

Science Knowledge Organiser

Topic: Forces and Magnets

Year: 3/4 (LKS2)

Strand: Physics

What should I already know?

- The shape of some materials can be changed when they are stretched, twisted, bent and squashed.
- Know how different toys move.
- Know what a force is and be able to explain that push and pull are types of forces.
- That when forces are applied to an object they allow them to move or stop moving.
- The strength of the force determines how far and fast an object moves.

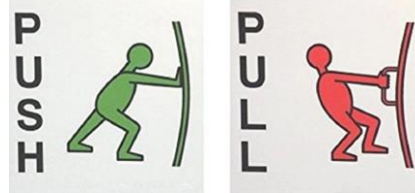
Vocabulary

attract	If one object attracts another object, it causes the second object to move towards it
friction	the resistance of motion when there is contact between two surfaces
force	the pulling or pushing effect that something has on something else
gravity	the force which causes things to drop to the ground
magnet	a piece of iron or other material which attracts magnetic
Magnetic field	an area around a magnet, or something functioning as a magnet, in which the magnet's power to attract things is felt
pull	When you pull something, you hold it firmly and use force in order to move it towards you or away from its previous position
push	When you push something, you use force to make it move away from you or away from its previous position
repel	When a magnetic pole repels another magnetic pole, it gives out a force that pushes the other pole away
resistance	a force which slows down a moving object or vehicle

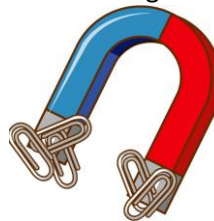
What will I know by the end of the unit?

What are forces?

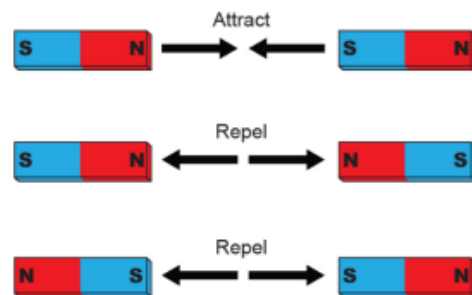
- Forces are pushes and pulls.
- These forces change the motion of an object.
- They will make it start to move or speed up/slow it down or even make it stop.
- Forces act in opposite directions to each other.



- When objects enter this magnetic field, they will be attracted to or repelled from the magnet if they are magnetic.
- When magnets repel, they push each other away
- When magnets attract, they pull together.



- The ends of a magnet are called poles.
- One end is called the north pole the other is called the south pole



Key Questions/Investigations

Comparative and fair testing- compare how things move on different surfaces.

Classifying and grouping- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet or not and explain why.