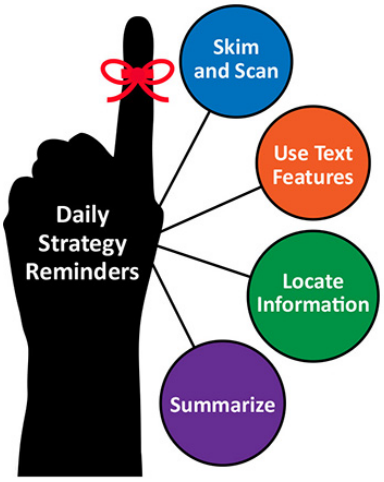
DAY 9 Why Do Certain Organisms Live in the Same Place?		
Reading Strategy: Making Connections		**Science Concept:** Organisms live in a place that will provide for their needs (air, water, food for energy, a place to be) to insure their survival.
Reading TEKS: 3.6E	**ELPS:** Speaking K-12, 19 TAC 74.4(c)(4)	**Science TEKS:** 3b2B, 3b4, 3b9A,
Materials for Reading Mini-lesson: Chart paper, markers, pond ecosystem inquiry chart, pond text to model strategy		
Materials for Inquiry Circle Groups: Group inquiry charts, pencils, variety of nonfiction texts for each group, access to websites and online books		
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. **Habitat –** the natural home or environment of living things **Ecosystem –** a group of living organisms interacting with each other and their non-living environment		
Science and Literacy Connection: Scientists make connections between what is already known and new information that is collected through observations and investigations.		

For an expanded version of the Standards listed above, see page ___.

Reading Mini-lesson — 15 minutes

OVERVIEW

Scientists make connections while doing research all of the time. For example, when researching organisms, a scientist makes note of where the organism lives; how his environment provides for his needs, and the role of the organism in the ecosystem it is a part of. This information can then be used to design an investigation.

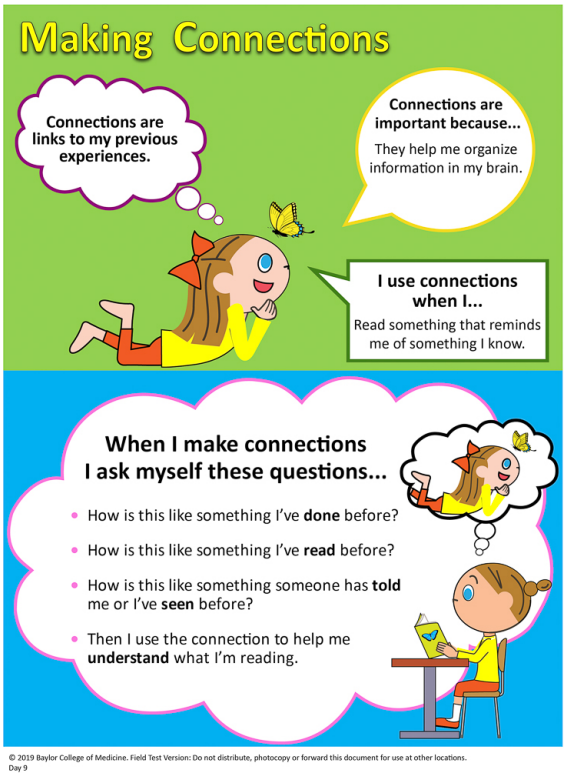


Explain the strategy below as follows.

- **Tell what the strategy is (declarative knowledge)**
  - Say something like, "Our strategy today is called accessing and making connections. It is thinking about the text and how it relates to myself, another text, or the world. I can also think about science and how it relates to myself, other sciences, and the world."
- **Tell when and why to use the strategy (conditional knowledge)**
  - Say something like, "I know to use this strategy (making connections) because the text or science investigation reminds me of something I already know. This strategy is important because my brain stores information in neat compartments (like drawers, or buckets). As I observe the world around

me (or read), my brain is always trying to 'match' the new information with what I know. Some people call this schema. Making connections helps me organize my new information (or orbservation) so I can find/locate it later.

