Berkswell CE Primary School - Year 5 – Geography - Making a Difference (The UK)

The UK – John O'Groats to Land's End

What you will know by the end of the unit:

Geographical skills and knowledge:

- Identify countries of the UK (their capital cities, flags and symbols)
- Identify UK counties, including the county they live in and those surrounding it
- Identify UK's main hills and mountains (e.g. Ben Nevis, Scarfel Pike and Snowdon)
- Identify UK seas and rivers, e.g. River Severn
- Use aerial photographs to compare land use in Coventry and land use in Falmouth. Create a key using symbols to show what different features are.
- Research how the population of Coventry has changed over time. Present this in a graph. Compare this to a similar graph showing the population of Falmouth. Compare different sources for population numbers. Which is the most reliable? Why is it hard to measure population?
- Land use and economy - Coastal areas attract tourism, and residential areas. Coastal erosion can threaten land use, and so beach protection measures, such as rock armour, groynes, and sea walls, are created.
- Holding back the floods – e.g. Coastal village of Coverack in Cornwall
- Impact of tourism in Cornwall
- Impact of trawling on the Cornish reef and sustainable fishing



Key Vocabulary

City - a large town. Coventry is a city.
Coastal - an area of land close to the sea
Compass points - any of the main points of a compass: north, south, east, west, north-east, north-west, south-east, south-west
Country - an area of land that is controlled by its own government, e.g. England
County - a region of Britain or Ireland which has its own local government, e.g. West Midlands and Cornwall
Human features - features of land that have been impacted by human activity
Landmark - a building or feature which is easily recognised
Landscape - everything you can see when you look across an area of land, including hills, rivers, buildings, trees, and plants.
Physical features - natural features of land, e.g. lake
Population - all the people who live in a country or area
Rural - places that are far away from large towns or cities
Topographical - the physical features of an area of land, for example its hills, valleys, and rivers
Urban - belonging to, or relating to, a town or city

Prior Learning:

- Use maps, atlases and globes to locate places and features (NC: Locational Knowledge).
- Use simple keys, symbols and compass directions.
- Identify physical and human features in the environment.
- Observe, describe and compare places and environments.
- Use basic geographical vocabulary to describe key features.
- Collect and present simple geographical data (e.g. charts, diagrams).

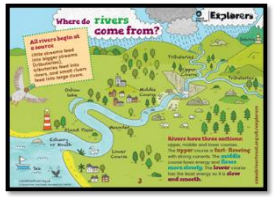
Oceans, Seas and Rivers

What will I know by the end of the unit

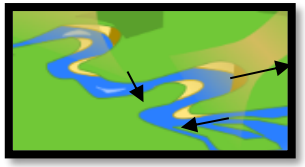
Geographical skills and knowledge:

- Use the index in atlases to find oceans, seas and rivers
- Label maps to show where oceans, seas, lakes and rivers can be located in the UK
- Complete a table to show the length of different rivers
- Describe the features of a river using the correct terminology
- Describe how oxbow lakes are formed because of erosion and deposition
- Explain how erosion and deposition have an effect on meanders and deltas
- Understand Ocean processes, e.g. waves are created by the movement of air across the sea. Tides are created by the gravitational pull of the moon.
- Understand how coastal land forms are formed, e.g. The sea's waves lead to hydraulic action and erosions of the land. The land is made up of different rocks, some hard some soft, leading to bays and headlands. Further erosion leads to cracks, caves, arches, stacks and stumps.
- Understand what coasts are, e.g. where the land meets the ocean. This can take different forms such as beach (sand, shingle, pebble) and cliffs.
- Understand the different layers of the ocean
- Explain how the vegetation and animal life changes in the different layers of the ocean
- Investigate the effects of climate change and plastic pollution on oceans, seas and rivers

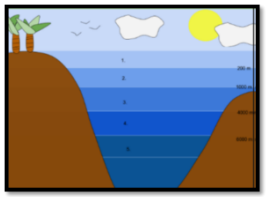
Features of a River



Erosion and Deposition
The arrows show the direction of the river **current** which causes **erosion** over time.
Sometimes, two **meanders** can join together to form a 'shortcut'. Water will flow down the shorter route, **deposition** will block off the old route and this will create an **oxbow lake**.



