

Enquiry Knowledge Organiser Year 5 What does the Earth look like from the Solar System ?

Vocabulary I need to know

- Rotation
- Sunrise, sunset
- Sphere, celestial body, orbit
- Latitude
- Longitude
- Time zone: Prime Meridian, Greenwich meridian.
- Northern & Southern Hemisphere
- Tropics of Cancer & Capricorn, Equator.

Astronomers



Ancient Mayans

Famous for: accurately mapping out the motions of the stars across the night sky



Ptolemy

Most famous for: creating the Almagest, a book mapping the motion of stars and planets which accurately predicted where planets would be



Nicolaus Copernicus

Most famous for: Writing On the revolutions of heavenly spheres

Jocelyn Bell Burnell

Most famous for: discovering a new type of star called a 'Pulsar'

Katherine Johnson

Most famous for: providing the calculations that enabled NASA to send humans into space

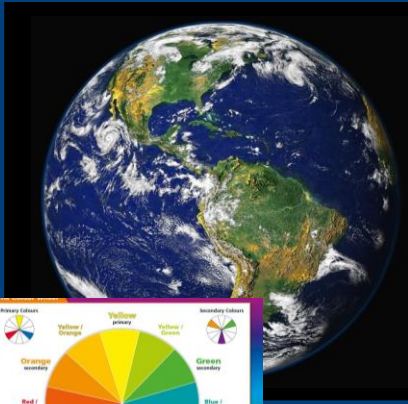
Map and Overview



- Europe is a continent located entirely in the northern hemisphere, and mostly in the eastern hemisphere.
- Despite being the 2nd smallest continent by area (covering 10.2 million km² it is the 3rd most populous continent in the world – with a population of about 743 million people (about 10% of the world's population).
- Europe largely rests on the same landmass as Asia, separated by the Ural Mountains and the Caspian Sea.
- The European climate is affected by warm Atlantic currents.



Overview



- The **Earth** (our planet) is part of the **solar system**. At the centre of the Solar System is the **sun**. The sun is a **star**.
- There are 8 planets and 5 **dwarf** planets which **orbit** (go around) the sun.
- It takes the Earth just over 365 days to go around the sun.
- The Earth rotates on its **axis** once every 24 hours. This causes days and night as different parts of the planet face the sun.
- The **moon** orbits around the Earth. The sun, Earth and moon are all roughly **spherical**.



What knowledge do I already have?

- I can name and find counties and cities in the UK.
- I understand some similarities and differences in regions of the UK, a European city, and a region in North or South America.
- I can talk about types of settlement and land use.
- I know the differences between solids, liquids and gases.
- I know that some materials change state when they are heated & cooled.
- I know how evaporation and condensation play an important part in the water cycle.

The Solar System

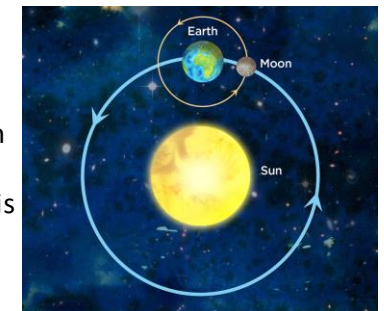


- The **solar system** includes the sun and all of the objects that orbit around it due to **gravity**.
- The Earth is one of eight planets that orbit the sun and is the third closest.
- The planets in order from the sun are **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus** and **Neptune**. Jupiter is the largest planet and Mercury is the smallest.
- The five dwarf planets are **Haumea, Makemake, Ceres, Eris** and **Pluto**.
- Earth is the only known planet in the solar system where there are living things. The planets closer to the sun are thought to be too hot, whilst some of those further away are too cold.
- Around 1,321 Earths could fit inside Jupiter and 1.3 million Earths could fit into the sun!

The Sun and the Moon

- 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.
- The Earth and other planets are held in place around the sun by **gravity** – the same force that keeps us 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 nighttime.
- Some objects orbit around the planets. These are called **moons**. The Earth has one moon which is much smaller than Earth.

- It takes one **lunar** month (29.5 days) for the moon to orbit the Earth. This is slightly longer than the time it takes to orbit the Earth. This is because the Earth is moving around the Sun.



Mercury



Venus



Earth



Mars



Jupiter



Saturn



Uranus



Neptune

