

## Lesson #66

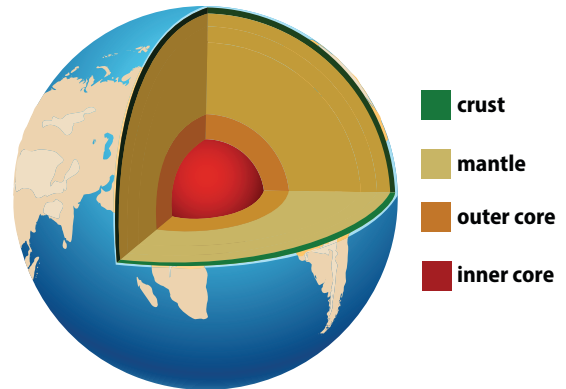
### What is beneath Earth's crust?

Earth is made up of three main layers: crust, mantle, and core. The core is very hot metal, deep in the center of Earth. It has an inner and an outer part. The **inner core** is solid metal, and the **outer core** is molten (liquid) metal.

The thickest layer of Earth is the **mantle**. It is a mostly-solid layer of hot rock. The upper part of the mantle is molten.

The outermost and thinnest layer is the **crust**, which is many miles deep. This outermost layer includes the continents and the land under the oceans. It has sections, or pieces, called **tectonic plates**. These plates constantly move, floating on the upper part of the mantle. But the movement is usually so slow, we do not notice it. As the plates move, they cause changes to Earth's surface.

**Geology** is the science of Earth. It includes how Earth was formed, what it is made of, and how it has changed over time. **Geologists** explore all Earth's layers, tectonic plates, rocks, land, and soil. They study landslides, earthquakes, and volcanic eruptions. They work outdoors, in laboratories, or in government offices. They use large machines to drill into the ground and microscopes to examine rock samples. They use computers and map-making tools. They use science to make predictions about events that might be hazardous to people.



1. \_\_\_\_\_ is a branch of science that studies the history of Earth and what Earth is made of.

2. In the text, underline three things geologists do.

3. *Molten* means \_\_\_\_\_.

liquid      solid      gas      floating

4. The continents and the land under the oceans are part of Earth's \_\_\_\_\_.

mantle      core      crust      atmosphere

5. Match each term with its clue.

- |              |   |
|--------------|---|
| _____ mantle | A) Earth's thin outer layer; has sections called plates |
| _____ core   | B) deep center of Earth; made of hot metal              |
| _____ crust  | C) Earth's thickest layer; upper part is flowing        |

6. Which sentence best describes how tectonic plates move?

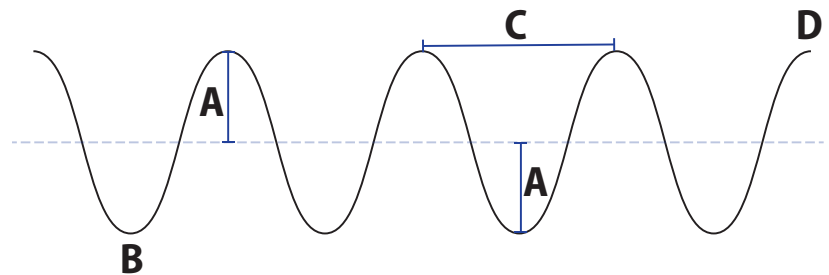
- A) Tectonic plates float and move slowly on the upper layer of the mantle.  
 B) Tectonic plates float in molten metal of Earth's outer core.  
 C) Tectonic plates move back and forth or up and down very quickly.  
 D) both B and C

7. Organisms can survive in many different habitats all around the world because \_\_\_\_\_.

- A) most plants have thick bark to protect them from very cold weather  
 B) each species has its own unique internal and external structures  
 C) all plants have water storage systems that let them live without water  
 D) both A and C

8. Write the letter that labels each part of a wave.

- \_\_\_\_\_ wavelength  
 \_\_\_\_\_ crest  
 \_\_\_\_\_ amplitude  
 \_\_\_\_\_ trough



9. \_\_\_\_\_ is a form of energy that can travel through solids, liquids, gases, and empty space. It moves faster than anything we know.