



# Earth's Layers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. Why is the inner core solid even though it is the hottest part of Earth?

- A) It is made of a special type of rock that never melts.
- B) The enormous pressure at the center keeps the metal packed into a solid.
- C) It is too far from the mantle's heat to melt.
- D) The outer core absorbs all the heat before it reaches the inner core.

2. A scientist notices that S-waves from an earthquake disappear when they reach the outer core. What does this tell the scientist?

- A) The outer core is made of the same material as the mantle.
- B) The outer core must be a gas because waves cannot pass through it.
- C) The outer core is liquid because S-waves cannot travel through liquids.
- D) The outer core is too thin for waves to pass through.

3. Which layer of Earth is responsible for driving the movement of tectonic plates?

- A) The crust, because the plates sit on its surface.
- B) The inner core, because it is the hottest layer.
- C) The mantle, because its slow-flowing convection currents push the plates.
- D) The outer core, because its liquid metal creates strong forces.

4. Why is the oceanic crust denser than the continental crust?

- A) Oceanic crust is older and has been compressed longer.
- B) Oceanic crust is made of basalt, which is denser than the granite in continental crust.
- C) Oceanic crust is closer to the mantle and absorbs heavy minerals.
- D) Oceanic crust contains more water, which makes it heavier.

## Part B: Fill in the Blank

Write the correct answer on each line.

1. As you travel deeper into Earth, both temperature and \_\_\_\_\_ increase steadily.
2. The mantle behaves like a very slow-moving \_\_\_\_\_ even though it is made of rock.
3. Earth's layers are classified based on their composition, temperature, and \_\_\_\_\_ of matter.

### Part A: Multiple Choice

Circle the best answer for each question.

1. Why is the inner core solid even though it is the hottest part of Earth?

- A) It is made of a special type of rock that never melts.
- B) The enormous pressure at the center keeps the metal packed into a solid.**
- C) It is too far from the mantle's heat to melt.
- D) The outer core absorbs all the heat before it reaches the inner core.

2. A scientist notices that S-waves from an earthquake disappear when they reach the outer core. What does this tell the scientist?

- A) The outer core is made of the same material as the mantle.
- B) The outer core must be a gas because waves cannot pass through it.
- C) The outer core is liquid because S-waves cannot travel through liquids.**
- D) The outer core is too thin for waves to pass through.

3. Which layer of Earth is responsible for driving the movement of tectonic plates?

- A) The crust, because the plates sit on its surface.
- B) The inner core, because it is the hottest layer.
- C) The mantle, because its slow-flowing convection currents push the plates.**
- D) The outer core, because its liquid metal creates strong forces.

4. Why is the oceanic crust denser than the continental crust?

- A) Oceanic crust is older and has been compressed longer.
- B) Oceanic crust is made of basalt, which is denser than the granite in continental crust.**
- C) Oceanic crust is closer to the mantle and absorbs heavy minerals.
- D) Oceanic crust contains more water, which makes it heavier.

### Part B: Fill in the Blank

Write the correct answer on each line.

1. As you travel deeper into Earth, both temperature and pressure increase steadily.
2. The mantle behaves like a very slow-moving fluid even though it is made of rock.
3. Earth's layers are classified based on their composition, temperature, and state of matter.