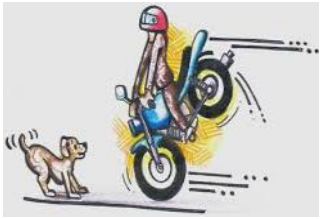
# Year 3 Autumn Term

# FORCES

OLSE Science Knowledge Organiser

## FORCE

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.

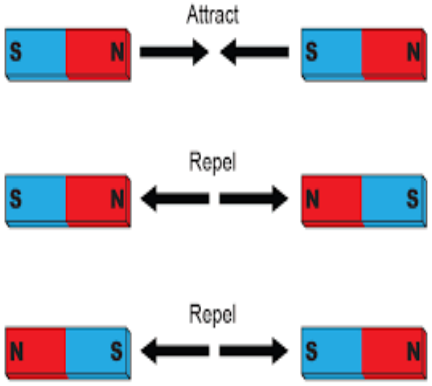


## MAGNETIC MATERIALS

Magnets attract objects made from magnetic materials. The most common magnetic materials are **iron** and **steel**. Other magnetic materials are nickel and cobalt . **Not all metals are magnetic.**

## MAGNETS

Some forces act when two surfaces are touching but magnetic forces act at a distance. When two magnets are close, they create pushing or pulling forces on one another. These forces are strongest at the ends of the magnets.




The two ends of a magnet are known as the north **pole** (N) and the south **pole** (S).

If you try to put two magnets together with the same poles pointing towards one another, the magnets will push away from each other. We say they **repel** each other. Opposite poles **attract** and are brought together.

## FRICTION

When something is pushed or pulled an opposing force is felt. This opposite force is called **friction.** Friction causes things to stop or slow down. The rougher the surfaces the greater the friction.

Trainers stop us from slipping when we run because the soles the grip on causes a greater amount of friction.

Ice-skates on an ice-rink will move for a long time because there is very little friction.