

Year 5 Spring Term
Knowledge Organisers

Knowledge Organiser- Mountains

Our Learning

1. What is a mountain?
2. What are the features of a mountain?
3. How are mountains formed?
4. What climates are found on mountains?
5. What are the UK and world's highest mountains?
6. Why are the Himalayas important?

Substantive Knowledge

I know that a mountain is a landform. It is high above the surrounding land; it is taller than a hill (600m or above) and is grouped with others in a mountain range. There are four main types of mountains: fold, fault block, volcanoes (fire mountains) and dome.

Know the features of a mountain: valley, ridge, slope, summit.

Know that there are seven summits which are the tallest mountains in the world and one is located in each continent.

Know that people live and work in mountainous areas.



Mount Snowdon







Mountain



Mount Everest

Core Vocabulary

Dome mountains	Mountains formed by magma pushing upwards but without a volcanic eruption.	
Fault-block mountains	Mountains formed by parts of a broken plate being forced upwards.	
Fire mountain	Mountains formed by volcanic eruptions.	
Fold Mountains	Mountains formed by the earth's plates pushing together.	



Our Learning

1. How do I recover a solute from a solution?
2. What is a reversible change?
3. How do I know a new material has been made?
4. How can I investigate a rusting reaction?
5. How can I investigate a chemical reaction?

Substantive Knowledge

I know that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.

I know that mixtures might be separated, including through filtering, sieving and evaporating.

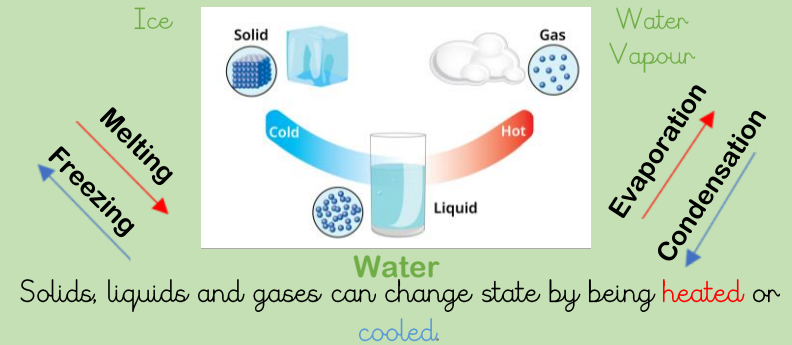
I know that dissolving, mixing and changes of state are reversible changes.

Evaporation



If a solid has dissolved in water (for example in a salt solution), heating it causes the water to EVAPORATE, leaving the solid (salt) behind.

Changes of State



Irreversible Changes



These are CHEMICAL changes - they cannot be reversed as a new material has been made.

Reversible Changes



liquid chocolate
- cool -
solid chocolate



solid lolly
- heat -
liquid lolly



mixture of rice and flour
- sieve -
both separated



dissolved sugar
- evaporation (heat) -
solid sugar

These are PHYSICAL changes - they can be reversed as no permanent change has been made.



Our Learning

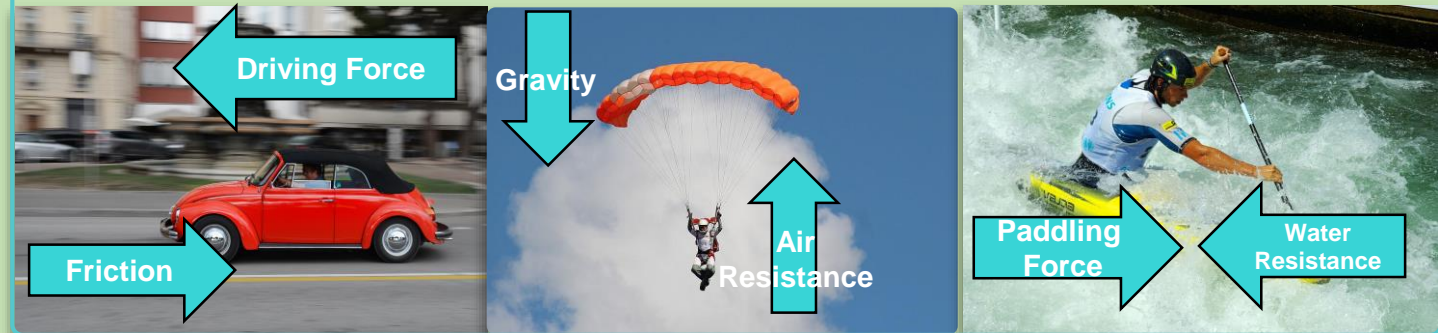
1. What is gravity and who is Sir Isaac Newton?
2. What is air resistance?
3. What causes objects to resist water?
4. How does friction react to different surfaces?
5. What are levers and pulley?
6. What are gears?

Substantive Knowledge

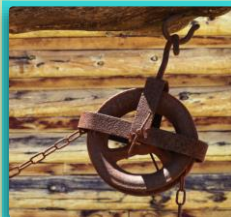
I know that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.

I know the effects of air resistance, water resistance and friction, that act between moving surfaces. I know that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.

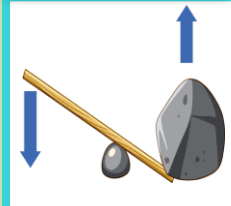
Forces in Action



Mechanisms



Pulleys
A pulley is a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object.



Levers
Levers are a bar that rotates around a point. They make it easier to lift a heavy load.



Gears/Cogs
Gears are toothed wheels that mesh together, they rotate in opposite directions.

Mass and Weight

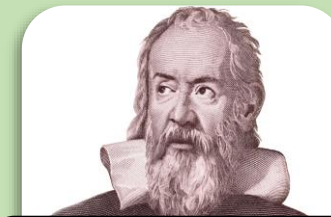


The mass of an item can be measured in **Grams/ Kilograms**.

Weight is how much force is needed to pull an object and is measured in **Newtons**.



Sir Isaac Newton developed his theory of gravity.



Galileo conducted experiments to test mass.