

Name _____

Name _____ Date _____

Inside Earth

Directions: Read the following description of the Earth's soil. Use this reading section to answer the questions that follow.

Now that we have discovered what is directly beneath our feet, let's dig deeper. Just a note before we begin: the layers of Earth that we will discuss are presented from Earth's surface to the center, so if you are picturing Earth as a sphere, remember that each layer occurs twice.

The planet we call Earth consists of four layers. These layers vary in thickness, from 5 miles thick to 1400 miles thick. The first layer that we find is called the **crust**. This is where the soil layers can be found. The crust surrounds the entire planet, even under the oceans. In the oceans, the crust is the ocean floor. This layer varies in thickness from 5 miles thick (below the ocean floor) to 25 miles thick (under the planet's land masses).

The second layer is called the **mantle**. The top layer of the mantle is solid. As you go deeper, this layer begins to heat up and the rock becomes molten. Molten rock is not exactly liquid and not completely solid. The mantle makes up 82% of Earth's volume (amount) and 68% of its mass (bulk). Some of this layer makes it to the surface of the crust through volcanic eruptions. This layer is about 1800 miles thick and consists of two parts. The upper mantle has a temperature of 1,600°F, and the lower mantle has a temperature of 4,000°F. The third layer is the **core**. The core is divided into the outer core and the inner core. The temperature of the outer core is 13,000°F, and the temperature of the inner core is 8,000°F. The outer core is mostly fluid and has the highest temperature. The inner core is solid and has the lowest temperature. According to indirect evidence, this layer is composed of mostly metallic iron.

Illustration directions: Using the information above, draw a model of what the inside of the Earth looks like. Please label each layer and provide the thickness of each layer.

