Aston on Trent Primary School
Knowledge Organiser

Curriculum overview

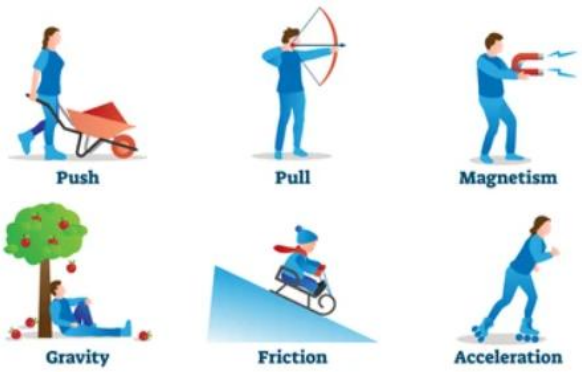
In this unit, we will be looking at gravity and Sir Isaac Newton's laws. We will be exploring the effect of air or water resistance between moving surfaces. We will explore the simple mechanisms including levers, gears and pulleys that increase the effect of a force.

Key vocabulary

Force	Pushes or pulls.
Friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
Gravity	A pulling force exerted by the Earth.
Buoyancy	An upward force that a liquid applies to objects.
Earth's gravitational Pull	The pull that the Earth exerts on an object, pulling it towards Earth's centre. It is this pull which keeps us on the ground.
Resistance	A type of friction caused by something pushing against a moving object.
Mechanism	Parts which work together in a machine. Examples are pulleys, gears and levers.

Our topic is...

Forces



Sticky knowledge

- Isaac Newton is famously thought to have developed his theory of gravity when he saw an apple fall to the ground from an apple tree.
- Mass is how much matter is inside an object. It is measured in kilograms (kg)
- Weight is how strongly gravity is pulling an object down. It is measured in newtons (N).
- Water resistance and air resistance are forms of friction.
- Levers can be used to make a small force lift a heavy load. A lever always rests on a pivot.

Texts and Links

KS2 Science: Discovering the work of Sir Isaac Newton - BBC Teach

What is a force? - BBC Bitesize



Sir Isaac Newton

Forces in Action

