

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.

2. "Sea Soup: Phytoplankton" by Mary 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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Knowledge about Ecology

1. This is what I know about ecology before reading the unit.
Possible Answers Some animals and plants are endangered. Some plants and animals are extinct. Rainforests and other forests are disappearing. People want to save the wetlands. Animals and plants in an ecosystem depend on one another.

2. These are some things about ecology I want to discuss and understand better.
Possible Answers How do animals and plants become endangered and extinct? How can we save endangered animals and plants? What are the reasons why people cut down forests? Can anything be done? Why are wetlands important? What happens when one species disappears from the ecosystem?

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Small Group

Small-Group Time

- ◆ Students may work alone or in small groups to brainstorm ideas and generate problems and questions. Remind students that they might have ideas, stories, or questions about ecology and that these are all good starting places for research.
- ◆ As students engage in this small-group work, circulate among the groups, helping students by adding your thoughts, stories, and conjectures and by sharing examples from different groups. Students requiring more support will benefit from the modeling and focused questions, and those requiring more challenge may benefit if challenged to revise their questions or think more divergently.
- ◆ As part of their Small-Group Time, students should also complete the part of **Skills Practice 1** page 161 that relates to "Tree of Life."
- ◆ Have students begin adding information to **Skills Practice 1** pages 159–160 that relates to what they have learned about ecology. They may use these pages to write down information about any of the facets of ecology they are studying in this unit. Remind them to revisit this chart as they read and research. Suggest that they form research groups based on the interests they have identified on these pages.

Monitor Progress **Formal Assessment**

to Differentiate Instruction

Generating Questions Note how well students are able to generate researchable questions.

APPROACHING LEVEL

IF . . . students are experiencing difficulties generating ideas and questions, **THEN . . .** model for them your process of arriving at a researchable question.

ON LEVEL

IF . . . some students have difficulty getting started, **THEN . . .** suggest they take turns posing questions and problems and writing down everything that comes to mind without judgment or evaluation. They can eliminate any ideas they wish to later.

ABOVE LEVEL

IF . . . students would like a challenging topic, **THEN . . .** suggest that they consider ecological problems on local, regional, national, or global scales.