless	foolishness	emptiness	fierceness

**A. Write the spelling word that matches each definition below.**

1. sorrow; unhappiness \_\_\_\_\_
2. without stopping \_\_\_\_\_
3. desperate; doomed \_\_\_\_\_
4. quietness; calm \_\_\_\_\_
5. safe; innocent \_\_\_\_\_
6. easy; without force \_\_\_\_\_
7. deep; unlimited \_\_\_\_\_
8. happiness; pleasure \_\_\_\_\_
9. not moving \_\_\_\_\_
10. brave; not afraid \_\_\_\_\_

**B. Write the spelling word that best completes each sentence.**

11. Our voices echoed in the \_\_\_\_\_ of the large room.
12. The child drew \_\_\_\_\_ scribbles on paper.
13. It was \_\_\_\_\_ to ask the question more than once.
14. We laughed at the circus clown's \_\_\_\_\_.
15. She enjoys reading and has a \_\_\_\_\_ for science fiction.
16. He was sorry and asked for \_\_\_\_\_.
17. It was hard to find our way in the inky \_\_\_\_\_.
18. My arm still has some \_\_\_\_\_ because of the injury.
19. The cat arched its back and hissed with \_\_\_\_\_.
20. After a few hours, the balloons lost some of their \_\_\_\_\_.

Name \_\_\_\_\_

**Underline the six misspelled words in the paragraphs below. Using your knowledge of suffixes, write the words correctly on the lines.**

Imagine you are camping with your family in Great Smoky Mountains National Park. You see a black bear cub in the woods. It looks cute and harmliiss. What should you do? Should you approach it or stay motionles? What if its mother is nearby? Mother bears have a reputation for fiercenase!

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

In warm weather, bears are most active in the morning and as darknese begins to fall. You can avoid needlass danger by never approaching or feeding a bear. Don't let your fondnis for animals get you in trouble. Visit the park's web site to learn about bears before your trip, and then stay away from them!

4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_

**Writing Connection**

**Write information about staying safe in another vacation spot. Use at least four spelling words in your writing.**

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Name \_\_\_\_\_

**Remember**

A **suffix** is a group of letters added to the end of a word. It changes the base word's meaning and part of speech. Here are two common suffixes.

- **-less**, means "without": *limitless, windowless*
- **-ness**, means "state of being": *silkeness, freshness*

Read these words aloud. Then determine their meaning using your knowledge of suffixes.

sadness	darkness	fearless	fondness	forgiveness
gladness	fullness	weakness	effortless	motionless
needless	stillness	bottomless	meaningless	ceaseless
harmless	hopeless	foolishness	emptiness	fierceness

**A. Add the suffix to form a spelling word. Write the spelling word.**

- |                           |                            |
|---------------------------|----------------------------|
| 1. meaning + less = _____ | 9. cease + less = _____    |
| 2. glad + ness = _____    | 10. still + ness = _____   |
| 3. full + ness = _____    | 11. fierce + ness = _____  |
| 4. bottom + less = _____  | 12. effort + less = _____  |
| 5. dark + ness = _____    | 13. sad + ness = _____     |
| 6. fond + ness = _____    | 14. harm + less = _____    |
| 7. fear + less = _____    | 15. forgive + ness = _____ |
| 8. weak + ness = _____    |                            |

**B. Write these spelling words on the lines in reverse alphabetical order: *needless, hopeless, foolishness, emptiness, motionless.***

- |           |           |           |
|-----------|-----------|-----------|
| 16. _____ | 18. _____ | 20. _____ |
| 17. _____ | 19. _____ |           |

Name \_\_\_\_\_

A **pun** is a humorous way of using a word or phrase so that more than one meaning is suggested. Puns use words with multiple meanings or words that sound like other words. For example: *When a clock is hungry, it goes back four seconds.* The literal meaning is that a hungry clock will go back four seconds in time. The non-literal meaning is that a hungry clock will go back for seconds, or to get more to eat.

Read each pair of sentences below. Identify the sentence that contains a pun. In each sentence that you choose, circle the multiple-meaning word or words that sound like other words. Then explain what the pun really means (literal meaning) and what is implied (non-literal meaning).

- Bakers may not be broke, but they often knead dough.
- A good cook understands how flavors work together.

Literal Meaning

Non-Literal Meaning

- The best way to overcome a fear is to face it.
- I used to have a fear of hurdles, but I got over it.

Literal Meaning

Non-Literal Meaning



Hunt for more multiple-meaning words and homophones with a partner. Then work together to write a short dialogue that includes at least one pun. Write it in your writer's notebook.

Name \_\_\_\_\_

An **idiom** is an expression that cannot be understood from the literal meanings of the words in it. To figure out the meaning of an unfamiliar idiom, you can look for clues in the sentence or surrounding sentences.

This sentence uses the idiom “don’t make a mountain out of a molehill”: *Sonya told Felix not to make a mountain out of a molehill when he threw a fit about stubbing his toe.* You can use the clue “stubbing his toe” to determine that the idiom means “Don’t make a big deal out of a small thing.” Stubbing a toe is a small thing to throw a big fit over.

Read each passage from “Nancy’s First Interview.” Underline the idiom in each one. Then, on the lines below the passage, restate the idiom in your own words.

1. “You’re really putting me on the spot,” he said to the person at the other end of the line. “I already have a commitment today, Jim.”

\_\_\_\_\_

\_\_\_\_\_

2. After the stock market crash of 1929, his newspaper had laid off most of the reporters. Four years later, they still had only a skeleton crew. He was glad to have a job, but he was overworked and underpaid.

\_\_\_\_\_

\_\_\_\_\_

3. He explained that they had owned a farm in Oklahoma, but lost it when costs rose. “Upkeep cost an arm and a leg, and the drought killed our chances of a good crop.”

\_\_\_\_\_

\_\_\_\_\_

4. Mr. Jenson grinned and ruffled Nancy’s hair. “I taught her everything she knows,” he said. “She’s a chip off the old block.”

\_\_\_\_\_

\_\_\_\_\_

**A**

# Correct \_\_\_\_\_

Add.

1	$3 + 1 =$		23	$5 + 0.1 =$	
2	$3.5 + 1 =$		24	$5.7 + 0.1 =$	
3	$3.52 + 1 =$		25	$5.73 + 0.1 =$	
4	$0.3 + 0.1 =$		26	$5.736 + 0.1 =$	
5	$0.37 + 0.1 =$		27	$5.736 + 1 =$	
6	$5.37 + 0.1 =$		28	$5.736 + 0.01 =$	
7	$0.03 + 0.01 =$		29	$5.736 + 0.001 =$	
8	$0.83 + 0.01 =$		30	$6.208 + 0.01 =$	
9	$2.83 + 0.01 =$		31	$3 + 0.01 =$	
10	$30 + 10 =$		32	$3.5 + 0.01 =$	
11	$32 + 10 =$		33	$3.58 + 0.01 =$	
12	$32.5 + 10 =$		34	$3.584 + 0.01 =$	
13	$32.58 + 10 =$		35	$3.584 + 0.001 =$	
14	$40.789 + 1 =$		36	$3.584 + 0.1 =$	
15	$4 + 1 =$		37	$3.584 + 1 =$	
16	$4.6 + 1 =$		38	$6.804 + 0.01 =$	
17	$4.62 + 1 =$		39	$8.642 + 0.001 =$	
18	$4.628 + 1 =$		40	$7.65 + 0.001 =$	
19	$4.628 + 0.1 =$		41	$3.987 + 0.1 =$	
20	$4.628 + 0.01 =$		42	$4.279 + 0.001 =$	
21	$4.628 + 0.001 =$		43	$13.579 + 0.01 =$	
22	$27.048 + 0.1 =$		44	$15.491 + 0.01 =$	

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**A**

# Correct \_\_\_\_\_

Subtract.

1	$5 - 1 =$	.	23	$7.985 - 0.002 =$	.
2	$5.9 - 1 =$	.	24	$7.985 - 0.004 =$	.
3	$5.93 - 1 =$	.	25	$2.7 - 0.1 =$	.
4	$5.932 - 1 =$	.	26	$2.785 - 0.1 =$	.
5	$5.932 - 2 =$	.	27	$2.785 - 0.5 =$	.
6	$5.932 - 4 =$	.	28	$4.913 - 0.4 =$	.
7	$0.5 - 0.1 =$	.	29	$3.58 - 0.01 =$	.
8	$0.53 - 0.1 =$	.	30	$3.586 - 0.01 =$	.
9	$0.539 - 0.1 =$	.	31	$3.586 - 0.05 =$	.
10	$8.539 - 0.1 =$	.	32	$7.982 - 0.04 =$	.
11	$8.539 - 0.2 =$	.	33	$6.126 - 0.001 =$	.
12	$8.539 - 0.4 =$	.	34	$6.126 - 0.004 =$	.
13	$0.05 - 0.01 =$	.	35	$9.348 - 0.006 =$	.
14	$0.057 - 0.01 =$	.	36	$8.347 - 0.3 =$	.
15	$1.057 - 0.01 =$	.	37	$9.157 - 0.05 =$	.
16	$1.857 - 0.01 =$	.	38	$6.879 - 0.009 =$	.
17	$1.857 - 0.02 =$	.	39	$6.548 - 2 =$	.
18	$1.857 - 0.04 =$	.	40	$6.548 - 0.2 =$	.
19	$0.005 - 0.001 =$	.	41	$6.548 - 0.02 =$	.
20	$7.005 - 0.001 =$	.	42	$6.548 - 0.002 =$	.
21	$7.905 - 0.001 =$	.	43	$6.196 - 0.06 =$	.
22	$7.985 - 0.001 =$	.	44	$9.517 - 0.004 =$	.

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**A**

# Correct \_\_\_\_\_

Solve.

