



Curiosity Guide #208

Plate Tectonics

Accompanies Curious Crew, Season 2, Episode 8 (#208)

Mini Earth Model

Investigation #3

Description

Investigate the layers of the earth by making a model!

Materials

- Small rock or marble
- Clay, about the size of a golf ball
- Cup of water
- Cup of dirt or soil
- Butter knife

Procedure

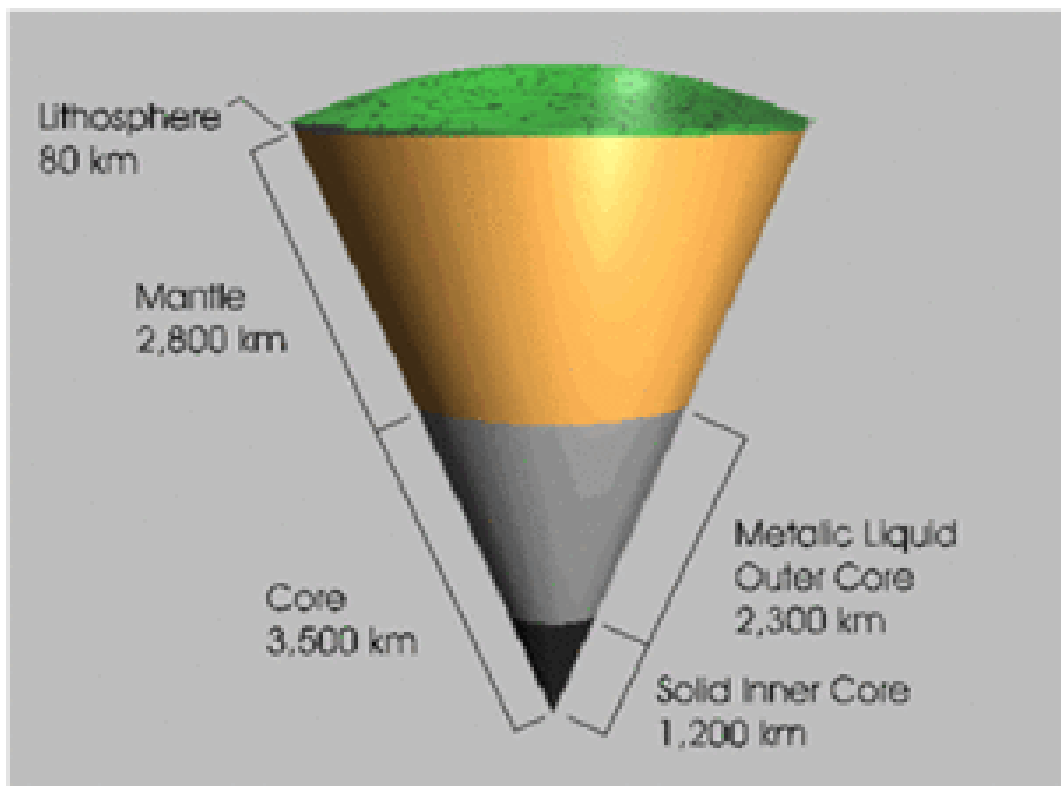
- 1) Surround the small rock or marble with a ball of clay.
- 2) Dampen the clay ball with a bit of water from the cup.
- 3) Coat the surface in dirt or soil to represent the earth's crust.
- 4) Carefully cut a quarter of the soil and clay away to reveal the marble core.

My Results

Explanation

The crust of the earth is actually only a very small part of the earth, equating to only about 1% of Earth's volume. The earth's crust rests on the mantle, which is made of dense liquid rock or magma. By cutting away a quarter of the model you made, you can see a cross section of the different layers of the earth.

More to think about: Did you know that there are three main layers that make up the Earth?



These layers, from bottom to top of the cross section, include:

- The **inner core**, which is solid on the inside and is surrounded by liquid metal. The inner core is about 3500 kilometers in depth.
- The **mantle**, which is liquid rock and 2800 kilometers deep.

- The **thin crust**, or **lithosphere**, of only 5 to 80 kilometers. This is where we live! The crust layer is covered with separate pieces or tectonic plates that look like giant puzzle pieces, floating on the mantle layer. The plates move about two inches every year, sometimes bumping into each other and causing earthquakes and volcanoes.

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