



Key Knowledge
I know that <i>push</i> and <i>pull</i> are simple forms of forces
I know that things can move differently on different surfaces
I know that some forces need contact between two objects to produce an action
I know that magnetism is an invisible force around a magnet
I know that certain objects are naturally magnetic
I know that magnetic forces can act at a distance – without being in contact
I know that magnets can attract or repel each other
I know that magnets attract some materials and not others
I know that magnets have two poles
I know that like poles repel each other
I know that unlike poles attract each other

Key Vocabulary	
Force	A push or a pull. A force makes an object move, change direction or stop
Magnetism	A attracting or repelling force that a magnet has
Magnetic field	The area around a magnet within which its magnetic force will work
Attract	A force of pull towards the magnet
Repel	A force of push from a magnet
Poles	The ends of a magnet – the north pole and the south pole
Bar magnet	A cuboidal magnet with poles at either of the long ends of the magnet
Horseshoe magnet	A curved U-shaped magnet with poles close to each other
Iron	A metallic material that is attracted to a magnet
Compass	An instrument that indicates direction
Gravity	A force of attraction towards the centre of the earth
Friction	A force between two objects that rub against each other

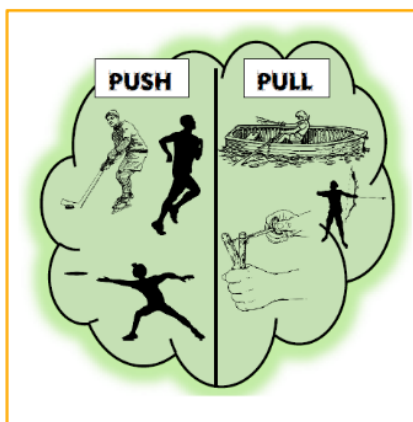

Friction

When objects are pushed or pulled, an opposing force can be felt. This opposite force is called 'friction'. Friction causes things to slow down or stop. The grip on our shoes stops us slipping. Therefore, friction is great. Ice-skates on an ice-rink will move for a long time because there is very little friction. The rougher the surfaces, the greater the friction.



PUSHING AND PULLING

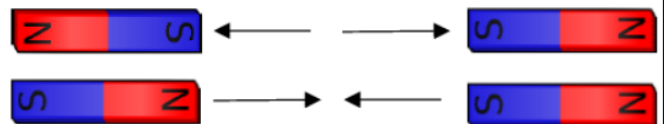
A force is a push or pull acting on an object as a result of the object's interaction with another object. Forces can make objects stop or start moving.

Inside a compass is a small magnetic pin which constantly points north.

What is a magnet?

A magnet is a special object which produces an area of magnetic force around itself called a magnetic field. If certain metal objects enter this magnetic field, they will be attracted towards the magnet and will be pulled towards it. (Non-metallic objects such as wood, plastic or fabric would not be attracted to it.)



Magnetic Poles

When two magnets are close, they create pushing or pulling forces on one another. The two ends of a magnet are known as the north pole (N) and the south pole (S).