

Forces and Magnets



I already know how different toys move, what a force is and can explain that a push and pull are types of forces.

Vocabulary

friction	the resistance of motion when there is contact between two surfaces
magnet	a piece of iron or other material which attracts magnetic materials towards it
repel	When a magnetic pole repels another magnetic pole, it gives out a force that pushes the other pole away
magnetic field	an area around a magnet, or something functioning as a magnet, in which the magnet's power to attract things is felt
resistance	a force which slows down a moving object or vehicle
poles	North & South poles are found at different ends of the magnets
attract	If one object attracts another object, it causes the second object to move towards it
gravity	A force that pulls objects towards the ground

How do different surfaces affect the motion of an object?

Forces act in opposite directions to each other.

When an object moves across a surface, **friction** acts as an opposite force.

Friction is a force that holds back the **motion** of an object.

Some surfaces create more **friction** than others which means that objects move across them slower.

On a ramp, the force that causes objects to move is **gravity**.

Objects move differently depending on the surface of the object itself and the surface of the ramp



wood



grass



carpet

How do magnets work?

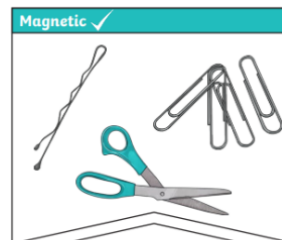
Magnets produce an area of **force** around them called a **magnetic field**.

When objects enter this magnetic field, they will be attracted or repelled from the magnet if they are **magnetic**.

When magnets **repel**, they **push** each other away.

When magnets **attract**, they **pull** together.

Like **poles** repel.
Opposite **poles** attract.



These objects contain iron, nickel or cobalt. Not all metals are **magnetic**.



These objects do not contain iron, nickel or cobalt.