

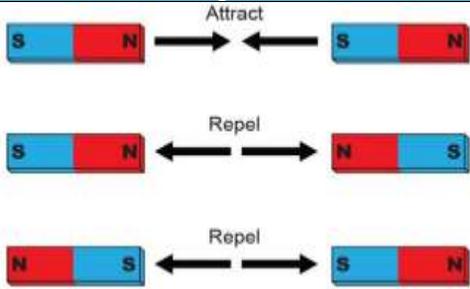


Forces and Magnets Year 3

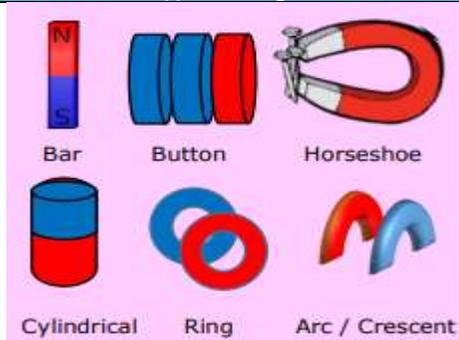
What I need to know

- A force is a push or a pull acting on an object as a result of the object's interaction with another object. Forces can make objects stop or start moving.
- When an object moves on a surface, the texture of the surface and the object affect how it moves. It may help or hinder the object. E.g. an ice skater wearing ice skates compared to normal shoes. This is called friction.
- A magnet attracts magnetic materials. The strongest parts of a magnet are the poles. Magnets have two poles – a north and a south pole.
- For some forces to act, there needs to be contact. E.g. a hand opening a door. Some forces can act at a distance. E.g. a magnet does not need to touch the object it attracts.

Magnets



Types of magnet



Magnets have two poles: norths and south. If you put magnets towards each other:

- One south pole and one north pole will **attract**.
- One south pole and another south pole will **repel**.
- One north pole and another north pole will **repel**.



A magnetic field is the area in which a magnetic force can be felt. A magnet will only attract or repel magnetic materials within this field.

Magnetic materials/objects

- Iron nail, steel spoon, knife made from nickel, coin made from cobalt.

Non-magnetic materials

- Leather, wood, aluminium, copper, glass, plastic, rubber.

Key Vocabulary

Force	A push, pull, twist or turn acting on an object.
Attract	A force pulling two objects towards each other (opposite to repel)
Repel	A force pushing two objects away from each other (opposite to attract)
Magnet	A material or object that creates a magnetic field. It attracts or repels magnetic objects.
Magnetism	The force of attraction and repelling caused by a magnet.
Poles	Two sides of a magnet where the magnetism is strongest.
Friction	The force between two objects that causes them to slow down or stop.

Forces – pushing and pulling

<p>PUSH</p>	<p>A push is the force that moves an object away from something.</p>	<p>PULL</p>	<p>A pull is the force that brings an object towards something.</p>
	<p>Examples of push forces.</p>		<p>Examples of pull forces.</p>
		<p>When objects are pushed or pulled, an opposite force can be felt. This opposite force is called "friction". Friction causes things to slow down or stop. Ice skates on an ice rink move for a long time because there is little friction. The rougher the surfaces, the greater the friction.</p>	