1	$10 \times 10 =$		23	$24 \times 10^2 =$	
2	$10^2 =$		24	$24.7 \times 10^2 =$	
3	$10^2 \times 10 =$		25	$24.07 \times 10^2 =$	
4	$10^3 =$		26	$24.007 \times 10^2 =$	
5	$10^3 \times 10 =$		27	$53 \times 1000 =$	
6	$10^4 =$		28	$53 \times 10^3 =$	
7	$3 \times 100 =$		29	$53.8 \times 10^3 =$	
8	$3 \times 10^2 =$		30	$53.08 \times 10^3 =$	
9	$3.1 \times 10^2 =$		31	$53.082 \times 10^3 =$	
10	$3.15 \times 10^2 =$		32	$9.1 \times 10,000 =$	
11	$3.157 \times 10^2 =$		33	$9.1 \times 10^4 =$	
12	$4 \times 1000 =$		34	$91.4 \times 10^4 =$	
13	$4 \times 10^3 =$		35	$9.104 \times 10^4 =$	
14	$4.2 \times 10^3 =$		36	$9.107 \times 10^4 =$	
15	$4.28 \times 10^3 =$		37	$1.2 \times 10^2 =$	
16	$4.283 \times 10^3 =$		38	$0.35 \times 10^3 =$	
17	$5 \times 10,000 =$		39	$5.492 \times 10^4 =$	
18	$5 \times 10^4 =$		40	$8.04 \times 10^3 =$	
19	$5.7 \times 10^4 =$		41	$7.109 \times 10^4 =$	
20	$5.73 \times 10^4 =$		42	$0.058 \times 10^2 =$	
21	$5.731 \times 10^4 =$		43	$20.78 \times 10^3 =$	
22	$24 \times 100 =$		44	$420.079 \times 10^2 =$	

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## Day 1

**Problem:** A bag of potato chips contains 0.96 grams of sodium. If the bag is split into 8 equal servings, how many grams of sodium will each serving contain?

Bonus: What other ways can the bag be divided into equal servings so that the amount of sodium in each serving has two digits to the right of the decimal and the digits are greater than zero in the tenths and hundredths place?

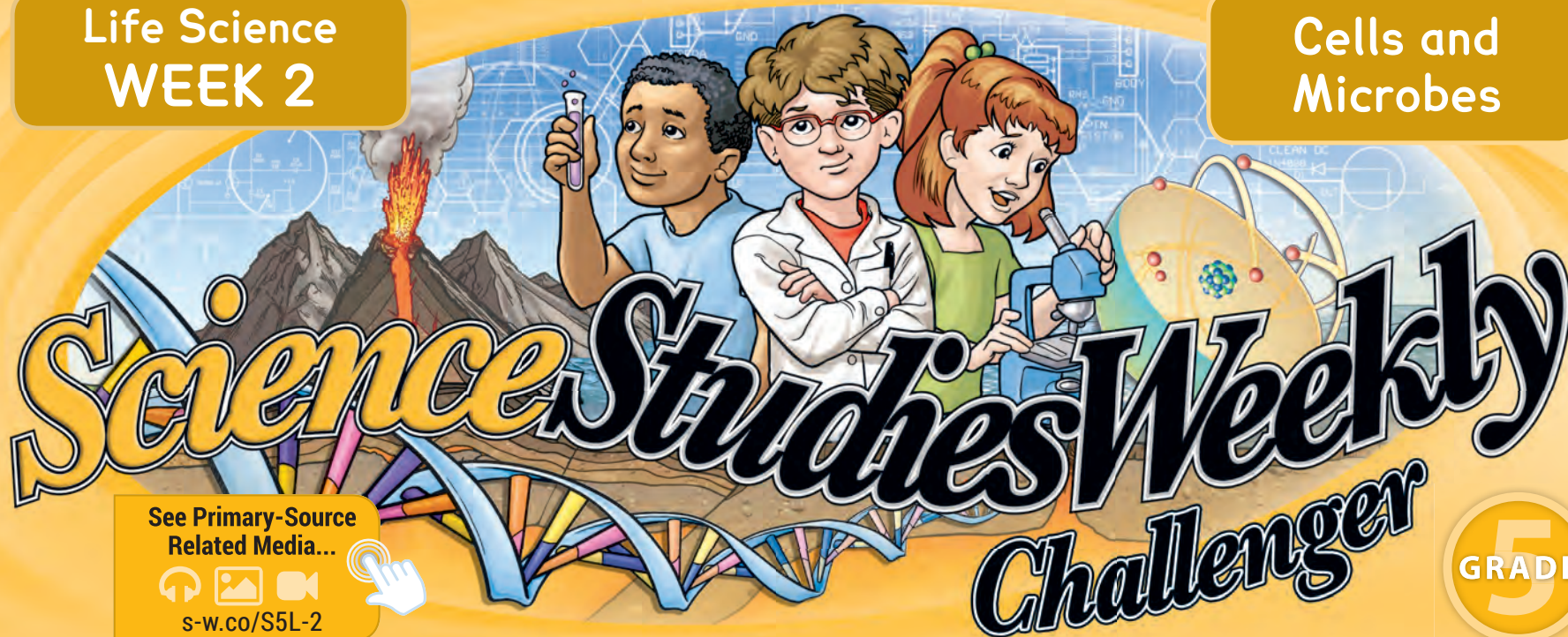
## **Day 2**

**Problem:** Jose bought a bag of 6 oranges for \$2.82. He also bought 5 pineapples. He gave the cashier \$20 and received \$1.43 change. What did each pineapple cost?

### **Day 3**

**Problem:** Jesse and three friends buy snacks for a hike. They buy trail mix for \$5.42, apples for \$2.55, and granola bars for \$3.39. If the four friends split the cost of the snacks equally, how much should each friend pay?





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5

# Worlds Under Your Nose

“This is Alpha Group to Base Camp! We have found the cave opening and believe this is the place they plan to enter our world!” “Roger that, Alpha. Help is on its way,” comes a voice over the radio. A few seconds later, just outside the cave, thousands of scary-looking globs begin their invasion. Just in the nick of time, a large reinforcement army arrives from base camp to help protect the cave. “We need to divide and conquer!” the commander says to Alpha Group. “Get as much energy as you can from around us and split!”

“What does he mean by split?” you think. Suddenly, to your surprise, everyone splits in two! They become two, then four, then eight, then more, until there are so many in the Alpha Team that the globs are overtaken! “We have secured the cave!” says Alpha leader. The newly formed army of protectors cheers. But the celebration is short lived. Suddenly, thousands more of the enemy globs come and start taking Alpha Team members prisoner. “Charge—fight back!” yells the commander. But just then, they are caught in a giant sucking wind. Suddenly,

with hurricane force, the wind whips into the cave. “Everyone dig in and penetrate the walls! Duck for cover!” shouts the leader. All goes silent. Then . . . a loud noise . . . “Uh . . . huh . . . huh . . . CHOOOOOOOOO!” You are caught in the gust and sent sailing through the air outside of the cave, onto a giant handkerchief.

Is this some sort of science-fiction war movie? Actually, it is a dramatized story of what happens when our white blood cells protect us from bad microbes.

Right now, under the noses of all living things, and almost everywhere else on Earth, are tiny colonies of micro-organisms (microbes). You know them by their nickname, germs. There

CONTINUED ON PAGE 4



## Biography Dr. J. Craig Venter



Dr. J. Craig Venter

*Mine is not a fantasy look at the future. . . . We are the scientists actually doing this.*

—John Craig Venter (1946–)

J. Craig Venter was a distracted student, a young man who preferred a carefree life on the beach to high school classes. But, he became a biologist and entrepreneur with a vision of what the future could look like. Dr. Venter is one of the world’s leading scientists in genomic research. Genomic research is the study of genomes, which are sets of

chromosomes. Chromosomes are the structures of protein and DNA (deoxyribonucleic acid) that we find in our cells. They include the maps or information our bodies use to determine traits, or characteristics, we inherit from our parents. By studying human genomes, Dr. Venter has helped make it possible to create synthetic, or artificial, life.

You can create life in the laboratory? Believe it or not, yes. In 2003, for example, Dr. Venter’s team created a simple virus in their lab. In 2010, the team announced

their creation of a synthetic bacterial cell. Much of Venter’s work remains controversial. This is because the idea of creating life in a laboratory can be difficult to imagine. Some scientists are skeptical, and many of them challenge his breakthroughs. They argue that he used pre-existing viruses or cell life as stepping-stones to producing synthetic life in the lab. Whether colleagues agree with his work methods or not, however, Venter’s ongoing research will be something scientists pay close attention to going forward!





## The Father of Microbiology

It was around 1676 when Anton van Leeuwenhoek, a Dutch microscope maker, wrote about tiny living things he saw under his microscope. He is now considered the father of microbiology. He discovered bacteria, blood cells and much more.

Many people wondered if the tiny living things around them just appeared out of nowhere. Because people knew almost nothing about the tiny critters, they had some pretty funny ideas about why certain things happened. For instance, if mice appeared in a box of grain that was left out, they would think mice came from grain. This idea was called spontaneous generation. It took a while to convince everyone that life didn't just appear from nowhere.

Francisco Redi (1626–1697) proved that maggots did not appear out of the meat, as many people of his day believed. He put raw meat in jars, some with lids, others without lids. The meat in the jars without lids quickly attracted flies, and maggots began to appear. No maggots appeared in the jars that had lids.

## Discovering Cells

More than 300 years ago, an English scientist named Robert Hooke (1635–1703) was looking at a slice of cork under a microscope. He described what he saw as “little boxes” separated by tiny walls. He called those little boxes cells, and the name stuck.

Nowadays, we know that every living thing is made of at least one cell. The cell is the basic building block of all living organisms. Bacteria are living creatures that only have one cell. They are the simplest creatures alive. Human beings, and most other members of the animal kingdom, have trillions of cells with many complex purposes. For example, white blood cells fight off harmful bacteria that try to enter your body. They're the “heroes” that showed up in the story on the front page.

In animals, each kind of cell has its own special job—blood cells, skin cells, brain cells, bone cells, muscle cells, etc. These different types of cells group together to form special tissues that then form organs and keep us alive. For example, your heart is made of special heart tissue cells. Just as animals need a heart to live, there are lots of other organs that are necessary for life, such as the lungs, stomach, liver, etc. Every organ is made of special tissues that are made from certain kinds of cells. So, you can see how important our cells are and how important it is to keep them healthy.



# Cells and Microbes

## The Microscopic Battlefield

The nickname we use for anything too small to see is germ. Most germs have only one cell.

