

Day 7: Why Do Certain Organisms Live in the Same Place?

-  **Mini-lesson** Children practice previously taught reading strategies as needed.
-  **Inquiry Circles** Children answer more questions on their Inquiry Charts or add additional information from a different resource, such as a book, website, or eBook.
-  **Guided Science Investigation** Children sort cards to learn about organisms that live in the same environment, forming important ecosystems.

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| Literacy Strategy: practice identifying the main idea | Reading TEKS ELA.3.6G | CCSS RL.3.2 |
| 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. | Science TEKS 2018–19: 3.9A 2024–25: 3.12 | NGSS 3-LS2-D (DCI) 3-LS4.D |
| Science and Literacy Connection: When authors don't tell us what the main idea of the text is, we must pay close attention to the important details. As scientists, we must pay close attention to every detail when designing and carrying out investigations. | | |

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 learners. 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 the mini-lesson will be facilitated with the whole team or a small team (i.e., a particular inquiry circle team) that needs additional support. If you are working with a small team, we suggest your other learners spend additional time within the inquiry circles.

Science Inquiry Circles (30 minutes)

OVERVIEW

Learners have answered many of the Inquiry Chart questions and will determine what questions still need to be answered. Or, they can add additional information to a question from a different resource, such as a book, website, or eBook

MATERIALS

Each team member needs:

- team Inquiry Chart
- pencils
- exploratory texts/media (see the “Ecosystem Resources” spreadsheet for ideas)

Teacher needs:

- class Inquiry Chart (pond ecosystem)
- exploratory text, website, or eBook about pond ecosystems to model the strategy (optional)

PROCEDURE

Each *italicized statement* below contains suggested wording the teacher may use for the lesson; additional teacher actions and considerations are in parentheses.

Before Inquiry Circles

1. *It is time to get into our inquiry circle teams. You will be with the same inquiry team as yesterday.*
2. *You have already answered many of your Inquiry Chart questions. Use your Inquiry Chart to determine what questions still need to be answered. (You may remind your learners about the mini-lesson this morning or model it again, either using a different resource or pointing out that one resource may answer multiple questions.)*
3. *Now, inquiry teams will work together on their Inquiry Chart. (Be sure to display the class Inquiry Chart as a model.)*

During Inquiry Circles (20 minutes)

1. *Today, you may use a different resource to add to a question you have already answered or you may answer a completely different question. Do not forget to record your resources on the Inquiry Chart as you complete it. (Remind learners that the class Inquiry Chart about pill bugs is visible as a guide. Also, you may choose to be more explicit for your class and only allow them to answer one question at a time daily. Use your judgement on the level of guidance.)*
2. (At this point, teams might have information under multiple questions and from multiple sources. You may need to remind teams that **information in the same row is from the same source and information in the same column pertains to the same question.** One source might answer multiple questions.)
3. *Remember, we have anchor charts to help guide your thinking. Do not forget to use them while in teams. (Refer to all the mini-lesson anchor charts used to date, which should be posted in the classroom where learners can easily refer to them.)*
4. *My role is to help guide the inquiry circles, but I expect you to work as a team to solve your problems together. (While teams are working, walk around the room to facilitate as needed.)*

After Inquiry Circles (10 minutes)

1. *As we conclude our inquiry circles for today, each team will have a chance to share the questions they answered, as well as what they accomplished and what reading strategies they used. The Lab Director will lead the discussion about today's results. What did the team learn about the ecosystem they were exploring? Which reading strategy did team members use, and how did it help? What other problems did the team encounter? How did the team resolve those problems?*
2. *The Data Scientist will now share with the entire class either something the team learned about their ecosystem, a reading strategy, or how the team solved a problem. (Try to encourage teams to share a variety of things. You do not want just facts about ecosystems, just mini-lesson reading strategies, or just cooperative learning strategies. If you saw a great example in action, encourage that team to share with the entire class.)*

Guided Science Investigation (30–45 minutes)

OVERVIEW

Learners 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 FOR THE TEACHER

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

MATERIALS

Each team member needs:

- science notebook
- pencil

Each team needs:

- 1 prepared set of Organism Cards
- 1 set of “Ecosystem Headings” (distributed **after** the sorting)

Teacher needs:

