

Laughton All Saints' Knowledge Organiser

YEAR 3

PHYSICS: What can magnets do?

SCIENCE

KEY VOCABULARY

Gravity: The force that pulls objects together and makes objects fall to the ground.

Contact Forces: Forces that act between two objects that are physically touching each other.

Compass: A device for finding directions, usually with a magnetised pointer that automatically swings to magnetic north.

Friction: A force that exists between two surfaces in contact.

Magnet: A piece of metal that has the power to draw certain objects towards it and to hold or move them.

Magnetism: The force of attraction or repulsion between substances made of certain materials, such as iron, nickel, cobalt and steel.

Magnetic material: A material that is attracted to a magnet and can be made into a magnet.

Non-magnetic material: A material that is not attracted to a magnet, e.g. copper, aluminium, wood, pottery, glass and plastic.

Magnetic poles: The ends of a magnet, where its magnetic force is strongest. A magnet has a north (N) pole and a south (S) pole.

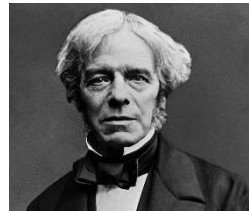
Magnetic north pole: A place at the end of the magnet that points towards the planet's North pole.

Magnetic south pole: A place at the end of the magnet that points towards the planet's South pole.

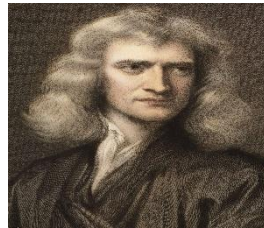
Repel: To push away from each other.

Repulsion: A force between materials of the same magnetic polarity that tends to repel or separate them.

KEY SCIENTIST



Michael Faraday (1791-1867) – A British scientist whose work was based around magnetic fields.



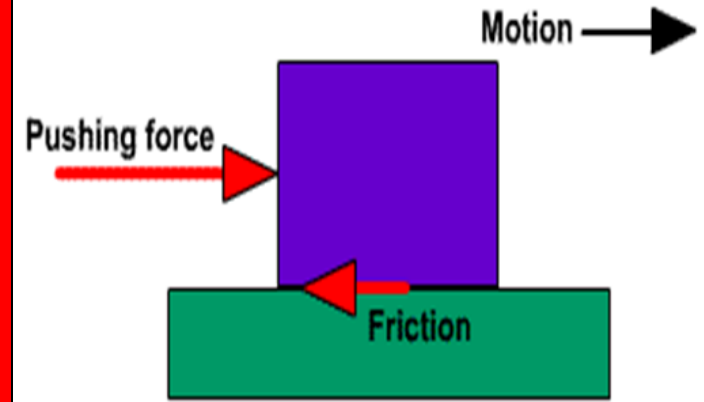
Isaac Newton (1642- 1727) – An English mathematician and physicist who made many discoveries about gravity.

STICKY KNOWLEDGE

1. Push and pull forces can make things start and stop moving.
2. Different surfaces affect how easily things move over them.
3. Some forces need contact between two objects, but magnetic forces can act at a distance.
4. Magnets attract some materials and not others.
5. Magnets have two poles.
6. Magnets attract or repel each other.

KEY CONCEPT

Diagram of forces



KEY CONCEPT

Diagram of magnets attracting and repelling.

