Day 8			
What are Ecosystems?			
Literacy Strategy: Reading for Specific Information on a Website and Using Text Features Practice		Science Concept: Living things depend on each other, and also on their non-living environment for survival. The interactions between living and non-living components make up an ecosystem.	
Reading TEKS: (1)(b)(13)(C), (1)(b)(9)(D)	CCSS: RI.1.10, RI.1.5	NGSS: 1-LS1-1, 1-LS1-2	Science TEKS: 1(9)(C), 1(10)A
Materials for Mini-lessons on Science-specific Disciplinary Literacies (referred to as Mini-lesson): anchor charts, book for modeling strategies			
Materials for Science Inquiry Circles: team inquiry charts, pencils, informational texts			
Materials for Science Whole Group Lesson: See lesson			
Content Vocabulary: Organisms - living things that are able to carry on the functions (actions) needed to live, grow, and survive. Needs- the things essential for survival Environment- the natural place or surroundings where organisms live Ecosystem- a group of living organisms interacting with each other and their non-living environment.			
Science and Literacy Connection: Scientists look very carefully for facts or information during an investigation or research because they know it can be used as evidence to explain and support their answers.			

Mini-lesson — 15 minutes

OVERVIEW

Mini-lesson practice should be used as a time to practice the reading strategies previously taught in this unit. Teachers are encouraged to use this time to best meet the needs of their students. Perhaps your class needs more time with the mini-lesson from the day before, or you may choose to circle back to mini lessons from a week ago. The choice is yours; we just ask that you use this time to practice!

Teachers should determine if this mini lesson will be facilitated with the whole group or a small group (i.e., a particular inquiry circle group) who needs additional support. If you are working with a small group, we suggest your other learners spend additional time within the inquiry circles.

This Mini-Lesson provides opportunities for children to get additional practice using some of the strategies previously taught.

PROCEDURE

Declarative Knowledge (Tell them what the strategy is that they are learning)

1. Say something like, "Today we will continue to practice using text features and reading for specific information on the internet. Remember, text features are the table of contents, index, headings, bold words, etc. You find many of these text features in books and on the internet. Refer to the anchor charts previously made with the class.

Conditional Knowledge (Tell them when and why you know to use the strategy)

2. Say something like, "I use text features when I am searching for specific information in many texts and websites. I will do this because I don't want to read a text from cover to cover and I can locate specific information quickly.

Procedural Knowledge (Tell them the steps to using the strategy)

3. For this section in the mini-lesson, the teacher may choose to model the strategy again for the class. Be sure to use a different text or page in the text than what you modeled yesterday. Teachers are encouraged to share examples of students using this strategy from the day before. Say something like, "Mohamed's group did a great job yesterday using text features to find information quickly. I was so impressed when they_____." Teachers also are encouraged to invite the groups to share with their peers (you may need to scaffold this and prepare the students for sharing beforehand.)

Practice in text (print, video, or interview)

Post the anchor charts in your classroom so students can refer to it while in their inquiry circles. Encourage scientists to use the strategy during in their Inquiry Circles.

Science Inquiry Circles — 30 minutes

OVERVIEW

Scientists work in teams when conducting research and investigations. Each day of this unit, students will work in inquiry circle groups while embodying the role of a scientist. They will do so by taking on roles of scientists in research by speaking like a scientist, reading like a scientist, and writing like a scientist.

PROCEDURE

Before Inquiry Circle Groups — 5 minutes You might want to say something like this to the readers:

- 1. It is time to get into our inquiry circle groups. You will be with the same research team as yesterday.
- 2. When we research ecosystems, we will practice our roles as scientists. We will do this because scientists have a special way in which they observe the world, read scientific texts, and write reports. There is no better way to learn about science than to become a scientist!

During Inquiry Circles (20 minutes)

You might want to say something like this to the readers:

- 3. We have anchor charts to help guide your thinking. Do not forget to use them while in groups. (Refer to the "Language of a Scientist" anchor chart and the daily anchor chart. Remind students that they can use all the reading strategies taught, not just the one for that day.)
- 4. My role is to help guide the inquiry circle groups, but I expect you to work as a scientific team to solve your problems together.
- 5. Do not forget to answer your research questions and record it on the inquiry chart. It is important to record your sources on the inquiry chart as you complete it. (Be sure to explicitly explain how students should use the chart.)

(While groups are working together, walk around the room to facilitate as needed.)

