Modeling Earth's layers

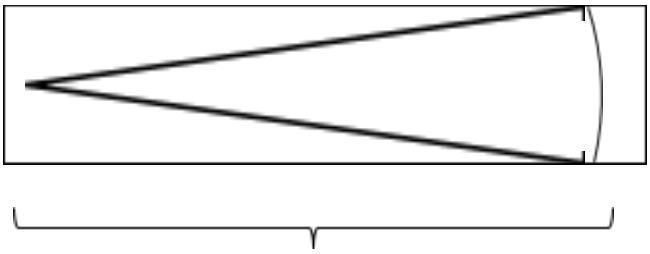
names_____

Objective:
To understand how thick each layer of Earth is, we will create a scale model of Earth's interior

Calculations
To make the model, we first need to figure out how thick to make each layer. Complete the table below

Layer of Earth	**Thickness of each layer** (in real life)	**Percent of total** Divide the thickness of each layer by the total (4025) Keep it in decimal form Round to the closest 1/10 percent (3 places past the decimal or 0.000)	**Thickness of each layer in model** Multiply the percent by 500mm to get the thickness in millimeters (round to closest mm)
Continental crust	25 miles		
Oceanic crust	5 miles		
Mantle	1800 miles		
Outer core	1400 miles		
Inner core	800 miles		
Total distance to center of the Earth	4025 miles		

Draw a wedge of the Earth
Tape together two blank pieces of paper
Make a dot close to one of the ends of the paper. This is the center of the earth
Make a wedge that is 500 mm long from that dot. It should look like this.



Add the layers
Use the data in the last column (and a meter stick to measure mms) to add each of the layers.
Remember that the number is the THICKNESS of each layer and NOT its distance from any one end
Make HALF the top layer of crust continental and HALF oceanic (they are different thicknesses)
Label each of the layers with their names and thickness in miles
Color each of the layers if you have the time.

HONORS - Modeling Earth's layers

Add more information to each of your layers.
Read about the interior of the Earth (link on class agenda) to find more information.
Add to each of your layers information about **density**, **kinds of rock**, **temperature**, and any **other interesting information**. Make it look neat!

Overall patterns in the data
For each of the following, write one sentence that explains a pattern you have learned from the reading:
(for example, "As you travel deeper in the Earth….")

Density

Temperature

Pressure

What questions do you still have about the interior of the Earth?