

Seventh Grade Distance Learning Plan

Week of April 6 - 10, 2020

Science Activities
(Suggested: 45 minutes of off-line activities)

TEKS: 7.2B, 7.2C, 7.3B, 7.12C

Monday

Design your own experiment and explain how you would use each step of the scientific method to solve your question.

Tuesday

Explain/Define the components of the (cell wall, cell membrane, nucleus, nucleolus, cytoplasm, mitochondria, golgi body, endoplasmic reticulum, ribosomes, lysosomes, vacuole, chloroplasts)

Wednesday

Draw and label an animal cell and a plant cell.

Thursday

Based on the drawing from Wednesday, explain how the two cells are different and why they need these differences.

Friday

Create an analogy for a cell using something you are familiar with and explain each part. Each part of your analogy should be a metaphor to your cell. Provide a list of analogies and a drawing of your analogy, labeled with the parts. (Example: Post Office or Factory)

RESOURCES:

<https://www.brainpop.com/science/cellularlifeandgenetics/cellstructures/>

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Math Activities
(Suggested: 45 minutes of off-line activities)

TEKS: 7.2a 7.4b 7.69c 7.4ea

Monday

What is the mean of the data set in the box below?

-7, -10, -1, 0, -4, -7, 3, -2, 1

Tuesday

What is the area of a triangle with a base length of 3.5 inches and a height of 3 inches?

The formula to find the area of a triangle is $A = 1/2bh$

Wednesday

Nora can do 70 push-ups in 2 minutes. Luke can do 105 push-ups in 3 minutes. Do these rates form a proportion? Explain.

Thursday: Five concert tickets cost \$181.25. What is the cost of 8 concert tickets?

Friday

Create your own volume word problem, show your work and solve.

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Reading and Writing Activities
(Suggested: 90 minutes of off-line activities)

Students do not have to copy questions, just write the answers. You may use your cell phone to take a picture of your answers and email to the teacher.

Please submit all reading assignments to Ms. Richmond at trichmond@pvacademy.org

Monday

Find a news article that interests you and give a summary. The summary must be 3-5 sentences. Be sure to include the main idea and details from the article.

Discussion question: What is the role that technology plays in reading education during this crisis?

Tuesday

Students are asked to describe the image provided below in a 3-5-sentence paragraph. Students will then make an inference about the story based on the details they conclude from the picture. We know that an inference is what we think the story will be about, based on the evidence given.



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Wednesday

Students will read the story “The Vortex”. Students will then answer the questions that follow the reading passage:

Review these vocabulary words before reading the “The Vortex”:

Fahr·en·heit (*Adjective*): Of or denoting a scale of temperature on which water freezes at 32° and boils at 212° under standard conditions.

Jolt (*Verb*): Push or shake (someone or something) abruptly and roughly.

Cir·cu·late (*Verb*): Move or cause to move continuously or freely through a closed system or area.

Con·tro·ver·sy (*Noun*)- Disagreement, typically when prolonged, public, and heated.

Ex·pend·i·ture (*Noun*)- The action of spending funds.

The Vortex

Jamal shivered as he stepped outside and into the cold. He pulled his coat tighter around his waist. His school bus sat at the end of his driveway, waiting for the neighboring students to rush inside. Jamal hauled himself up the metal steps and plopped down onto the first seat he saw open. He pulled his hands out of his gloves and fumbled with his phone to check the temperature outside. He couldn't believe what he saw. The high read 9 degrees **Fahrenheit**. Even though Jamal lived in upstate New York where several inches of snow were nothing out of the ordinary, this was colder than usual for the month of January.

“Brrriiiiiiiiiing,” the school bell rang out. Jamal flinched at the piercing sound as he removed all the layers he had put on to ward off the chilling weather. Mrs. Matthews waited until all the students settled in before she started her science class. Jamal didn't like his schedule this year—he never felt like he was awake enough to grasp Mrs. Matthews' complicated lessons so early in the morning. So as she began talking, he felt his eyelids grow heavier. The heat of the building pushed him farther back in his seat until.....

“Jamal!” Mrs. Matthews called out. The sleepy student heard hushed giggles around the classroom as his body **jolted** upright.

“So what do *you* think of this weather?” she asked him. “Pretty cold, huh?”

“Yeah...it's bad,” he replied groggily.

“Well, I was just telling your fellow students that it has something to do with a polar

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vortex,” she explained.

Jamal looked over at the white board where his teacher had outlined a simple map of the world. On it, she had drawn lines that swept down from the North Pole across the United States. Mrs. Matthews noticed his gaze.

“Now that I’ve got your attention, let’s continue with the lesson,” she said with the slightest hint of a smile.

Mrs. Matthews walked toward her drawing to explain the lines she had mapped across the world. She pointed to the North Pole and told her students about the cold jet stream of air that usually **circulates** around the top of the earth. Sometimes, she said, the jet stream weakens, and when that happens, the cold air slips down south. So the cold winds can potentially hit the United States, Europe, and parts of Asia. This time, the polar vortex was affecting the United States.

Mrs. Matthews had caught Jamal’s interest. “But why did the jet stream weaken in the first place?” he asked.

“Well, that’s where the **controversy** lies,” Mrs. Matthews said. “Some climatologists think that global warming, or more accurately, global climate change, is causing these extremely cold temperatures.”

Mrs. Matthews looked around the classroom at several confused faces. She explained how the increase in temperature in summer months around the world is causing the glaciers in the Arctic Ocean to melt and the water itself to warm. Later, in the winter months, the ocean gives off that heat into the atmosphere. This weakens the cold jet stream of air that **circulates** above the Arctic Ocean.

