

## Quarter 2/ Unit 2

Title: Seeing Earth From Space by Patricia Lauber

Suggested Time: 5 days (45 minutes per day)

Common Core ELA Standards: RI1, RI2, RI3, RI4, RI6, RI7, RI8, RI10, RF4, W1a-d, W4, W5

### Teacher Instructions

*Refer to the Introduction for further details.*

#### **Before Teaching**

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers, about the big ideas and key understanding that students should take away **after** completing this task.

##### Big Ideas and Key Understandings

The views of Earth in comparison to the views from space are very different.

##### Synopsis

The ability to see Earth from space helps scientists to understand both how the planet works and how human activities are affecting the Earth.

2. Read entire main selection text, keeping in mind the Big Ideas and Key Understandings.
3. Re-read the main selection text while noting the stopping points for the Text Dependent Questions and teaching Vocabulary.

#### **During Teaching**

1. Students read the entire main selection text independently.

2. Teacher reads the main selection text aloud with students following along. (Depending on how complex the text is and the amount of support needed by students, the teacher may choose to reverse the order of steps 1 and 2.)
3. Students and teacher re-read the text while stopping to respond to and discuss the questions and returning to the text. A variety of methods can be used to structure the reading and discussion (i.e.: whole class discussion, think-pair-share, independent written response, group work, etc.)

### Text Dependent Questions

Text Dependent Questions	Answers
Why is this article titled "Seeing Earth from Space"?	This article is a photo-essay, a unique genre that combines photographs and text. All the photos in it were taken from space.
"Their photographs and others show us earth as we can never see it for ourselves" (pg. 290). What is it that the astronauts can see clearly that is hard for us to believe?	That earth itself, and therefore all of us are flying through space, in constant motion as we journey along on our orbit. You can also see clearly that earth is a sphere (round).
"Islands glide by, tiny outposts in the seas that cover two-thirds of earth." Translate this sentence (re-state it in your own words).	Answers will vary, but students should be expected to capture the idea that most of the earth is water and that islands seem to be floating in them, the land much smaller than the watery parts.
"Once an island is born, life arrives." (pg 294). What does this mean? Use the rest of the paragraph to explain what the author is talking about.	Living things find their way to the island and settle there: seeds and plants wash up on shore. Insects and more seeds arrive by wind. Birds fly to the island and bring more seeds. Even humans might come and settle there.
Explain how the Hawaiian Islands were formed (page 295)	The big island of Hawaii was originally two islands, one built by the volcano Mauna Loa, and the other by Mauna Kea. Huge lava flowed from Mauna Loa linked the two islands and made them one.

<p>Why is there a picture of a spaceship with dots on nearly every page of this article?</p>	<p>Answers will vary, but students should be able to say that it is a reminder of the fact that this is a discussion of what earth looks like from the point of view of a spaceship out in space.</p>
<p>Explain what goes on with the earth's plates. What do they do and what does this action cause? (Page 299)</p>	<p>The plates are floating on the magma, the hot and liquid layer under the plates. They move on the magma and this movement sometimes means the plates bang into each other. This can cause the land at the edges to crumple up and form new mountains.</p>
<p>To a person standing on its surface, the Earth appears large and sturdy. From space it appears small and fragile. What argument does the rest of the article make starting with these two sentences? (Pp 302-304)</p>	<p>From this point on, the article argues that the earth does not have the boundaries we who live on it have created. Instead, it is fragile, and needs our attention and help. We need to work together to make this happen. The final paragraph makes this most clear. Students may struggle with this idea, but it is important they be lead through the evidence.</p>

Vocabulary

	<b>KEY WORDS ESSENTIAL TO UNDERSTANDING</b> Words addressed with a question or task	<b>WORDS WORTH KNOWING</b> General teaching suggestions are provided in the Introduction
<b>TEACHER PROVIDES DEFINITION</b> not enough contextual clues provided in the text	Satellite, astronauts, sensors (290) Air pollution (293) Eruptions (294) Lava (295) Craters (301)	Settle (294) Colonies ( Dim, barren, outpost (301) Awed, Soviets, sturdy, fragile, felled, eroding, tarry (302) Boundaries, meander, boundless (303)
<b>STUDENTS FIGURE OUT THE MEANING</b> sufficient context clues are provided in the text	Orbit/orbiting (290) Unseen (291) Island (294) Volcano, shelved off, corals, reef, lagoon atoll (297) Masses, plates (298) Atmosphere (301, defined on 303) with: Stratosphere, ionosphere, space (303)	Masked, instruments, whirling (290) Glinting (293) Generations (297) Collided, collision, folded, tilted (299) Ability, affecting (300) Wondrous (304) Life-support (304)

## Culminating Task

- This article has lots of pictures and lots of writing. Which of these dominates (gets a more important place in) the article? Write an essay that has an opening paragraph that establishes your position and then use at least three examples from the article to argue your case in the main part of your essay. Finish by showing how you have proved your case. In providing examples, you can refer to page numbers, but you must also describe the photos and paraphrase the text to support your position. You can use any part of the materials. Remember, your job is to make and prove this argument, not just to describe the article and the beautiful photographs.

(Note to teacher: this is a rigorous task that will allow students to develop what they really believe, but then require them to make a case. Making their case will send them back over and over again to re-read the photo-essay and to ponder the relationship between the photos and the text. This is a deep way for students to practice both reading standard 7 and writing standard 3 and is worth the time it will take. It *will* take a lot of time for students to do this well, and they will need support from you.

Answers will vary, but you should look for students to use textual and picture evidence and to refer clearly to the article. The essay should have a three part structure.

## Additional Activities

There are *many* challenging and beautifully written passages here. Ask students to pair up and select a photo they find compelling and to re-read aloud to each other the text that goes with that picture. Then they could present their favorites to the class, as time allows. This would support fluency, rereading, cooperative learning and public speaking.

## Note to Teacher

This text is challenging, especially so early in the school year. Students may need to have more of this read aloud and chunked by photo and text more than usual. The writing task and several of the questions will need lots of support, especially if this is the first extended writing you have done, or the first time you wrestled with a text this challenging with your students.

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

Date \_\_\_\_\_

**“Seeing Earth From Space”**

1. Why is this article titled “Seeing Earth from Space”?
2. “Their photographs and others show us earth as we can never see it for ourselves” (Pg. 290). What is it that the astronauts can see clearly that is hard for us to believe?
3. “Islands glide by, tiny outposts in the seas that cover two-thirds of earth.” Translate this sentence (re-state it in your own words).
4. “Once an island is born, life arrives.” (Pg 294). What does this mean? Use the rest of the paragraph to explain what the author is talking about.

