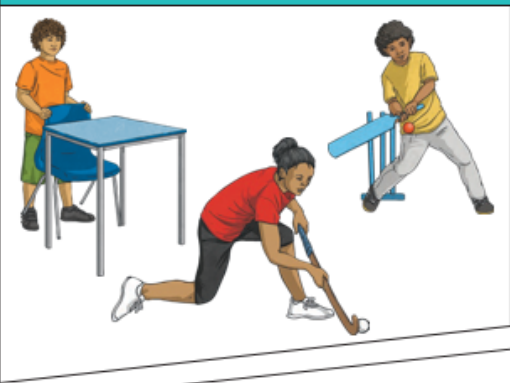
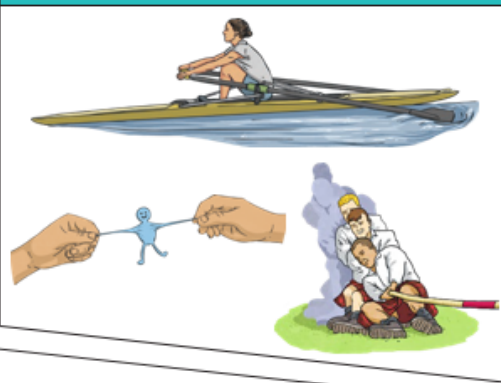


# Frogwell Primary School Year 3 Knowledge Organiser Term 3

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

Forces are.....

Pushes	Pulls
	
<p><b>Forces</b> will change the motion of an object. They will either make it start to move, speed up, slow it down</p>	

### KEY VOCABULARY TO LEARN

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

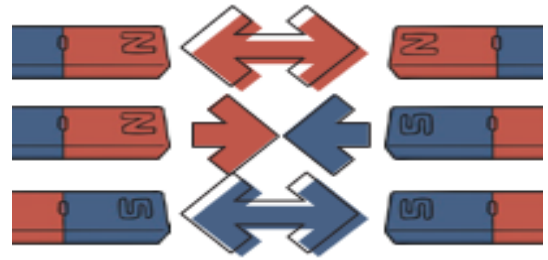


Bar Magnet

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.

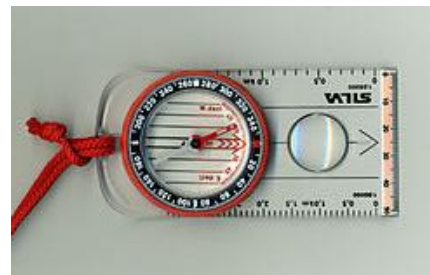
**Non-magnetic** ✗



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.