

## NEWS BREAK

Article: **Webb Space Telescope's 'golden eye' opens, in last major hurdle**

Section: **MAIN, A3**

Sunday's News Break selects an article from **Sunday, January 9, 2022** 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.

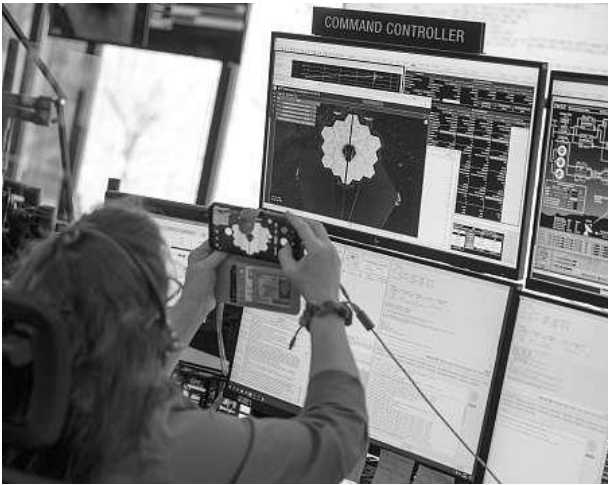
#### **CCSS.ELA-Literacy.RI.4.2**

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

### Objectives:

***Students will discuss the new Webb Space Telescope and how it is different than the Hubble Space Telescope. They will brainstorm why the new telescope was named the Golden Eye. Students will talk about what kind of space exploration they think they'll see during their life. They'll also discuss whether spending \$10 Billion on a space telescope is irresponsible, when there's human suffering here in the United States?***

### Pre-Reading Discussion:



- What do you think the article will be about, using only this picture?
- 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.

Webb is so big that it had to be folded **origami**-style to fit in the rocket that soared from South America two weeks ago.

### **Origami Guess:**

### **Origami Definition:**

### Comprehension Questions:

1. More powerful than the Hubble Space Telescope, the \$10 billion Webb will scan the cosmos for light streaming from the first stars and galaxies formed \_\_\_\_\_ billion years ago.
2. To accomplish this, NASA had to outfit Webb with the largest and most sensitive mirror ever launched — its “\_\_\_\_\_,” as scientists call it.
3. The riskiest operation occurred earlier in the week, when the \_\_\_\_\_ size sunshield unfurled, providing subzero shade for the mirror and infrared detectors.

4. Flight controllers in Baltimore began opening the primary mirror Friday, unfolding the left side like what?
5. Webb's main mirror is made of \_\_\_\_\_, a lightweight yet sturdy and cold-resistant metal.
6. Each of its \_\_\_\_\_ segments is coated with an ultrathin layer of gold, highly reflective of infrared light.
7. The \_\_\_\_\_, coffee table size segments must be adjusted in the weeks ahead so they can focus as one on stars, galaxies and alien worlds that might hold atmospheric signs of life.
8. Webb is expected to reach its destination 1 million miles away in another two weeks; it's already more than \_\_\_\_\_ miles from Earth since its Christmas Day launch.
9. If all continues to go well, when will science observations begin?
10. Astronomers hope to peer back to within \_\_\_\_\_ million years of the universe-forming Big Bang, closer than Hubble has achieved.

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

***What do you know about the Hubble Space Telescope? How is the new Webb Space Telescope different?***

***Why do you think the new telescope was named the Golden Eye?***

*"We have a deployed telescope on orbit, a magnificent telescope the likes of which the world has never seen," Zurbuchen said, congratulating the team. "So how does it feel to make history, everybody? You just did it."*

- ***What kind of space exploration do you think you'll see during your lifetime?***

***Do you think that spending \$10 Billion on a space telescope is irresponsible when there's human suffering here in the United States? Why or why not?***

News Break is posted to the Web on Monday. 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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