

VOCABULARY

Condensation: small drops of water which form when water vapour or steam touches a cold surface, such as a window.

Dam: a wall that is built across a river in order to stop the water from flowing and to make a lake.

Erosion: the gradual destruction and removal of rock or soil in a particular area by rivers, the sea, or the weather.

Evaporation: to turn from liquid into gas; pass away in the form of vapour.

Groundwater: water that is found under the ground. Usually passed down through the soil and become trapped by rocks.

Lake: a large area of water, surrounded by land.

Oasis: a small area in a desert where water and plants are found.

Precipitation: rain, snow, sleet, dew, etc. formed by condensation of water vapour in the atmosphere.

Reservoir: a lake that is used for storing water before it is supplied to people.

Runoff: rain in excess of the amount absorbed by the ground.

Tectonic Plates: sections of the Earth's crust which move slowly over the mantle.

Transpiration: evaporation of water from a plants leaves, stem or flowers.

Tributary: A river or stream that feeds into another river, rather than ending in a lake.

WHAT CAME BEFORE

Year 3 - Rainforests

WHAT COMES NEXT

Year 5—Climate, Biomes and Vegetation

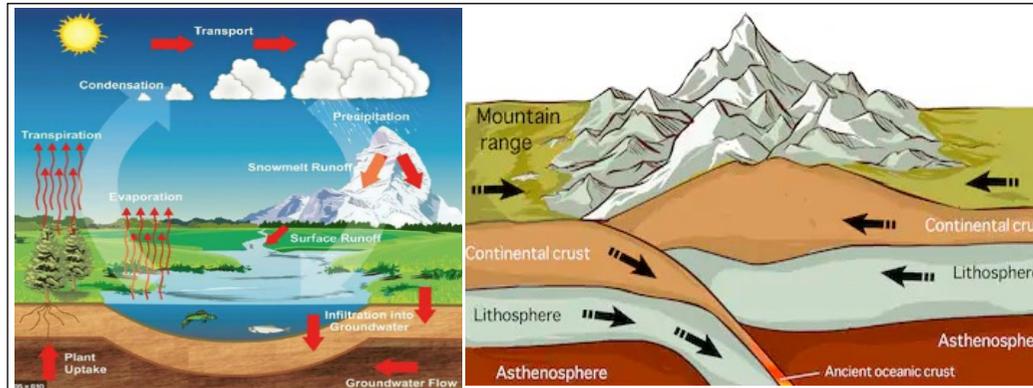


GEOGRAPHY KNOWLEDGE MAT - Year 4

The Water Cycle, Rivers and Mountains

WHAT YOU SHOULD ALREADY KNOW

- Evaporation happens when water (liquid) turns into water vapour (gas) when it is heated.
- Condensation happens when water vapour (gas) turns into small water droplets (liquid) when it is cooled.
- Plants absorb water through the soil to help them grow.



The Water Cycle

Evaporation	<ul style="list-style-type: none"> • The Sun causes the water from the Earth to evaporate. • This water evaporates from seas, lakes, streams and even puddles. • When it evaporates, water turns into water vapour.
Condensation	<ul style="list-style-type: none"> • As the water vapour rises, it cools down. • As it cools down, condensation happens and water vapour condenses to small droplets of water. • Clouds are made from a mix of dry air and small droplets of water.
Precipitation	<ul style="list-style-type: none"> • As condensation continues to happen, more droplets of water vapour are formed. • When the droplets become heavy and large enough they fall back to the Earth's surface in the form of rain or snow.
Runoff and Transpiration	<ul style="list-style-type: none"> • As precipitation happens in the form of rain or snow falling back to Earth, water is absorbed into the soil. • This water is used by plants to grow—when water from plant leaves evaporates back into the atmosphere, this is called transpiration. • Water may also run off and enter oceans, seas and rivers. • Water then evaporates the water cycle begins again.

KEY LEARNING

- World mountain ranges include: the Alps, Rockies, Andes and Himalayas. UK mountains includes: Ben Nevis (Scotland), Snowdon (Wales), Scarfe Pike (England) and Silieve Donard (Northern Ireland).
- The Earth is made up of layers (crust and mantle). The crust is split into tectonic plates which move. Tectonic plates push together to form fold mountains. Other mountain types are volcanic mountains and dome mountains.
- Areas of high altitude experience colder temperatures and increased wind exposure. Mountainous areas experience high rainfall.
- Rivers come in many different shapes and sizes, and often join together to make larger rivers. Rivers can flood, at which point they can become exceptionally dangerous.
- Most inland human settlements were originally formed around rivers. In addition to drinking and bathing, rivers were also important waterways for trade. This is particularly noticeable for the River Nile in Egypt.
- Rivers are fresh water, whereas oceans are salt water. When rivers are flowing quickly, they take bits of earth off banks downstream, this is called erosion.
- Important rivers across the world include: Nile, Amazon, Yangtze, Thames and Mississippi.

