

Year 3 Magpies

Science

Summer 2

Forces and Magnets

Magnetic items contain iron, nickel or cobalt. Not all metals are magnetic

Non-Magnetic items do not contain iron, nickel or cobalt.



Key Vocabulary	Definition
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)
contact force	Some forces need two surfaces to touch, for the force to occur (friction is a contact force)
force	A push or a pull; forces can change the movement of an object. They can start movement, stop movement, change speed and direction
friction	A force that slows things down, the rougher the surface, the more friction that will be created. The smoother the surface, the less friction that will be created
lodestone	A rock that is naturally magnetic
magnet	A magnet is a rock or a piece of metal that can pull certain types of metal toward it through magnetic force
magnetic field	The magnetic field is the area around a magnet in which there is magnetic force
magnetic poles	Either of the two ends of a magnet where the field of the magnet is strongest (North and South poles)
magnetism	a natural force that makes magnets attract (pull) or repel (push) certain metals
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)
surface	The top layer of something

Magnets have two ends. We call these their north pole and south pole.

When two of the same poles are placed close together, they repel (push apart) each other.



When two different poles are close, they attract (pull together) each other.



Magnets only need to be near each other to attract and repel. They don't need to be touching.

The space around a magnet has **attracting and repelling forces**. These forces are strongest at the poles of the magnets.

Friction- 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 making it slow down.

Types of forces

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

Pushes

Moves something away.

Pulls

Brings something closer

