

LESSON | What is inside the earth?

5

If you could dig a hole all the way to the center of the earth, what would you see? Would the earth look the same all the way through?

Scientists have wondered about the inside of the earth. They have found ways to study it. They use special tools to dig out samples from deep inside. Special instruments "look into" parts of the earth we cannot see.

The scientists have learned that the earth is not the same all the way through. The materials are different, so are the temperature and pressure. Temperature becomes greater the deeper you go. Pressure becomes greater too.

The earth has three different layers. They are the **crust**, the **mantle**, and the **core**. Each layer of the earth is made up of different materials.

CRUST The thin outer layer of the earth is called the crust. The crust is thick in some places and thin in others. Beneath the oceans, the crust is between 5 and 10 km thick. However, under the continents, the crust is between 32 and 70 km thick. The crust is made up of loose rocks and soil. Under the rocks and soil, the crust is solid rock. We live on the crust.

MANTLE The layer of earth found below the crust, and above the core, is called the mantle. The mantle is about 2900 km thick. More than two-thirds of the mass of the earth is in the mantle. The mantle has two parts. The upper part is solid rock. The lower part of the mantle can flow like a thick liquid. It has the consistency of silly putty.

CORE The inner layer, or the center of the earth is called the core. The core is about 3500 km thick. The core has two parts, the outer core and the inner core. The outer core is a liquid layer that is about 2200 km thick. It contains melted iron and nickel. The inner core is about 1300 km thick. The inner core is not liquid as many people think. The inner core is made up of solid iron and nickel.

THE EARTH'S LAYERS

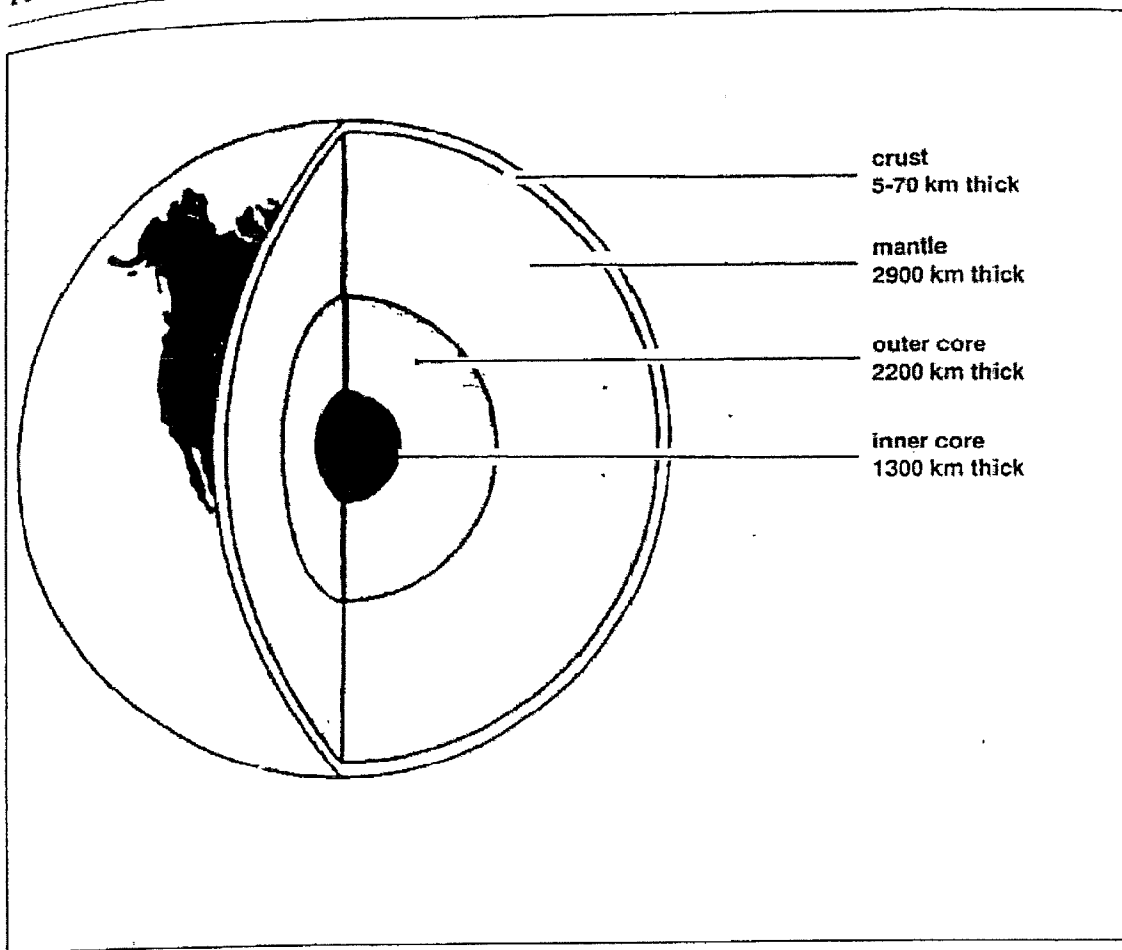


Figure A

1. Which layer is the thickest? _____
2. Which layer is the thinnest? _____
3. On which layer do we live? _____
4. Which layer is the hottest? _____
5. Which layer is the coolest? _____
6. Which layer touches the atmosphere? _____
7. Which layer is made up of melted iron and nickel? _____
8. What is the center layer called? _____
9. Name the layer between the crust and the outer core? _____
10. Name the layer between the inner core and the mantle? _____