- **Tell how to employ the strategy (procedural knowledge)**
  While modeling the strategy, you might want to say something like this to the readers:
  - The first thing I do is access my schema about the topic. I can think about what aspects of the old information can help me understand the new information.
  - I can ask myself literacy questions like 'How does this text relate to something I've already done before? How does this text relate to something I have read before? How does this text relate to something that I've seen in a movie/song or that someone has told me about before?'
  - I can also ask myself science questions like, 'Have I observed anything like this effect in my life? Have I seen similar effects in other experiments? How might this effect interact with others in the real world?'
  - Now, I will use those connections that I've made to help me understand what I'm seeing (in science) or reading (in a text). Once I've made the connection, now my schema may have been changed or reaffirmed.



Practice in text (print, video, or interview)
Post the anchor chart 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.

Inquiry Circle Groups — 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:

- It is time to get into our inquiry circle groups. You will be with the same research team as yesterday.

- 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 Circle Groups — 20 minutes

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

- We have anchor charts to help guide your thinking. Do not forget to use them while in groups. (Refer to the "Inquiry Tool box" 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.)
- 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.
- 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 Circle Groups — 5 minutes

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

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

Science Whole Group Lesson — 30-45 minutes

OVERVIEW

Students use organism cards to determine which organisms may live in the same environment.

GUIDING QUESTIONS

Which organisms live in the same environment? Why do they live there?

BACKGROUND INFORMATION

Communities of organisms living in the same place at the same time interact with each other and their non-living environment to meet their needs for survival. They also provide food and a source of energy for each other through the important food chains that they make as produces and consumers.

SAFETY

Remind students to follow safety rules for making observations on their sample.

MATERIALS

- Organism cards from Lesson 3
- Organism Cards Key for teacher
- Science notebooks

SET UP

Before the class:

- Teacher will remove the non-living cards from the set used in Lesson 3.
- Each team will need 1 complete set of organisms cards.
- Shuffle the set of cards and secure with a rubber band or place in a baggie before distribution

DAILY OBSERVATIONS

Students observe their samples and record data/information on data logs in their science notebooks.

PROCEDURE

Engage

1. **Remind students that they will be making observations of their investigations and recording data in their science notebooks every day for the next 5-7 days.** (Duration will depend on the success of the sample under investigation)
2. Remind the **Lab Directors** to make sure the team is following safety rules!
3. Tell them that while they are conducting their investigations, they will also be discussing and learning more about the research topics they are exploring during literacy time. Today they will look at some of the organisms they may have found through their research.

Explore

4. Ask the **Equipment Directors** to hand out the sets of cards (1 set per team).
5. Instruct the class to organize the cards according to who might live in the same location.
6. The teacher should move between the teams to observe and listen for their reasoning as they sort the cards. Allow them to organize them on their own without teacher assistance.
7. Allow 10 minutes for the sorting.

Explain

8. When all teams are finished, ask them how many different "groups" they came up with (3, 4, 5?)
9. Next, ask each team to explain **one** of their groupings and why the organisms were placed there.
10. Ask the other teams if they had a similar grouping. Encourage discussion about why or why not, but do not make any corrections at this point.
11. Proceed in the same manner with all teams until all groups have been described.
12. Ask the class why they think these organisms live in the same place. Accept all responses.
13. At this point the teacher can reveal the correct groupings and identities of the organisms.
14. Explain that living things depend on each other and on their non-living environment for survival. The non-living environment includes things like water, air, light, temperature.
15. Ask students to describe how living organisms can provide for each other. (Possible answers: as a source of food, air, habitat)

Elaborate

16. Explain that all of the organism in their groups represent different ***ecosystems***. An ecosystem describes a group of living organisms interacting with each other and their non-living environment.

17. The organisms that make up an ecosystem are identified as producers, consumers, and decomposers. The link between them and their environment is important for the flow of energy and nutrients.
18. Ask students to share what they have learned in their research about ecosystems.
19. Let the class know that they will be examining how ecosystems work in the coming lessons.

Evaluate

20. Did all students participate in the grouping of organisms?
21. Was the grouping based on communicated knowledge of the organisms?
22. Did students communicate prior knowledge about ecosystems?

Expanded Standards

Reading TEKS: 3.6E Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to: (E) make connections to personal experiences, ideas in other texts, and society

ELPS: Student Expectations for Speaking K-12, 19 TAC 74.4(c)(4) The student is expected to: (D) speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency; (E) share information in cooperative learning interactions.

Science TEKS: 3b2B: The student is expected to collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data. 3b4: The student is expected to collect, record, and analyze information using tools, including cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, magnets, collecting nets, notebooks, and Sun, Earth, and Moon system models; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums. 3b9A: The student is expected to observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem