



WHAT SHOULD I ALREADY KNOW?

- Forces can be pushes (a shopping trolley) or pulls (tug of war).
- Some forces need contact between two objects, but some forces (magnets) can act at a distance.
- Objects move differently on different surfaces.

NOTABLE SCIENTIST

SIR ISAAC NEWTON

Isaac Newton was a physicist and mathematician. He created many of the principles we used in Physics today! He was one of the great minds of the 17th Century Scientific Revolution.



It is said that he discovered gravity when sitting under an apple tree. An apple fell on his head and Newton wondered how this could happen, leading him to investigate!

STICKY KNOWLEDGE

Unsupported objects fall to the ground because of gravity, this was discovered by Isaac Newton.

Air resistance and water resistance is a type of friction.

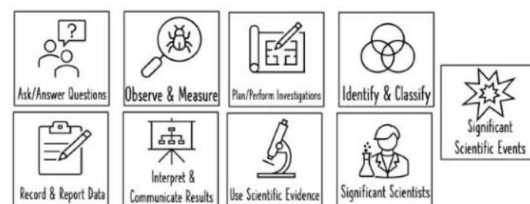
Friction occurs when objects move through water or air. Friction works in the opposite direction that the object is trying to move - friction always slows something down.

Pulleys, levers and gears can make it easier to move objects as smaller force is required by the human.

VOCABULARY

Force	A push or a pull upon an object resulting from its interaction with another object.
Friction	The resistance that one surface or object encounters when moving over another.
Air Resistance	A force that is caused by air with the force acting in the opposite direction to an object moving throughout the air.
Gravity	The force that attracts objects to the centre of the Earth.
Mass	The weight measured by an objects acceleration under force.
Water Resistance	A force that is caused by water with the force acting in the opposite direction to an object moving through the water.
Gear	A toothed wheel that works with others to alter the speed of a mechanism.
Pulley	A simple mechanism. A wheel with a grooved rim to change direction of force.
Lever	A simple mechanism. A rigid bar resting on a pivot that is used to move a heavy load.
Working Scientifically	Asking questions, designing experiments and recording the results.

WEAVING CONCEPTS



ENQUIRY TYPES

1. Observing changes over time
2. Pattern Seeking
3. Grouping & Classifying
4. Fair Testing
5. Research

