Lesson 1.1
Pre-Unit Assessment
Lesson Overview

Students’ Initial Explanations

Students are introduced to the *Needs of Plants and Animals* unit. They learn that a group of children needs their help to figure out why there are no monarch caterpillars in an area that has been changed from a field to a vegetable garden. Students discuss what they know about what plants and animals need to live in a place. The oral explanations students provide in this discussion serve as a pre-unit assessment for formative purposes and are designed to reveal students’ initial understanding of some of the unit’s core content, both unit-specific science concepts and the crosscutting concept of Systems and System Models, prior to instruction. As such, these three-dimensional assessments offer a baseline from which to measure growth of understanding over the course of the unit. These explanations can also provide the teacher with insight into students’ thinking as they begin the unit. This will allow the teacher to draw connections to students’ experiences and to watch for preconceptions that might get in the way of understanding. Students also learn about the strategy of setting a purpose for reading, implementing this strategy during a Read-Aloud of the book *Science Walk*. The purpose of this lesson is to provide students with an overview of the unit context, and their role as scientists in order to motivate their learning about the needs of living things throughout the unit.

**Anchor Phenomenon:** There are no monarch caterpillars in the Mariposa Grove community garden since a vegetable garden was planted.

**Students learn:**

- Scientists are people who learn about the world around them by carefully observing it.
- Scientists observe using their senses.
The teacher reads *Science Walk* aloud and introduces the strategy of setting a purpose for reading.

### Instructional Guide

1. **Revisit the role and unit context.** Remind students they are helping the children in Mariposa Grove figure out why there are no caterpillars in the Garden.

   We need to be scientists and figure out what has changed in the area. Now that the Field has become the Garden, the monarch caterpillars no longer live there.

2. **Introduce the book *Science Walk*.**

3. **Display the front cover of *Science Walk*.** Invite students to share what they notice on the cover.

4. **Introduce the strategy of setting a purpose for reading.**

   An important way that readers learn from a book is to set a purpose before reading. When you set a purpose, you decide what you want to figure out when reading something. As you read, you can make sure that you figure out what you want to figure out.

5. **Set the purpose for reading.**

   We want to learn more about what scientists do to learn about the world. We are going to read the book *Science Walk* to help us figure out what this class of scientists did to learn about a place near their school. That is our purpose for reading.

6. **Begin reading and pause at the end of page 7.**
Ms. Lee told her class that scientists can observe something with their eyes. That means they can pay close attention to something and look at it carefully. When we use our eyes, we are using our sense of sight.

Ms. Lee also said that scientists use their other senses, too. Do you know any other ways that we can learn about things around us?
[We can smell things. We can touch things. We can hear things and taste things.]

7. Read page 8. Pause to highlight the senses depicted in the Our Science Tool Kit illustration. Ask students to point to each body part as you review these senses.

8. Continue reading and pause at the end of page 10.

Remember, our purpose for reading is to figure out what this class did as scientists to help them learn about a place near their school.

9. Direct students' attention to the illustration on page 11.

What do you notice the students in this picture are doing that can help them learn about this place?
[They are using their senses. They are looking at different things outside. They are smelling the flowers. They are listening.]

10. Continue reading and pause at the end of page 13. Have students notice what senses the students are using to observe and gather information. Return to the Our Science Tool Kit illustration on page 8 if students need support.

The students are learning many things about this place by their school. What parts of their body are they using as they observe?
[Ears to hear birds. Nose to smell flowers. Eyes to see plants and animals.]

They are observing with their senses to learn more about this place.

11. Continue reading aloud to the end of the book. Remind students of their purpose for reading.

Our purpose for reading was to learn about what this class of scientists did to help them learn about the place near their school. What did we learn?
[They went on a walk to look for things that live near their school. They used their eyes, ears, and nose to observe things that live near their school.]

The students observed with their senses and learned that different things live in the place near their school. And now they have more questions to explore!

12. Conclude the lesson. Let students know that in the next lesson they will read this book again with a partner, and then observe with their senses to learn about their classroom. Explain that being scientists will help them figure out what changed when the Field was made into the Garden and why the monarch caterpillars do not live in the Garden.
Teacher Support

Background

About the Book: Science Walk
Science Walk introduces students to several scientific practices in the context of a story about a kindergarten class observing living and nonliving things outside. As the fictional class prepares for its science walk, the teacher explains the process of making observations, recording data, classifying information, and asking questions. Students first hear the book as a Read-Aloud and think about what scientists do to answer questions. Later, they explore the book as a Partner Read and look for living things in the images and text. The book helps prepare students to classify living and nonliving things and then make further classifications within the category of living things. After they have read about and explored these scientific practices through the book and related activities, students take a science walk of their own.

Rationale

Literacy Note: Approach to Reading
The books in this unit are designed to gradually increase students’ responsibility for reading science texts. All kindergarten units include several books designated as Read-Alouds that are designed to provide students with an introduction to the language of science they will come to use in their discussions and in later reading. In a Read-Aloud, the teacher models fluent and expressive reading of the text and verbally interacts in order to model strategic reading, thinking aloud about the content, introducing new vocabulary, and facilitating students’ comprehension of the text. This allows students to become increasingly familiar with reading strategies and with the content of the unit. As the unit progresses, students will take more responsibility for reading when they engage in Shared Reading of other unit texts. By structuring reading instruction in this way, students have multiple experiences with the content and vocabulary of the unit, while also developing strategies for reading to learn from science texts.

