Lesson 2.6
Modeling Camouflage
Lesson Overview

Students create a new model to explore how camouflage functions as a defense against being eaten. First, students observe a video of a penguin swimming along the ocean floor to gather evidence about camouflage as a type of defense. Next, partners browse the reference book to observe images of animals and plants that are using camouflage to gather additional evidence. Students create Camouflage Models by coloring pieces of paper to make them difficult to see against one of several landscape backgrounds. The class revisits the Models of Animal and Plant Defenses chart, adding the Camouflage Model to the chart and explaining how camouflage works to defend living things from being seen and eaten. The purpose of this lesson is to expand students’ understanding of the scientific practice of modeling as they learn how camouflage works as a defense to prevent living things from being eaten by other animals.

**Anchor phenomenon:** Spruce the Sea Turtle will survive in the ocean.
**Investigative phenomenon:** Animals can avoid being eaten.

**Students learn:**

- Camouflage is a defense in which an animal or plant is hard to find because it looks similar to the background.
- Camouflage helps some animals and plants defend themselves from being eaten.
Gathering More Evidence About Camouflage

Partners browse a section of *Spikes, Spines, and Shells* to gather evidence about how camouflage helps living things defend themselves.

**Instructional Guide**

1. **Display the *Spikes, Spines, and Shells* big book and set the purpose for browsing.**
   
   We have been using this book to learn about how animals and plants use spikes to do what they need to do to survive.

   Now, we will use this book to observe animals and plants that use camouflage to defend themselves. Our observations will help us figure out how camouflage works to keep an animal from being eaten.

2. **Display the Contents page of the *Spikes, Spines, and Shells* big book.**
   
   Remember that this page is the Contents page. The Contents page shows readers what pages contain the information they are looking for so that they can find it.

3. **Point out and read aloud the “Camouflage” heading on the Contents page.**
   
   Camouflage.

   The Contents page shows that I can find out more about camouflage in the section that starts on page 6. I am going to turn there.

4. **Turn to page 6 and read it aloud to students.** Point out that the fox’s fur is the same color as the snow. Explain that when an animal looks the same as the background, the animal is blending in with the background.

5. **Review the purpose for partners browsing *Spikes, Spines, and Shells*.** Revisit the Partner Reading Guidelines as needed.
You and your partner will work together to observe the pictures in this section of the book.

As you observe the pictures, take turns visualizing how camouflage might keep the animal or plant from being eaten.

6. Turn to page 8 and model observing, describing, and visualizing how the lava lizard uses camouflage.

I observe that this lava lizard is light grey with speckles. The lava lizard’s skin looks a lot like the rock it is sitting on.

I am visualizing another animal walking by the lava lizard and not finding or eating it because the lava lizard cannot be seen against the rock.

The lava lizard’s speckled skin helps it to blend in because it is the same color as the rock. Its speckled skin works as camouflage on the rock.

7. Distribute copies of Spikes, Spines, and Shells, and have students browse the pages. Give one copy to each pair of students. Remind students that they are observing and discussing the camouflage in the pictures on pages 6–15. As you circulate use the following questions to support students’ observations and discussions:

- What do you notice about the shape and color of the animal?
- What do you notice about the place or background where the animal is?
- What did you visualize?

8. Gather students together in the discussion area and discuss observations. Remind students they were observing pictures to think about how camouflage might keep that animal or plant from being eaten. Invite students to share what they noticed.

What did you observe about the animals and plants in the book that use camouflage?
[The animals were the same color as the things around them. The animals blended in. Some animals had bodies that were the same shape as things around them, like the stick insects or the pebble plants. Some animals had patterns that were like the things around them.]

When you visualized, how did you imagine camouflage keeping an animal or plant from being eaten?
[The animal looked like the things around it, so a predator would not be able to see it.]

9. Prompt students to identify sources of evidence they used to understand camouflage.

We have figured out that some animals and plants have colors and shapes that match what is around them. This makes it hard for a predator to see them.

Evidence is information that helps figure out an answer.
Where did we get evidence to help us figure out that camouflage is a defense for some animals? [The video with the penguin swimming. The pictures in the reference book.]

10. Discuss how hawks use parts to capture and convey information they need for growth and survival.

Turn to page 9 of Spikes, Spines, and Shells big book and reread the section titled “What Eats Them?”

The lava lizard’s speckled skin helps it to blend in because it is the same color as the rock. Why does the lava lizard need to blend in? [to protect itself from hawks, which eat them]

What structures do you think the hawk uses to find the lava lizards? [it uses its eyes to see the lava lizards]

What do the hawks do once they sense a lizard with their eyes? [they use sharp claws to grasp and beaks to eat the lizards]

Eyes help hawks get information they need for growth and survival.

