Cliff Park
ORMISTON ACADEMY
Achieving together

Becoming an Outstanding Geographer @CPOA

What is geography?

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical features of Earth and the human societies spread across it. They also examine how human culture interacts with the natural environment and the way that locations and places can have an impact on people. Geography seeks to understand where things are found, why they are there, and how they develop and change over time.

Why is geography important for me?

Every time you turn on the news you will see something that relates to your geography lessons. We will learn about how the natural world works – from why it rains to how volcanoes form to why our global climate is changing and how this will affect us in so many ways. We will learn about current global issues like population, migration and development and consider how humans interact with the natural environment. Geography will prepare you for jobs that do not even exist yet, as our world is ever changing. It will open your eyes to what is happening around you and prepare you to be a global citizen. At a time where our natural world faces many threats – it has never been more important to be a geographer!

How will this booklet help me to become an outstanding geographer?

When you start secondary school, you are not starting a new learning journey, but continuing to build on all of the things you learned in primary school. You will realise that in your geography lessons, much of what we learn links to what you studied in primary school. This booklet will help you to recall that information and refresh your memory so that you are fully prepared for the next steps of your geography journey!

Checking My Knowledge

KS2 National Curriculum for Geography – RAG Checklist

Read each statement carefully and consider if you think you are red, amber or green in that area.
Red = I think I have no knowledge in this area
Amber = I think I have some knowledge in this area
Green = I am confident in my knowledge in this area

Knowledge and Skills			
I can name and locate the world's seven continents and five oceans.			
I can use world maps, atlases and globes to identify the United Kingdom and its countries.			
I can use the eight points of a compass, four and six-figure grid references and identify symbols on maps.			
I can identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere.			
I can identify countries in each continent on a map			
I can describe the physical and human features of at least one country in Europe and in South America.			
I know the difference between weather and climate and can describe the weather.			
I can describe processes that take place in the water cycle.			
I know what a Biome is and can give examples of biomes.			
I know what a mountain is and can give examples of mountains found in the UK.			
I can explain ways that mountains form.			
I know what a river is and can identify the key features of a river.			
I can locate important rivers in the UK.			
I know what a volcano is			
I can give reasons why volcanos are dangerous			
I can give reasons why volcanoes can have advantages			
I know what causes earthquakes to happen			
I can name places where earthquakes happen often			
I know the layers of the earths structure			
I know what a settlement is			
I can name the different types of settlement			

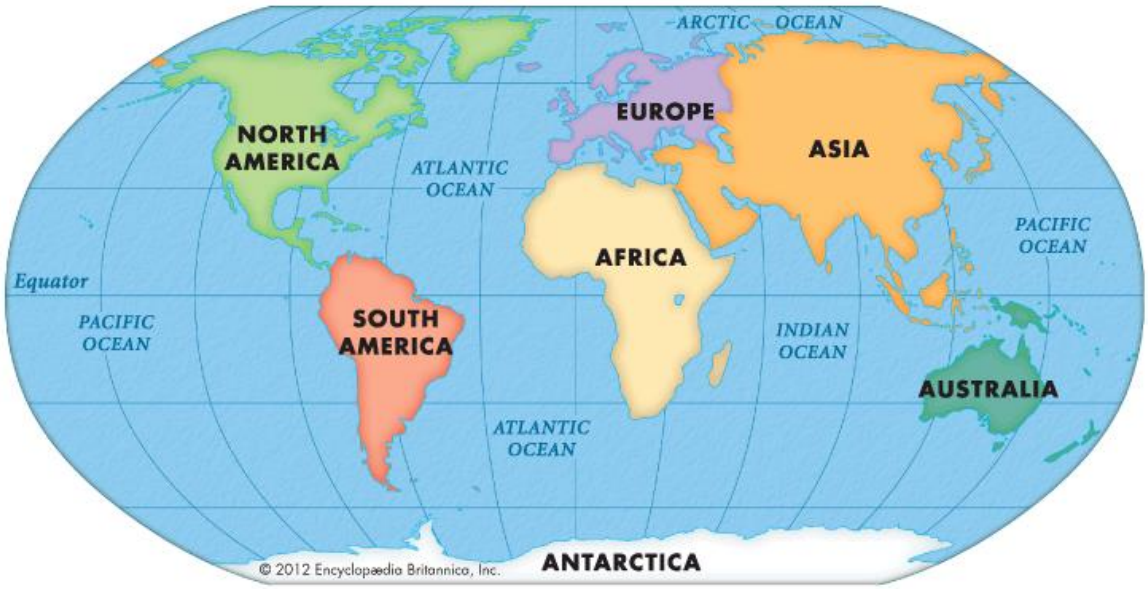
I can give examples of the purpose of different settlements			
I can give examples of features of different settlements			
I know what trade means			
I know what importing and exporting are			
I know why trade is important			

Section 1: Mapping Our World

From space, the Earth looks like a sphere, or ball, containing land and water. A **globe** is a model of the Earth and shows what it looks like from space. Some globes show how the land is divided into different countries - around 200 of them. All the **countries** on our planet are located in seven different **continents**:

