

Carr Head Primary School - Knowledge Organiser

Science

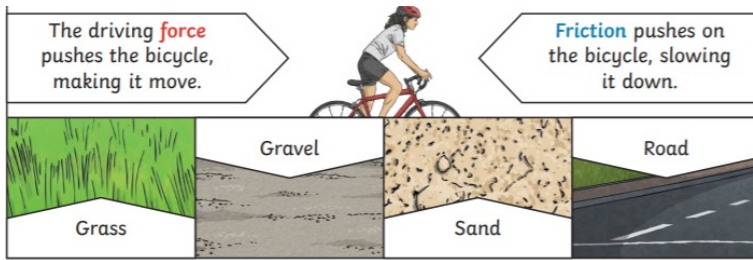
Forces and Magnets

Year 3

Spring 2

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.
Magnetic field	A magnetic field is invisible.
Like and opposite	Like poles repel and opposite poles attract .
Compasses and magnets	The needle in a compass is a magnet. A compass always points north-south on Earth.



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
magnets	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.
poles	North or 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).

Know how to...

- Compare how different things move and group them.
- Raise questions and carry out tests to find out how far things move on different surfaces.
- Gather and record data to find answers to questions.
- Explore the strengths of different magnets and find a fair way to compare them.
- Sort materials into magnetic and not magnetic.
- Look for patterns in the way magnets behave.
- Identify how magnetic properties can be used in everyday things.

Working Scientifically

Magnetic ✓	Non-magnetic ✗
<p>These objects contain iron, nickel or cobalt. Not all metals are magnetic.</p>	<p>These objects do not contain iron, nickel or cobalt.</p>

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.