Science – Year 3
Forces and Magnets

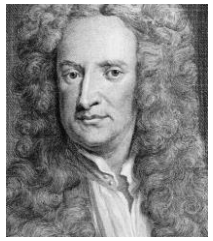
Vocabulary		
Tier 1	Tier 2	Tier 3
Magnet	Magnetic	Magnetic field
Push	Non-Magnetic	Friction
Pull	Force	Gravity
North	Attract	Motion
South	Repel	Contact force
Metal	Poles	Non-contact force

Useful Resources

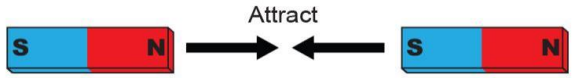
- Magnets to investigate magnetic materials.
- Compasses.
- Jelly, oil and chopsticks to investigate the effects of friction.

Key Scientists:

Isaac Newton (1643-1727) – is an English scientist who discovered gravity. This is a force that pulls everything down toward the centre of the Earth.



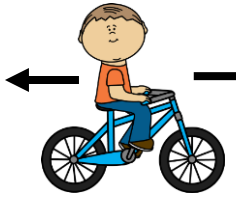
Opposite poles attract



Same poles repel

Forces

The driving force pushes the bicycle, making it move.



Friction pushes on the bicycle, slowing it down.

Key Questions/Facts

What is a force?

- A force is a push or pull that acts upon an object and makes it move.
- Whenever an object starts to move or moves faster, it is a force making this happen.
- Forces can also make things stop moving or slow down.

What is a magnet?

- A magnet produces an area of magnetic force around itself, called a magnetic field.
- If certain materials enter this magnetic field, they will be attracted to the magnet. This will cause the materials to be pulled towards the magnet.

How do magnets work?

- The different parts of a magnet are called the poles. There is a north pole and a south pole.
- When two magnets repel, they push away from each other.
- When two magnets attract, they pull towards each other.
- The three metals that are attracted to magnets are iron, cobalt and nickel.

What is friction?

- Friction is a force between two surfaces that are sliding across each other.
- Friction works in the direction opposite to the direction in which the object is moving and slows it down.