Making a Scale Model of Earth's Layers

Name_____ Period_____

Purpose: To construct a scale model of the structure of the Earth's layers.
Your assignment is to construct a diagram that shows the four layers of Earth's structure as well as Mount Everest, Mariana Trench, and the Space Shuttle. These must be labeled and marked at the correct distances.

Materials:
paper strips
scissors
glue / rubber cement / tape
meter stick
small metric ruler
markers / color pencils / crayons
Earth Science Reference Table

Procedure:
1. Use your ESRT and find the model of the Earth's layers.

2. Cut a piece of paper at least 80 cm x 20 cm. You may have to glue or tape pieces together to get a piece of this size.

3. Convert the given distances in kilometers to:
a) millimeters; and
b) centimeters.

Earth's Layers Thickness:
Inner core = 1220 km = _____ mm = _____ cm

Outer core = 2260 km = _____ mm = _____ cm

Stiffer Mantle = 2170 km = _____ mm = _____ cm

Asthenosphere = 720 km = _____ mm = _____ cm

Rigid Mantle = 100 km = _____ mm = _____ cm

Crust = 30 km = _____ mm = _____ cm

Mt. Everest = 8.8 km = _____ mm = _____ cm (above sea level)

Mariana Trench = 11 km = _____ mm = _____ cm (below sea level)

Space shuttle = 300 km = _____ mm = _____ cm (Above sea level)

4. Draw and Label the layers using the ESRT diagram of the Earth's layers and the calculations above.
Use the following scale: 1 cm = 100 km (1 mm = 10 km and 1 meter = 1000 km))