



What should I already know?

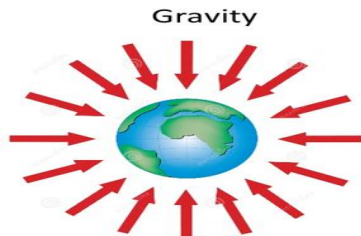
Things move differently on different surfaces.

Some forces need contact between 2 surfaces, but magnetic forces can act from a distance.

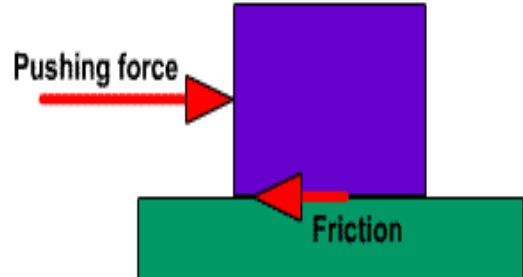
Diagrams



When an object drops, they fall towards the centre of the earth because of gravity.



Friction can slow things down or stop them moving.



Vocabulary



Gravity 	The force that attracts an object towards the centre of the Earth.
Friction 	The resistance an object experiences when moving across a surface.
Air resistance 	The force which acts on objects as they move through the air.
Water resistance 	The force which acts on objects as they move through or sit on water.
Surface area 	The amount of space taken by the outside of an object.
Mechanism 	A system of parts working together in a machine.
Lever 	A bar or plank resting on a pivot.
Pulley 	A system of wheels and ropes.
Gear 	A system of wheels with teeth which slot together.

Quick Facts

Gravity is a force which acts between objects and the Earth.



When an object drops, they fall towards Earth because of this force.

Isaac Newton was the first scientist to develop a theory about this when an apple fell on his head.

Forces are needed to make things move, get faster

and slow down.

Forces can act between surfaces and moving objects:

Friction can slow things down or stop them moving.

Air resistance is a type of friction that acts against an object falling or moving through the air.

Water resistance is a type of friction that acts against objects placed on or moving through water.

Mechanisms, including levers, pulleys and gears allow a smaller force to have a greater effect.

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A lever is a rod or plank which can pivot around a fulcrum.

Pulleys are a system of wheels and ropes which can be arranged to lessen the force needed to lift a load.

Gears are systems of wheels with teeth that slot together.

Working Scientifically

Questioning, Planning and Enquiring	Investigating
Observing and Recording	Concluding and Evaluating