GEOGRAPHICAL SKILLS AND FIELDWORK

- Observe evaporation and condensation in action by using bowls of water and a mirror or glass.
- Explain the formation of mountains using diagrams.
- Use an atlas to identify and describe the worlds mountain ranges.

VOCABULARY

Lines of latitude Imaginary lines around the world that goes from East to West

Lines of longitude Imaginary lines around the world that goes from North to South

Continent A landmass made up of many countries

Grid square Used to help locate places on a map

Scale The ratio of a distance on a map to the real distance on the ground

Relief The difference between the highest and lowest elevations in an area

Compass An instrument used for navigation and orientation

Physical features The natural features on the earth's surface that are not manmade

Human features All the features on the earth's surface that have been added by humans

Density The average number of people living in an area per square kilometer (sq/km)

WHAT CAME BEFORE

Year 3: Counties and Cities in the UK

WHAT COMES NEXT

Locating Countries; Year 6: World Countries



GEOGRAPHY KNOWLEDGE MAT - Year 4

COMPASS AND MAP WORK

WHAT YOU SHOULD ALREADY KNOW

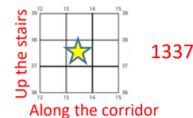
- Find counties and cities using a map.
- Use the compass points to describe counties and cities in relation to each other.
- Observe aerial view photographs to compare counties and cities

A **map** is a two-dimensional drawing of an area. Maps can show the countryside, a town, a country or even the whole world! They are used to help plan routes from one place to another, or to find certain features such as castles or hills. Different types of map are used for different things depending on whether you are walking, driving or even flying somewhere. Maps can be on paper or on a mobile

Maps are divided into grid squares. These help to locate places/objects on a map easier. Each grid square is given a number. In order to find a grid reference you must go "Along the corridor and then Up the Stairs."

To find a 4 figure grid reference you must;

- ✓ Go along the corridor and find the grid square.
- ✓ Choose the bottom left number on that square.
- ✓ You then go up the stairs, find the grid square and choose the bottom left number on that square.
- ✓ The 4 figure grid reference for the star is 1337



6 Figure grid references give you an exact location of a place.

To find a 6 figure grid reference you must;

- ✓ Go along the corridor and find the grid square.
- ✓ Choose the bottom left number on that square.
- ✓ Imagine the square is divided into tenths and decide how many 10th's across the object it. This will be 3rd number.
- ✓ You then go up the stairs, find the grid square and choose the bottom left number on that square.
- ✓ Imagine the square is divided into tenths and decide how many 10th's across the object it. This will be 6th number.



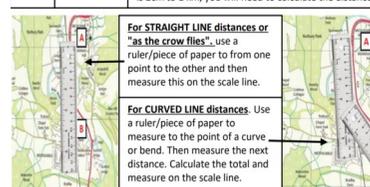
phone, tablet or computer.

Scale: The scale of a map helps us calculate the size, height and dimensions of the features shown on the map AND the distances between different points. The scale shows how much bigger the real world is than the map. If the scale is

Measuring distances- scale

Scale can be shown on a map in different ways:

Scale Line		A scale line on a map shows that 1cm on a map is the same as 1km on the ground. Sometimes it can be shown in miles also.
Ratio	1:25,000	Ratio can be shown in different ways on a map, you need to check this when measuring distance. If a scale is 2cm to 1 km, you will need to calculate the distance.



Relief and height of the land

You can tell the height of land on a map in three different ways:

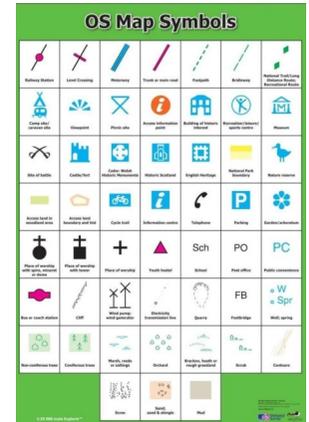
Contour Lines		Contour lines are line on a map that join places of equal height. They are usually shown as fine brown lines on a map
Layer colouring		Layer colouring uses colours to represent areas of higher land. Areas of mountainous land are usually shown as brown, like in this map of the UK
Spot heights		Spot heights are usually shown as a dot or triangle with a number on a map. They give the exact height of a point on the map.
		Contour lines give you an idea of the shape of the land Most have their height marked on them in meters. <ul style="list-style-type: none"> ✓ If contour lines are close together, the land is steep. ✓ If contour lines are far apart, there is a gentle slope.

