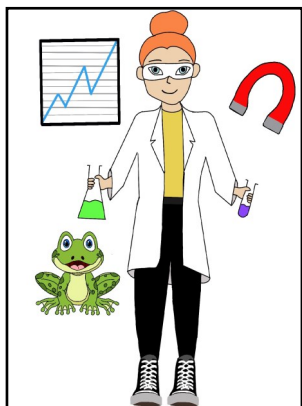




Knowledge Organiser

Year Group:	3	Subject:	Science– Forces and magnets	Term:	Autumn 2
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Enquiry Question

Are magnets useful?

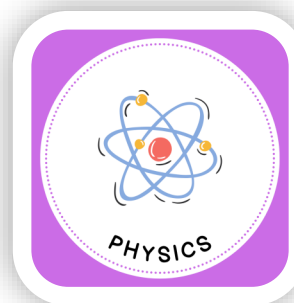
Substantive Knowledge (key facts)

- Forces are pushes and pulls.
- These forces change the motion of an object, it can start to move it, speed it up, slow it down or stop it.
- Forces act in opposite directions to each other.
- Friction is a force that holds back the motion of an object.
- A magnet is a piece of material that attracts magnetic materials toward it.
- When objects enter the magnetic field, they are attracted to or repelled from the magnet if they are magnetic.
- 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 should I already know?

- Soil contains nutrients and these help plants to grow.
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- Why some materials are used for certain purposes because of their properties

Concept

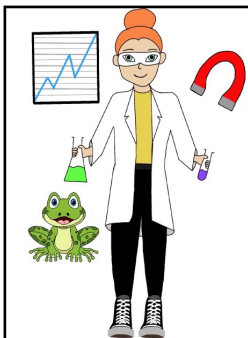


Scientific skills I am practising

- I can ask relevant questions and use different types of scientific enquiry to answer them, including comparative and fair tests.
- I can record findings and present data using simple scientific language, explanations, diagrams, pictures, keys, bar charts and tables.

Sequence of learning

1)	Compare how things move on different surfaces.
2)	understand forces and contact/non-contact forces.
3)	Identify magnetic materials.
4)	understand why magnets attract or repel each other and attract some materials and not others.
5)	Predict whether two magnets will attract or repel each other, depending on which poles are facing.



Knowledge Organiser

Year Group:

3

Subject:

Science— Forces and magnets

Term:

Autumn 2

Key vocabulary

Tier 2

Force—a force is something that can be used to move an object.

Repel—a force can repel. To repel means to push away.

Poles—Magnets have two poles, **a north pole and a south pole**. The magnetic field is represented by field lines that start at a magnet's north pole and end at the south pole.

Attract—a force can attract. To attract means to pull towards.

Tier 3

Magnetism—Magnetism is **the force exerted by magnets when they attract or repel each other**.

Gravity—a force, created by a large mass (such as the Earth) that attracts other objects towards the centre of itself.