



A Model World

Materials

- modeling clay
- plastic knives
- marbles
- aluminum foil

Procedure

- 1. Collaborate** Working with a partner, roll modeling clay into two balls of different colors. Make one the size of a golf ball and the other the size of a baseball.
- 2. Use Models** Push a marble into the center of the smaller clay ball and reshape the clay around it. You now have a model of Earth's two-part core. The smaller clay ball represents Earth's outer core. The marble represents its inner core.
- 3. Use Models** The larger clay ball represents Earth's mantle. Use the plastic knife to cut this clay ball in half. Reshape the clay so that this ball can be wrapped around the two-part core. You now have a model of Earth's core and mantle.
- 4. Measure** Use a measuring tape to find the distance around your model at its "equator." Cut a rectangle of foil equal to that distance in length and one-third of that distance in width. Wrap the foil around the mantle and smooth it out. This thin layer of foil represents Earth's crust.

Name _____ Date _____

Conclusion

Write the answers to the questions.

- 1. Use Models** Draw what your model of Earth would look like if you could slice it in half. Label the layers.
- 2. Infer** How would you describe the layers that make up Earth's structure?

Design an Experiment List some materials you could use to model Earth's layered structure. Describe how you would arrange them into a useful model.

Guided Inquiry