

Name _____

Project Based Learning

Create a Model of the Layers of the Earth!

Due: Friday, February 21st

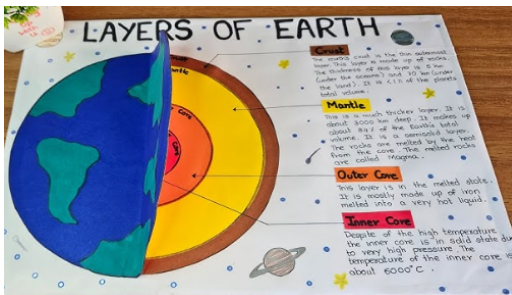
Create a model of the Earth's structure explaining the nature of each of the Earth's layers. In your model, you must show the Earth's **crust**, the **mantle**, the **outer core**, and **inner core**.

Use your notes and independent research to help you understand the nature of the layers of the Earth before you begin your project.

Guidelines:

You need:

- ☐ A model
- ☐ An explanation of the model and of each layer
 - ☐ Labels (Inner Core, Outer Core, Mantle, Crust)
 - ☐ Phase of matter (solid or liquid, or molten rock for the mantle)
 - ☐ Temperature
 - ☐ An attempt to scale the depth of the layers. (The crust should be very thin)



Science Skills

Performance Indicator: Develop and / or revise a model based on evidence to illustrate the relationships between systems or between components of a system.

What I want you to learn	Beginning	Emerging	Proficient	Advanced
How to make a model of the Earth's layers. What the Earth's layers are made of.	I can create a partial model of the Earth's layers.	I can create a model of the Earth's layers that is incomplete or is a somewhat inaccurate representation of the temperature, viscosity, and/or size of each layer.	I can create a model of the Earth's layers that is accurately labeled, accurately represents the temperature and viscosity (solid, liquid, semi-solid), and considers the size of each layer. (This could be represented by color and labels)	I can create a model of the Earth's layers that is accurately labeled. I have used materials that show the temperature or the nature of the layers. My model is neat and organized.

Some ideas include:

A play / video

Edible Earth

Clay

Natural materials

Found materials

What students have done in the past:

Edible Earth

Create an edible Earth that shows the layers of the Earth. **Label** each layer. On this label, explain how each of your edible layers shows what that layer of the earth is like. Explain what that layer of the Earth is really made of, and what why you chose that particular food to represent it. Example: The dense inner core could be represented by a hard candy. (Many models of this can be found online!)

3 – D Model

You can create this out of clay, a Styrofoam ball (directions found at http://www.ehow.com/how_4495708_make-model-earth_s-layers.html), or any other medium you see fit! Maybe you could find something in nature to represent it!

Label each layer. On this label, explain how each of your layers shows what that layer of the earth is like. Explain what that layer of the Earth is really made of, and what why you chose that particular material or color to represent it.