After Inquiry Circles (5 minutes)

You might want to say something like this to the readers:

- 6. As we are concluding our inquiry circle groups for today, each group will have a chance to share what they accomplished and learned.
- 7. The Lab Director should lead the discussion with their inquiry circle group about today's results. For example, what did you learn about your animal? Which reading strategies did you use? What problems did you encounter? How did you resolve those problems?
- 8. The Data Scientist will now share with the entire class either something the group learned about their animal, which reading strategy(ies) were used, or how the group solved a problem.

Science Investigation — 30 minutes

OVERVIEW

Children view a slideshow of different environments to discuss the living and non-living components in each natural place, or habitat, where organisms live. They are also introduced to the concept of ecosystems.

GUIDING QUESTIONS

What are the living and non-living components in an environment? What is an ecosystem?

BACKGROUND INFORMATION

Communities of organisms living in the same natural place at the same time, form ecosystems where they interact with each other and their non-living environment. Ecosystems provide organisms what is needed for survival in all different kinds of environments on Earth.

SAFETY

Lab Directors should remind the students to follow the rules for observing the pill bugs.

MATERIALS

- Copy of the Environments ppt.
- Science Journals
- Chart paper with list of responses from previous day's reading of "A Log's Life"
- Computer/means for projecting ppt.

SET UP

Before the class:

• Preview and prepare to project the Environments ppt.

DAILY OBSERVATIONS

• Remind students that this is Day 3 for making observations of their mini-habitats and recording data in their science notebooks. **Observations can be made any time of the day as long as they are made daily.**

PROCEDURE

Engage

- 1. Begin the lesson by reminding the students about the story of the oak tree they read yesterday. Ask, "What are some of the things we learned about the organisms in the story?" (Prompt them with the responses recorded yesterday on chart paper if needed.)
- 2. Remind them that all the organisms In the book "*A Log's Life*" were dependent on each other for different reasons, giving us good examples of "interdependence". "Who can explain what interdependence means?" "Who can give me one example of interdependence from the story?"
- Explain that in the story many different organisms all lived in the same natural place, or environment, – the forest. "The forest environment is made up of living and non-living things. When groups of living organisms interact with each other and their non-living environment, we call that an ecosystem. Let's learn more about that!"

Explore

- 4. Project slide #1 (duck in pond) "Who can name the living things in this picture?" (duck, plants, trees). "Could there be other living organisms that we can't see?" (Accept responses/offer prompts.) May include fish, insects, animals in the trees, etc.)
- 5. "Let's think about what the non-living things might be." (Accept responses.) "Is water alive?" (No) What other things do you see that are not alive? (rocks)
- 6. Explain that living things not only depend on each other, but also on their non-living environment for survival. The non-living environment includes things like water, air, light, and temperature. "All these things together make up an ecosystem!"
- 7. "There are many types of environments that support ecosystems in the world- let's look at some examples! (Project "Environments ppt.")

Explain

8. As you project the images, ask for volunteers to identify the living and non-living components in the different ecosystem environments. Let them know that the pictures do not show all the organisms that live there. Ask, "What other organisms might live here that we can't see?"

Elaborate

- 9. After the slideshow, explain that it doesn't matter where in the world organisms live, their ecosystems provide what they need for survival. Add that these were only a few of the many places in the world where we can find ecosystems.
- 10. Let the class know they will be learning more about how ecosystems work in the next lesson.

Evaluate

- 11. Did students communicate prior knowledge about living or non-living things or ecosystems?
- 12. Did students accurately describe living and non-living components?
- 13. Did students raise new questions about ecosystems?

Expanded Standards

Reading TEKS: (1)(b)(13)(C) Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to (C) identify and gather relevant sources and information to answer the questions with adult assistance. (1)(b)(9)(D) Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to: (D) recognize characteristics and structures of informational text, including: (i) the central idea and supporting evidence with adult assistance; (ii) features and simple graphics to locate or gain information; and (iii) organizational patterns such as chronological order and description with adult assistance.

CCSS: (RI.1.10) With prompting and support, read informational texts appropriately complex for grade 1. (RI.1.5) Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text

NGSS: 1-LS1-1 Disciplinary Core Ideas- All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. 1-LS1-2 Science & Engineering Practices-Read grade appropriate texts and use media to obtain scientific information to determine patterns in the natural world.

Science TEKS: 1(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to: (C) gather evidence of interdependence among living organisms such as energy transfer through food chains and animals using plants for shelter. 1(10) Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to: (A) investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats