

### Key Vocabulary

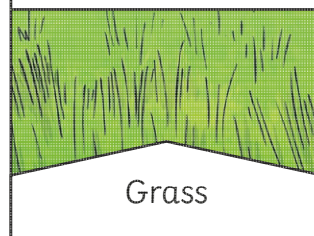
<b>forces</b>	Pushes or pulls.
<b>friction</b>	A <b>force</b> that acts between two <b>surfaces</b> or objects that are moving, or trying to move, across each other.
<b>surface</b>	The top layer of something.

### Key Knowledge

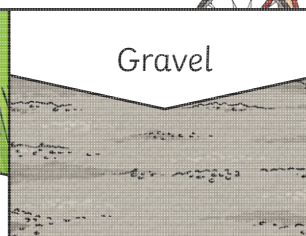
Different **surfaces** create different amounts of **friction**. The amount of **friction** created by an object moving over a **surface** depends on the roughness of the **surface** and the object, and the **force** between them.

The driving **force** pushes the bicycle, making it move.

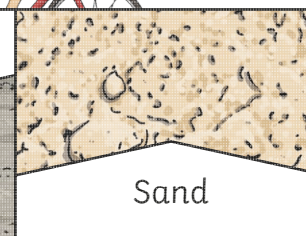
**Friction** pushes on the bicycle, slowing it down.