Just hearing the word germ makes us want to wash our hands to avoid sickness. But did you know that not all germs are bad? Germs play an important role in getting rid of waste. When something dies, germs go to work and decompose the body.

Many germs can be harmful to our health. But some good germs can rescue us from the harmful ones. Penicillin, made from mold (fungi), is a wonder drug that has saved millions of lives by killing infections caused by harmful bacteria.

There are many ways we can avoid harmful germs. We can keep our bodies and homes clean. Germs don't grow as quickly in cool temperatures, so keep food in the refrigerator. We can also keep microbes out of our food by sealing food in airtight containers. Microbes don't like salt or vinegar, either.



These three scavengers are not alone. Cleaning up the “leftovers” are millions of microbes.

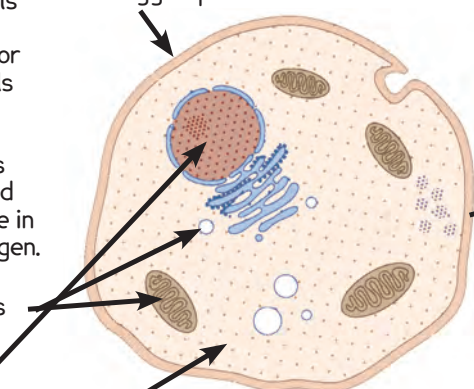
## Animal Cells

Everything necessary to keep animals alive takes place inside of cells. When a bird flies, nerve cells send messages from its brain to its muscles, telling it how quickly or slowly to fly. The bird's heart cells work faster to pump more blood. The same is true for all animals, including humans. Trillions of cells work together to keep us alive and functioning properly. All cells take in food, give off waste, and use oxygen.

**Organelles:** Cell's various “inner parts”

**Nucleus:** Every animal cell has a nucleus, or control center. This is where the cell's programming is. When a cell splits, or divides, this “programming,” called DNA, is duplicated and controls the new cell.

**Cell Membrane:** Animal cells have a flexible outer wall, or skin, that's called a cell membrane. It holds the cell's parts in, but lets food, water, and oxygen pass in or out.



**Cytoplasm:** Every animal cell is filled with a gooey liquid that surrounds its nucleus. This is the cytoplasm, and it is where all the cell's activities are performed by various inner parts. These inner parts are called organelles and have special functions similar to our body's organs.

## Technology & Science

## Fermentation

Some micro-critters are like little factories. They are busy turning one substance into another. They are sort of like little chemists. The ancient Egyptians found a way of using these micro-critters to cause chemical reactions. Nowadays, we call it fermentation.



If you've eaten bread, then you have enjoyed the hard work of tiny living creatures called yeast. Yeast is part of the fungi kingdom. They are single-celled critters that like to manufacture alcohol and carbon dioxide out of food. These little “factories” use the sugars in foods to do this.

What useful little critters microbes can be! They're used to make all sorts of yummy products. They can even make bread rise. They do it by creating carbon dioxide gas in the bread dough. As the gas expands, it makes pockets in the bread. Microbes are also used to make yogurt, penicillin, cheese and lots more.

## 'Micro Mania: A Really Close-Up Look at Bacteria, Bedbugs, & the Zillions of Other Gross Little Creatures That Live In, On & All Around You!' by Jordan D. Brown

What makes up the largest group of living organisms in the world? It's microbes, those tiny organisms that can only be seen with a microscope. Thanks to Antonie van Leeuwenhoek, who is generally credited with making the first microscope, scientists have learned that microbes exist by the millions in every nook and cranny of the Earth.

Bacteria may be the most well known microbe, but are they good guys or bad? Actually, we couldn't live without most bacteria. The good kinds are responsible for breaking down food in our stomachs for digestion and decomposing dead plants and animals on our planet. But the bad guys seem to get all the attention. If you've known anyone with strep throat or food poisoning, the culprits are streptococcus and salmonella bacteria. Fortunately, scientists have discovered

antibiotics from certain other microbes that can fight off these and many other illnesses.

A great book for learning the ins and outs of microbes and other tiny creatures that surround us is “Micro Mania: A Really Close-Up Look at Bacteria, Bedbugs, & the Zillions of Other Gross Little Creatures That Live In, On & All Around You!” by Jordan D. Brown. Warning: Take the word “gross” in the title seriously! You'll find information and close-up color photos of disgusting topics, from toenail fungus to maggots. And you'll probably want to brush your teeth after reading about human mouths vs. dogs' mouths. However, Micro Mania will give you a new respect for microbes in the world around us. And since there are zillions of them, that's a really good thing.

## Book Science



# Plant Cells

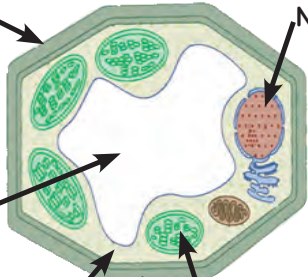
Just as with animal cells, there are various types of plant cells that have lots of different

purposes. But all plant cells have a few things in common that keep them going.

**Cell Wall:** All plant cells have rigid cell walls that help the plant keep its form (much like the cell membrane).

**Vacuole:** This is the cell's storage space.

**Cytoplasm:** Plant cells also have various organelles that are found in the cytoplasm.



**Nucleus:** All plant cells have a nucleus that holds the programming, or DNA. As with animal cells, the program is copied to the nucleus of the new cell when a cell divides.

**Chloroplast:** Chloroplasts are one type of organelle found in the cytoplasm of a plant cell. Chloroplasts help leaf cells harness the sun's energy through photosynthesis.

Plant Cell



Animal Cell

Honeycombs have cells for honey storage. They look similar to the way some plant cells appear under a microscope.

# In the Lab

## Using a Microscope

You'll need a microscope for these experiments. Often, you can check one out of your school science lab. Your parents might be able to get you one from a department or discount store. You could ask for one for your birthday or as another gift (hint, hint).

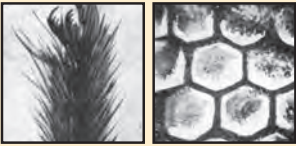
### What You Need

- microscope
- piece of celery
- skin of onion
- various other objects (such as those pictured here) that you'd like to study



Fly's Foot

Flea



Spider's Foot

Dragon Fly's Eye

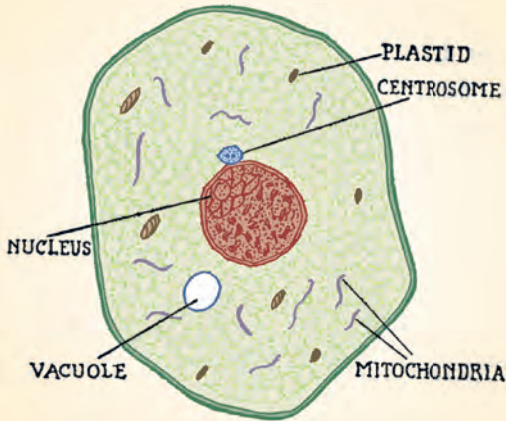
### Directions

1. Break off a stalk of celery.
2. With a plastic knife or table knife, peel a small strip of the inside layer of skin.
3. Lay the tiny strip of celery skin on a clean microscope slide.
4. Add a drop of water and put a second slide over the first slide.
5. Find the edge of the celery skin by moving the slide around on the stage of the microscope.
6. Once you've found the edge of the celery skin, carefully focus the microscope up and down until you see cells.

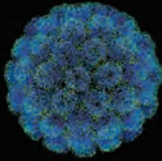
They will look like the drawing on the right. Can you find the parts of the cell that are listed?

7. Next peel off some onion skin and repeat steps 3-6 above. Compare the celery with the onion.

A cell: You should be able to see all the parts of a cell through your microscope.



# What is a virus?

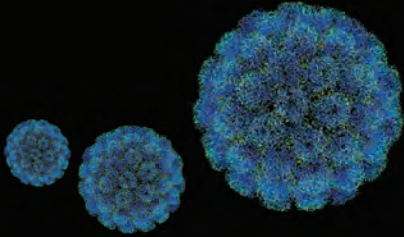


## This Week's Question

Viruses are very strange and are not considered living organisms. They are just packets of instructions on how to change your cells. Some believe that viruses are pieces of DNA that have broken away from living things over time. Viruses attack cells of living things. They inject their instructions (DNA), which copy inside the cell and change it. Now, here is the weird part. The cell then becomes a factory for making new viruses, which go out and change other cells. Sounds like something out of a science-fiction movie!

But viruses are not alien, and chances are that you have felt them at work before. When you get a cold, you have a virus. Viruses almost always end up making you sick. They also cause diseases in animals. Viruses hide inside of cells and even change their codes, so the body doesn't fight them easily. Some viruses can be caught when someone coughs or sneezes. Others can be contracted through body fluids like blood and saliva.

Scientists have developed a few medicines that fight viruses. If you get the flu or chickenpox, your doctor can give you an antiviral medicine that will help you feel better and make you less contagious to others. But there's still no cure for the common cold!



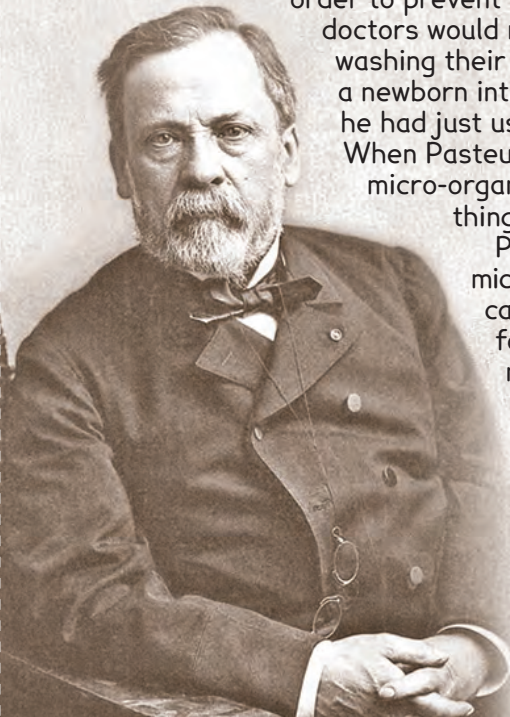
# Louis Pasteur 1822-1895

## Spotlight

Some scientific discoveries save many lives. Many people in this world owe their lives and health to one man from France who made just such a discovery. His name is Louis Pasteur. Pasteur discovered that tiny, microscopic critters known as bacteria, or microbes, can make people sick.

For at least 2,000 years, people thought life came from non-living materials and that people got sick because of spiritual problems. Pasteur confirmed what Francisco Redi (see Page 2) had proven 200 years earlier—that spontaneous generation was a false idea and that life came from life.

Pasteur taught doctors and hospital workers to change their practices in order to prevent sickness from spreading. Before Pasteur, doctors would move from one patient to another without washing their hands or tools. Imagine a doctor bringing a newborn into the world with the same surgical tools he had just used on someone with a terrible disease. When Pasteur proved that sickness came from micro-organisms, hospital workers started keeping things clean.

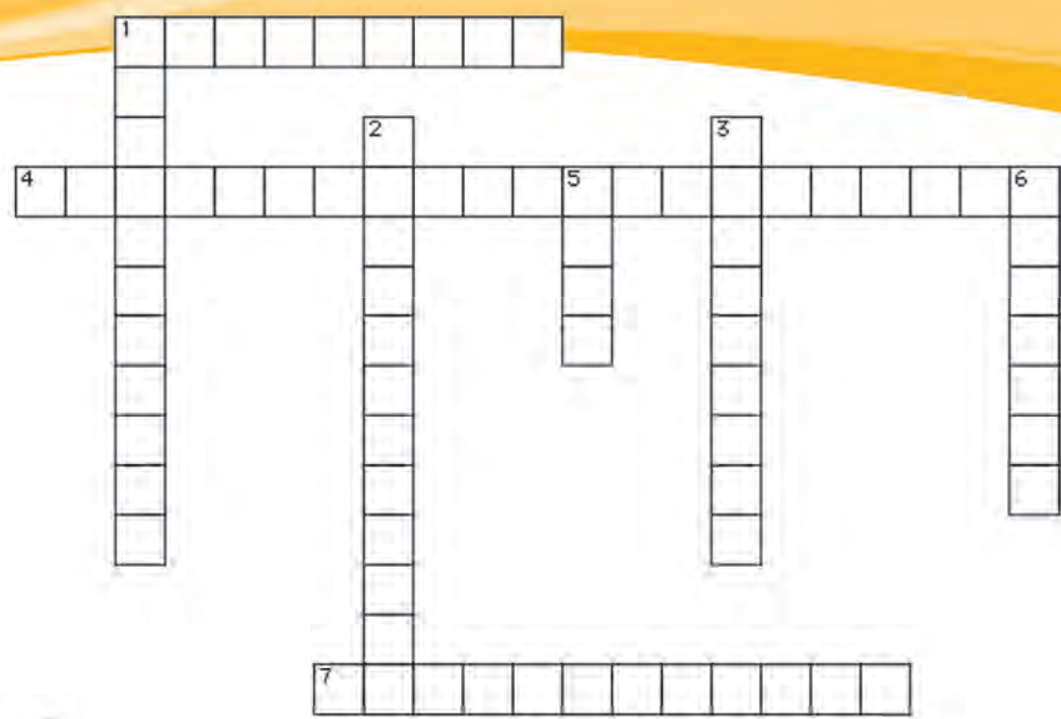


Pasteur also invented a way to kill dangerous microbes in foods such as milk. His method is called pasteurization. It involves heating the food before eating it. Look on the label of the milk or orange juice in your fridge, and you'll see the word pasteurized.

Pasteur is also a hero for saving millions of farm animals in Europe from many diseases like anthrax and cholera. He also invented the vaccine for rabies.



Name \_\_\_\_\_



As you read this week’s lesson, circle or highlight all proper nouns with any color pen or highlighter. This will help you find some of the crossword answers and get ready for this week’s test.

ACROSS

- 1. the gooey liquid in plant and animal cells that holds the cell’s organelles
- 4. the ancient false idea that life appeared from nowhere
- 7. the chemical reaction that takes place when a micro-organism turns one substance into another, like changing sugar into alcohol and carbon dioxide gas

DOWN

- 1. an organelle of plant cells that helps the plant capture the sun’s energy
- 2. the flexible outer layer of animal cells that holds the cell together
- 3. to cause the remains of animal or plant life to decay
- 5. the nickname for a micro-organism
- 6. the control center of a plant or animal cell; carries DNA

Transpiration Experiment

Mini-Lab

Plants don’t use all the water they take into their cells. What happens to the excess? Do this experiment and find out!

What You Need

- a potted plant
- a clear, large, plastic bag
- string

- 1. Cover the plant with the plastic bag. Tie the string loosely around the stem. Put it in a sunny place.
- 2. Wait four hours and then rub the bag with your fingers. You should see tiny water droplets. Why?

Plants have holes in their leaves called stomata. Excess water escapes through these holes. Ultimately, this helps the plant pull more water up through the roots, keeping it alive.



Hello, Science Detectives! Are you up for a cellular challenge this week? No, we’re not talking about cell phones. We’re talking about cells. After reading this week’s Science Studies Weekly, think of a question you have about cells. Of course, you can’t see cells without a microscope. If your school doesn’t have one, you can find lots of cell images on the Internet. Be sure to get permission from an adult before you do research online. [www.cellsalive.com/gallery.htm](http://www.cellsalive.com/gallery.htm) is a good place to start.

Let’s Investigate

Worlds Under Your Nose

CONTINUED FROM PAGE 1

are millions of them everywhere! Many of them are actually good, so our white blood cells don’t attack them, but some of them are harmful and will make us sick if they get inside our bodies. White blood cells are always on the lookout for invaders. They don’t wear helmets or look like soldiers, and they are too small to be seen, except under a microscope. But you would be amazed at how busy they are and what a good job they do!

Now, if you think all this sounds strange, here’s something even stranger—your whole body is made of tiny living cells. White blood cells are just one kind of many different types of cells that all have special jobs. They divide and divide, and organize into groups of different kinds of tissues until there are so many of them that they make up who you are.

So put on your lab coats again, and dust off your microscopes. This week, we are going to take an up-close look at the microscopic world of germs and cells.

If you’d like to make any editorial comments about our paper, please write to us at [support@studiesweekly.com](mailto:support@studiesweekly.com).





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Primary Source &amp; Bonus Media

## African Americans During the Revolution

American colonists fought the British during the American Revolution. An African American named Crispus Attucks is considered its first victim, killed in the Boston Massacre in 1770. Crispus may have one day become a Patriot soldier in the Revolutionary War, but as a slave he could not. Let's find out why. ...

During the Revolution, the British decided to ask slaves to join their side as soldiers. However, Southern Americans would not do the same because they were afraid the slaves would rise against them. The British promised slaves they would be freed, but that didn't always happen. Still, hundreds of slaves signed up. But, weren't there ANY African Americans in the Continental Army? Sure, there were some Northerners, mechanics, drummers and fifers. There were even some Southern slaves who were paid substitutes for their owners, but most people at the time did not trust African Americans with guns.

However, George Washington enlisted some African American men as early as 1776 when he needed new soldiers. In February 1778, Rhode Island voted to officially enlist slaves in the military. Slaves gained freedom after the war, and their owners were paid. The 1st Rhode Island Regiment was a fine outfit of soldiers, loyal to the fight for independence. At its peak, this regiment had 600 African American members.

Peter Salem and Salem Poor were

Revolutionary War heroes. These two African American soldiers fought bravely in several battles, including the Battle of Bunker Hill.

Oliver Cromwell crossed the Delaware with General Washington, and then he fought in battle after battle. Oliver lived to be 100 years old, and he shared his stories of combat in war.

Edward Hector was a wagoner who stood up to the British and refused to surrender during the Battle of Brandywine. He grabbed some guns, tossed them into the back of his horse-drawn wagon and took off. Even though he probably had no gun himself, he saved enough weapons for his company to survive.

James Forten was 15 years old and free when he joined the Continental Navy. The British captured him at sea, but James made it home alive. He became a wealthy sailmaker in Philadelphia. James fought against slavery and for civil rights for the rest of his life.

Phillis Wheatley wasn't a soldier, but she was a famous poet during the Revolution. She was brought to Boston from Africa as a slave at age 7, but later she was set free. The Wheatley family taught Phillis to read and write. She put her skills to good use, writing poetry that promoted civil rights and the ending of slavery, or abolition. She was the first African American woman published. Phillis and many other African Americans helped the U.S. greatly during the Revolution.

1

3

2

1. Crispus Attucks and an engraving of him at the Boston Massacre 2. Salem Poor as portrayed on a U.S. stamp commemorating "Contributors to the Cause" in 1975 3. Phillis Wheatley from a collection of her poems, "Poems on Various Subjects, Religious and Moral"

### Connections

## Military Technology of Yesterday and Today: the Turtle

How did the Patriots fight the British navy? One thing they tried was the "Turtle." It looked a lot like its name: a big round shell, but with an opening on top. It was invented by a man named David Bushnell and was the first submarine of the Revolutionary War. In 1776, a soldier drove the Turtle to the underside of a British ship and attached a keg, or "torpedo," of gunpowder.

Just one person pedal-operated the Turtle, and there were a few glitches. The gunpowder wasn't attached to the British ship very well, but it did explode a little later. The British got worried about what was going on in the water below them in New York Harbor. The Turtle was a "revolutionary" invention, but it never truly made it as a secret weapon of the Revolutionary

War.

Today we have submarines that have nuclear-powered turbines that recycle their own air, can stay down for as long as they have food and hold over 100 people in a 560-foot-long area. And they can launch missiles while they're underwater. We've come a long way from pedals and gunpowder kegs!







# Washington’s Winning Ways

*Recap of the Road to Revolution – In April 1775 Lexington and Concord became the first battles of the American Revolution. The time for peace had ended and it was time for war. After both sides lost many battles, and after thousands were killed or wounded, the Revolutionary War officially ended in 1783 with the signing of the Treaty of Paris. Let’s start at the beginning of the road ...*

## New Army and New Commander

The Continental Congress combined militias of the Colonies to form the Continental Army. Someone great needed to be the general. They thought about heroes from the French and Indian War. Who would be better than George Washington? At first, Washington hesitated to take the position because he had never led an army before. But, Washington did disagree with King George. He thought about how important it was to gain independence from Britain. So, Washington agreed to lead the Army and promised to do the best job he could possibly do. He believed in the cause, but ...

