

Toilet Paper Solar System

Name: _____

GLE 0607.6.2 describe the relative distance of objects in the solar system from earth.

GLE 0707.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.

Even in our own “cosmic neighborhood,” distances in space are so vast that they are difficult to imagine. In this activity, we will build a scale model of the solar system using a roll of toilet paper. Hopefully. This will help you visualize how far the planets really are from each other.

In order to do this place the sun at one end of a hallway or other space that is at least 35-40 ft. long and use the roll of toilet paper and table to guide you through creating a scale solar system model. If there is room then you can practice math scales by doubling the amount of toilet paper squares for each distance. Line all the toilet paper distances up next to each other starting at the sun.

If there are partial sheets measure out the one sheet of toilet paper and divide it into 10 even sections. Then use as many of the measured tenths segments as the distance calls for. One could also use this for younger students and have them practice rounding.

Planet	Distance from sun (miles)	Distance from Sun (Toilet Paper sheets)
Mercury	57,910,000 km	1.0
Venus	108,200,000 km	1.8
Earth	149,600,000 km	2.5
Mars	227,940,000 km	3.8
Jupiter	778,330,000 km	13.2
Saturn	1,429,400,000 km	24.2
Uranus	2,870,990,000 km	48.6
Neptune	4,504,000,000 km	76.3