

Chapter 1 Introduction to Earth Science

Section 1.4 Earth System Science

(pages 18–22)

This section describes Earth as a system of interacting parts.

Reading Strategy (page 18)

Outlining As you read, make an outline of the most important ideas in this section. Begin with the section title, and then list the green headings as the next step of the outline. Outline further as needed. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

I. Earth System Science

A. What Is a System?

1. system—any size group of interacting parts forming a whole
2. types of systems—closed and open

B. Earth as a System?

1. _____

2. _____

1. 🎧 Earth is a(n) _____ made up of numerous interacting parts, or subsystems.

What Is a System? (pages 18–19)

2. 🎧 A system can be any size group of interacting parts that form a complex _____.
3. What is a closed system? _____

4. In an open system, both energy and _____ flow into and out of the system.

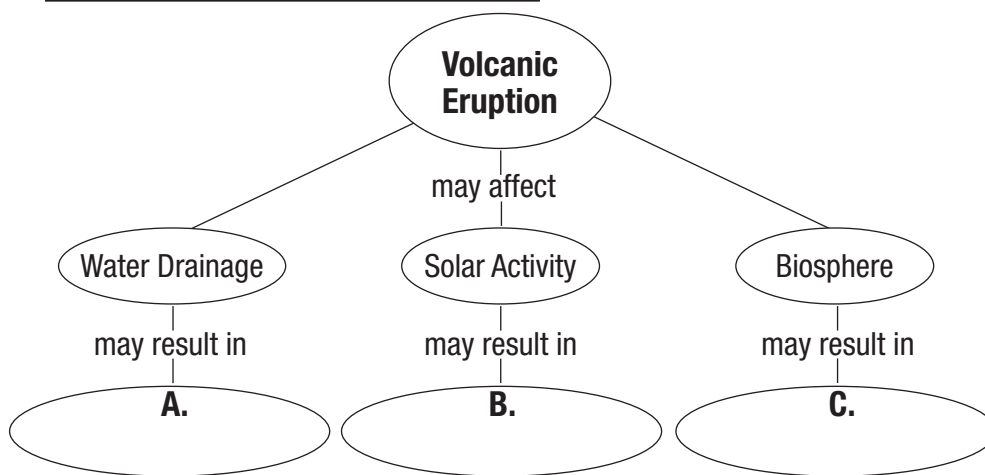
Earth as a System (pages 19–20)

5. 🎧 Is the following sentence true or false? The Earth system is powered by energy from the sun and Earth’s exterior. _____

Chapter 1 Introduction to Earth Science

6. Is the following sentence true or false? The sun drives external processes that occur in the atmosphere, hydrosphere, and at Earth's surface. _____
7. Use the phrases in the box to complete the concept map below

habitats eliminated
 lower temperatures
 rivers and streams rerouted



People and the Environment (pages 20–21)

8. Circle the letter of each statement that is true about nonliving things that make up the environment.
 - a. Water and air are nonliving things that make up the environment.
 - b. Plants, animals, and microscopic organisms are nonliving things that make up the environment.
 - c. Temperature, humidity, and sunlight are conditions that make up the environment.
9. What are renewable resources? _____

10. Circle the letter of each item that is a nonrenewable resource.
 - a. iron
 - b. petroleum
 - c. natural fibers

Environmental Problems (pages 21–22)

11. Significant threats to the environment include air pollution, acid rain, ozone depletion, and _____.