



# Activity: Planet Models



Students can create scaled images of the planets that show the comparative sizes. This model is a billion times smaller than the real thing (scale is 1:1,000,000,000). This makes the planets reasonably-sized for making and decorating, but it means the distances stretch out to nearly six kilometers!

**Table 1. Major Planets (and a few other objects)**

Object	Average Diameter (km)	Average Distance from Sun (km)	Model Planet Diameter (mm)	Distance from Model Sun (m)
Sun	1,392,684	---	1,393	---
Mercury	4,879	57,910,000	5	57.91
Venus	12,100	108,200,000	12	108.2
Earth	12,740	149,600,000	13	149.6
Mars	6,779	227,900,000	7	227.9
Ceres (in asteroid belt)	950	413,800,000	1	413.8
Jupiter	139,800	778,600,000	140	778.6
Saturn	116,500	1,443,000,000	117	1,443
<i>(inner ring edge)</i>	<i>(134,600)</i>		<i>(149)</i>	---
<i>(outer ring edge)</i>	<i>(280,300)</i>		<i>(274)</i>	---
Uranus	50,720	2,877,000,000	51	2,877
Neptune	49,250	4,503,000,000	49	4,503
Pluto	2,372	5,874,000,000	2	5,874

Adding the Moon: At this scale, the Earth's Moon would be 3mm across and be located 38 centimeters away from the Earth (measured center to center).

For more space and astronomy resources, visit the Manitoba Museum's website at [ManitobaMuseum.Ca/dome-at-home](http://ManitobaMuseum.Ca/dome-at-home).