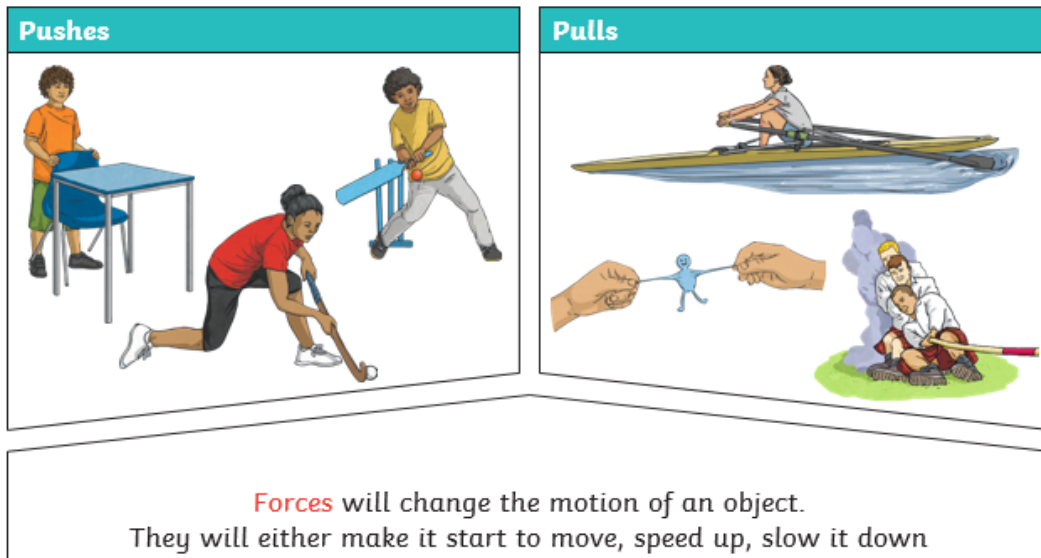


Frogwell Primary School Year 3 Knowledge Organiser Term 3

How do forces and magnets work in the world around us?

Forces are.....



KEY VOCABULARY TO LEARN

Force	A force is simply a push or a pull in a particular direction. Forces result from an object's interaction with another object.
Contact force	Contact forces result from two objects touching each other.
Non-contact force	Non-contact forces are at play when an object is able to push or pull another object without coming into contact with it.
Friction	Whenever objects rub against each other they cause friction. Friction works against the movement of an object and acts in the opposite direction.
Surface	The top layer of something.
Magnetic force	An area where the force of a magnet acts or can be felt.
Magnet	An object which produces a magnetic force that pulls certain objects towards it.
Poles	The North and South Poles are found at different ends of a magnet.
Repel	Repulsion is a force that pushes objects away. For example, when a north pole is placed near the north pole of another magnet, the two poles repel (push away from each other).
Attract	Attraction is a force that pulls objects together. For example, when a north pole is placed near the south pole of another magnet, the two poles attract (pull together).

Different **surfaces** create different amounts of **friction**. The amount of **friction** created by an object moving over a **surface** depends on the roughness of the **surface** and the object, and the **force** between them.

The driving **force** pushes the bicycle, making it move.



Friction pushes on the bicycle, slowing it down.

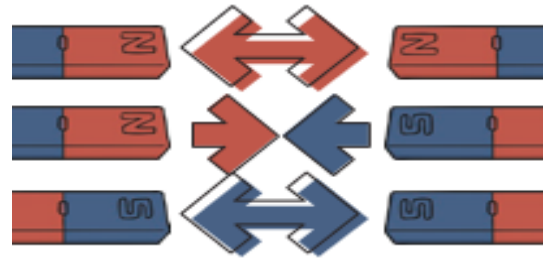


Bar Magnet

Horseshoe Magnet

Disc Magnet

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



There are different types and sizes of magnets. All magnets have a North and South Pole.

Magnetic ✓



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

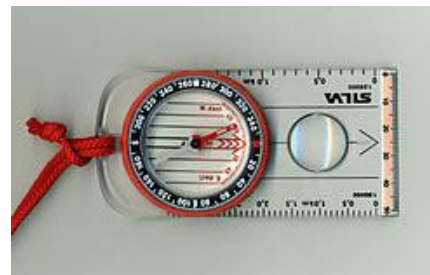
Non-magnetic ✗



These objects do not contain iron, nickel or cobalt.

Did you know?

A needle in a compass is a magnet.
A compass always points North to South on Earth.



Working scientifically

- Ask questions about forces and magnets and carry out practical enquires and fair tests to answer them.
- Make systematic and careful observations of forces and magnets in action.
- Gather, record and present data in different ways to show our answers.
- Use scientific language and evidence to explain what we are finding out about Forces and Magnets.
- Use our results to draw simple conclusions about how Forces and Magnets work in the world around us.