

## **NEWS BREAK**

Article: **Intense solar storm brings gasps of joy, and sighs of relief**

Section: **MAIN, A1**

Sunday's News Break selects an article from **Sunday, May 12, 2024** of The Seattle Times print replica for an in-depth reading of the news. Read the selected article and answer the attached study questions.

You are encouraged to modify this lesson to fit the needs of your students. For example, some teachers might use this as a take-home assignment and others might read and answer the questions in a small group or larger, class discussion.

***\*Please be sure to preview all NIE content before using it in your classroom to ensure it is appropriate for your students.***

### **Standards:**

#### **CCSS.ELA-Literacy.RI.4.1**

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

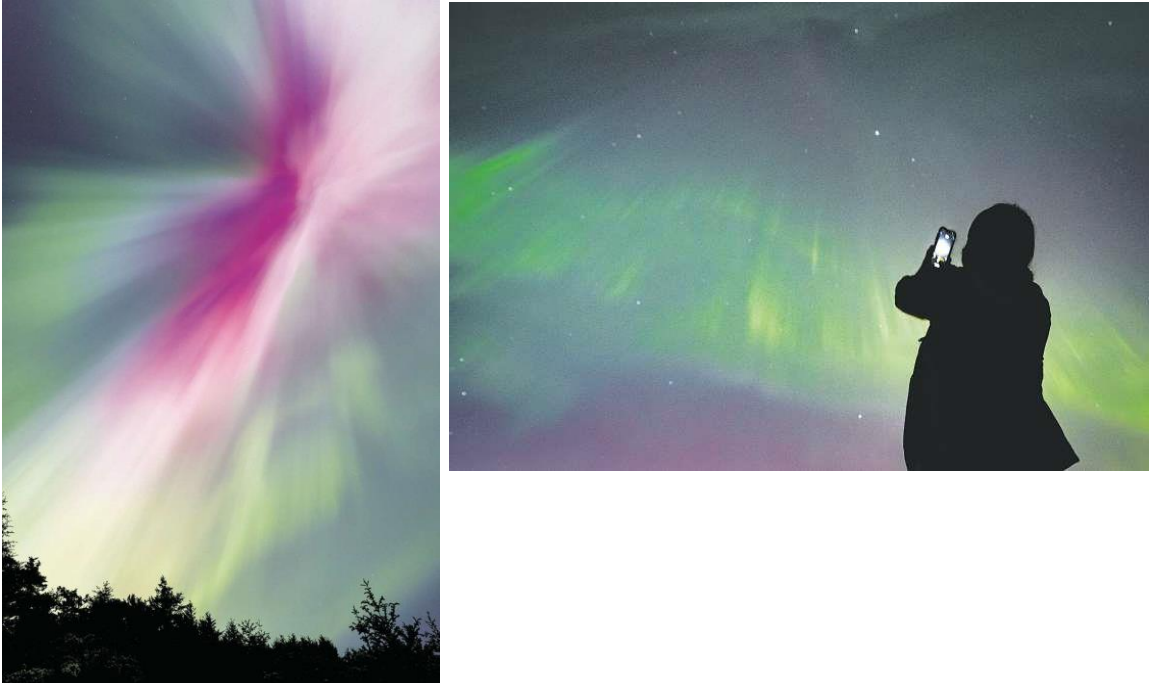
#### **CCSS.ELA-Literacy.RI.4.2**

- Determine the main idea of a text and explain how it is supported by key details; summarize the text.

### **Objectives:**

Students will learn more about the northern lights. They will learn scientific terms relating to this solar storm and how this impacts our environment and electrical grids. They'll discuss weather predicting apps and whether they're accurate and how climate change is impacting how far south the light is traveling. They will also discuss why the Aurora Borealis is so popular to view and their feelings about seeing it this weekend, if they did.

### Pre-Reading Discussion:



- What do you think the article will be about, using these pictures?
- Are there any clues? What can you infer?

### Vocabulary Building:

Read this sentence, what do you think the highlighted words mean using *context clues*? A **context clue** is a word or words that are hints and refers to the sources of information outside of words that readers may use to predict the identities and meanings of unknown words.

“The sun has produced strong solar flares since Wednesday, resulting in at least seven outbursts of **plasma**.”

**Plasma Guess:**

**Plasma Definition:**

### Comprehension Questions:

1. Experts say the best views may come from phone cameras. Why?
2. The northern lights are also known as what?
3. A powerful \_\_\_\_\_ \_\_\_\_\_ put on an amazing skyward light show across the globe this weekend.

4. NOAA predicted that strong \_\_\_\_\_ will continue through at least Sunday.
5. In the U.S., Friday's solar storm pushed the lights much farther \_\_\_\_\_ than normal.
6. NOAA issued a rare severe geomagnetic storm warning when a \_\_\_\_\_ reached Earth on Friday afternoon, hours sooner than anticipated.
7. The most intense solar storm in recorded history, in \_\_\_\_\_, prompted auroras in Central America and possibly even Hawaii.
8. What does the storm pose a risk for?
9. Satellites also could be affected, which in turn could disrupt what services here on Earth?
10. The sun has produced strong solar flares since Wednesday, resulting in at least seven outbursts of what?
11. Each eruption, known as a coronal mass ejection, can contain billions of tons of plasma and magnetic field from the sun's outer atmosphere, or corona. The flares seem to be associated with a sunspot that is 16 times the diameter of Earth, NOAA said. It is all part of the solar activity ramping up as the sun approaches the peak of its 11- year cycle.

**Discussion Questions (small/large groups), Journal Prompts or Essay Questions:**

**Class Discussion Questions:**

- What surprised (or stood out to) you in the article?
- At first, I thought \_\_\_\_\_, but now I think \_\_\_\_\_?
- What things did you already know from prior experience?
- Were you able to witness the northern lights this weekend? What did you think? How was what you saw (with your eyes) different than what pictures you took on your camera or phone?
- Why do you think seeing the northern lights is on so many people's bucket lists of things they would like to do in their lifetime?

**Diving Deeper-Journal & Discussion Prompts:**

- The passage mentions the storm arriving sooner than anticipated. How accurate are current methods for predicting solar storms and their potential impacts? What are the limitations?
- Could extreme solar activity have any long-term impacts on Earth's climate or weather patterns? If so, how might scientists study this connection?
- With our increasing reliance on technology, how vulnerable are we to solar storms today compared to the past?
- Should space weather be a bigger priority for scientific research and government funding? Why or why not?

News Break is posted to the Web on Tuesday. Please share this NIE News Break program with other teachers. To sign-up for the print replica for your class, please [register online](#) or call 206/652-6290 or toll-free 1-888/775-2655.  
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