

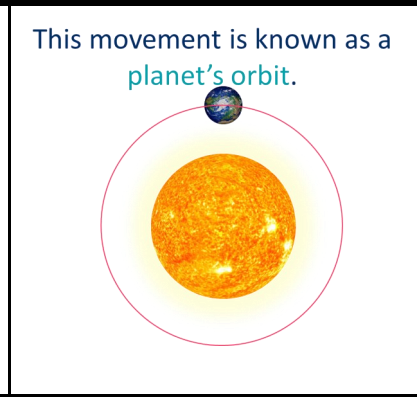
**What should I already know?**  
 I can explain the changes that occur across the four seasons.  
 I can describe the weather associated with the seasons and how day length varies.

**Enquiry Question**  
 How have ideas about the Solar System changed over time?

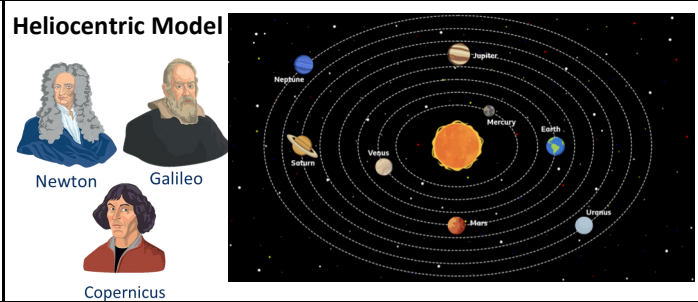
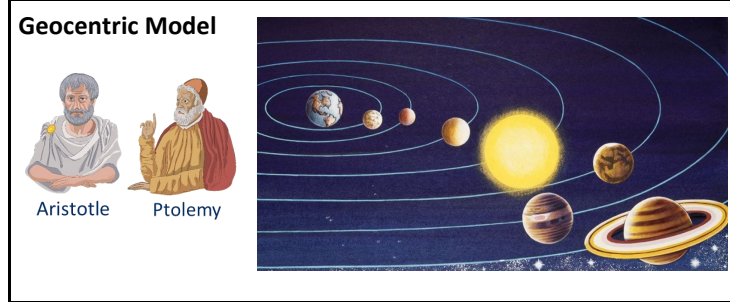
Vocabulary	
Solar system	the Sun and the other bodies that orbit it
Planets	a roughly spherical object which orbits a star
Orbit	the path an object takes around another object because of gravity
Sun	the star at the centre of our Solar System
Star	Giant spheres of super hot gas in space that can be seen in the
Celestial body	an object in space
Heliocentric model	a model that puts the Sun at the centre
Geocentric model	a model that puts Earth at the centre of the Solar System
Gravitational force	a non-contact force caused by objects with mass pulling each other

**The Solar System**

The sun is a star: a huge ball of hot gas that gives off light and heat. The Earth and all of the planets in the Solar System orbit the Sun. It take the Earth just over 365 days to make one complete orbit around the sun - this is one year. The Earth and the other planets are held in place around the Sun by gravity - the same force that keeps you on the Earth! The Earth is always spinning around. When a point on Earth is facing the Sun, it is daytime. When facing away, it is night time. It takes 24 hours for the Earth to complete a spin. As it rotates, the Sun appears to move across the sky. Some objects orbit around the planets. These are called moons. The Earth has one moon. The Moon is much smaller than the Earth. It takes 28 days to complete its orbit. The Sun, Earth and Moon are all roughly spherical.



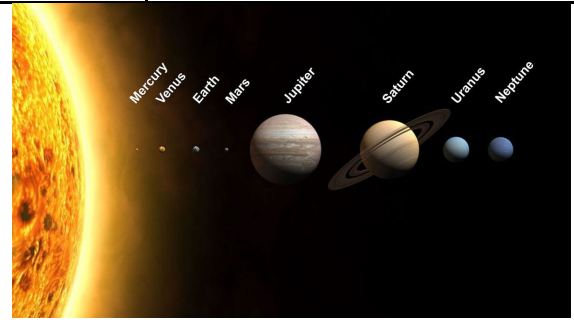
Our ideas about the Solar System have changed over time. People used to believe that Earth was at the centre of the Solar System. This is known as the Geocentric model of the Solar System. Then Polish astronomer Copernicus suggested a new model for the Solar System. Copernicus believed that the Sun was at the centre of the Solar System. This was called the Heliocentric model.



Planet Facts

The Solar System includes the Sun at its centre and 8 planets that orbit around it. There are also 5 dwarf planets.

Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Area: 0.147 Earths	Area: 0.902 Earths	Area: 1 Earth	Area: 0.284 Earths	Area: 121.9 Earths	Area: 83.7 Earths	Area: 15.91 Earths	Area: 14.98 Earths
8th Largest	6th Largest	5th Largest	7th Largest	1st Largest	2nd Largest	3rd Largest	4th Largest
Moons: None	Moons: None	Moons: 1 Moon	Moons: 2 Moons	Moons: Around 80	Moons: Around 65	Moons: Around 30	Moons: None
Length of Day: 1,408 hours	Length of Day: 5,832 hours	Length of Day: 24 hours	Length of Day: 25 hours	Length of Day: 10 hours	Length of Day: 11 hours	Length of Day: 17 hours	Length of Day: 16 hours
Length of Year: 88 days	Length of Year: 225 days	Length of Year: 365 days	Length of Year: 687 days	Length of Year: 12 years	Length of Year: 29 years	Length of Year: 84 years	Length of Year: 165 years



As Earth has a greater mass, it has a greater gravitational pull than the Moon, causing the Moon to orbit Earth. It takes approximately 27 days for the Moon to orbit Earth.

