

OBJECTIVES

Students will

- ◆ begin the Inquiry process for ecology.
- ◆ generate ideas and questions to explore.
- ◆ post material related to the theme and the unit investigation on the **Concept/Question Board**.

MATERIALS

- ◆ *Skills Practice 1*, pp. 159–162



Teacher Tips

REVISION Explain to students that they will have the opportunity to refine their ideas and become aware of more problems as their investigation continues. Therefore, they should not be discouraged if they are having difficulty with an idea or problem at this stage.

INQUIRY Students will have thirty minutes to complete their Inquiry activities on Days 3 and 4.

Inquiry Process

Launching Inquiry

Tell students that the main concept taken up in this unit is an exploration and discovery of ecology. Each selection explores the concept of how various forms of life connect to each other and interact in various environments. Students will read about all kinds of species in this unit, from phytoplankton on the ocean's surface to the elusive animals that inhabit the rain forest canopy. While discovering how these creatures live and interact, students will also be given a glimpse of how they fit into various food chains and webs as individuals. Students will gain an appreciation for the importance of Earth in their daily lives. The information contained in the selections should be viewed as a starting point in the Inquiry process. The ideas put forward in the selections should be a launching pad for students to wonder, formulate researchable questions, locate new information sources, make discoveries, form hypotheses, find evidence, reformulate questions, articulate theories, and so on.

The aims of Inquiry in this unit are

- to deepen students' understanding of ecology and ecological issues and the effects their actions have on the environment.
- to allow students to understand the relationship human beings have to the other kingdoms in the tree of life.
- to enhance students' knowledge of investigative techniques within the research cycle.
- to offer students opportunities to learn to build knowledge together and to communicate their growing understanding in innovative ways.
- to introduce students to the many people and organizations that are making Earth a better place to live.
- to illustrate how seemingly insignificant organisms, such as phytoplankton, have profound effects on human life.
- to expose students to the people who research the various unexplored areas of Earth and what they have found.

Step 1—Generating Ideas and Questions

Whole-Group Time

Whole Group

Ask students what they know about ecology before beginning the Inquiry process. For example, they might be able to name some animals or regions they have previously studied. Then ask students what they would like to discuss and understand better. For example, students may want to know why they are studying ecology and how the different parts of the living world interact with each other. Collect this information (as a running list, a KWL chart, a poster or posters, and so on) and place it on the **Concept/Question Board**. Tell students