

What I should already know:

- 1 Explain that some forces need contact between two objects.
- 2 Describe how magnets attract or repel each other and attract some materials and not others.
- 3 Group a variety of materials on the basis of whether they are attracted to a magnet.
- 4 Describe magnets as having two poles and tell whether two magnets will attract or repel each other.

Working Scientifically Skills:

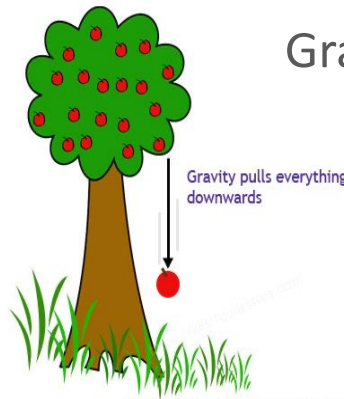
- To plan** practical inquiries, **comparative** and fair tests, including recognising and controlling **variables** where necessary.
- To record** findings such as using simple scientific language, labelled diagrams and bar charts.
- To make** systematic and careful **observations** and, where appropriate, take accurate measurements.

Key Vocabulary:

1	forces	pushes or pulls
2	gravity	a pulling force exerted by the Earth (or anything else which has mass).
3	weight	the measure of the force of gravity on an object.
4	mass	a measure of how much matter (or 'stuff') is inside an object.
5	friction	a force that acts between two surfaces or objects that are moving, or trying to move, across each other.
6	Newton	unit of force
7	Newton meter	an instrument for measuring forces
8	buoyancy	an object is buoyant if it floats. This is because the weight of the object is equal to the upthrust.
9	streamlined	when an object is shaped to minimise the effects of air or water resistance.
10	air resistance	a type of friction caused by air pushing against any moving object.
11	mechanism	parts which work together in a machine. Examples of mechanisms are pulleys, gears and levers.
12	upthrust	a force that pushes objects up, usually in water.

What I will learn:

- 1 Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- 2 Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.
- 3 Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.



Gravity

Scientists/Inventors

Archimedes Greek (c.287- c.211)	Mathematician who developed theories about how levers and pulleys can lift and move heavy objects.
Brahmagupta Indian (c.598- c.668)	Mathematician & astronomer who was the first scientist to talk about gravity.