“Crazy, right?” Mrs. Matthews said. “Crazy how something called global warming can cause such cold temperatures.”

Jamal left his science class perplexed. Of course he had heard of global warming and global climate change, but he hadn’t ever given it much thought. Previously that week, he had watched the local news anchors on television repeatedly talk about the icy temperatures that were creeping across the country. There were car accidents, losses of electricity and new shelters that had opened for those without heat. It was causing quite some trouble.

After the final school bell had rung for the day, Jamal knocked on Mrs. Matthew’s door.

“What a surprise!” she said, motioning for him to come in. “How can I help you?”

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Jamal expressed his concern about the drastic changes in temperatures around the globe. “I know there’s plenty that we can do to help individually, like recycle and take public transportation, and turn the lights off when we’re not using them,” he said, remembering the brochures that were passed out at school last Earth Day.

“Yep, but it’s not going to help much if not enough of us put in the work, right?” Mrs. Matthews asked her student.

Jamal remained silent. His brow furrowed as he thanked Mrs. Matthews and slowly walked out the door.

Later that week, Jamal timidly walked into the principal’s office. “How can I help you?” Ms. Garcia asked him.

Well, I’d like to start a new club,” Jamal told her. He explained his plan to try to get his friends to join so they could learn about new ways to reduce global climate change. He talked about getting enough people motivated so they could approach local government about new policies to support a healthy environment. The members could meet once a week and ask local experts to come to the school and discuss new technological options that can reduce electricity **expenditure** and the school’s carbon footprint.

“That’s a great idea, Jamal,” Ms. Garcia responded. She accepted his proposal, and the two of them made plans to start recruiting new members the following week.

“I’m just curious,” the principal started, “Where did you get this idea?”

“Well, Mrs. Matthews pretty much inspired me,” he answered. “But I guess you could say that it came to me in my sleep,” he said with a smile.

Comprehension Questions

1. What weather phenomenon does Mrs. Matthews teach her students about?

- A. polar winds
- B. polar ice
- C. polar snow
- D. polar vortex

2. What motivates Jamal to start a new club?

- A. Jamal wants to help reduce global climate change.
- B. Jamal thinks that starting a new club will make him cool.

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- C. Jamal wants to earn extra credit in his science class.
- D. Jamal has a dream about starting a new club.

3. The polar vortex has dangerous effects on the United States. What evidence from the passage supports this conclusion?

- A. "Previously that week, he had watched the local news anchors on television repeatedly talk about the icy temperatures that were creeping across the country."
- B. "The cold winds can potentially hit the United States, Europe, and parts of Asia. This time, the polar vortex was affecting the United States."
- C. "There were car accidents, losses of electricity and new shelters that had opened for those without heat. It was causing quite some trouble."
- D. "Jamal left his science class perplexed. Of course he had heard of global warming and global climate change, but he hadn't ever given it much thought."

4. How can Jamal best be described?

- A. uninterested in science
- B. concerned and proactive
- C. a follower, not a leader
- D. lazy and unmotivated

5. What is this story mostly about?

- A. Jamal learns about climate change.
- B. Jamal falls asleep during science class.
- C. The U.S. experiences a polar vortex.
- D. Jamal goes to the principal's office.

6. Read the following sentences: "Jamal flinched at the piercing sound as he removed all the layers he had put on to ward off the chilling weather." As used in this sentence, what does the phrase "ward off" most nearly mean?

- A. to increase
- B. to eliminate
- C. to welcome
- D. to repel

7. Choose the answer that best completes the sentence below. Jamal is concerned about the effects of global climate change, _____ he proposes a new club to raise awareness about the issue.

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- A. so
- B. ultimately
- C. however
- D. namely

Thursday

Students will review Tuesday's assignment and explain if their inference about the story was correct. Students should answer this in a paragraph consisting of 5 complete sentences.

What about your inference was correct?

What about your inference was incorrect?

Friday

Discussions question: According to Jamal what are some things that individuals can do to help limit climate change?

- **Explain how global warming causes the polar jet stream to weaken?**
- **Explain what Jamal hopes to achieve with his new club, and whether this will help limit global climate change. Support your answer with details from the passage.**

Reminder: Students do not have to copy questions, just write the answers. You may use your cell phone to take a picture of your answers and email to the teacher.

**Please submit all reading assignments to Ms. Richmond at
trichmond@pvacademy.org**

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Social Studies Activities
(Suggested: 45 minutes of off-line activities)
Please submit assignments to Mr. Anderson at janderson@pvacademy.org

Monday- April 6, 2020

Write a short paragraph to explain how these three terms are related.

- a. *Free enterprise* b. *supply* c. *demand*

Tuesday – April 7, 2020

What is the difference between an *import* and an *export*?

Wednesday-April 8, 2020

Describe one of the four sectors that make up the economy of the United States. The four sectors are *households, businesses, banks, and government*. Students should be **summarizing** only one of the sectors.

Thursday- April 9, 2020

Choose one economic region in the United States. Then describe one industry in that region that is based on geography. Economic regions of the United States are the southwest, the west, the northeast, the Midwest, and the south. Students should be **drawing conclusions** on just one of the region's economic systems.

Friday -April 10, 2020

Describe an experience in your life where you had to make an economic decision. Explain the decision you made and the opportunity cost. When consumers make decisions about what to buy, they also make decisions about what they will not buy. For example, you might want to buy both a pair of jeans and a T-shirt, but you only have enough money for one. The value of the second-best choice- the item you don't buy- is called your **opportunity cost**.