

# Exploring Earth Layers

3rd - 5th  
Grade

## Materials

-  Red play dough
-  Orange play dough
-  Yellow play dough
-  Brown play dough
-  Blue play dough
-  Green play dough
-  Dental floss



Students will learn about the layers of the Earth by recreating them using play dough.

## Earth Layers

**Inner Core** - the Earth's inner core is a solid metal ball consisting of iron and nickel. The temperatures here can be over 10,000°F! The metal stays solid because of the incredible amount of pressure surrounding it.

**Outer Core** - the outer core is the layer above the inner core and can be just as hot! Without the same pressure, the metals of this layer melt and become a liquid that flows around the center of the Earth.

**Mantle** - the Earth's mantle is the thickest layer and takes up about 84% of the Earth's total volume! This layer can reach temperatures over 5,000°F and consists of iron, oxygen, silicon, magnesium and aluminum.

**Crust** - the crust, Earth's thinnest layer, is made up of 2 different types. Continental crust is made of mostly rock and granite and this is the layer we live and walk on. The layer beneath the ocean bed is called oceanic crust and consists of basalt.

## Directions

1. Get a pinch of red play dough and roll it into a ball. This is your Inner Core.
2. Cover the red ball with orange play dough to create the Outer Core.
3. Cover the outer core in a thick layer of yellow play dough to make the mantle.
4. Cover the Mantle with a thin layer of brown play dough to make the Crust.
5. Cover the Crust with a thin layer of blue play dough to represent the oceans and place small chunks of green play dough to make continents.
6. Use a piece of dental floss to slice the sphere in half and see the layers!

