**Student Work: Scaling the Size of the Outer Planets**

**Materials**

Dime

Metric ruler

Blank paper

Compass (to draw circles, you can borrow one from me)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planet | Earth | Jupiter | Saturn | Uranus | Neptune | Pluto |
| DiameterEarth=1 | 1 | 11.2 | 9.4 | 4.0 | 3.9 | 0.2 |

**Instructions:**

The table shows the diameter of the outer planets compared to Earth. For example, Jupiter’s diameter is about 11 times Earth’s diameter.

1. On a piece of blank paper, write a title and your name.
2. Measure the diameter of a dime in millimeters. Trace the dime to represent Earth, label it Earth.
3. If Earth were the size of a dime, calculate how large Jupiter would be. Now draw a circle to represent Jupiter, label it.
4. Repeat step 2 for each of the other planets in the table.