Basic Solar System Data

The Sun	*Diameter (10^3 km)*		
	1400		
The Planets (etc.)		*Distance from Sun (10^6km)*	*Orbital Period (yrs)*
Mercury	4.8	58	.24
Venus	13	108	.61
Earth	13	149	1.0
Mars	7	228	1.9
Jupiter	144	778	11.9
Saturn	121	1430	29.5
Uranus	53	2870	84
Neptune	50	4500	165
Pluto	3.0	5900	249
Nearest Star		40 million	(4+ light years)
Farthest edge of Milky Way		1 million million	(100,000 light years)
Nearest galaxy		20 million million	(2 million light years)
Farthest observable objects		50,000 million million	(5 billion light years)
Major Asteroids			
Ceres	1.0	(The asteroids generally	
Pallas	.6	occupy orbits between	
Vesta	.5	Mars and Jupiter)	
Major Moons		*Distance from Planet (10^3km)*	*Orbital Period (days)*
of the Earth			
The Moon	3.5	385	27
of Mars			
Phobos	.028	9	.3
Deimos	.016	24	1.3
of Jupiter			
Io	3.6	422	1.8
Europa	3.1	671	3.6
Ganymede	5.3	1070	7.2
Callisto	5.0	1880	17
Sinope (farthest)	.014	23700	758
of Saturn			
Tethys	1.0	295	1.9
Dione	.8	377	2.7
Rhea	1.5	527	4.5
Titan	5.8	1220	16
Iapetus	1.5	3560	79
Phoebe (farthest)	.2	13000	550
of Uranus			
Miranda	.4	130	1.4
Ariel	1.4	191	2.5
Umbriel	1.0	260	4.1
Titania	1.8	436	8.7
Oberon	1.6	583	13
of Neptune			
Triton	3.8	354	5.9
Nereid	.6	5570	360

Relative Scales (with the solar diameter = "1")

The Planets (etc.)	*Diameter*	*Distance from Sun*	
Mercury	.003	41	
Venus	.009	77	
Earth	.009	106	
Mars	.005	163	
Jupiter	.10	556	
Saturn	.09	1020	
Uranus	.04	2050	
Neptune	.04	3200	
Pluto	.002	4200	
Nearest star		30 million	
Farthest edge of Milky Way		.7 million million	
Nearest galaxy		14 million million	
Farthest observable objects		40,000 million million	
Major Asteroids			
Ceres	.0007		
Pallas	.0004		
Vesta	.0004		
Major Moons		*Distance from Planet*	*(relative to planet's dia.)*
of the Earth			
The Moon	.0025	.28	30
of Mars			
Phobos	.00002	.006	1.3
Deimos	.00001	.017	3.4
of Jupiter			
Io	.003	.30	2.9
Europa	.002	.48	4.7
Ganymede	.004	.76	7.4
Callisto	.004	1.3	13
of Saturn			
Tethys	.0007	.21	2.4
Dione	.0005	.27	3.1
Rhea	.001	.38	4.4
Titan	.004	.87	10
Iapetus	.001	2.5	29
of Uranus			
Miranda	.0003	.09	2.5
Ariel	.001	.14	3.6
Umbriel	.0007	.19	4.9
Titania	.001	.31	8.2
Oberon	.001	.42	11
of Neptune			
Triton	.003	.25	7.1

Sizes (with the solar diameter = 10 cm)

The Planets	*Diameter (mm)*	*Distance from Sun (m)*
Mercury	.3	4.1
Venus	.9	7.7
Earth	.9	11
Mars	.5	16
Jupiter	10	56
Saturn	9	100
Uranus	4	210
Neptune	4	320
Pluto	.2	420
Nearest star		3000 km
Farthest edge of Milky Way		70 million km
Nearest galaxy		1400 million km
Farthest observable objects		4 million million km
Largest Asteroid		
Ceres	.07	
Largest Moons		*Distance from Planet (cm)*
of the Earth		
The Moon	.25	2.8
of Mars		
Phobos	.002	.06
of Jupiter		
Ganymede	.38	7.6
of Saturn		
Titan	.41	8.7
of Uranus		
Titania	.13	3.1
of Neptune		
Triton	.27	2.5

The sun is the size of a softball.

The inner planets (Mercury-Mars) are the size of grains of coarse sand; they range from 4 to 16 meters from the sun.

The outer planets (Jupiter-Neptune) are the size of small marbles; they range from half a football field to more than three football fields away from the sun.

Pluto is the size of a grain of fine sand and more than four football fields away.

The nearest star (other than the sun) is half way across the U.S.

Shrink the entire solar system to the size of the sun in this model (so that Pluto's orbit has the diameter of a softball) and the distance to the nearest star is about 350 m.

Plan for Solar System Model