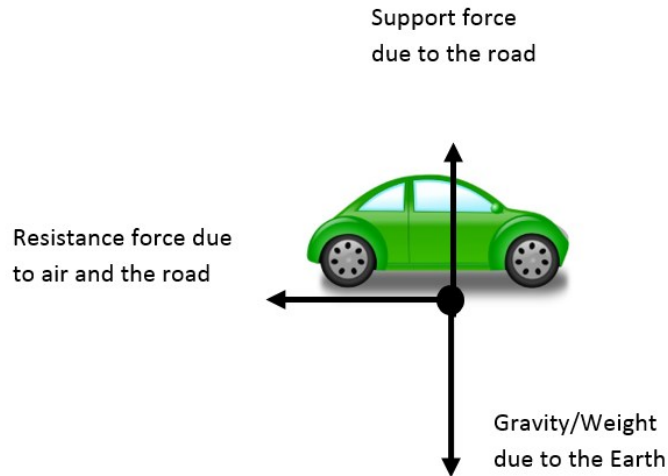


# Year 3: Forces & Magnets

## FORCES:



Objects move differently on rough and smooth surfaces; objects resist movement more on rough surfaces because there is higher friction as the object moves.

There are also non-contact forces that can act between objects without them touching.

Magnetism is an example of a non-contact force.

A force can be thought of as a push or a pull.

There are three types of contact force: impact force (when two objects collide), frictional forces (when two objects are already in contact) and strain forces (when an elastic material is stretched or squashed).

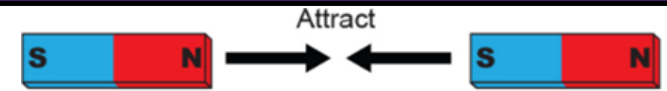


PULL



PUSH

## MAGNETS:



Magnets have two poles called North and South

Poles that are the same (South-South and North-North) of two magnets repel against each other.

Poles of two magnets that are opposite (North-South) attract each other.

There is a magnetic field around a magnet which is strongest at each of the poles.

## KEY VOCABULARY:



**ATTRACTION:** if one object attracts another, it causes the other object to move towards it



**MAGNET:** a piece of iron or other material which attracts magnetic material towards it



**POLE:** one of the two ends of a magnet.



**RESISTANCE:** a force which slows down a moving object.



**ELASTIC:** able to resume its normal shape after being stretched or compressed



**MAGNETIC FIELD:** an area around a magnet where the magnet's power to attract is felt



**PULL:** hold it firmly and force to move towards you



**SLIDING FRICTION:** the resistance created by two objects when sliding against each other.



**FRICTION:** the resistance of motion when there is contact between two surfaces



**NORTH:** a location on the surface of the Earth



**PUSH:** use force to make it move away from you



**SOUTH:** a location on the surface of the earth.



**GRAVITY:** the force which causes things to drop towards the ground.



**OPPOSITE:** describes things of the same kind which are completely different in a way



**REPEL:** gives out a force that pushes the other pole away.



**STATIC FRICTION:** a force that keeps an object at rest

Some materials are magnetic and others are not:

Iron and steel are magnetic

Aluminium and copper are non-magnetic

Materials that are magnetic will be attracted to a magnet and non-magnetic materials will not