Layers of the Ocean



Key Vocabulary

Rivers - natural streams of fresh water that flow into seas, oceans and lakes.
Confluence - where two rivers join and become a larger river
Course - the channel along which the river flows
Delta - an area of low land where a river splits and spreads out into several branches before entering the sea
Deposition - when a substance has been left somewhere as a result of a process
Erosion - the gradual destruction and removal of rock or soil in a particular area by rivers, the sea, or the weather
Estuary - the wide part of a river where it joins the sea
Lake - a large area of fresh water, surrounded by land
Meander - a large bend in a river
Mouth - where a river flows into the sea
Sedimentary - solid material that settles at the bottom of a liquid, especially earth and pieces of rock that have been carried along and then left somewhere by water, ice, or wind
Source - where something comes from
Spring - a natural outflow of ground water
Stream - a small narrow river
Tributary - a stream or river that flows into a larger one
Water cycle - the circulation of the earth's water
Waterfall - a place where water flows over the edge of a steep, high cliff in hills or mountains, and falls into a pool below
Vegetation - plants, trees and flowers
Oceans - very large areas of salt water that cover approximately two-thirds of the Earth's surface.
Sunlight zone (0 – 200m)
Twilight zone (200 – 1000m)
Midnight zone (1000 – 4000m)
Abyss (4000 – 6000m)
Trench (lower than 6000m)
Seas - smaller areas of salt water that separate oceans and land.
Current - a steady and continuous flowing movement of some of the water in a river, lake, or sea

Mixtures and Reactions—Year 5—Science

Did you know?

Irreversible changes often result in a new product made from the old materials.

Different materials are used to do particular jobs based on their properties; conductivity, flexibility, hardness, insulation, magnetism, solubility, transparency.

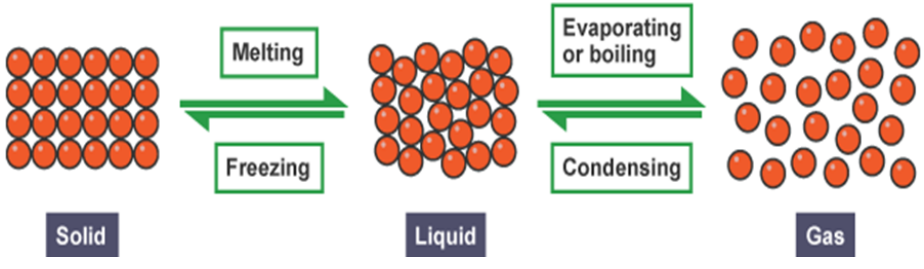
Key Concepts

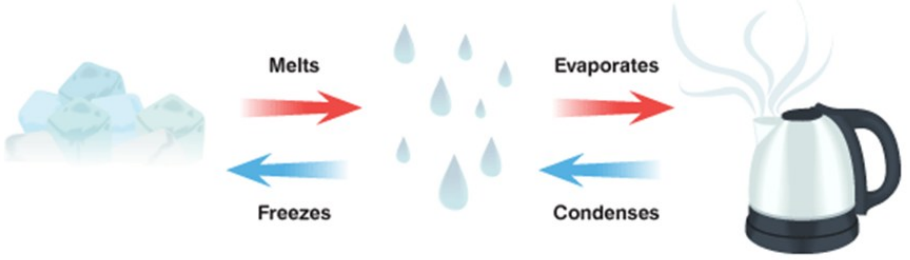
- **know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution**
- **use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating**
- **give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic**

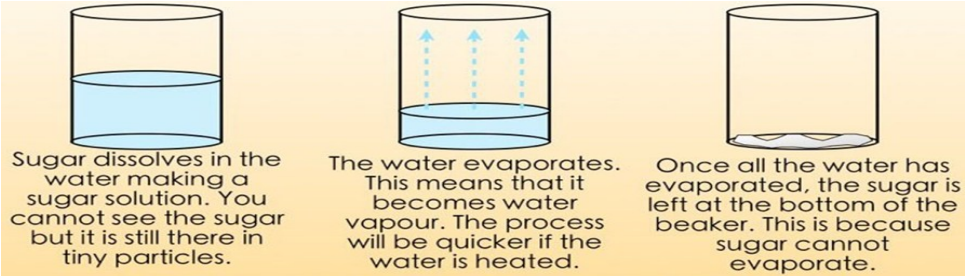
Prior Learning:

