

# The Planet Hike



National Park Service  
U.S. Department of the Interior



Natural Resource Stewardship & Science  
Natural Sounds & Night Skies Division

## Solar System Object The Sun



## Mercury



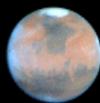
## Venus



## Earth



## Mars



## Directions

Start at the trailhead.

Take **48 steps** down the trail.  
You've reached Mercury.

Take **47 more steps** for a total of 98 steps.  
You have reached Venus.

Take **37 more steps** for a total of 132 steps.  
You have reached Earth!

Take **68 more steps** to get to Mars.

*Warning:* Watch out for Asteroids on your journey from Mars! The Asteroid Belt lies between the orbits of Mars and Jupiter.



Ceres is the only dwarf planet in the Asteroid Belt!

## Fun Facts

Did you know it takes 8 minutes and 19 seconds for the light that leaves the Sun to travel to Earth? The next time you watch the sunset the Sun actually set 8 minutes and 19 seconds earlier than when you are seeing it!

Mercury is small, not much bigger than our own Moon. Did you know 1 day on Mercury takes 87.969 Earth days? It's also the closest to the Sun, so a day on Mercury is always a scorching 800°F and the night side is a bone chilling -173°F!

Venus is the second closest planet to the Sun, yet it is hottest planet in the solar system at over 900°F on the surface! Did you know the Greenhouse Effect was first discovered when scientists studied Venus? They found that Venus has a lot more carbon dioxide than Earth, which traps in the Sun's heat.

Home! We are the only planet in our solar system that has 1 moon, liquid oceans and an abundance of life! That's because we live in the "habitable zone", where water can exist as a liquid on its surface. The Kepler Space Telescope is currently looking for earth-like planets in other solar systems. Since the end of 2011, over 700 exoplanets have been found, but many have more in common with Jupiter than the Earth.

Mars is much colder, drier and smaller than Earth. It may be small yet its home to some big geology. Valles Marineris is called the "Grand Canyon" of Mars, but its 5 miles deep and as long as the U.S.! Olympus Mons is the largest volcano in the solar system. It's 3 times taller than Mt. Everest!

**Solar System Object**

**Jupiter**



**Directions**

Now take **486 steps** to get to Jupiter.

**Fun Facts**

The king of the planets! The Great Red Spot is a storm about the size of Earth that has been raging for over 300 years! It has over 50 official moons, including Ganymede which is the biggest moon in the solar system. It's so large that it is bigger than the planet Mercury!

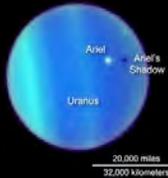
**Saturn**



Keep walking another **581 steps** to reach Saturn.

Burrr! Saturn is so cold that the air you breathe on Earth would be a cold liquid at -321°F! Saturn may not be as large as Jupiter, but it's a lightweight. Saturn is so light if you put it in a gigantic bathtub of water it would float! The beautiful rings of Saturn are made up of tiny particles of dust and ice.

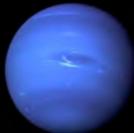
**Uranus**



Take **1,320 steps** to get to Uranus.

Did you know Uranus was the first planet discovered with a telescope? Sir William Herschel discovered it on March 13, 1781. Scientists later discovered that Uranus is tipped over on its side! Its polar regions are hotter than the equatorial regions.

**Neptune**

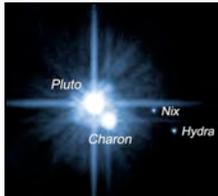


Finally Take **1,426 steps** to get to Neptune.

You made it to the last planet in the solar system, but you are less than half way to the far edge of our solar system!

Like Jupiter, Saturn and Uranus, Neptune is a "gas giant". Neptune has the Great Dark Spot, a storm that was discovered in 1989 by the spacecraft Voyager 2. Since 2006 Neptune is the 8<sup>th</sup> and "last" planet in the solar system.

**Plutoids and KBO's**



What is a dwarf planet? They are smaller than the planet Mercury and live in crowded neighborhoods of similar objects that cross their path as they travel around the Sun.

**FINAL CHALLENGE:**

Take **1,267 more steps** to make it to Pluto and the beginning of the Kuiper Belt. KBO's are Kuiper Belt Objects, which are large bodies of ice and rocks.

It's also home to dwarf planets known as "plutoids" named: Pluto, Makemake, Haumea and Eris.

Before 1930 astronomers were searching for the 9<sup>th</sup> planet, they named "Planet X". When Pluto was discovered on February 13, 1930, a schoolgirl suggested naming it Pluto, after the Roman god of the underworld.

In 2006, the "planet" Pluto was demoted from its place as the 9<sup>th</sup> planet and is now called a "dwarf planet". In July of 2011 astronomers discovered a 4<sup>th</sup> moon of Pluto. Pluto's moons are Charon, Nix, Hydra and P4 (to be named).

In this scale model, the Earth is 132 steps from the Sun. To get the far edge of our solar system you would have to travel a factor 125,000 x 132 steps. That's over 16.5 million steps!



**Congratulations Solar System Ranger!**