

Developing Data for Solar System Walk (miles)

Astronomical Object	Size of object (diameter in miles)	Size of scale model (diameter in inches)	Distance from Sol (millions of miles)	Distance from previous stop (millions of miles)
Starting Point	Sol, Our Sun, The Sun	864,337 <i>(Ball circumference:</i>	8.6 27.15 <i>FIFA Size 5)</i>	
Inner Planets	For more information on the inner planets: http://solarsystem.nasa.gov/planets/charchart.cfm			
	Mercury	3,032	0.03	36
	Venus	7,521	0.08	67
	Earth	7,918	0.08	93
	<i>The Moon</i>	2,159	0.02	<i>(From Earth to Moon: 0.239)</i>
	Mars	4,212	0.04	142
	What's an AU? It's almost exactly Earth's orbit:			92.96
Asteroid Belt	For more information on the asteroid belt: http://solarsystem.nasa.gov/planets/profile.cfm?Object=Asteroids&Display=OverviewLong			
	Inner edge of "core"			191
	Queen of the Asteroid Belt: dwarf planet Ceres	1,181	0.01	257
	Outer edge of "core"			305
Outer Planets	For more information on the outer planets: http://solarsystem.nasa.gov/planets/charchart.cfm			
	Jupiter	86,881	0.87	483
	Saturn	72,367	0.72	887
	Uranus	31,518	0.32	1,784
	Neptune	30,599	0.31	2,795

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Kuiper Belt				
For more on Kuiper-belt objects and Pluto: http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs and http://solarsystem.nasa.gov/planets/profile.cfm?Object=Dwarf				
<i>Inner edge</i>			2,795	-
King of the Kuiper Belt: dwarf planet Pluto		Mission to Pluto:	http://science.nasa.gov/science-news/science-at-nasa/2014/14jan_pluto/	
<i>closest to the sun</i>			2,757	(913)
<i>average distance</i>	1,485	0.01	3,670	875
<i>farthest from the sun</i>			4,543	873
<i>Outer edge</i>			5,113	570
Our Robot Explorers				
Read about the Pioneers' adventures here http://www.nasa.gov/centers/ames/news/2013/pioneer11-40-years.html#.UzDJ44WwX_0 http://www.nasa.gov/topics/history/features/Pioneer_10_40th_Anniversary.html#.UzDKb4WwX_0				
Pioneer 11, last contacted in 1995		Find out where they are right now!	8,371	3,259
Voyager 2		http://www.heavens-above.com/SolarEscape.aspx?lat=0&lng=0&loc=	9,704	1,333
Pioneer 10, last contacted in 2003			10,280	575
Voyager 1		Discover more about the Voyager missions at: http://voyager.jpl.nasa.gov/where/index.html	11,837	1,557
The Heliopause			19,900	851
(The Sun's bow wave as it moves through space at 52,000 miles per hour)				
The Oort Cloud				
For more on the Oort cloud, see http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs				
Inner edge			464,786	444,886
Outer edge			9,295,713	8,830,927
Beyond our Solar System:				
How far is a light-year? At 186,282 mph:			5,878,487	
Proxima Centauri, the nearest star			24,924,786	15,629,073
The black hole at the center of the Milky Way			155,779,913,162.00	155,754,988,376
Andromeda, the biggest Local Group galaxy			14,919,600,739,817	14,763,820,826,655

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Astronomical Object	Scale distance at 1" = 100,000 miles (feet)	Number of steps between stops	Total scale distance from Sol, in miles	Total scale distance from Sol, in yards
Starting Point	Sol, Our Sun, The Sun	100,000	our scale--this many miles per inch	
		2.00	length of one step, in feet	
Inner Planets				
Mercury	30.0	15	0.006	10
Venus	25.9	13	0.011	19
Earth	21.7	11	0.015	26
Mars	40.4	20	0.022	39
			0.012	
Asteroid Belt				
Inner edge of "core"	41.5	21	0.030	53
Queen of the Asteroid Belt: dwarf planet Ceres	54.8	27	0.041	71
Outer edge of "core"	39.7	20	0.048	85
Outer Planets				
Jupiter	149	74	0.076	134
Saturn	336	168	0.14	246
Uranus	748	374	0.28	496
Neptune	842	421	0.44	776

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Kuiper Belt				
<i>Inner edge</i> King of the Kuiper Belt: dwarf planet Pluto	-	-	0.44	776
<i>closest to the sun</i>	(761)	(381)	0.44	
<i>average distance</i>	729	365	0.58	1,019
<i>farthest from the sun</i>	727	364	0.72	
<i>Outer edge</i>	475	237	0.81	1,420
Our Robot Explorers				
Pioneer 11, last contacted in 1995	2,715	1,358	1.3	2,325
Voyager 2	1,111	555	1.5	2,696
Pioneer 10, last contacted in 2003	479	240	1.6	2,855
Voyager 1	1,297	649	1.9	3,288
The Heliopause (The Sun's bow wave as it moves through the interstellar medium)				
	709	354	2.7	2,653
The Oort Cloud				
Inner edge	370,738	185,369	73	129,107
Outer edge	7,359,106	3,679,553	1,467	2,582,143
Beyond our Solar System:				
Proxima Centauri, the nearest star	13,024,228	6,512,114	3,934	6,923,552
The black hole at the center of the Milky Way	129,795,823,647	64,897,911,823	24,586,476	43,272,198,101
Andromeda, the biggest Local Group galaxy	12,303,184,022,213	6,151,592,011,106	2,354,734,965	4,144,333,538,838