- Organism Cards
- Organism Cards answer key
- “Ecosystem Headings” sheet
- baggies or rubber bands for sets of cards
- “Safety Rules for the Investigation” sheet (posted, or copied for learners)
- goggles
- gloves

SETUP

Before the class:

- Remove the Sun, sand, rocks, river, iceberg, and air cards from the set of Organism Cards.
- Make copies of the remaining cards (**1 set per team**).
- Shuffle the sets of cards and secure with rubber bands (or place in baggies) before distribution.
- **Copy and cut out one set of “Ecosystem Headings” for each team. Do not distribute until you are ready to reveal correct groupings (step 6 of “Explain” below).**

SAFETY

Remind learners to follow the safety rules introduced and posted in the previous class for making daily observations on their samples.

DAILY OBSERVATIONS

Observations can be made any time of the day as long as they are done daily. **Remind learners that they will be making observations of their investigations and recording data in their Team Data Log every day.** Observations should take 5–10 minutes, depending on the data each team is collecting.

PROCEDURE

Engage

1. Tell learners, *Today, as you begin work, think about what you learned during inquiry circle time that may help in today’s work. Explain, Even as you conduct your science investigations, you will continue to research your topics in inquiry circles because your science investigations and research are connected.*
2. *In today’s science lesson you will look at some of the organisms you may have seen in your research or organisms that live in the ecosystems you are exploring.*

Explore

1. Ask the Equipment Directors to hand out the organism cards (**ONLY 1 set per team**).
2. Instruct the class, *Your job is to sort the cards into groups that might live in the same location or environment. You may have many possibilities and will need to decide the best way to organize them as a team. Listen to each other’s ideas! You will have 10 minutes for sorting the cards.*
3. The teacher should move between the teams to observe and listen for their reasoning as they sort the cards. Allow them to organize the cards on their own without teacher assistance, thus encouraging them to work as a team.

Explain

1. When all teams are finished, ask, *How many different groups did you come up with (3, 4, 5?)*
2. Next, have each team explain **one** of their groupings and why the organisms were placed there.
3. Ask, *Can you describe what the environment they may live in is like?”* Allow time for a variety of responses but do not make any corrections at this point.
4. Proceed in the same manner with all teams until all of their groupings have been described.
5. Ask, *Why do you suppose so many different organisms all live in the same place?* Accept all responses.
6. **At this point, hand out the Ecosystem headings so that learners can reorganize the cards, if needed, as you reveal the correct groupings and identities of the organisms.**
7. Explain that living things depend on each other and on their nonliving environment for survival. Remind them that the nonliving environment includes things like water, air, light, and temperature that ensure organisms’ survival.

8. Ask, *In what ways do organisms provide for each other?* Accept responses and discuss using an example of their choice. (Possible answers: as a source of food, air, habitat).

Elaborate

1. Explain that these groups of organisms represent different **ecosystems**. *An ecosystem is a community of organisms that live and interact with each other and their nonliving environment.*
2. Ask, *What have you learned about ecosystems in your research? Is there any information from your research that helped you to sort out the organisms?* Allow time for discussion.
3. After the discussion, let the class know that they will be examining how ecosystems work in the coming lessons to help them better understand why certain organisms live together.

Evaluate

1. Did learners reasonably explain how they decided on their groupings?
2. Was the sorting based on communicated knowledge of the organisms?
3. Did learners communicate prior knowledge about ecosystems in general?
4. Did they make any connections between the ecosystems in this lesson and the ecosystems they are researching?

Science Language

- **Organisms** are living things that carry out the activities needed to live, grow, and survive.
- An **ecosystem** is a community of organisms that live and interact with each other and their nonliving environment.
- A **habitat** is a place where organisms live and grow.

Expanded Standards

Reading TEKS

ELA.3.6G: 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: (G) evaluate details read to determine key ideas.

CCSS

RL.3.2: determine the main idea of a text; recount the key details and explain how they support the main idea.

NGSS

3-LS2-D: Disciplinary Core Ideas: Being part of a team helps animals obtain food, defend themselves, and cope with changes. Teams may serve different functions and vary dramatically in size. **3-LS4-D:** Biodiversity and Humans: populations live in a variety of habitats, and change in these habitats affects the organisms living there.

Science TEKS

2018–19: 3.9A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem.

2024–25: 3.12: describes patterns, cycles, systems, and relationships within environments.