# LYMAN ALLYN SCIENCE SATURDAY PRESENTS LAYERS OF THE EARTH

#### C R U S T

This is Earth's outermost layer, where we all live! It is the thinnest layer. Land is made of the continental crust, which is about 5 miles to 40 miles thick and composed mostly of granite. The ocean floor is called the oceanic crust, which is about 5 miles thick and composed of a rock called basalt. In this image, the crust layer is **RED**, though **GREEN** and **BLUE** on the outside represent land and water.

#### MANTLE

Below the crust is the mantle, which goes as deep as 1,795 miles below Earth's surface! The temperatures in the mantle can range from 2,550°F in the upper part up to 5,430°F as it gets deeper. The mantle is made up of melted iron, minerals, and semi-solid rocks. This layer makes up 85% of Earth's weight! In this image, the mantle is **DARK ORANGE**.

### OUTER CORE

The outer core of the Earth goes as deep as 3,200 miles below Earth's surface. This layer is so hot (between 7,000°F and 10,000°F) that the iron and nickel metals that make up the outer core are liquid! The movement of the liquid metals creates our very important magnetic field. In this image, the outer core is **LIGHT ORANGE**.

#### INNER CORE

The inner core is a hot metal ball at the center of the Earth that is about 1,550 miles wide. Its temperatures can be 9,000°F up to 10,500°F, which is as hot as the sun! Even though it is hot enough for the iron and nickel metals to melt, the inner core is actually solid because it is under *so* much pressure – literally the weight of the world! In this image, the inner core is **YELLOW**.



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#### MATERIALS

- Bowl (styrofoam or paper will work well)
- Paint (red, yellow, blue)
- Paintbrush

## DIRECTIONS

1. First paint the inside of your bowl as the inside of the Earth in concentric circles.

CRUST - the outermost circle in RED MANTLE - next inner layer in DARK ORANGE OUTER CORE - next inner circle in LIGHT ORANGE INNER CORE - innermost circle in YELLOW

2. Paint the outside of your bowl as the outside of the Earth. Include **GREEN** for the land masses and **BLUE** for the water!





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