Solar System—Lesson Five

Size of Planets to Scale

Standard III: Students will understand the relationship and attributes of objects in the solar system.

Objective I: Describe and compare the components of the solar system.

Indicator c: Use models and graphs that accurately depict scale to compare the size and distance between objects in the solar system.

Materials

1. Cards with the names of the planets
2. Documents: Putting the Sizes of the Planets to Scale
3. Document: Putting the distances of the Planets to Scale
4. Nickel per group
5. 90-inch yellow model of the sun
6. String compass
7. Adding machine tape
8. Investigation Two—How big and How Far 10.2.8 (TRB—2005)
9. Cut-outs of the Planets (TRB 10.2.15-10.2.19)

Directions:

1. Follow the directions on page 10.2.10 to find the diameter of the sun as compared to a nickel being the size of the earth.
2. Look at the document: Putting the Sizes of the Planets to Scale.
3. Have them notice that if the sun is 90 inches in diameter, the sizes of the planets are scaled to size of 90 inches.
4. Tell them that using a calculator they could find the scale of each planet of any given size of Pluto.
5. Have them cut out the different planets to size so they will see how small the planets are compared to the 90-inch sun.