Lesson 2.1
Observing Earth from Space
Lesson Overview

Students make observations of Earth as they begin a new investigation of why it is daytime in some places on Earth when it is nighttime in other places. Students are introduced to a new Chapter Question about why it was daytime for Sai when it was nighttime for his grandma. The teacher rereads the second half of After Sunset and students use the illustrations in the book to make observations of what Earth looks like from space. Students continue to gather evidence of what Earth looks like by watching a series of videos and then discussing their observations of Earth from the videos. Partners use data from The Sky from Different Places table to label locations on a globe as “daytime” or “nighttime” during webcam observations. Students are introduced to a new key concept—Earth is round like a ball.—to consolidate their learning throughout the lesson. The purpose of this lesson is for students to figure out that Earth is round like a ball, preparing them to draw conclusions about how Earth’s shape relates to daytime and nighttime throughout the rest of the chapter.

Anchor Phenomenon: The sky looks different to Sai than to his grandma when they talk on the phone.
Investigative Phenomenon: Earth from space.

Students learn:

• Earth is round like a ball.
Observing Earth from Space in After Sunset

The teacher rereads the second half of After Sunset to the class. Students make observations of the illustrations of Earth from space.

Instructional Guide

1. Display the After Sunset big book.

We know that scientists like us read to gather information to help answer their questions. Sometimes scientists go back to a book they have already read and read it again. Reading again helps them gather more information to answer a new question.

We have a new question about Earth. We can go back to After Sunset and read part of it again to gather information to help figure out our new question.

2. Flip through the first few pages of the After Sunset big book.

The first part of After Sunset is about the different things that we can see in the sky from Earth.

The second part of After Sunset is about what Earth looks like from space. Scientists called astronauts have taken pictures of Earth from space. If we know what the whole Earth looks like, it might help us understand what it means to be in different places on Earth. We will read the second part of After Sunset again.


What do these pages tell us about Earth?
[Earth is a planet. Earth is the planet we are standing on. Earth looks round.]

4. Introduce Earth with the vocabulary routine. Hold up the Earth vocabulary card and lead the vocabulary routine.

This is the word Earth. Earth is the planet we live on.
We are going to practice saying the word. Say the word after me: *Earth*.

Now say the word together: *Earth*.

Now whisper the word *Earth* to your partner.

Earth is the planet we live on.

Post the *Earth* vocabulary card to the Vocabulary section of the classroom wall.

5. **Point out features of Earth in the illustration on page 12.** Point to the blue areas of the illustration.

- These areas show water.

Point to the white areas of the illustration.

- These areas show clouds.

Point to the green and brown areas of the illustration.

- These areas show land.

Point to the curved area around the edge of Earth.

- It looks like the land, water, and clouds curve, or bend, around the sides of Earth in this picture.

6. **Continue reading through the end of the book.** Point to the illustrations on pages 18 and 19.

- The space station is a place where scientists make observations of Earth from very far away.

7. **Have students share ideas about Earth.**

- What did you learn about Earth from *After Sunset*?

Accept all responses. Students will continue to refine their understanding of Earth throughout this lesson.

**Teacher Support**

**Rationale**

**Pedagogical Goals: Revisiting *After Sunset***

The class reads *After Sunset* in Chapter 1, but this revisit has a different purpose. Revisiting the selected pages in *After Sunset* allows students to read with a specific purpose in mind: understanding more about Earth. Specific images, such
as the image of Earth on page 12, give students concrete examples that they can use to deepen their understanding of Earth and its shape. This page provides students with a visual representation that introduces them to the new key concept that will be explored in this lesson and posted on the classroom wall: *Earth is round like a ball.*
Observing Earth from Space in After Sunset

The teacher rereads the second half of *After Sunset* to the class. Students make observations of the illustrations of Earth from space.

**Instructional Guide**

1. Display the *After Sunset* big book.

   - Sabemos que los científicos como nosotros leen para reunir información para ayudar a responder sus preguntas. A veces los científicos regresan a un libro que ya han leído y lo leen de nuevo. Leer de nuevo les ayuda a reunir más información para responder una nueva pregunta.

   - Tenemos una nueva pregunta sobre la Tierra. Podemos regresar al libro *Después de la puesta de sol* y leer parte de él de nuevo para reunir información para ayudar a resolver nuestra nueva pregunta.

2. Flip through the first few pages of the *After Sunset* big book.

   - La primera parte de *Después de la puesta de sol* trata sobre las diferentes cosas que podemos ver en el cielo desde la Tierra.

   - La segunda parte de *Después de la puesta de sol* trata sobre cómo se ve la Tierra desde el espacio. Los científicos llamados astronautas han tomado fotografías de la Tierra desde el espacio. Si sabemos cómo se ve la Tierra entera, esto podría ayudarnos a entender lo que significa estar en diferentes lugares en la Tierra. Leereamos la segunda parte de *Después de la puesta de sol* de nuevo.


   - ¿Qué nos dicen estas páginas sobre la Tierra? [La Tierra es un planeta. La Tierra es el planeta sobre el que estamos parados. La Tierra se ve redonda].

4. Introduce *Earth* with the vocabulary routine. Hold up the *Earth* vocabulary card and lead the vocabulary routine.
Esta es la palabra Tierra. La Tierra es el planeta en el que vivimos.

Vamos a practicar decir la palabra. Digan la palabra después de mí: Tierra.

Ahora digan la palabra juntos: Tierra.

Ahora susurren la palabra Tierra a su compañero o compañera.

La Tierra es el planeta en el que vivimos.

Post the Earth vocabulary card to the Vocabulary section of the classroom wall.

5. Point out features of Earth in the illustration on page 12. Point to the blue areas of the illustration.

Estas áreas muestran agua.

Point to the white areas of the illustration.

Estas áreas muestran nubes.

Point to the green and brown areas of the illustration.

Estas áreas muestran terreno.

Point to the curved area around the edge of Earth.

En esta imagen se ve como si el terreno, el agua y las nubes se curvaran, o se doblaran, alrededor de los lados de la Tierra.

6. Continue reading through the end of the book. Point to the illustrations on pages 18 and 19.

La estación espacial es un lugar en donde los científicos hacen observaciones de la Tierra desde muy lejos.

7. Have students share ideas about Earth.

¿Qué aprendieron sobre la Tierra tras leer Después de la puesta de sol?

Accept all responses. Students will continue to refine their understanding of Earth throughout this lesson.
Teacher Support

Rationale

Pedagogical Goals: Revisiting After Sunset
The class reads After Sunset in Chapter 1, but this revisit has a different purpose. Revisiting the selected pages in After Sunset allows students to read with a specific purpose in mind: understanding more about Earth. Specific images, such as the image of Earth on page 12, give students concrete examples that they can use to deepen their understanding of Earth and its shape. This page provides students with a visual representation that introduces them to the new key concept that will be explored in this lesson and posted on the classroom wall: Earth is round like a ball.