

## 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)
<b>Starting Point</b>	Sol, Our Sun, The Sun	864,337 <i>(Ball circumference:</i>	8.6 <i>27.15 FIFA Size 5)</i>	
<b>Inner Planets</b>	<b>For more information on the inner planets:</b> <a href="http://solarsystem.nasa.gov/planets/charchart.cfm">http://solarsystem.nasa.gov/planets/charchart.cfm</a>			
	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
<b>Asteroid Belt</b>	<b>For more information on the asteroid belt:</b> <a href="http://solarsystem.nasa.gov/planets/profile.cfm?Object=Asteroids&amp;Display=OverviewLong">http://solarsystem.nasa.gov/planets/profile.cfm?Object=Asteroids&amp;Display=OverviewLong</a>			
	Inner edge of "core"			191
	Queen of the Asteroid Belt: dwarf planet Ceres	1,181	0.01	257
	Outer edge of "core"			305
<b>Outer Planets</b>	<b>For more information on the outer planets:</b> <a href="http://solarsystem.nasa.gov/planets/charchart.cfm">http://solarsystem.nasa.gov/planets/charchart.cfm</a>			
	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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<b>Kuiper Belt</b> For more on Kuiper-belt objects and Pluto: <a href="http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs">http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs</a> and <a href="http://solarsystem.nasa.gov/planets/profile.cfm?Object=Dwarf">http://solarsystem.nasa.gov/planets/profile.cfm?Object=Dwarf</a>				
<i>Inner edge</i>			2,795	-
King of the Kuiper Belt: dwarf planet Pluto		<b>Mission to Pluto:</b>	<a href="http://science.nasa.gov/science-news/science-at-nasa/2014/14jan_pluto/">http://science.nasa.gov/science-news/science-at-nasa/2014/14jan_pluto/</a>	
<i>closest to the sun</i>			2,757	(913)
average distance	1,485	0.01	3,670	875
<i>farthest from the sun</i>			4,543	873
<i>Outer edge</i>			5,113	570
<b>Our Robot Explorers</b> Read about the Pioneers' adventures here <a href="http://www.nasa.gov/centers/ames/news/2013/pioneer11-40-years.html#.UzDJ44WwX_0">http://www.nasa.gov/centers/ames/news/2013/pioneer11-40-years.html#.UzDJ44WwX_0</a> <a href="http://www.nasa.gov/topics/history/features/Pioneer_10_40th_Anniversary.html#.UzDKb4WwX_0">http://www.nasa.gov/topics/history/features/Pioneer_10_40th_Anniversary.html#.UzDKb4WwX_0</a>				
Pioneer 11, last contacted in 1995		<b>Find out where they are right now!</b>	8,371	3,259
Voyager 2		<a href="http://www.heavens-above.com/SolarEscape.aspx?lat=0&amp;lng=0&amp;loc=">http://www.heavens-above.com/SolarEscape.aspx?lat=0&amp;lng=0&amp;loc=</a>	9,704	1,333
Pioneer 10, last contacted in 2003			10,280	575
Voyager 1		<b>Discover more about the Voyager missions at:</b> <a href="http://voyager.jpl.nasa.gov/where/index.html">http://voyager.jpl.nasa.gov/where/index.html</a>	11,837	1,557
<b>The Heliopause</b> (The Sun's bow wave as it moves through space at 52,000 miles per hour)			19,900	851
<b>The Oort Cloud</b> For more on the Oort cloud, see <a href="http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs">http://solarsystem.nasa.gov/planets/profile.cfm?Object=KBOs</a>				
Inner edge			464,786	444,886
Outer edge			9,295,713	8,830,927
<b>Beyond our Solar System:</b>				
		How far is a light-year? At 186,282 mph:	5,878,487	
<b>Proxima Centauri, the nearest star</b>			24,924,786	15,629,073
<b>The black hole at the center of the Milky Way</b>			155,779,913,162.00	155,754,988,376
<b>Andromeda, the biggest Local Group galaxy</b>			14,919,600,739,817	14,763,820,826,655

## Developing Data for Solar System Walk (miles)

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	
<b>Starting Point</b>	Sol, Our Sun, The Sun	100,000	our scale--this many miles per inch		
		2.00	length of one step, in feet		
<b>Inner Planets</b>					
	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
	<i>The Moon</i>	<i>2 3/8 inches from Earth to Moon)</i>		0.012	
<b>Asteroid Belt</b>					
	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
<b>Outer Planets</b>					
	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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<b>Kuiper Belt</b>				
<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
<b>Our Robot Explorers</b>				
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
<b>The Heliopause</b> (The Sun's bow wave as it moves through the interstellar medium)				
	709	354	2.7	2,653
<b>The Oort Cloud</b>				
Inner edge	370,738	185,369	73	129,107
Outer edge	7,359,106	3,679,553	1,467	2,582,143
<b>Beyond our Solar System:</b>				
<b>Proxima Centauri, the nearest star</b>	13,024,228	6,512,114	3,934	6,923,552
<b>The black hole at the center of the Milky Way</b>	129,795,823,647	64,897,911,823	24,586,476	43,272,198,101
<b>Andromeda, the biggest Local Group galaxy</b>	12,303,184,022,213	6,151,592,011,106	2,354,734,965	4,144,333,538,838