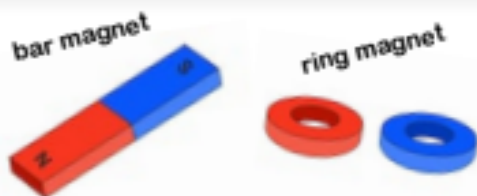
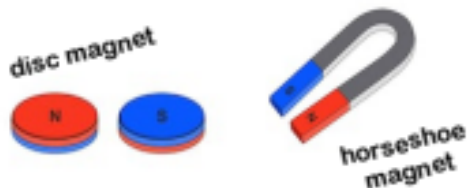


Knowledge Organiser Forces and Magnets



types of magnet



Lesson sequence

1

Understand magnetism

2

Learn about the different types of magnets

3

Know that the Earth behaves like a magnet

4

Learn about magnetic fields; learn about the law of magnetic attraction

5

Know that magnetic needles always point magnetic north

6

Compare how things move on different surfaces



A permanent magnet produces a magnetic field around it that enables it to stick to some types of metal, like iron.

Aluminium and copper are examples of metals which won't stick to a magnet.



Some items can be magnetised by stroking a magnet along them in one direction. This can be useful for things like magnetising a screwdriver.

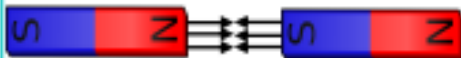
The Earth is a giant magnet, with a North and South Pole. It is magnetic because of the large amount of iron-rich molten rocks under its surface. The Earth's magnetic field stretches into space.



A compass works because its north end is drawn to align with the Earth's magnetic field. A compass has helped people navigate for many years!

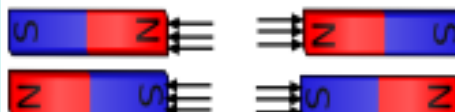
attraction

Remember, with magnets, opposites **attract**. If a North Pole is next to a South Pole, these are attracted to each other and will stick together.



repulsion

If magnetic poles are placed North to North or South to South, they are not attracted and will **repel** each other.



ROCKET WORDS

Learn these words and their definitions.



Key Word	Definition
lodestone	A mineral which is naturally magnetised.
horseshoe magnet	A U-shaped magnet
bar magnet	A magnet in the shape of a bar with the north and south pole at each end.
attract	To pull or draw oneself or itself.
repel	To force back or push away.
compass	An instrument containing a magnetised pointer which shows direction.
magnetic needle	A piece of magnetised steel used on the dial of a compass.
pendulum	A weight hung from a fixed point so that it can swing freely