

Space & Forces

Start point: Our Solar System consists of the Sun, eight planets, their moons and many smaller bodies called asteroids and comets. These celestial bodies stay in orbit around the sun due to the laws of physics and the act of forces.

Home learning activity

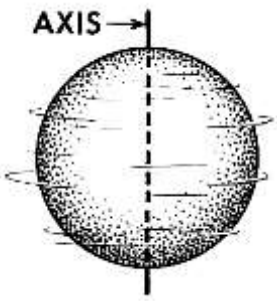
Research a planet of your choice, find out all about that planet and choose how to present your findings!

orbit: to move in a regular, repeating curved path around another object.

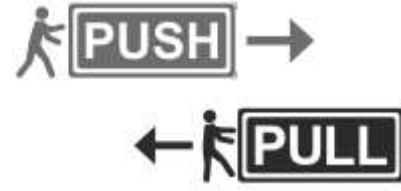


forces: pushes or pulls.

Earth's gravitational pull: the pull that Earth exerts on an object, pulling it towards Earth's centre.



rotate: to spin.



axis: an imaginary line that a body rotates around.



weight: the measure of the force of gravity on an object.

mass: the measure of how much matter (or 'stuff') is inside an object.

astronomer: someone who studies or is an expert in astronomy (space science)



Gravity: a pulling force exerted by the Earth (or anything else with mass).

Geocentric model: a belief that people used to have that other planets and the Sun orbited around Earth.



Heliocentric model: the structure of the solar system where the planets orbit around the Sun.



Types of Forces:

Friction: a force that tries to act between two surfaces or objects that are moving or trying to move across each other.

Air resistance: a type of friction caused by air pushing against a moving object.

Water resistance: a type of friction caused by water pushing against a moving object.

Gravity: a pulling force exerted by the Earth (or anything else with mass).

Upthrust: a force that pushes objects up, usually in water.

Key Questions

How do planets and other bodies move around the sun?

How do we get day and night?

Why do unsupported objects fall towards Earth?

What forces are acting between moving surfaces?

streamlined: when an object is shaped to minimise the effects of air and water resistance.



mechanism: simple machines with moving parts that change input forces into a set of useful output forces.