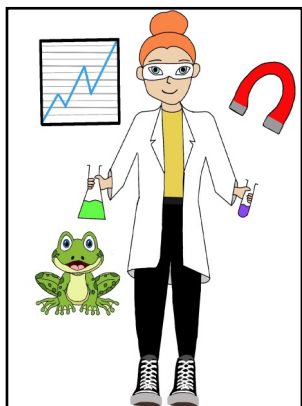




Knowledge Organiser

Year Group:	5	Subject:	Science– Forces	Term:	Summer 1
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Enquiry Question

How do forces help us?

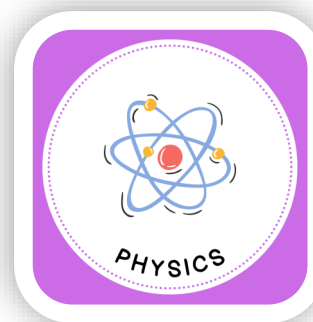
Substantive Knowledge (key facts)

- Everything is pulled to the Earth by the force gravity.
- The bigger an object's mass, the more gravity it will have. The smaller the mass of an object, the less gravity it will be subject to.
- Forces cause an object to start moving, speed up, slow down or change direction.
- There are different forces that affect us such as applied force, friction, air resistance, water resistance and surface resistance.
- A mechanism is a device that allows a small force to be increased to a larger force.
- Levers give us extra pushing or pulling force and help us lift greater weights.
- Gears are different sized cogs which work together to give a machine extra force.

What should I already know?

- Know what a force is and be able to explain that a push and pull are types of forces.
- That when forces are applied to an object they allow them to move or stop moving.
- The strength of the force determines how far and fast an object moves.
- Friction is the resistance of motion when there is contact between two surfaces
- The force that causes objects to move downwards towards the ground is gravity.
- That magnets have poles, and that opposite poles attract, while similar poles repel.

Concept

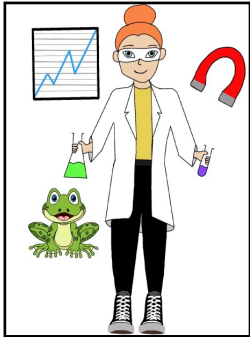


Scientific skills I am practising

- I can plan and carry out scientific enquiry using a range of scientific equipment and variables in order to answer questions.
- I can use test results to make predictions to set up further comparative and fair tests.

Sequence of learning

1)	Identify a force and what it does.
2)	Identify air resistance and what can affect it.
3)	Identify water resistance and what can affect it.
4)	Investigating the effects of friction, when can it be useful?
5)	Investigating how a pulley works and how it can help to move an object.
6)	Investigating how gears work.



Knowledge Organiser					
Year Group:	5	Subject:	Science– Living Things and their habitats	Term:	Autumn 1

Key vocabulary	
Tier 2	Tier 3
Push	Force
Pull	Gravity
Weight	Friction
Mass	Air / water resistance
Direction	Magnetism
Move	Balanced / unbalanced forces
Stop	Newton
Effect	Pulley / Gear / Mechanism