



Objectives and Sticky Knowledge

Sky Objectives:

Recognise questions can be answered in different ways.
Explain why something happens in a simple investigation.
Begin to pass comment on what has happened in a simple investigation.

Previous Knowledge Recap

Recognising movement such as stretch, twist, squash and bend.

Land Objectives and Sticky Knowledge:

Know about what a force is and describe how objects move on different surfaces.

- Know what a force is
- Investigate different surfaces- concrete, carpet, grass and soil
- Understand that friction is causing them to slow down
- Know how some forces require contact and some do not

To understand how magnets work.

- Predict whether magnets will attract or repel and give a reason.
- Know about and explain how magnets attract and repel.
- Predict whether magnets will attract or repel and give a reason.

Links with 'Freedom'Golden Thread:


Links with CST and CKA Values Crown:




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

Magnetic ✓



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

Non-magnetic ✗

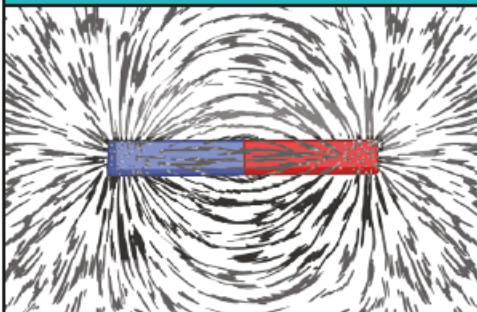


These objects do not contain iron, nickel or cobalt.

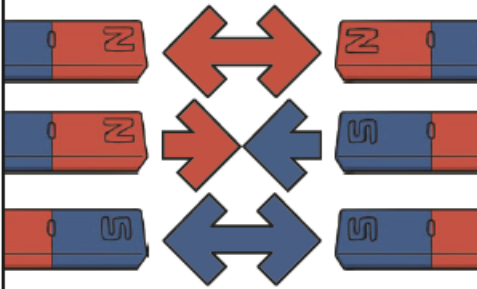
Sky Objectives:

- Ask relevant questions relating to a range of scientific enquiries.
- Conduct a fair test and explain what happens.
- Begin to notice patterns and trends in results and explain the potential causes.


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.