KEY LEARNING

DESCRIBING DIRECTION ...
CARDINALS: North, South, East, West
 N - Never
 E - Eat
 S - Shredded
 W - Wheat



To be able to understand maps, it is important to have map-reading skills. Maps are usually too small to contain lots of writing so instead there are symbols which show important landmarks, places and areas. There is usually a key at the side of the map which explains what these symbols mean.



SKILLS AND FIELDWORK

Use compass directions (north, south, east and west) when locating features on a map
 Create a basic map of my local environment, showing key physical and human features

VOCABULARY

amphitheatre brick built oval stadium - Roman architecture

Arctic Circle one of the two polar regions on earth

borders political factors and physical (e.g. rivers, mountains and seas) affect where borders between countries are set

commerce activity of buying and selling on a large scale

English Channel a 560km stretch of sea which separates England from France - important for trade

euro the unit of money used across most of Europe

evergreen coniferous trees which keep their leaves all year

fleeing moving from one place to another away from something

fjords long, narrow inlet from the sea with steep cliffs, often found in Norway

Iberian Peninsula Portugal, Spain and Andorra where the region is hotter and drier than the rest of Western Europe

Mediterranean southern areas of Europe which have mild winters and hot summers (e.g. Spain, Turkey)

polar regions northern Europe which is cold and dry all year

temperate this middle section of Europe has cold winters and mild summers (e.g. U.K.,

WHAT CAME BEFORE

Year 4 - UK Vs South America

WHAT COMES NEXT

Year 6 - Continents, Countries & Cities



GEOGRAPHY KNOWLEDGE MAT - Year 4

UK Vs Europe

WHAT YOU SHOULD ALREADY KNOW

- Some European countries and capital cities
- How to find them on a map



Physical Features

Giant's Causeway
 Located in County Antrim in Northern Ireland, it consists of 40,000 interlocking columns created from a volcanic eruption formed over 50 million years ago.

The Alps
 These are the longest mountain range in Europe and the highest in western Europe (excluding Russia). They are 1200km across and pass through 8 alpine countries (Switzerland, France, Germany, Austria, Slovenia, Monaco, Italy and Liechtenstein).

Aurora Borealis
 Known as the 'Northern Lights', this seemingly magical light show is created by charged particles from the sun which are attracted to the poles due to the magnetic fields there.

Black Forest
 This mountainous region in southwest Germany, bordering France, is known for its dense, evergreen forests and pretty villages, often associated with the Brothers Grimm fairy tales, spas and cuckoo clock production.

Human Features

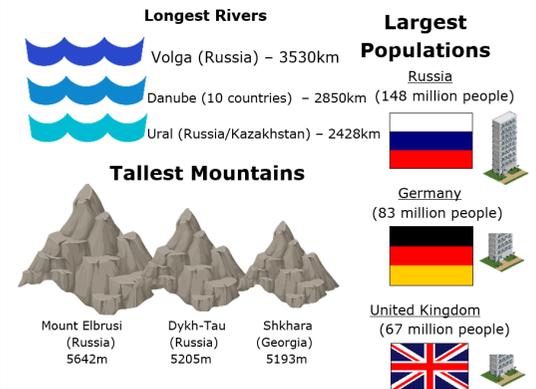
European Union
 The E.U. is a political and economic group of 28 countries who allow free trade and commerce between member states. It was created in 1948 after World War II to help Europe become more stable.

Berlin Wall
 After WWII, Germany was split into different zones. Living conditions were soon better in West Germany compared to East Germany. A 100 mile guarded wall was built overnight in 1961 to stop people fleeing into West Germany. It came down in 1989.

Eiffel Tower
 The Eiffel Tower is an iron tower on the Champ de Mars in Paris, France. It is named after the engineer Gustave Eiffel, whose company designed and built the tower in 1887. It was the world's tallest tower standing 300m tall.

Colosseum
 The Colosseum in Rome, built in 70 A.D., as one of many built throughout Italy during the time of the Romans. This huge amphitheatre could hold 50,000 spectators and was often the scene of chariot races, gladiator and animal battles along with executions.

KEY LEARNING



Climate

There are 44 countries in Europe and 4 main climate types.

- Polar regions near the Arctic Circle such as Iceland, Norway, Sweden, Finland and Russia where tundra and icy glaciers are common
- Temperate climates, much like the U.K. where there is rainfall and deciduous forests (trees which lose their leaves in the winter)
- Mediterranean climates which are dry and hot and attract many tourists.
- Alpine climates which are mountainous and cold.

Languages

Europe has 24 active languages being spoken with Russian and German being the most common first language but English being the most common second

GEOGRAPHICAL SKILLS AND FIELDWORK

- Use aerial photographs to compare London to other capital cities in Europe. What is the same? What is different?
- Identify and describe how the physical features affect the human activity within a location. Compare physical features