

Thursday 21st May: Science

L.O: To understand forces and magnets.

Read the information below and then fill in the tasks in **red**.

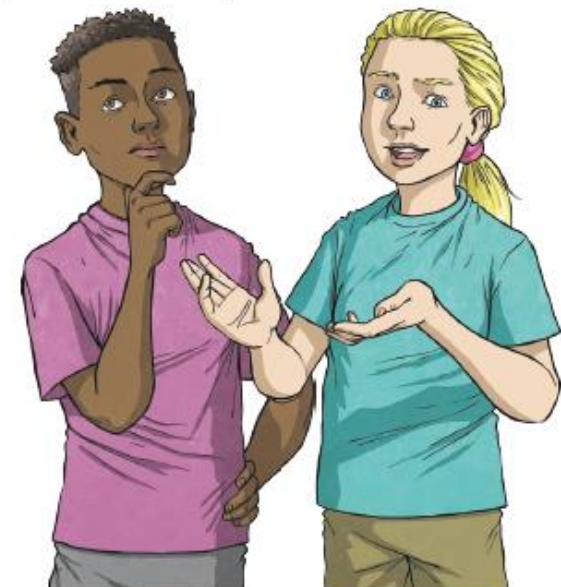
For extra support watch these videos:

- <https://www.youtube.com/watch?v=-aNpmCSZHbk>
- <https://www.bbc.co.uk/bitesize/clips/zk9rkqt>
- https://www.myon.co.uk/reader/index.html?a=uk_as_ptpa_magnets_f02
- <https://www.bbc.co.uk/bitesize/topics/zvpp34j/articles/zywcrdm>
- <https://www.bbc.co.uk/bitesize/topics/zn77hyc/articles/zptckqt>
- <https://www.bbc.co.uk/bitesize/topics/zyttyrd/articles/zpvcrdm>

Forces and Magnets

Year 3

Key Vocabulary	
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.



Key Knowledge
 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.

Grass

Gravel

Sand

Road

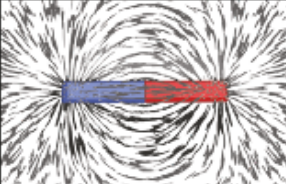


Pushes

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.

Draw 4 everyday objects that need a force to make them move. Put an arrow on to show the direction of the push or pull.

Key Vocabulary	
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 .
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).

Key Knowledge		
	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.

Magnetic ✓



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

Non-magnetic ✗



These objects do not contain iron, nickel or cobalt.

Complete the sentences using the word bank below.

Magnets have two _____. One is called the _____ pole and the other is the _____ pole. When opposite poles are near one another, they _____ together. This means the two poles _____. When two of the same poles are near one another, they _____ away from one another. This means the two poles _____ each other.

Word bank

repel north attract south pull push poles