

Concept:

Earth Science: The Structure of the Earth

Materials:

- Construction paper (red, orange, yellow, brown, grey)
- Compass
- Metric Rulers
- Sand
- Glue sticks, Liquid glue
- Scissors

State Standards:

(arkedu.state.ar.us)

ESS.8.6.1

Identify and diagram the layers of the Earth:

- crust
- mantle
- inner and outer core

ESS.8.6.2

Model the layers of the Earth

ESS.8.6.3

Model how *convection* currents in the mantle affect lithosphere movement

Procedure

1. Using pictorial representations in a powerpoint presentation, present the earth as divided into three layers—the *crust*, *mantle*, and *core*—based on composition and physical properties. Compare the size and density of the core of the Earth to Mars. Have the students fill out a diagram sheets for themselves, labeling the layers and major properties.
2. Further dissect the Earth into five layers—the *lithosphere*, *asthenosphere*, *mesosphere*, *outer core*, and *inner core*. Describe each layers physical properties. Compare temperatures to those on the surface of the sun. Relate prefixes for easier remembering.
3. Explain how scientists mapped the inside of the Earth. Briefly explain how seismic waves travel more quickly through liquid than solid, so that