

Knowledge Organiser

Year 5 Autumn Term- Forces

Strand: Science



What should I already know?

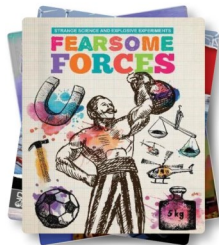
- Compare how things move on different surfaces
- Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
- Observe how magnets attract or repel each other and attract some materials and not others
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- Describe magnets as having 2 poles

Key Vocabulary

Friction, forces, gravity, gravitational pull, streamlined, mass, weight, resistance, pulleys, gears, cogs, levers, upthrust.

Resources to help me with my learning!

www.bbc.co.uk/bitesize/topics/zvpp34j/articles/zywcrdm



What will I know by the end of this unit?



- Forces can make an object...start to move, change direction, move more slowly, move faster, stop moving.
- Mass is how much matter is inside an object. It is measured in kilograms (kg).
- Weight is how strongly gravity is pulling an object down. It is measured in Newtons (N).
- Issac Newton is famously thought to have developed his theory of gravity when he saw an apple fall to the ground from an apple tree.
- Friction is a force that acts between two surfaces or objects that are moving, or trying to move across each other.
- Water resistance and air resistance are forms of friction.
- Streamlined is when an object is shaped to minimise the effects of air and water resistance.
- Pulley's can be used to make a small force lift a heavier load. The more wheels in a pulley, the less force is needed to lift a weight.
- Gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.
- Levers can be used to make a small force lift a heavier load. A lever always rests on a pivot.

