

Annunciation Catholic Junior School:  
 KNOWLEDGE ORGANISERS  
 YEAR 3 Forces and Magnets



What? (Key Vocab)	
Spelling	Definition
forces	pushes or pulls.
friction	a force that acts between two surfaces or objects that are moving, or trying to move, across each other.
surface	the top layer of something.
magnet	an object which produces a magnetic force that pulls certain objects towards it.
magnetic	objects which are attracted to a magnet are magnetic. objects containing iron, nickel or cobalt metals are magnetic.
magnetic field	the area around a magnet where there is a magnetic force which will pull magnetic objects towards the magnet.

What? (Key Vocab)	
Spelling	Definition
poles	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).

Diagrams and Symbols

**Magnetic ✓**

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

Diagrams and Symbols

**Non-magnetic ✗**

These objects do not contain iron, nickel or cobalt.

## Diagrams and Symbols

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.

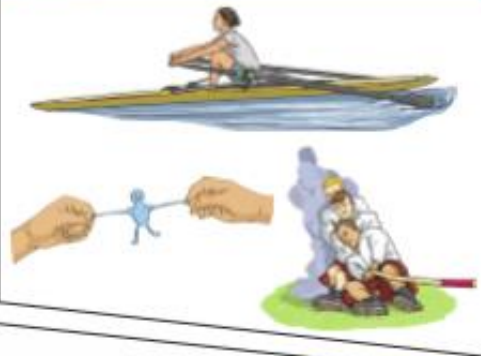


## Diagrams and Symbols

**Pushes**

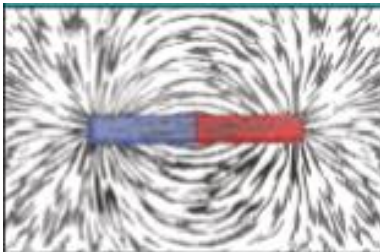


**Pulls**



**Forces** will change the motion of an object. They will either make it start to move, speed up, slow it down or even make it stop.

## Diagrams and Symbols



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



A **magnetic field** is invisible. You can see the **magnetic field** here though. This is what happens when iron filings are placed on top of a piece of paper with a **magnet** underneath.



The needle in a compass is a **magnet**. A compass always points north-south on Earth.