Teacher Support

Background

Literacy Note: Words That Are Not Key Vocabulary
Students may or may not be familiar with the word camouflage. A formal introduction to this word is not included in this lesson or in this unit. However, feel free to introduce or review this word if your students are unfamiliar with it. You may wish to use the established vocabulary routine to introduce the word.
Gathering More Evidence About Camouflage

Partners browse a section of *Spikes, Spines, and Shells* to gather evidence about how camouflage helps living things defend themselves.

**Instructional Guide**

1. Display the *Spikes, Spines, and Shells* big book and set the purpose for browsing.

   - Hemos estado usando este libro para aprender acerca de cómo los animales y las plantas usan púas para hacer lo que necesitan hacer para sobrevivir.
   - Ahora, usaremos este libro para observar animales y plantas que usan camuflaje para defenderse. Nuestras observaciones nos ayudarán a averiguar cómo funciona el camuflaje para evitar que un animal sea comido.


   - Recuerden que esta página es la página del Contenido. La página del Contenido les muestra a los lectores qué páginas contienen la información que están buscando para que puedan encontrarla.

3. Point out and read aloud the “Camouflage” heading on the Contents page.

   - Camuflaje.
   - La página de Contenido muestra que puedo averiguar más sobre el camuflaje en la sección que comienza en la página 6. Voy a pasar a esa página.

4. Turn to page 6 and read it aloud to students. Point out that the fox’s fur is the same color as the snow. Explain that when an animal looks the same as the background, the animal is blending in with the background.

5. Review the purpose for partners browsing *Spikes, Spines, and Shells*. Revisit the Partner Reading Guidelines as needed.
6. Turn to page 8 and model observing, describing, and visualizing how the lava lizard uses camouflage.

- Observo que esta lagartija de lava es de color gris claro con manchas. La piel de la lagartija de lava se ve casi igual a la roca sobre la cual está sentada.
- Estoy visualizando a otro animal caminando junto a la lagartija de lava sin encontrarla y comerla porque la lagartija de lava no puede ser vista contra la roca.
- La piel con manchas de la lagartija de lava la ayuda a esconderse porque es del mismo color que la roca. Su piel con manchas funciona como camuflaje sobre la roca.

7. Distribute copies of *Spikes, Spines, and Shells*, and have students browse the pages. Give one copy to each pair of students. Remind students that they are observing and discussing the camouflage in the pictures on pages 6–15. As you circulate use the following questions to support students’ observations and discussions:

- What do you notice about the shape and color of the animal?
- What do you notice about the place or background where the animal is?
- What did you visualize?

8. Gather students together in the discussion area and discuss observations. Remind students they were observing pictures to think about how camouflage might keep that animal or plant from being eaten. Invite students to share what they noticed.

- ¿Qué observaron sobre los animales y las plantas en el libro que usan camuflaje?
  [Los animales eran del mismo color que las cosas alrededor de ellos. Los animales se escondían. Algunos animales tenían cuerpos que tenían la misma forma que las cosas alrededor de ellos, como los insectos palo o las plantas piedra. Algunos animales tenían patrones que eran como las cosas alrededor de ellos].
- Cuando visualizaron, ¿cómo imaginaron el camuflaje evitando que fuera comido un animal o una planta? [El animal se veía como las cosas alrededor de él, así que un depredador no podría verlo].

9. Prompt students to identify sources of evidence they used to understand camouflage.

- Hemos averiguado que algunos animales y plantas tienen colores y formas que coinciden con lo que está alrededor de ellos. Esto hace que para un depredador sea difícil verlos.
- Evidencia es información que ayuda a averiguar una respuesta.
10. Discuss how hawks use parts to capture and convey information they need for growth and survival.

Turn to page 9 of *Spikes, Spines, and Shells* big book and reread the section titled “What Eats Them?”

> ¿Dónde obtuvimos evidencia para ayudarnos a averiguar que el camuflaje es una defensa para algunos animales?
> [El video con el pingüino nadando. Las imágenes en el libro de referencia].

Teacher Support

**Background**

**Literacy Note: Words That Are Not Key Vocabulary**

Students may or may not be familiar with the word *camouflage*. A formal introduction to this word is not included in this lesson or in this unit. However, feel free to introduce or review this word if your students are unfamiliar with it. You may wish to use the established vocabulary routine to introduce the word.