

Scientific Enquiries



Year 3 & 5
Forces

Physics



Vocabulary

solar system	The name for the Sun and all the planets, dwarf planets, asteroids, meteors and comets that orbit it	moon	A body that orbits a planet; a natural satellite
orbit	A path followed by a planet (or other body) as it moves around another planet or star	phase	The appearance of a moon or planet according to the amount of illumination
terrestrial planet	The four inner rocky planets – Mercury, Venus, Earth and Mars	waxing	The name given to the moon phases when the moon is becoming brighter
gas giant planet	The four outer planets – Jupiter, Saturn, Uranus and Neptune	waning	The name given to the moon phases when the moon is becoming darker

WHAT?



1. Our **solar system** consist of 8 **planets** and 210 planetary satellites (moons) that **orbit** the **Sun**.
 - Mercury, Venus, Earth and Mars are the **inner terrestrial** (or rocky) planets
 - Jupiter, Saturn, Uranus and Neptune are the **outer gas giant** planets



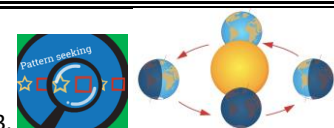
4. The **Earth** orbits the **Sun** once every **365 days** and rotates on its axis **once every 24 hours**.
 - **Day** and **night** are due to the Earth **rotating on its axis**, not its orbiting the Sun.
 - We can see this by **observing shadows** throughout the day.



2. **Heliocentric** means to have or represent the **Sun** as the centre of the **astronomical model** of the **solar system**.
 - The **heliocentric model** is the astronomical model in which the **Earth** and **other planets** **revolve** around the **Sun** at the **centre of the universe**.



5. The **moon** travels around our planet **once every 27 days** in orbit.
 - We see different **phases** of the moon – a **waxing phase** is the moon getting **brighter** and a **waning phase** is the moon getting **darker**.
 - The moon affects the Earth's **tides** due to the **gravitational pull**.



3. **Johannes Kepler** came up with the **law of planetary motion**.
 - He said there were **3 scientific laws** that described the **motion** of **planets around the Sun**.
 - **Earth** takes **one year** to complete **one orbit** around the **Sun**.
 - **Earth** takes **23 hours and 56 minutes** to complete **one rotation** around its **own axis**.



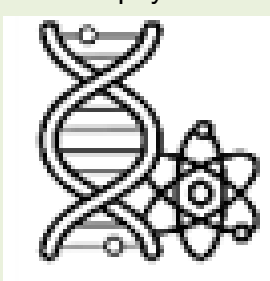
6. A **dwarf planet** must do three things to be considered a planet.
 - It must **orbit** a **star** (in our solar system that is the Sun).
 - It must be **large** enough to have enough **gravity** to make it **spherical**.
 - It must be **large** enough that its **gravity** cleared away other objects of **similar size** (e.g. other planets) near its **orbit**.

Helpful links

Fun facts about Space!



What is physics?



Learn the planet song!



Some more facts about the Moon!