Background

Literacy Note: Purpose of the Read-Aloud Book
The Read-Aloud book in this unit serves many purposes. In this Read-Aloud, you will stop at key points to model asking questions and to point out key science ideas. In this lesson, the focus is on finding out what scientists do to learn about the world. Students will also be guided through making sense of the core vocabulary in the text. In later lessons, the book will be referred to as a resource for learning and understanding other science ideas. You may wish to read the book aloud at least one more time during the unit. An additional read will build familiarity with the content and vocabulary.

Background

Literacy Note: Setting a Purpose
The cognitive strategy selected for this unit is setting a purpose, which is a strategy used to identify and set a specific reason for engaging in an activity. The activity could be reading a text or completing an investigation. Scientists and readers set a reason for what they are doing to assist their learning and understanding. This can also help them to decide what to focus on. Embedded throughout the rest of the unit are multiple opportunities for you to model this strategy and then facilitate students’ independent practice.
Reading: Science Walk

The teacher reads *Science Walk* aloud and introduces the strategy of setting a purpose for reading.

Instructional Guide

1. **Revisit the role and unit context.** Remind students they are helping the children in Mariposa Grove figure out why there are no caterpillars in the Garden.

   Necesitamos ser científicos y científicas para averiguar qué ha cambiado en el área. Ahora que el campo se ha convertido en el jardín, las orugas monarcas ya no viven allí.

2. **Introduce the book *Science Walk*.**

   Los científicos hacen muchas cosas para ayudarles a aprender acerca del mundo. Hoy leeremos acerca de cómo una clase de científicos, tales como nosotros, aprendió acerca de un lugar cercano a su escuela.

3. **Display the front cover of *Science Walk*.** Invite students to share what they notice on the cover.

4. **Introduce the strategy of setting a purpose for reading.**

   Una manera importante en la que los lectores aprenden de un libro es definir un propósito antes de leer. Cuando definen un propósito, deciden lo que quieren averiguar al leer algo. Mientras leen, pueden asegurarse de que averiguan lo que quieren averiguar.

5. **Set the purpose for reading.**

   Queremos aprender más acerca de lo que hacen los científicos para aprender acerca del mundo. Vamos a leer el libro *Un paseo científico* para ayudarnos a averiguar lo que esta clase de científicos hizo para aprender acerca de un lugar cercano a su escuela. Ese es nuestro propósito para leer.

6. **Begin reading and pause at the end of page 7.**
La señorita Lee le dijo a su clase que los científicos pueden observar algo con sus ojos. Eso significa que pueden poner mucha atención a algo y mirarlo detenidamente. Cuando usamos nuestros ojos, estamos usando nuestro sentido de la vista.

La señorita Lee dijo además que los científicos también usan sus otros sentidos. ¿Conocen algunas otras maneras en que podemos aprender sobre las cosas a nuestro alrededor?

[Podemos oler cosas. Podemos tocar cosas. Podemos oír cosas y saborear cosas].

7. Read page 8. Pause to highlight the senses depicted in the Our Science Tool Kit illustration. Ask students to point to each body part as you review these senses.

8. Continue reading and pause at the end of page 10.

Recuerden, nuestro propósito para leer es averiguar lo que esta clase hizo como científicos para aprender acerca de un lugar cercano a su escuela.

9. Direct students’ attention to the illustration on page 11.

¿Qué notan que los estudiantes en esta imagen están haciendo que puede ayudarles a aprender acerca de este lugar?


10. Continue reading and pause at the end of page 13. Have students notice what senses the students are using to observe and gather information. Return to the Our Science Tool Kit illustration on page 8 if students need support.

Los estudiantes están aprendiendo muchas cosas acerca de este lugar cerca de su escuela. ¿Qué partes de su cuerpo están usando mientras observan?

[Orejas para oír los pájaros. Nariz para oler las flores. Ojos para ver las plantas y los animales].

Están observando con sus sentidos para aprender más acerca de este lugar.

11. Continue reading aloud to the end of the book. Remind students of their purpose for reading.

Nuestro propósito para leer era averiguar lo que esta clase hizo como científicos para aprender acerca de un lugar cercano a su escuela. ¿Qué aprendimos?

[Salieron en un paseo para buscar cosas que viven cerca de su escuela. Usaron sus ojos, orejas y nariz para observar cosas que viven cerca de su escuela].

Los estudiantes observaron con sus sentidos y aprendieron que diferentes cosas viven en el lugar cerca de su escuela. ¡Y ahora tienen más preguntas que explorar!

12. Conclude the lesson. Let students know that in the next lesson they will read this book again with a partner, and then observe with their senses to learn about their classroom. Explain that being scientists will help them figure out what changed when the Field was made into the Garden and why the monarch caterpillars do not live in the Garden.