

# Cincinnati Observatory

## Planet Walk

A Guided Tour through the Solar System

You are standing at the beginning of a Planet Walk – a unique way to demonstrate the relative distances from the Sun to the planets. At your feet is our Sun. Close by are the inner terrestrial planets - Mercury, Venus, Earth, and Mars. To reach the outer planets, you have to go on a little walk. Continue walking in a straight line, past the giant gas planets, and on to lonely Pluto.

For our planet walk, each foot is 8.2 million miles. And Pluto is 450 feet away!  
To comprehend such huge distances, astronomers use a different unit of measurement – the Astronomical Unit or A.U. One A.U. is equal to the distance between the Earth and the Sun (93 million miles). How many miles away from the Sun is Jupiter? Or Pluto?

It is amazing to realize just how gigantic our solar system is – and how empty it is in outer space.

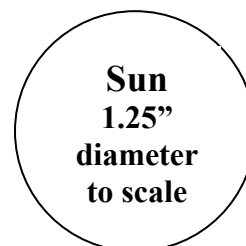
Take a walk through our Solar System.  
This guide will help you on your journey.

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At this small scale, it is hard to show at the same time the relative sizes of each planet. Most would be miniscule specks of dust.

Below and on the next page you will find information about the Sun and each planet, as well as their relative sizes at the same scale of the planet walk. Look carefully!  
And use your imagination while exploring the solar system!

***The Sun***      Size: 864,000 miles in diameter.  
Contains 99.5 percent of the mass of the solar system.  
Core temperature: 27 million degrees F  
Surface temperature: 10,000 degrees F  
Age: 5 billion years old.  
Created from a nebula of gas and dust, the Sun is the gravitational center of the solar system.



***Mercury***      Size: 3,032 miles in diameter .  
Heavily cratered surface reaches 600 degrees F during the days, 200 below zero during the long nights.

Mercury to scale  
→

<i>Venus</i>	Size: 7,521 miles in diameter. Weather: always cloudy and 800 degrees F. Rotates backwards compared to the other planets.	Venus to scale —————→ .
<i>Earth</i>	Size: 7,926 miles in diameter. (109 Earth's fit across the Sun's equator) Most distinctive features: liquid water and life. The Moon, the only other planet mankind has set foot on, is invisible at this scale and barely 1/4" away.	—————→ .
<i>Mars</i>	Size: 4,222 miles in diameter. Mars is a cold, desert world which had oceans of water at some point in its history. Does it harbor life? Mars has two moons.	—————→ .
<i>Jupiter</i>	Size: 88,846 miles in diameter. The largest planet in the solar system. Has a small ring system, 62 known moons and a giant hurricane named the Great Red Spot.	—————→ ○
<i>Saturn</i>	Size: 74,898 miles in diameter. Rings: 240,000 miles in diameter. A stunning sight through our telescopes! 37 known moons including Titan – where a spacecraft landed in 2005.	—————→ ⊖
<i>Uranus</i>	Size: 31,763 miles in diameter. Tilted on its side – probably the result of an ancient impact Has ring system and 27 known moons.	—————→ ◦
<i>Neptune</i>	Size: 30,778 miles in diameter. Has a ring system and 13 known moons Weather features: the Great Dark Spot and a smaller storm nicknamed "Scooter"	—————→ ◦
<i>Pluto</i>	Size: 1,413 miles in diameter. Has one known moon named Charon Pluto shares the outer reaches of the solar system with 300 other bodies called Kuiper Belt Objects.	Pluto to scale —————→ .

Ready to venture off to the nearest star? Alpha Centauri is a mere 272,000 AU away! Pack your bags because you're heading to Joplin Missouri, 580 miles away!

**For information on our programs, call 513.321.5186 or  
visit [www.cincinnatiobservatory.org](http://www.cincinnatiobservatory.org)**