

Plate Tectonics ▪ *Reading/Notetaking Guide***Earth's Interior** (pp. 132–139)

This section explains how scientists learn about Earth's interior. The section also describes the layers that make up Earth and explains why Earth acts like a giant magnet.

Use Target Reading Skills

Preview the red heading Earth's Interior and the blue subheadings Evidence from Rock Samples, and Evidence from Seismic Waves. Complete the graphic organizer below by answering the question that is asked about each heading.

Earth's Interior

Heading	Question	Answer
Evidence from Rock Samples	What did scientists learn about Earth's interior by studying rock samples?	a.
Evidence from Seismic Waves	How did evidence from seismic waves help scientists learn about Earth's interior?	b.

Exploring Inside Earth (p. 133)

1. What prevents geologists from directly exploring Earth's interior?

extreme conditions

2. Geologists use direct evidence from Rock Samples to learn about Earth's interior.

3. Geologists learn about Earth's interior using indirect evidence from

seismic waves

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- 4. Is the following sentence true or false? Geologists are able to drill to the center of Earth. False
- 5. Seismic waves reveal the structure of Earth through their speed and the paths they travel
- 6. Circle the letter of each sentence that is true about Earth.
 - a. Indirect evidence of Earth's interior comes from studying rock samples.
 - b. Geologists cannot observe Earth's interior directly.
 - c. It is over 6,000 kilometers from the surface to the center of Earth.
 - d. Geologists learn about Earth's interior by drilling holes.
- 7. Seismic waves are produced by earthquakes.

A Journey to the Center of Earth (p. 134)

- 8. How does the temperature change as you go from the surface toward the center of Earth?
Surface to 20 meters - stays same
then increases rapidly but just then more
slowly but steadily
- 9. How does pressure change as you go from the surface toward the center of Earth?
The deeper the greater the pressure
- 10. The three main layers that make up Earth are the crust, mantle, and core.

The Crust (p. 135)

- 11. The crust is a layer of rock that forms Earth's outer skin.
- 12. Is the following sentence true or false? The crust is thinnest under high mountains. false
- 13. The dark-colored rock that makes up most of the oceanic crust is basalt.
- 14. The light-colored rock that makes up most of the continental crust is granite.

