

Key Content

- Compare how things move on different surfaces.
- Describe magnets as having two poles.

- Recognise that some forces need contact between two objects, but magnetic forces can act at a distance.

- Predict whether two magnets will attract or repel each other, depending on which poles are facing.

- Discuss how magnets attract or repel each other and attract some materials and not others.

Key Vocabulary

Attract (v) - to pull towards
Compass (n) - a device that aids navigation by pointing to Earth's North and South poles
Contact (v) - to touch
Iron (n) - a metal that can be made into a magnet
Magnet (n) - an object or device that attracts iron or another magnetic material
Magnetic (a) - attracted to a magnet
Magnetic North (n) - the direction of the Earth's magnetic North pole
Non-contact (a) - not touching
Non-magnetic (a) - not attracted to a magnet
Pole (n) - the area of a magnet where the magnetic force is strongest
Prediction (n) - what you think might happen in a scientific test
Repel (v) - to push away

Knowledge

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.



Pushes



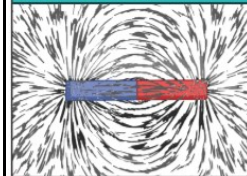
Pulls



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.

Key Information

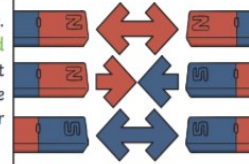
Key Knowledge



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.