

Chapter 22

Use with Section 3

ENRICHMENT**• The Outer Planets****Planetary Sizes****Materials**

- your textbook
- metric ruler
- two packages of ready mixed cookie dough
- knife
- cookie sheet
- shortening or cooking spray

Procedure

1. Research the diameters and sizes of the planets.
2. In the space provided, write the scale model diameter for each planet. Use a scale of 1 mm equals 1000 km.
3. Using the scale model sizes above, use the knife to cut round, flat cookies of each of the appropriate diameters. Measure the diameters using a metric ruler. Round off each to the nearest millimeter.
4. Coat the cookie sheet with shortening or cooking spray.
5. Place your cookie "planets" on the sheet, starting with Mercury and proceeding through Pluto.
6. Study the comparative sizes of your "planets" and answer the questions below.
7. Once you have completed the questions, you can bake and eat your "planets."

Mercury _____ mm

Venus _____ mm

Earth _____ mm

Mars _____ mm

Jupiter _____ mm

Saturn _____ mm

Uranus _____ mm

Neptune _____ mm

Pluto _____ mm

Analyze

1. Which planet is the largest? _____ Which is the smallest? _____
2. How many Earth models would fit across the model of Jupiter? _____

Conclude and Apply

3. Based on the planets' diameters, which planets would you expect to be most like Earth in basic characteristics? _____
4. The diameter of Jupiter is about one-tenth that of the sun. How many Earth models could you fit across a model of the sun? _____
5. Four planets are called the gas giants. Which do you think they are? _____