## New Country with New Problems

... there was a problem. Actually, there were a lot of problems. After declaring independence in 1776, the new United States did not have much money. It takes a lot of money to buy guns, ammunition, uniforms, tents, horses, cannons and rations (food) for an army. Imagine you’re a soldier today and your commander said, “Gee, I wish we could get those enemies. Do any of you happen to have a tank in your garage? Oh, and did anyone bring a sack lunch? Looks like we’ll be here awhile!” Hard to believe, but that was the reality for the Continental Army (minus the tanks, of course). They didn’t have fancy red coats or very many horses. And gunpowder was scarce (in short supply). So Washington started a rumor that they had so much that there weren’t enough places to hide everything. The British bought that story and backed off a bit. Good thinking, George!

## Horrors and Hungers

During the Revolutionary War, hunger was as big an enemy as the British. Sadly, some soldiers actually starved to death. Sometimes, farmers would donate animals and crops to the Continental Army but it wasn’t enough. Soldiers had to search for food in order to stay alive. Some days, American soldiers had to wrap their feet in rags because they had no boots or socks. They were not well supplied like their enemies. Many soldiers deserted the Army, and that doesn’t mean they crossed the Sahara! To desert means to take off illegally or go AWOL (Absent Without Official Leave). The Patriots couldn’t take it anymore. Then came the winter of ’76 ...

## Victory or Death

Six months after the original Independence Day, Washington’s soldiers were in trouble. The soldiers who had stayed were starving, sick and spiritless. George had to do something quick. He heard there were British soldiers with many Hessian (German) soldiers in Trenton, New Jersey. The Hessians had

been paid to help the British Army. Washington was just across a river in Pennsylvania at the time. He came up with a plan—a devious (tricky), genius and secret plan that turned the tide (trend) of this war. He planned a surprise attack on the Hessians during Christmas night while the enemy was still asleep after holiday parties. The Hessians never expected the Americans to attack on Christmas. They didn’t think the Patriots would fight again until spring. All George had to do was get his troops across an icy river, the Delaware River to be exact—it separated Pennsylvania from New Jersey.

OK, so it was Christmas. OK, so it was freezing cold. OK, so there was a little ice in the water—make that a lot of ice! How do you get horses, cannons and freezing men into boats in the dark and make it to the other side? And then do it again and again, until thousands of soldiers make

it across? Oh, and once they were across, Trenton was still over nine miles away. Just jump in army boats and trucks and be done with it, right? Well, they did have boats, but on the New Jersey side they had to drag the cannons as they walked those nine miles. Did someone mention the rain, hail and sleet? And don’t forget the howling wind and blinding snow! Needless to say, conditions were going to be horrible. Washington had to inspire his troops somehow to prepare for this all-important crossing. He found the perfect words, written by Thomas Paine (Remember him?) on Dec. 23, 1776:

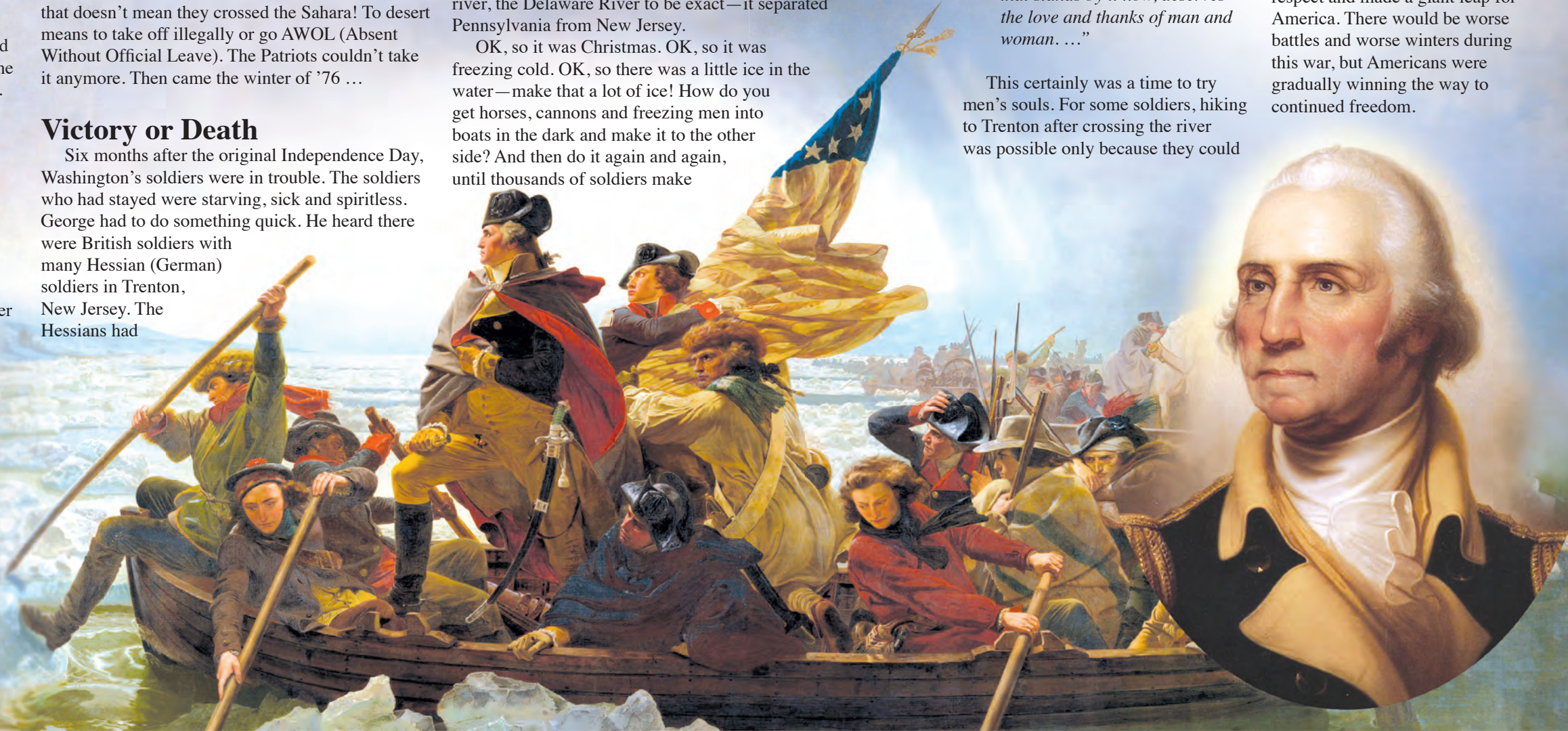
*“These are the times that try men’s souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of their country; but he that stands by it now, deserves the love and thanks of man and woman. ...”*

This certainly was a time to try men’s souls. For some soldiers, hiking to Trenton after crossing the river was possible only because they could

see the bloody footprints in the snow of men who went before them. Talk about cold and sad! It is said that many died on the way, either from illness or freezing or both. Still, the rest continued on and earned “the love and thanks” of their new fellow citizens. They were Patriots, one and all.

## Cross and Double-Cross

Washington’s soldiers finished crossing the river and hiking in the early hours of Dec. 26, 1776. They attacked the snoozing Hessians. Definitely a Christmastime surprise for the German soldiers! It was an important victory, however, for the new United States. George Washington gained a great deal of respect and made a giant leap for America. There would be worse battles and worse winters during this war, but Americans were gradually winning the way to continued freedom.



# A Brave and Honorable Woman

Have you ever seen a movie where a woman dressed up as a man or vice versa? Well, Deborah Sampson did just that during the Revolutionary War. Very risky business! Girls weren’t allowed to be soldiers back in the 1770s. Deborah joined the Army under the name of Robert Shurtleff. She didn’t look much different from the 14-year-old boys fighting next to her. She was a fine soldier until she was shot in the leg. A doctor should have treated her right away. However, if she were to go to a doctor her identity would be revealed. So, “Robert” used a knife to remove the bullet, and things got riskier. Deborah got an infection and had to go to a doctor anyway. If she didn’t seek medical treatment the infection could have killed her. Deborah had to tell the doctor that she was a woman. Still, Sampson got an honorable discharge in 1783 for a job well done. Would you do something that risky to help your country?

## American Character



# The Thrill of Victory, The Agony of Defeat

There were terrible battles during the Revolutionary War. In some, Americans suffered greatly by losing soldiers, land and control. Some call the American victory in the Revolutionary War a miracle. Have you heard that where there’s a will, there’s a way? Here’s a chart of some important battles. Do some research to find out who won each battle and write the answers in the “Winner” column.

Revolutionary War Battles			
State	Name of Battle	Date	Winner
New York	Ticonderoga	May 1775	
Massachusetts	Bunker Hill	June 1775	
New Jersey	Trenton	December 1776	
New York	Saratoga	October 1777	
South Carolina	Charleston	April-May 1780	
Virginia	Yorktown	October 1781	

# American Revolution Allies

## History

In 1778, America got some much-needed help from France to fight the British. Soon the Dutch and Spanish began to help, too. The British were better in naval warfare (war on water), but the Americans were spread out across the land. Americans were so spread out that the British and their leaders couldn’t always catch them. As soon as the British took over one American place, like Bunker Hill, battles would break out somewhere else.

What about the American Indians and African slaves? Well, they fought on both sides of the Revolutionary War. Many American Indians fought with the British thinking they’d be protected from American expansion into the West. African slaves were promised freedom if they joined the British, so thousands signed up. Over time, George Washington began to allow African Americans to join his side.

France and Spain were happy to provide money and soldiers to America during the Revolution. Both of these countries hated Great Britain equally. They were sick of British domination (control) in Europe and were still mad about the French and Indian War. Anything that made the British suffer was fine with the French and Spanish. Benjamin Franklin went to France to encourage the French to help America.

