Scale Model of the Solar System

Directions: You will make a scale of our Solar System.

Use the following webpage to research some values of each planet.

http://solarsystem.nasa.gov/planets/

Click on the planet you are interested in and then in the menu bar “By the Numbers”

Conversions/Ratios

1) Distance from Sun to Planets. The distance from the Sun to the Earth is 92,957,100 miles. If we created a model where Earth is 2 feet away from the Sun the ratio would be:

1 foot = 46,478,550 miles

2) Diameter of each planet and convert the miles to cm using the ratio:

1 cm = 1000 miles

Use the website and ratios to fill in the following table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Planet | Size Diameter  (miles) | Size Diameter  (cm) | Distance from Sun  (Miles) | Distance from Sun  (ft) | (Optional)  Gravitational  Force | (Optional)  Length of Orbit |
| Mercury |  |  |  |  |  |  |
| Venus |  |  |  |  |  |  |
| Earth |  |  |  |  |  |  |
| Mars |  |  |  |  |  |  |
| Jupiter |  |  |  |  |  |  |
| Saturn |  |  |  |  |  |  |
| Uranus |  |  |  |  |  |  |
| Neptune |  |  |  |  |  |  |

Use the provided tape measures, rulers and sidewalk caulk to create our solar system around our school. Be respectful or our school and location to draw.