

**UNIT 3** Lesson 2

Name \_\_\_\_\_ Date \_\_\_\_\_

### Deciding on a Question to Investigate

- Think about what you knew about ecology before beginning this unit.
- Think about what you have learned so far about ecology.
- Look at the table of contents. What do you expect to learn from the rest of the unit?
- Think about what you would like to know about ecology.
- Decide on a good problem or question to investigate.

1. A good problem or question to investigate:  
**Possible Answer** Why do some species become endangered?  
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 \_\_\_\_\_

2. Why this is an interesting problem or question:  
**Possible Answer** This is an interesting problem because of the way ecosystems are connected. Any endangered species affects more than just that species. To answer this question, I would study about diverse species in several parts of the world. I would learn a lot about different animal habitats. Maybe I can learn how to help prevent species from becoming endangered or extinct.  
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**UNIT 3** Lesson 1

Name \_\_\_\_\_ Date \_\_\_\_\_

### Recording Concept Information

As I read each selection, this is what I added to my understanding of ecology.

1. "Tree of Life" by Rochelle Strauss  
**Possible Answer** I learned about the five kingdoms, the groups of organisms within each one, and the consequences of habitat destruction. A large amount of the wetlands in Canada and the United States have been destroyed to make room for farms, houses, and factories. By being responsible guardians of the Tree of Life, we protect habitats from pollution and destruction.  
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2. "Sea Soup: Phytoplankton" by Marj M. Cerullo  
**Possible Answer** The sun is the sustainer of the entire solar system and the supporter of life on Earth. Phytoplankton, through photosynthesis, store the sun's energy. Low on the food chain, phytoplankton are important to Earth's entire ecosystem. They help human beings in vital, though unseen, ways.  
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**Small Group**

### Small-Group Time

- ◆ Have students work alone or in existing groups to choose and formulate researchable questions or problems. Circulate around the room, assisting students in this process. Have them record their information on pages 175–176 of **Skills Practice 1**. Remind students that their focus might change, or they may think of a new question entirely.
- ◆ As part of Small-Group Time, have students complete the part of page 161 that relates to "Sea Soup: Phytoplankton" in **Skills Practice 1**.
- ◆ Encourage students to make the best choice that they can at this point. Explain that they will have the opportunity to analyze, refine, narrow, expand, or replace the question or problem as their investigation continues. Assure students that this is a natural part of the investigative process.
- ◆ If an individual or group is having difficulty forming a researchable question or problem, ask them what elements they currently have. Then ask them to see how they can expand beyond a "yes/no" or fact-collection scenario—moving from *What are the different type of phytoplankton?* to *How do the different types of phytoplankton interact with each other?*

**Formal Assessment** 

## Monitor Progress to Differentiate Instruction

**Deciding on a Problem** Note how easily students are able to decide on a problem.

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**APPROACHING LEVEL**

**IF ...** students are having trouble deciding on a problem, **THEN ...** assist them with **Skills Practice 1** pages 175–176.

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**ON LEVEL**

**IF ...** students are unsure about a problem they chose, **THEN ...** have them reference their **Skills Practice 1** pages and consider the pros and cons of each of their problems.

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**ABOVE LEVEL**

**IF ...** students have decided on a problem and are making good progress, **THEN ...** have them begin deciding individual roles in the research if they are working in a group or the sequence their research will follow if they are working independently.