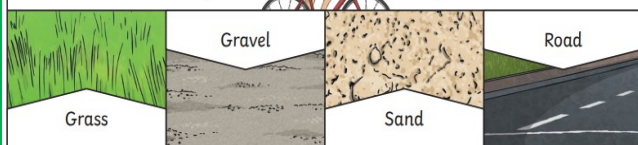


Key Knowledge

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.

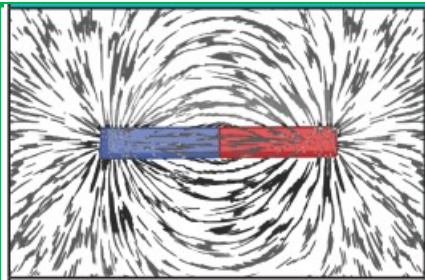
Friction pushes on the bicycle, slowing it down.

**Pushes****Pulls**

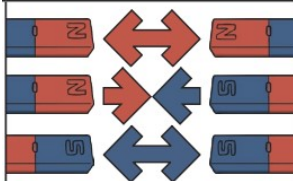
Forces will change the motion of an object. They will either make it start to move, speed up, slow it down or even make it stop.

Key Knowledge

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.



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



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

**Key Questions**

What is a force?

What is force measured in?

How does a magnet work and what uses do they have?

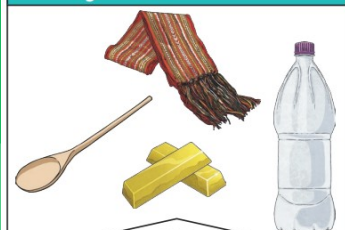
What materials are magnetic?

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
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 repels (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)

Magnetic ✓

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

Non-magnetic ✗

These objects do not contain iron, nickel or cobalt.