By 1780, the Dutch openly supported America. Great Britain started to worry that the French, Spanish and Dutch would attack England on its home soil. The British were definitely frightened that their European neighbors supported American independence. King George sent troops all over Europe. Meanwhile, Loyalists in America were unhappy. They didn’t like that their king hired Hessians, and they didn’t trust the American Indians who were fighting with the British army. The Loyalists didn’t want Britain to start hanging everyone who hadn’t chosen sides yet, either. Many undecided Americans eventually joined the Revolution against Britain. Of course, some stayed loyal to their monarch (ruler), too.

The British couldn’t deal with all the people fighting against them on two continents. Does anyone have a white flag?



## Geography





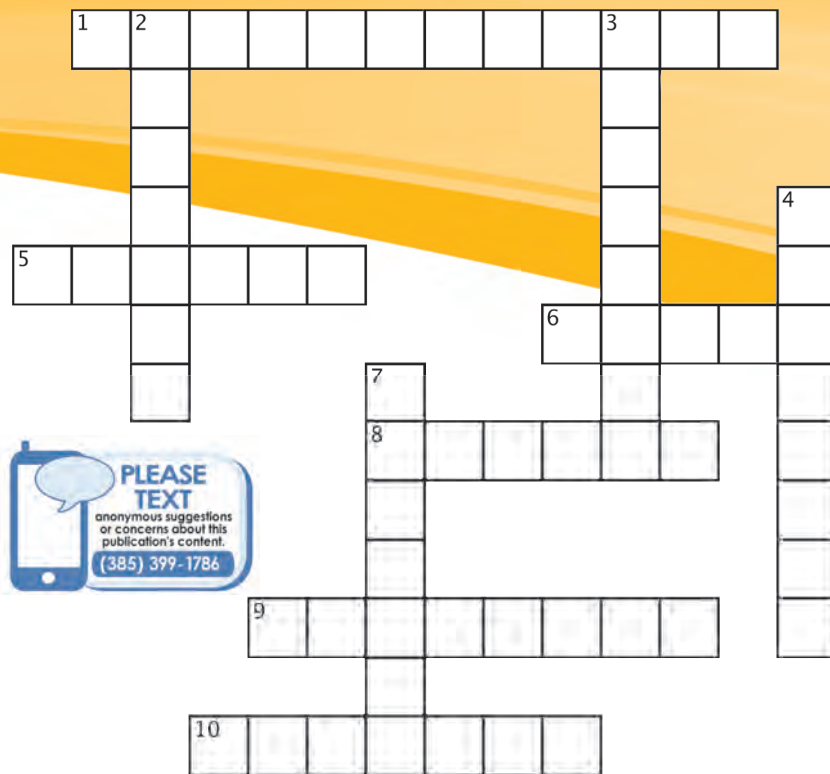
Name \_\_\_\_\_

## ACROSS

1. famous Revolutionary War song
5. a wagoner during the Battle of Brandywine: Edward \_\_\_\_\_
6. writer of "These are the times that try men's souls"
8. groups who are on the same side in a war
9. German soldiers who helped the British
10. site of important Christmastime battle in 1776

**DOWN**

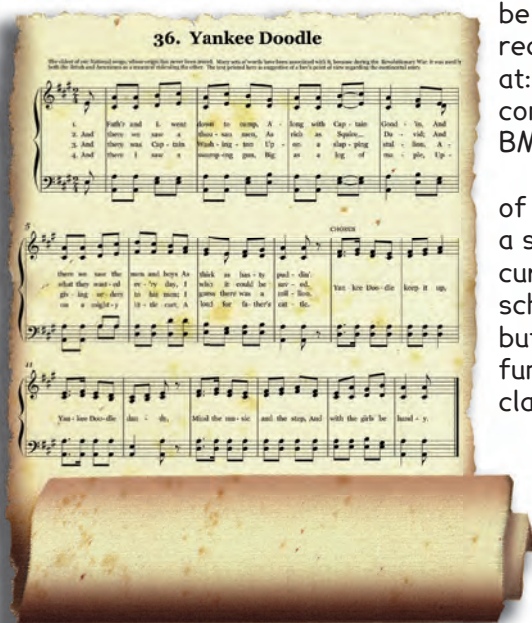
2. considered the first victim of the American Revolution: Crispus \_\_\_\_\_
3. river crossed by Washington and his troops in the winter of 1776 \_\_\_\_\_
4. famous poet during the American Revolution \_\_\_\_\_
7. woman who dressed like a man to fight in the Revolutionary War: Deborah \_\_\_\_\_



# Making Music—A Yankee Doodle Dandy

How does today's popular music reflect what's going on in the world? The "it" song in the Colonies during the late 1770s was "Yankee Doodle," written by Richard Shuckburgh. Who would have thought a song you learned in school was the #1 hit of the Colonies? If you think it's a song about pasta in your hat, then you are wrong! The British sang it during the American Revolution to make fun of Yankee (American) doodles (fools). The lyrics, or words, that we know say the Yankees wore feathers in their hats to copy a popular European wig style known as the "macaroni." As the Americans gained confidence, the song became longer. They added lines to make fun of the British and to praise George Washington, the Continental Army and the U.S. as a whole. The song went from being an insult to the people of our new country to being an anthem (popular song) that Americans sang with pride. An American band played the anthem to celebrate the U.S. victory on the last day soldiers battled in the American Revolution—Oct. 19, 1781.

This form of song is known as musical satire. It makes a political statement and it pokes fun at things without being



mean. Read the lyrics below and listen to a recording of the song at: [https://www.youtube.com/watch?v=P\\_BMzqwSdW8](https://www.youtube.com/watch?v=P_BMzqwSdW8)

Add a verse or two of your own. Make a statement about a current event in your school or community, but don't be rude, just funny. Sing it for the class! You can do it!

# Yankee Doodle

Yankee Doodle went to  
town

## A-riding on a pony

Stuck a feather in his cap  
And called it macaroni.

Yankee Doodle, keep it up

Yankee Doodle dandy

Mind the music and the step  
And with the girls be handy.

Father and I went down to  
camp

Along with Captain Gooding  
And there we saw the men  
and boys

As thick as hasty pudding.

Yankee Doodle, keep it up

Yankee Doodle dandy

Mind the music and the step  
And with the girls be handy

## Activity

## My Version

[illegible]

## Personal Narrative: Pep Talk

**Lets Write**

George Washington used the words of Thomas Paine as a pep talk to motivate his troops in the Revolutionary War. Think of a time you had to do something difficult and someone gave you a pep talk. Was it a coach before a big game? Did a parent give you courage? Has a teacher helped you relax before an important test? Tell the story of a time you received or gave a pep talk.

## Let's Write

## Think & Review

1. How is Crispus Attacks significant to the American Revolution?
2. How did Deborah Sampson fight in the Revolutionary War?
3. Why was George Washington reluctant (unsure or doubtful about) to lead the Continental Army?
4. Why do you think a soldier in the Continental Army might consider deserting?

5. What do you think would make a Patriot soldier keep fighting even under terrible conditions like the ones they faced when crossing the Delaware?
6. Who is Phillis Wheatley?
7. Why would Hessians help the British fight the Americans?
8. What do you think, "Where there's a will, there's a way" means?
9. What type of song is "Yankee Doodle"?

If you'd like to make any editorial comments about our paper, please write to us at [support@studiesweekly.com](mailto:support@studiesweekly.com).

# USA Studies Weekly—Ancient America to Reconstruction

## Teacher Supplement

### Taking Fort T

*Click!* ... “Whoa, Alana! Why didn’t you tell me we were time traveling onto a boat! I almost fell over the side! Where are we, anyway?”

“We’re in the middle of Lake Champlain, Jackson. It’s May 1775 and the people in the boat are the Green Mountain Boys.”

“Oh. Are we heading to Fort Ticonderoga?”

“You got it, Jackson. We’re going to take Fort T away from the British! Right there is Benedict Arnold. He’s a colonel in the Continental Army.”

“Oh, yeah. He’s the one who is going to become a traitor.”

“Exactly. But he didn’t betray our country until later in the war, Jackson. Right now, he’s got a good reputation.”

“And the other man is Ethan Allen.”

“Yes. He and his Green Mountain Boys aren’t officially part of the militia, but they have been keeping the English out of the land that we call Vermont. Allen and Arnold didn’t always agree, but both of them wanted to take Fort T.”

“Hey, Alana, you’re a poet and didn’t know it!”

“Hold on, Jackson. We’re getting ready to land.”

“Check out that fort!”

“Yeah, it’s impressive, but let’s get moving, Jackson. Let all the soldiers get off first. Then we’ll sneak into the fort behind them.”

“Look at that, Alana. The guard just surrendered and dropped his weapon.”

“This is our chance, Jackson. C’mon!”

“Allen’s going up those stairs. He must be going to the commander’s quarters.”

“Where are all the Redcoats?”

“There are only 83 of them here, Alana, and there are 175 of us. Well, 177 counting you and me. Ethan’s spy did a good job finding out that there weren’t very many British soldiers here. Let’s get closer.”

“Listen! Ethan is talking to the British commander. Wow! The British are giving up! Thank goodness no one was killed.”

“That’s pretty amazing, Alana. We’re taking Fort T and no one will die.”

“Now who’s the poet? Hey, I think there are more cannons here than British soldiers, Jackson. The Continental Army can sure use those! ‘Bye, British soldiers. See you later!’”

“Alana, you forgot to say alligator! Don’t forget the tater. And have a rotten tomatater ...”

“I’ve created a poet monster! Time to get out of here.” ... *Click!*

# USA Studies Weekly—Ancient America to Reconstruction

## Teacher Supplement

### USA Studies Weekly—Ancient America to Reconstruction, Week 15

Name \_\_\_\_\_

Date \_\_\_\_\_

#### BIO-POEM

There are many heroes in American history. Can you name 3 or 4? Everybody has personal heroes, too. Think about someone who is a hero to you. It can be someone living or someone from the past. Write a BIO-POEM about your hero following the format below. The words in bold are part of the poem. (The words in parentheses are hints.) If you don't know the hero personally, use your imagination. Or, you can just choose somebody really famous! Use this page as your rough draft. Publish your final draft on a nice sheet of paper and add a drawing of the hero. Remember to include the words in bold print in your published poem.