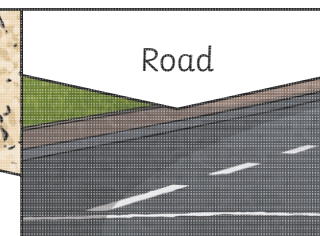
Grass



Gravel

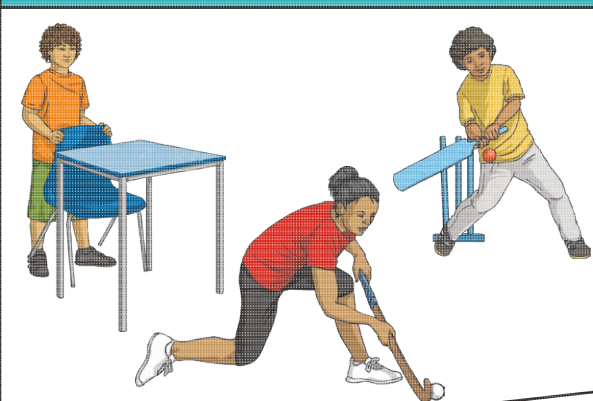


Sand

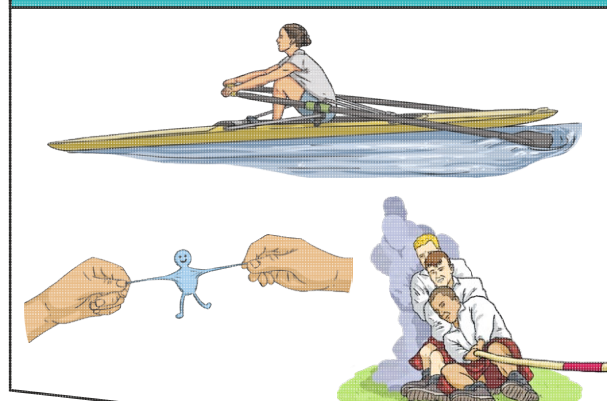


Road

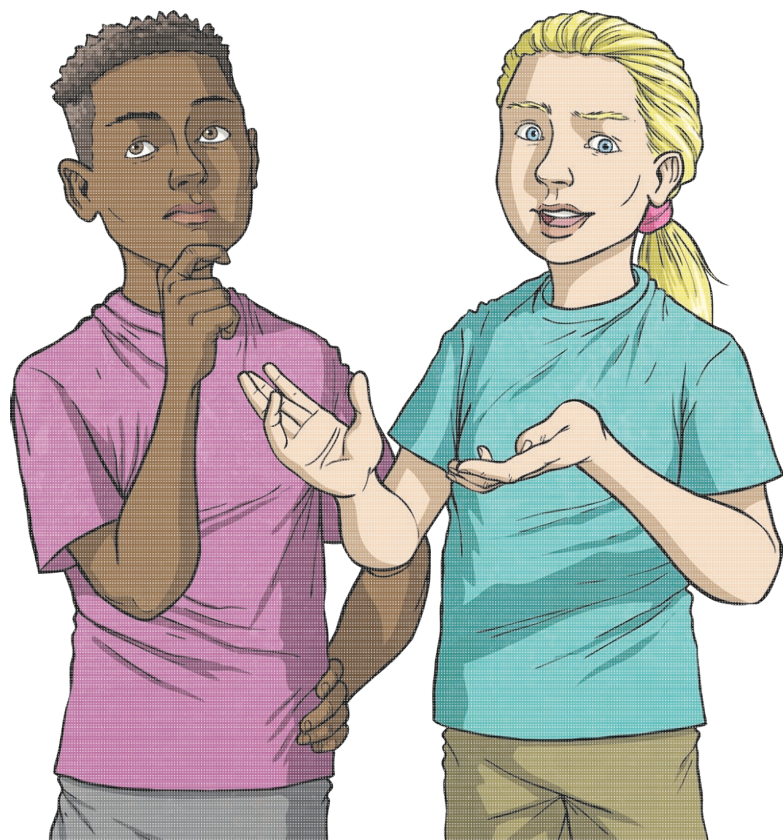
### Pushes



### 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.



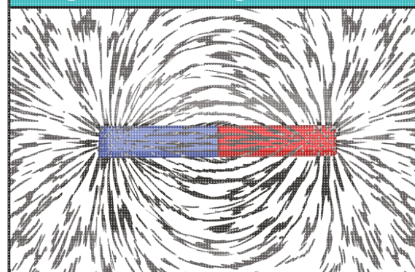
To look at all the planning resources linked to the Forces and Magnets unit, [click here](#).



## Key Vocabulary

<b>magnet</b>	An object which produces a <b>magnetic force</b> that pulls certain objects towards it.
<b>magnetic</b>	Objects which are <b>attracted</b> to a <b>magnet</b> are <b>magnetic</b> . Objects containing iron, nickel or cobalt metals are <b>magnetic</b> .
<b>magnetic field</b>	The area around a <b>magnet</b> where there is a <b>magnetic force</b> which will pull <b>magnetic</b> objects towards the <b>magnet</b> .
<b>poles</b>	North and south <b>poles</b> are found at different ends of a <b>magnet</b> .
<b>repel</b>	<b>Repulsion</b> is a <b>force</b> that pushes objects away. For example, when a north <b>pole</b> is placed near the north <b>pole</b> of another <b>magnet</b> , the two <b>poles repel</b> (push away from each other).
<b>attract</b>	<b>Attraction</b> is a <b>force</b> that pulls objects together. For example, when a north <b>pole</b> is placed near the south <b>pole</b> of another <b>magnet</b> , the two <b>poles attract</b> (pull together).

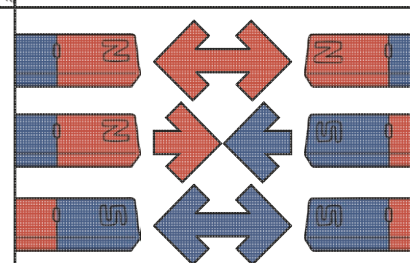
## Key Knowledge



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

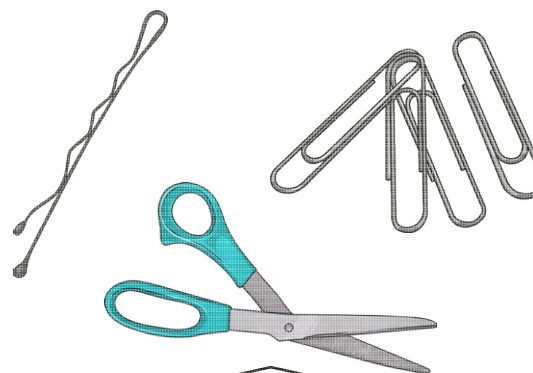


A **magnetic field** is invisible. You can see the **magnetic field** here though. This is what happens when iron filings are placed on top of a piece of paper with a **magnet** underneath.



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.