

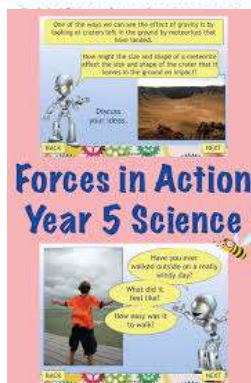
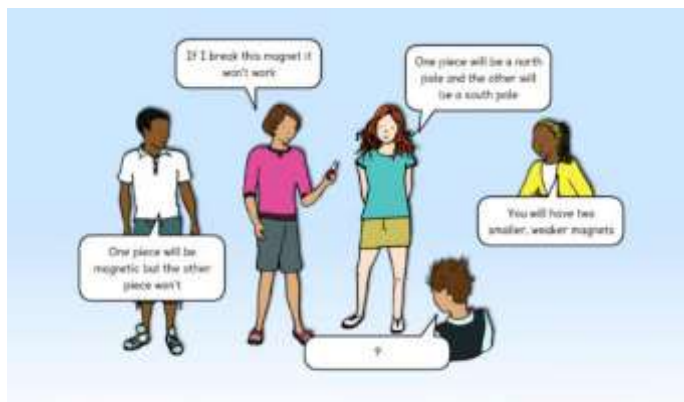
Year Group: 5

Subject Focus: Science

Term: Autumn 2

## Key facts

All forces are a push or a pull.  
Forces can be indicated with arrows showing their direction.  
On Earth, gravity is the force pulling all objects towards the centre of the Earth.  
Air resistance and water resistance are examples of friction.  
Air resistance causes objects moving through air to slow down.  
Water resistance causes objects moving through water to slow down.  
Friction is the force created by two objects, materials or surfaces rubbing together.  
Friction causes objects to slow down or stop.  
Some forces are stronger than others and can overcome them when they are in opposition eg: gravity overcomes air resistance when a parachute falls to Earth.  
Levers, pulleys and gears can allow smaller forces to have greater effect.



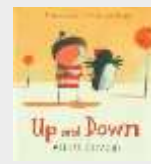
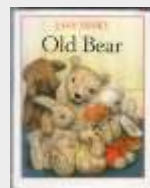
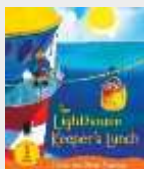
## Key words:

force	Energy as a movement
gravity	The force that attracts to the centre of the earth
Earth	The planet which we live on
friction	The resistance that a surface or object meets when moving over another surface or object
mechanisms	Parts of a working machine
air resistance	A force that acts in the opposite direction of a moving object
levers	A simple machine to increase force
pulleys	Mechanisms using a wheel and rope for moving objects
gears	A simple machine to create movement
water resistance	A force that uses friction to slow things down in the water

## Did you know?

Lots of different civilisations have used levers, pulleys and gears to make things move.  
Everything that moves, involves a force.  
Your trainers are designed in order to create friction.

## Exciting books/ web links:



<https://www.bbc.co.uk/teach/terrificscientific/KS2/zr63d6f>

<https://www.bbc.co.uk/bitesize/topics/znmmn39>

## Parents as partners:

Investigate any forces that you might find in your home.  
Which forces might you encounter on your journey to school every day?  
Discuss what might happen if there was no gravity on earth.