

**Attract** if one object attracts another object, it causes the second object to move towards it
**Friction** the resistance of motion when there is contact between two surfaces
**Force** the pulling or pushing effect that something has on something else
**Contact force** any force that requires contact to occur
**Gravity** the force which causes things to drop to the ground
**Magnet** a piece of iron or other material which attracts magnetic materials towards it
**Magnetic field** an area around a magnet, or something functioning as a magnet, in which the magnet’s power to attract things is felt
**Magnetic force** the force exerted between magnets
R**esistance** a force which slows down a moving object or vehicle
**Repel** drive or force something back or away **Poles** opposite ends of a magnet
**Bar magnet** rectangular magnet **Button magnet** small, circular, button shaped magnet **Horse shoe magnet** horse shoe/U shaped 

* How different toys move
* Different materials have different properties

Vocabulary

* Investigate the amount of friction created by different surfaces.
* Observe how a magnetic field attracts iron filings by using a bar magnet.
* Investigate how magnets are used in everyday life.
* Investigate which materials are magnetic and sort between objects that are magnetic and those that are non-magnetic.

Investigate



Forces are **pushes** and **pulls** – they can make an object move, stop, change speed.

When a cyclist pushes down on the pedals, the bike moves - the harder the cyclist pedals, the faster the bike moves.

Forces act in opposite directions to each other. When an object moves across a surface, friction acts as an opposite force.

Magnets produce an area of force around them called a magnetic field. When objects enter this magnetic field, they will be attracted to or repelled from the magnet if they are magnetic. When magnets repel, they push each other away. When magnets attract, they pull together.

The ends of a magnet are called poles. One end is called the north pole and the other end is called the south pole. Opposite poles attract, similar poles repel.

What will I know by the end of this unit of work?

Topic: Forces and magnets

Year: 3

Waterloo Primary School – Science Knowledge Organiser

Strand: Physics

What should I already know?