**Name** (First and last name of the hero) \_\_\_\_\_

**Relative of** (name of anyone in the hero's family, 1-6 names) \_\_\_\_\_

\_\_\_\_\_

**Resident of** (where the hero lives or lived) \_\_\_\_\_

**Who believes** (tell what you think the hero believes or believed in) \_\_\_\_\_

\_\_\_\_\_

**Who needs** (tell what the hero should have) \_\_\_\_\_

**Who feels** (a strong emotion the hero would have and why) \_\_\_\_\_

**Who cries when** (what would make the hero very sad) \_\_\_\_\_

\_\_\_\_\_

**Who laughs when** (what would make the hero really happy) \_\_\_\_\_

\_\_\_\_\_

**Who wants for the world** (a wish the hero would have for everyone) \_\_\_\_\_

\_\_\_\_\_

**Who thinks others are** (how the hero would see people) \_\_\_\_\_

\_\_\_\_\_

**Who loves** (a person, place, thing, emotion, etc.) \_\_\_\_\_

**Name or nickname** (Do not repeat the first line exactly.) \_\_\_\_\_

# USA Studies Weekly—Ancient America to Reconstruction

## Teacher Supplement

Name \_\_\_\_\_ Date \_\_\_\_\_

USA Studies Weekly—Ancient America to Reconstruction 3rd Quarter, Week 15

Read each question and the answer choices carefully. Fill in the circle next to the best answer.

1. Deborah Sampson dressed up like a man because \_\_\_\_\_.  
Ⓐ Women's clothing was uncomfortable.  
Ⓑ She wanted to ride horses.  
Ⓒ Women weren't allowed to be soldiers.  
Ⓓ She didn't have any shoes to match her dress.
2. To fight the Battle of Trenton, Washington and his troops had to cross the \_\_\_\_\_.  
Ⓐ Delaware River  
Ⓑ Trenton River  
Ⓒ Sahara Desert  
Ⓓ Washington Desert
3. This African American was the first victim of the American Revolution.  
Ⓐ Crispus Attucks  
Ⓑ Peter Salem  
Ⓒ Edward Hector  
Ⓓ James Forten
4. This famous poet was the first African American woman published.  
Ⓐ Deborah Sampson  
Ⓑ Phillis Wheatley  
Ⓒ Martha Washington  
Ⓓ Crispus Attucks
5. George Washington was commander of the \_\_\_\_\_.  
Ⓐ Continental Army  
Ⓑ American Marines  
Ⓒ British Navy  
Ⓓ Delaware River Men
6. The \_\_\_\_\_ helped the Americans win the Revolutionary War against the British.  
Ⓐ Chinese and Japanese  
Ⓑ Floridians and Irish  
Ⓒ French and some free Africans  
Ⓓ Indians and Mexicans
7. This song was used by both sides in the Revolutionary War to make fun of the other side.  
Ⓐ Pop Goes the Weasel  
Ⓑ Here We Go 'Round the Mulberry Bush  
Ⓒ Ring Around the Rosie  
Ⓓ Yankee Doodle

# USA Studies Weekly—Ancient America to Reconstruction

## Teacher Supplement

8. What is another word for monarch?

- Ⓕ president
- Ⓖ senator
- Ⓗ governor
- Ⓘ ruler

9. George Washington inspired his troops with words written by \_\_\_\_\_.

- Ⓐ William Shakespeare
- Ⓑ Thomas Paine
- Ⓒ Thomas Jefferson
- Ⓓ J.R.R. Tolkien

10. Which of the following statements is true?

- Ⓕ The Americans won every Revolutionary War battle but lost the war.
- Ⓖ The Americans lost every Revolutionary War battle but still won the war.
- Ⓗ The Americans lost some battles during the Revolutionary War but still won the war.
- Ⓘ The British won every Revolutionary War battle but lost the war.

11. Why was George Washington reluctant (unsure or doubtful about) to lead the Continental Army?

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12. What do you think would make a Patriot soldier keep fighting even under terrible conditions like the ones they faced when crossing the Delaware?

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Wayne-Westland Community Schools  
Elementary Art  
Distance Learning Lessons

Week of 5/4/20

## SHAPE OR FORM ROBOTS



**SHAPE OPTION:** Use Geometric 2-D and/or 3-D shapes to create a drawing of a robot. Think about what the purpose of your robot is, and how you can show that in your drawing. Hint there is a guided drawing link below if you would like to work alongside an artist!

**FORM OPTION:** Collect 3-D objects and build a Robot Sculpture using them! Remember that 3-D is "in the round" meaning that 3-D can be viewed from many different angles all the way around a Sculpture. Cereal boxes, soup cans, Pasta boxes, blocks, plastic cups are great places to start!

This project could be worked on by a single student, but 2 or more students in the same household, even if they are in different grades, may work together to create the project.

#### **INSPIRATION:**



*Robots are a popular theme seen in Contemporary Artist Eric Joyner's artwork. In fact we're surrounded by robots! Robots help check out our groceries at the Grocery store, Robots dispense money at an ATM. Some people even have robots at home that clean their floors! Siri and Alexa are robots! Do you have a robot in your house? If you could pick any robot to do any job for you what would it be?*

**Do a guided drawing :** <https://www.youtube.com/watch?v=UHX69T9bqCc>

**Read story:** *Robots, Robots, Everywhere!*

<https://www.youtube.com/watch?v=0wemSqCNfql>

**Check out these other robot activities and inspirations:**

<https://cassiestephens.blogspot.com/2020/03/robot-week-home-based-art-making.html>



## **SHAPE AND FORM RESOURCES:**

### **YouTube Videos:**

[Peep and the Big Wide World: Quack and the Amazing Sandy Magic](#)

[Peep and the Big Wide World: Quack's Square Deal](#)

[The Shape Song Swingalong](#)

[Shapes song for kids | The Singing Walrus](#)

[3D Shapes Song | Shapes for kids | The Singing Walrus](#)

[Volume Geometric Shapes with volume For Kids - Primary Vocabulary](#)

### **Books:**

[Color, Line, & Storytime! Art themed books for kids.](#)

<https://www.storyjumper.com/book/read/19764748/The-Shape-Monster#page/16>

[Round is a Tortilla: A Book of Shapes](#)

### **Games:**

[Magical Shape Hunt . Games . peg + cat](#)

[Shapes! A Geometry Activity for Children](#)

[Free Art Games for Kids- Complete Geometric Shapes Game](#)

[Free Art Game for Kids-- Shape Hunt](#)

**We would love to see your creations! You can post photos of them to your Dojo story or email them directly to your art teacher!**

Ms. Huhn [huhnb@wwcsd.net](mailto:huhnb@wwcsd.net)

Ms. Kurtz [kurtzd@wwcsd.net](mailto:kurtzd@wwcsd.net)

Mrs. Windley [WindleyA@wwcsd.net](mailto:WindleyA@wwcsd.net)

Mr. Millett [milletts@wwcsd.net](mailto:milletts@wwcsd.net)

Ms. Peck [peckme@wwcsd.net](mailto:peckme@wwcsd.net)

Mrs. Smith [smitha@wwcsd.net](mailto:smitha@wwcsd.net)

Mr. Wilburn [wilburnp@wwcsd.net](mailto:wilburnp@wwcsd.net)

## **LIFE SKILLS Activities**

**Topic: Demonstrate an ability to prevent, manage, and resolve interpersonal conflicts in helpful ways.**

### **Kindergarten**

Discuss what a bug and a wish is (the students should know!). Use the format “It bugs me when \_\_\_\_\_, I wish you would \_\_\_\_\_” to practice using a bug and a wish in situations that could frustrate a child such as cutting in line, not sharing, being too loud, etc.

### **1st Grade & 2nd Grade**

Read/watch the [Berenstain Bears Trouble with Friends](#). Discuss what made the conflict between Sister and Lizzy and what made the conflict worse/better.

### **3rd Grade**

Watch [The Day No One Played Together](#) and discuss how compromise was used.

### **4th Grade**

Have the student choose a conflict scenario (they forgot their homework, them and a friend are in a fight, their mom or dad is upset with them for not doing their chores, etc.). Once a conflict is in mind, have them write a description of the conflict, why it's important to solve it, and two ways the conflict could be solved.

### **5th Grade**

Discuss what cyberbullying is. Have they been affected by it? Do they know people who have? Why does it happen? How can we prevent it? How can we stand up to it?

### **All Grades:**

Please feel free to play the games we do at the end of each class that help practice teamwork, communication, active listening, cooperation, etc. Even ask your child at the end of the game why the game is played in life skills and they'll have an answer for you!

### **Game Ideas:**

Simon Says

Four Corners

Would You Rather

Telephone

Hot Potato

Pictionary  
Charades

## Wayne-Westland Physical Education Elementary Distance Learning Lessons

# Week of May 4th

## Move It Monday

Today we're gonna play Rock Paper Scissors with a twist! You can play this game with as many family members as you can find. Stand facing someone and play rock, paper, scissors. If you do not win the game, you have to do your favorite exercise five times, such as push ups, sit ups, squats, jumping jacks, running in place for 5 seconds, etc. If you have more than two people playing you can switch who you play every game. Keep track of how many exercises you end up doing!

## Turn It Up Tuesday

Time to get moving! Click on the link below and get a great workout! Invite your family to join in on the fun too!

[Kids Workout Beginners](#)

## Walk Around Wednesday

Get outside and walk around your backyard, around your block or around your neighborhood. Walk at a fast pace for at least 30 minutes to get your heart pumping! Being outside and in the sun helps your body produce vitamin D which gives you energy and makes you feel better!

## Team Spirit Thursday

Put on your favorite school t-shirt and do 10 push ups, 10 sit ups and 10 squats 3 different times throughout the day.

## Fun Time Friday

Today you are going to be creative and build yourself an obstacle course. Find some outdoor space outside your home (or inside if the weather is bad), and use some items you may have at your house. Some items you may be able to use are hula hoops, jump ropes, sidewalk chalk to draw spaces to hop or jump in, pool noodles to curve and crawl under, buckets or boxes to run around or jump over, a basketball to dribble or shoot if you have a hoop or a soccer ball to dribble around a space you define. If you're inside you can use boxes, chairs with blankets, toys that you can set up to move around, you can add jumping jacks and push ups, climb up and down stairs, and you can draw arrows on paper so you know what direction to go. Have fun!

