

Planet Earth



If you remember your history lessons, there was a time before global exploration by sea that people believed that the Earth was flat. Sailors, clergy, kings and queens believed that if someone sailed beyond the horizon that they would simply fall off the edge of the world. Of course famous explorers proved that the Earth is round. Early scientists proved that the Earth was not the center of the universe but revolved around the Sun. It wasn't until very recent times, when astronauts could view planet Earth from space, that people realized that Earth appears blue and we have marvelous pictures of the Blue Planet.

Earth is the third planet in our solar system in distance from the Sun, about 93 million miles away. Earth revolves around the Sun in an elliptical orbit and it takes Earth 365 days to complete one revolution around the Sun. Earth is the closest planet to the Sun to have a moon; our Moon revolves around Earth like Earth revolves around the Sun.

Like other planets, Earth revolves around its axis, making one rotation every day. The clock we use divides a day into 24 hours of equal length; this is called a solar day. But Earth takes just 23 hours 56 minutes 4 seconds to rotate on its axis; this is called a sidereal day. There is also a sidereal year because Earth takes 365 days 6 hours 9 minutes 9 seconds to revolve around the Sun. These small differences in time add up so we adjust our calendar once every four years, called a leap year, by adding an extra day on February 29.

Earth is the only planet in the solar system to have a large body of liquid water, the ocean that covers 71% of Earth's surface. Continents of land rise higher than the surface of the ocean. Earth has two major areas of ice, at the North Pole and the South Pole. Earth is the only planet in our solar system to have abundant plant and animal life but scientists continue to search for intelligent life forms elsewhere in the universe.

Earth is surrounded by an atmosphere composed of 78% nitrogen and 21% oxygen. The remaining 1% is a mix of other trace gases. The atmosphere also contains water vapor, water droplets, carbon dioxide, and dust. The atmosphere closest to the Earth where we live is called the troposphere.

