

**Journey to the center of the Earth.
What are the three main layers of the Earth?**

Describe the temperature change that takes place as the depth inside Earth increases.

What is pressure?

Why does pressure increase as you go deeper into the Earth?

The Earth is composed of 3 main layers.

1. _____
2. _____
3. _____

Rock near the _____ would be _____ .

About 20 meters down the _____ get _____.

For every 40 meters that descends (going down) the temperature increases ____ degree _____.

The _____ pushing on a _____.

The pressure _____ as you go _____ into the earth because the _____ and _____ of the rock increases.

The Earth's Crust

The Earth's crust is the layer that you _____ on. It is like the _____ of an _____. It is very _____ in comparison to the other _____ layers.

The crust is only about _____ miles (8 kilometers) thick under the _____ which is called the _____ and about 25 miles (32 kilometers) thick under the continents which is called the _____.

What type of rock is the continental crust and oceanic crust composed of?

The _____ is composed of _____ main rocks. The _____ is mostly **granite**. The _____ is **basalt**. Basalt is _____ denser than the _____. Because of this the less dense _____ ride on the _____ oceanic plates.

The Mantle:

What is the lithosphere?

Where does the lithosphere sit?

What is the asthenosphere?

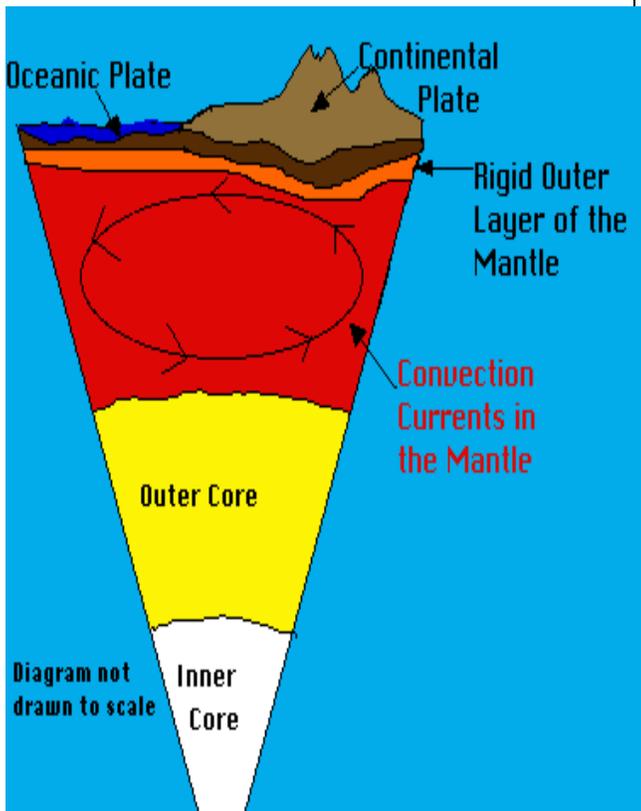
The _____ is the largest layer of the _____.

The _____ and the _____ layer of the _____ together make up a zone of _____, brittle _____ called the lithosphere. The Greek prefix *litho* means "_____".

The _____ of the Earth is broken into many pieces called _____. The plates "_____ " on the soft, semi-rigid **asthenosphere**. (as-THEHN-uh-sfeer) -The Greek prefix astheno means "_____".

The middle mantle is composed of very _____ rock that flows like _____ under a heavy _____. It isn't really _____. The movement of the middle mantle (**asthenosphere**) is the reason that the crustal plates of the Earth _____.

The _____ "flows" because of convection _____. **Convection currents** are _____ by the very _____ material at the _____ part of the mantle rising, then cooling and sinking again --repeating this _____ over and over _____.



The Outer Core:

What is the outer core made of?

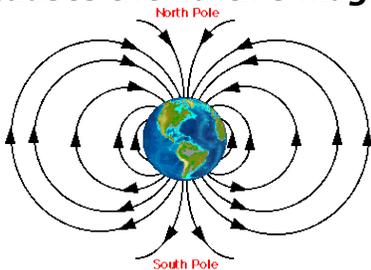
The _____ core of the Earth is like a _____ of very hot _____. The **outer core** is so hot that the metals in it are all in the _____ state. The outer core is composed of the melted metals of _____ **and** _____.

The Inner Core:

What is the inner core made of?

The _____ _____ of the Earth has _____ and _____ so great that the _____ are _____ together and are not able to move about like a _____, but are forced to vibrate in place like a _____.

What causes the Earth's magnetic field?



Scientists think that the movements in the liquid _____ core create the magnetic field causing the Earth to act like a _____ bar magnet.