



## VOCABULARY

**Forces**- changes the motion of an object. Pushes and pulls in a particular direction.

**Gravity**- a force which pulls things towards the centre of the Earth. Discovered by Sir Isaac Newton.

**Push**- force which causes movement away from something.

**Pull**- force which causes movement towards something.

**Contact force**- requires contact to happen.

**Non-contact force**- doesn't require contact.

**Attract**- causes something to move towards.

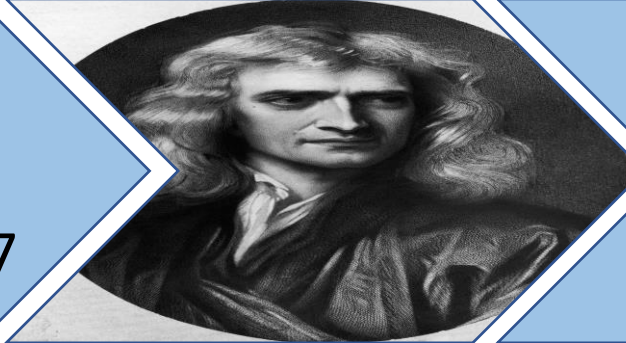
**Repel**- causes something to move away.

**Poles**- Magnets have a North and South Pole.

**Magnetic field**- magnets electric charge

Sir Isaac  
Newton

1643-1727



An English mathematician, physicist, astronomer and author who is famous for his laws of motion, theory of colour and the discovery of gravity. Gravity is measured in Newtons (N)

John  
McAdam

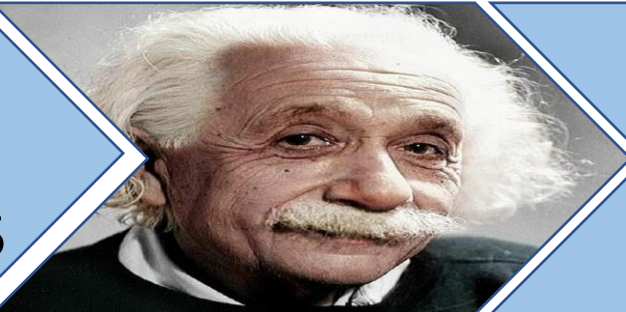
1756-1836



John McAdam was a Scottish engineer who modernised the way we build our roads.

Albert  
Einstein

1879-1955

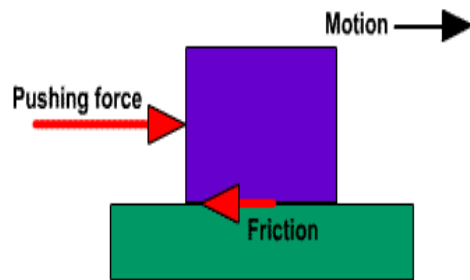


His theories of motion and forces started at five years old when his father gave him his first compass.



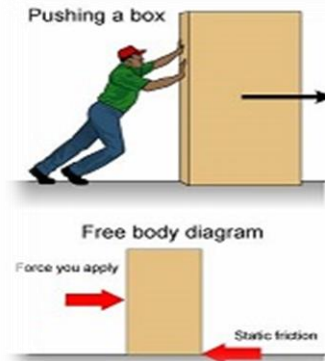
# Year 3 Forces

## Friction



Friction is a force **between two surfaces** that are sliding, or trying to slide, across each other. For example, when you try to push a book along the floor, friction makes this difficult.

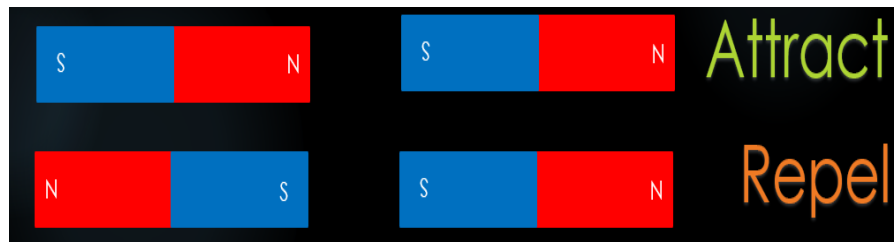
## What is a force?



Forces are pushes or pulls.

Push and pull forces can make things start and stop moving, make a moving object change direction and change the shape of an object.

## Magnets

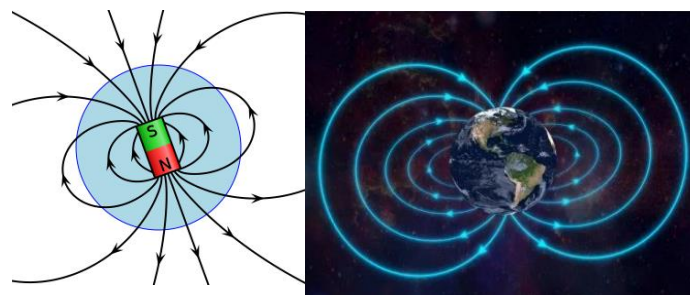


Opposite poles attract. (Stick together)

The same poles repel. (Move away)

Magnets have North Poles and South Poles.

Magnets can come in all shapes, sizes and strengths.



Magnets have magnetic fields.

The Earth is also a giant magnet. This is how compasses work.

### Magnetic

### Not Magnetic

