

Brentside Knowledge Organiser - Science

Year: 5

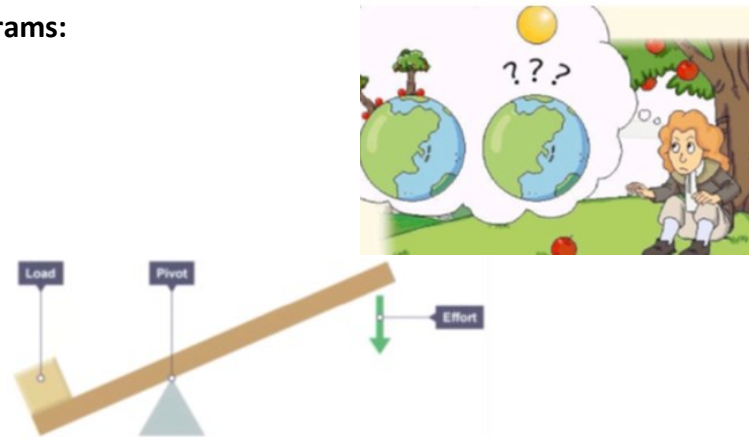
Topic: Is it true everything that goes up must come down?

National curriculum: Forces

What I should already know:

I can compare how things move on different surfaces.
 I can notice that some forces need contact between two objects, but magnetic forces can act at a distance.
 I can observe how magnets attract or repel each other and attract some materials and not others
 I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
 I can describe magnets as having 2 poles
 I can predict whether two magnets will attract or repel each other.

Diagrams:



Vocabulary

Force	A push or pull in a certain direction, impacting an object
Gravity	A force that causes objects to fall
Force meters	Used to measure force, measured in newton
Air resistance	Resistance between an object and air
Water resistance	A resistance between an object and water, causes an object to slow
Levers	A simple mechanism consisting of a load, pivot and effort
Gears	When two or more wheels with spokes turn to turn a small force into a big force
Pulleys	A mechanism using a rope and wheel, used to lift loads

What I should know at the end of the topic:

	I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
	I can identify the effects of air resistance, water resistance and friction, that act between moving surfaces .
	I can tell how mechanisms allow a smaller force to have a greater effect.

Investigate:

Can you explore resistance in water by making and testing boats of different shapes?
 Can you design and make artefacts that use simple levers, pulleys, gears and/or springs and explore their effects?