- **Ask relevant scientific questions and recognise different ways to answer them**
- **Make careful observations using simple equipment and record results systematically.**
- **Identify, group and compare materials based on their properties**
- **Perform simple comparative and fair tests.**
- **Use observations to suggest simple conclusions and answer questions.**
- **Gather, record and present data in a variety of ways (tables, diagrams).**
- **Use basic scientific vocabulary to describe materials and simple physical changes.**

Conductor	**A material or device which allows heat or electricity to carry through**
Dissolve	**When something solid mixes with a liquid and becomes part of the liquid**
Evapouration	**The process of turning from liquid to vapour**
Flexibible	**Capable of bending easily without breaking**
Gas	**An air-like fluid substance which expands freely to fill any space available**
Insulator	**A substance which does not readily allow the passage of heat or sound**
Irreversible	**Cannot be reversed back to its original state**
Liquid	**A substance that flows freely but can be measured by volume e.g. water or oil**
Magnetic	**Capabale of being magnetised or attracted by a magnet**
Material	**The matter from which a thing is or can be made from**
Opaque	**Not able to be seen through, not transparent**
reversible	**Able to be reversed back to its original state**
Solid	**Firm and stable in shape, not a liquid or fluid**
Soluble	**Able to be dissolved, especially in water**
Thermal	**Relating to heat**
transparent	**Allows light to pass through so that objects behind can be seen**







Forces—Year 5—Science

Key Concepts

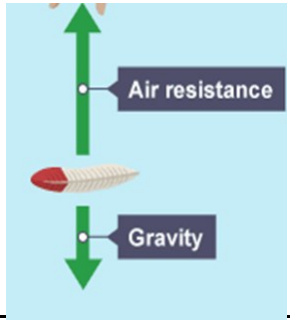
By the end of this term you will know how to...

- **about the forces of gravity and friction and investigate the friction of different surfaces.**
- **explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object**
- **identify the effects of air resistance, water resistance and friction, that act between moving surfaces**
- **recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect**

Did you know?

The Moon has a smaller mass that than the Earth so the gravitational pull of the Moon is smaller than it is on Earth.

Jupiter has a greater mass than Earth so the gravitation pull of Jupiter is stronger than on Earth



Air resistance is a form of friction– the air particles hit the front of the object causing it to slow down as it moves through the air.

Prior Learning:

compare how things move on different surfaces

notice that some forces need contact between two 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 two poles

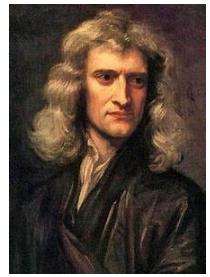
predict whether two magnets will attract or repel each other, depending on which poles are facing.

Air resistance –	**A force that is caused by air with the force acting in the opposite direction to an object moving through the air**
Force –	**A push or pull upon an object resulting from its interaction with another object**
Friction –	**The resistance that one surface or object encounters when moving over another**
Gravity –	**The force that attracts a body towards the centre of the earth**
Water resistance -	**A force that is caused by water with the force acting in the opposite direction to an object moving through the water**
Mass –	**The weight measured by an objects acceleration under a given force or by the force exerted on it by gravity**
Levers –	**A rigid bar resting on a pivot that is used to move a heavy or firmly fixed load**
Gears –	**A toothed wheel that works with others to alter the relation between the speed of a driving mechanism (e.g. engine) and the speed of the driven parts (e.g. the wheels)**
Pull force –	**To draw or haul towards oneself or itself, in a particular direction**
Pulleys –	**A wheel with a grooved rim around that changes the direction of a force applied to the cord**
Push force –	**To move something in a specific way by exerting force**

Isaac Newton is famously thought to have developed his theory of gravity when he saw an apple fall from a tree.

Force meter– measures the force of an object and this is measured in Newtons.

Forces



Balanced and unbal-