**SPANISH ACTIVITIES**  
**The Week of May 5th - May 8th**

Spanish Educators are available to provide support and feedback during the following days and times each week. You can initiate contact through email and then connect further in the method of communication that works best.

Ms Garcia  
Email: [garciaamp@wwcsd.net](mailto:garciaamp@wwcsd.net)  
Tues & Wed 1:00 - 3:00

Ms. Williams  
Email: [williamssd@wwcsd.net](mailto:williamssd@wwcsd.net)  
Mon & Wed 10:00 - 12:00



Tema (Theme)

The Fifth of May

**Cinco de Mayo Vocabulary**

- Mexico - a North American country south of the United States, with Spanish as its national language.
- Battle of Puebla (May 5, 1862), battle fought at Puebla, Mexico, between the army of the liberal government headed by Benito Juárez and the French forces sent by Napoleon III to establish a French satellite state in Mexico.
- Cinco de Mayo - is an annual celebration held on May 5. The date is observed to commemorate the Mexican Army's victory over the French Empire at the Battle of Puebla, on May 5, 1862, under the leadership of General Ignacio Zaragoza.
- Benito Juarez - was a Mexican statesman and resistance leader against the French. After defeating the Austrian would-be emperor Maximilian, Juárez instituted numerous liberal reforms as president.
- General Ignacio Zaragoza - was a Mexican general and politician. He led the Mexican army that defeated invading French forces at the Battle of Puebla on May 5, 1862
- Maximilian - was a French Emperor that ruled Mexico from 1864 until 1867, when Maximilian was killed and the Mexican republic was restored.
- fiesta - a celebration or party
- maraca - a Mexican rattle or noisemaker that makes sounds when shaken
- mariachi - a Mexican band of musicians who play music and dress in the traditional way
- piñata - a decoration made of paper mache, decorated with streamers and ribbon, and filled with candy - it is hit with a stick by children and candy is spilled for all to gather
- pueblo - a traditional Mexican home built with adobe
- sombrero - a traditional Mexican hat.

¡Hola! Amigos Y Amigas, I kinda went overboard on activities and videos for this week's Spanish learning activities. Cinco de Mayo has always been one of my favorite Spanish holidays to celebrate with my students!! Please feel free to pick up to 3 activities a day along with a video. Remember that you are not receiving a grade for the completion of these activities Rather, they are meant to serve as additional practice of Spanish vocabulary and culture..As always Have Fun! "Olé

[Fun Cinco de Mayo Songs, because it's fun to sing & listen to music while you work :\)\)](#)

<https://www.youtube.com/watch?v=EgRtpbWzxYI>

<https://www.youtube.com/watch?v=19w04KBhILc>

<https://www.youtube.com/watch?v=mikgYdPoxos>

[https://www.youtube.com/watch?v=mikgYdPoxos&list=RDmikgYdPoxos&start\\_radio=1#t=5https://www.youtube.com/watch?v=4bFJnpaE5O4](https://www.youtube.com/watch?v=mikgYdPoxos&list=RDmikgYdPoxos&start_radio=1#t=5https://www.youtube.com/watch?v=4bFJnpaE5O4)

### **Virtual Viewing Party: Cinco de Mayo**

<https://app.discoveryeducation.com/learn/player/ffd255ae-9bbb-4bb3-961d-1abb4142f38a>

<https://app.discoveryeducation.com/learn/player/d96bb41c-fd46-40b1-b567-ee3b858a60a4>

<https://app.discoveryeducation.com/learn/player/4d22e639-406d-4b4f-9af5-89cf8e70f76b>

<https://app.discoveryeducation.com/learn/player/d121d7c2-71ee-4ae9-ac40-e37eeacf5719>

<https://app.discoveryeducation.com/learn/player/445cf5e1-c83b-4316-ae1-1921b99c450c>

<https://app.discoveryeducation.com/learn/player/c44c684b-1da4-49a9-9731-3a5b276e2e2e>

<https://app.discoveryeducation.com/learn/player/2c89c07a-b264-48bb-bf29-d708360839fd>

**Monday, May 4th - lunes, el 4 de mayo**

### **Options/Opciones**

1. Create cards with vocabulary words and definitions written on them and decorated in the traditional Spanish colors of red- rojo (**row-hole**), green ( **bear-day**), and white (**blahn-kohl**). Use the flashcards to play a matching game with them, like Concentration, or other games such as Go Fish or Old Maid.
2. Incorporate math games by focusing on the number five - cinco! Count by fives, use clock skills focusing on fives. cinco (**seen-kohl**), (5), diez(**dee-ehs**) (10), quince (**keen-seh**) 15, veinte (**bayn-teh**) 20, treinta (**train-tah**) 30, cuarenta (**kwah-rent-ah**) 40, cincuenta (**seen-kwehn-tah**) 50, & sesenta (say-sent-ah) 60.

*Note: 2nd- 5th grade can review and practice telling time as we did in Spanish (click on the link for review handout)*

*[https://docs.google.com/document/d/1Y2J1woKAWiFy99PfOYudveEcc\\_bXug5Rv1m8263mxOw/edit](https://docs.google.com/document/d/1Y2J1woKAWiFy99PfOYudveEcc_bXug5Rv1m8263mxOw/edit)*

3. Incorporate geography by finding Mexico on a map or globe. Identify surrounding countries, oceans, mountain ranges, and other geographical features. Find where the Battle of Puebla happened, and discuss what independence means. Click on the following link then select Mexico from the list of countries on the left panel.  
<https://www.kids-world-travel-guide.com/geography-for-kids.html>
4. Select and view 2 videos from above.

**Tuesday, May 5th - martes, el 5 de mayo**

**Options/Opciones**

1. Warning! Very Fun if you like Puzzles! Online Cinco de Mayo Jigsaw Puzzle. **Puzzle 1**  
<https://www.dltk-kids.com/puzzles/jigsaw/index.asp?id=20160916> **Puzzle 2**  
<http://www.jigzone.com/puzzles/84055D4B1EEE>
2. Make a Cinco de Mayo word search using the vocabulary and have someone at home to locate the words.  
<https://www.wikihow.com/Make-a-Word-Search3>.
3. Make a Cinco de Mayo Word Scramble & give it to someone to unscramble.
4. Select and view 2 videos from above.

**Wednesday, May 6th - miercoles, el 6 de mayo**

**Options/Opciones**

1. Play Hangman by using the vocabulary in this lesson.
2. Draw a hopscotch and replace numbers with spanish vocabulary words and say the words as you jump on them. <https://aphrogranger.com/2016/05/10/vocabulary-hopscotch/3>.
3. Play, Sight Word Hide & Seek using the vocabulary words in this lesson.
4. Select and view 1 video from above.

**Thursday, May 7th - jueves, el 7 de mayo**

**Options/Opciones**

1. Tissue Paper Flower <https://seasonal.theteacherscorner.net/cinco-de-mayo/tissue-flower.php2>.
2. Paper Bag or Fabric Poncho <https://kinderart.com/art-lessons/multic/make-a-poncho/3>.
3. Simple Paper Bag Pinata [https://www.dltk-kids.com/world/mexico/simple\\_paper\\_bag\\_pinata.htm](https://www.dltk-kids.com/world/mexico/simple_paper_bag_pinata.htm)
4. Select and view 1 video from above.



**Friday, May 8th - viernes, el 8 de mayo**

**Options/Opciones**

1. Mexican Place Mats\*\* (*kids can use regular paper and color them before cutting them into strips*)  
<https://www.dltk-kids.com/world/mexico/mplacemats.htm>2.
2. Tissue Paper Flowers and Juice Jar Vase [https://www.dltk-holidays.com/spring/mtissue\\_flower\\_vase.htm](https://www.dltk-holidays.com/spring/mtissue_flower_vase.htm)3.
3. Mexican Maracas [https://www.dltk-kids.com/world/mexico/mexican\\_maracas.htm](https://www.dltk-kids.com/world/mexico/mexican_maracas.htm)
4. Select and view 1 video from above.

**Recetas - Recipes -** Try a recipe from the list included in this link or come up with your own and take a photo and post it!!

<https://www.dltk-kids.com/world/mexico/recipes.htm>

## 5th - 6th Grade Media Choice Board

Please choose **ONE** activity to do **per WEEK** along with 10 minutes of [TypingClub](#)  
Typing Club - Log in with your school email - if you forgot it please ask a parent and  
make a new account or use the free option, it just won't save your progress.

These can be completed in any order - Just try to complete one box a week!

We Miss you!

- Play Digital Compass
- This game will teach you about being a good digital citizen.

### [Digital Compass](#)

- Code for 20 minutes
- Pick an activity from the Hour of Code
- You do not need to sign in but you can if you want to use your school email.

### [Hour of Code](#)

- Type an E-mail using your school email to your teacher telling them how you are doing.

- Open a new Google Doc
- Type your first and last name 10 times
- Each time use a different **color**, **FONT**, and **size**.
- You DO NOT need to upload this to google classroom

- Create your own Comic
- Read/Show your comic to someone in your household
- [Pixton](#)
  - Click For Students
  - Click On MY Own
  - Click "Try for Free" or "Sign Up" using your school email

- Log into your **MEDIA** Google Classroom
- Complete My Quarantine Time Capsule

### **3D Learning: Tinker for 20 min / Complete the 7 Starters at your own pace**

- If this is your first time using [Tinkercad.com](https://tinkercad.com) , scroll down to watch the “See How It Works” video.
- Click the blue box “**Start Tinkering**”
- Sign in (or create a free personal account, if this is your first time)
- Click “**Learn**” at the top
- Go to the “**Starters**” There are 7 direct starters that explain and help you learn important 3D functions. Try to complete all 7 Starters at your own pace.
- Once you complete the starters, you are ready to begin the **Lessons**
- Have fun tinkering!

[Tinkercad.com](https://tinkercad.com)

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### **Other activities you may choose to do can include the following:**

- Use Google Drawing to edit or create your own picture
- Use Google Sheets to create pixel artwork
- Use Google Sheets to create a graph