**Scale Model of the Solar System**

*Purpose:* Construct a diagram to show the relative sizes of the planets, and their relative distances

from the Sun. Then recreate the model on a much larger scale, moving people across campus.

*Procedure:*

**Part 1 – Miniature Paper Model**

1. Use the information you gathered online to fill in the actual distances and actual diameters of

the planets in the table below. Be sure to write in the correct units.

2. Divide by the scale value to find the correct sizes and distances for your diagram.

3. Cut a strip of paper 15cm longer than you think you will need. Draw a line 3cm from one end.

4. Measuring out from the line you drew, mark the position for each of the planets.

5. Draw a circle of the correct diameter around each point you marked.

6. Label each circle with the name of the planet, and color it an appropriate color for that planet.

Diameter scale: 1 cm = 25,000 km

Distance scale: 1cm = 25,000,000 km (OR: 6 cm = 1 AU)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **name of planet** | **distance from Sun** | | **planetary diameter** | |
| actual ( ) | scaled (cm) | actual (km) | scaled (cm) |
| Mercury |  |  |  |  |
| Venus |  |  |  |  |
| Earth |  |  |  |  |
| Mars |  |  |  |  |
| Jupiter |  |  |  |  |
| Saturn |  |  |  |  |
| Uranus |  |  |  |  |
| Neptune |  |  |  |  |