- Europe
- Africa
- North America
- South America
- Asia
- Australia

  Antarctica



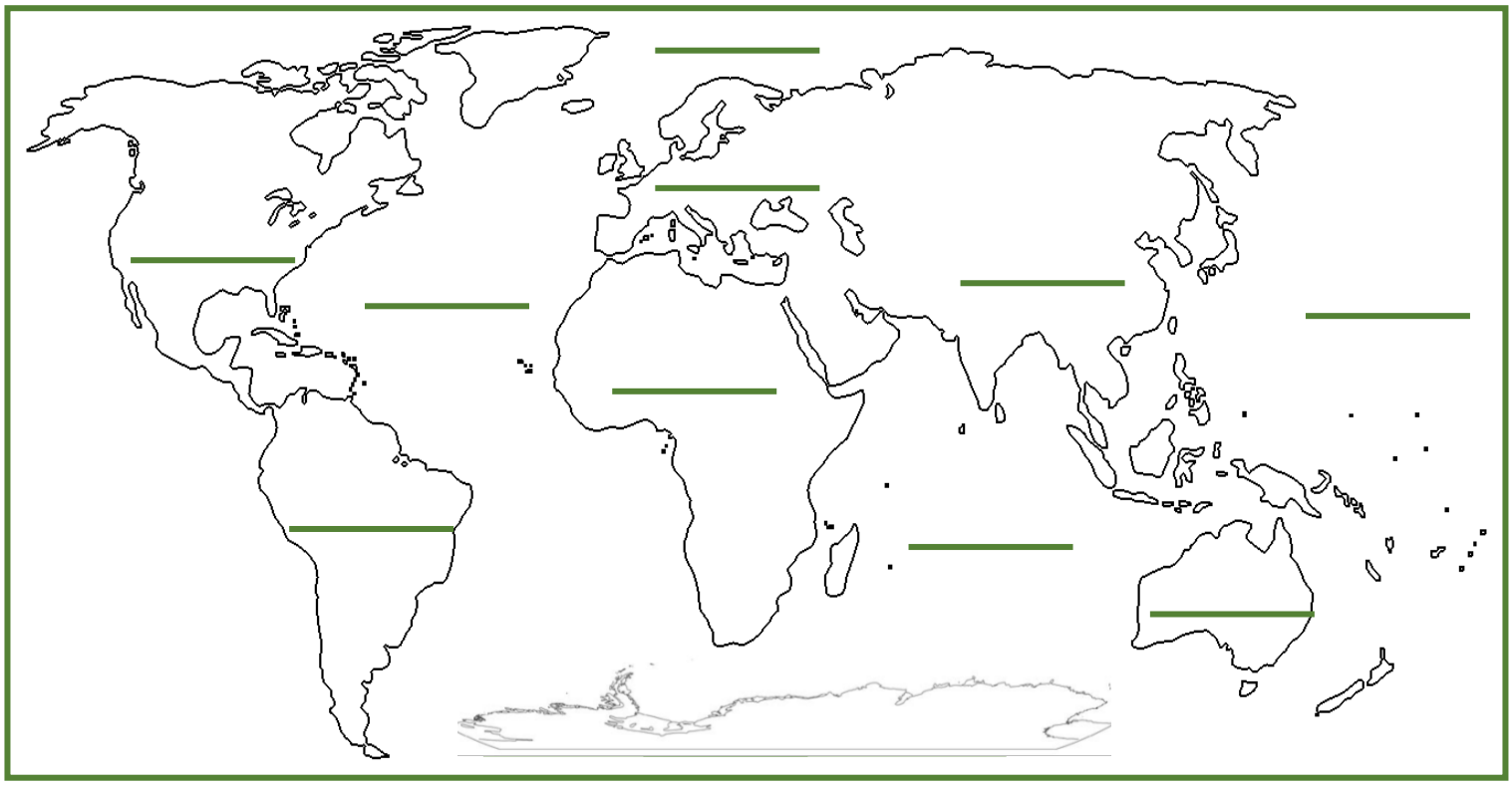
Maps and atlases

Maps are useful tools to help people find their way to and from somewhere. They are much easier to carry than a **globe** and much more detail can be added to them.

Maps can show the whole world, a single country or even a single town or village. Maps of different countries can be put together in a book called an **atlas** or they can be on a single sheet of paper. These can be useful to carry when you go walking so you do not get lost.

Task 1: Memory Test

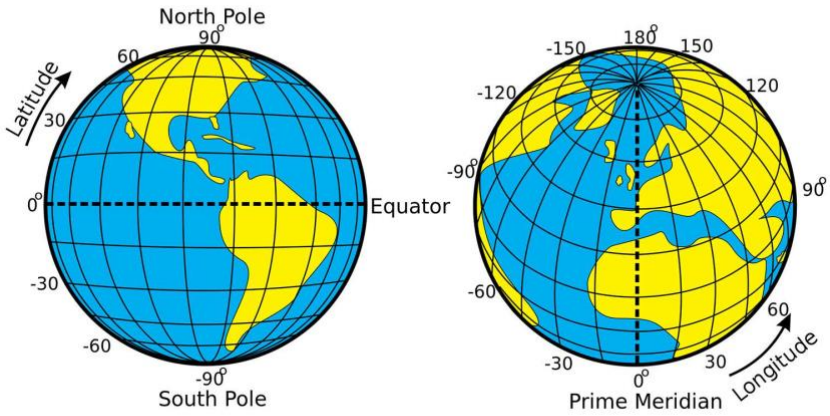
Instructions: Try to label the continents and oceans from memory;



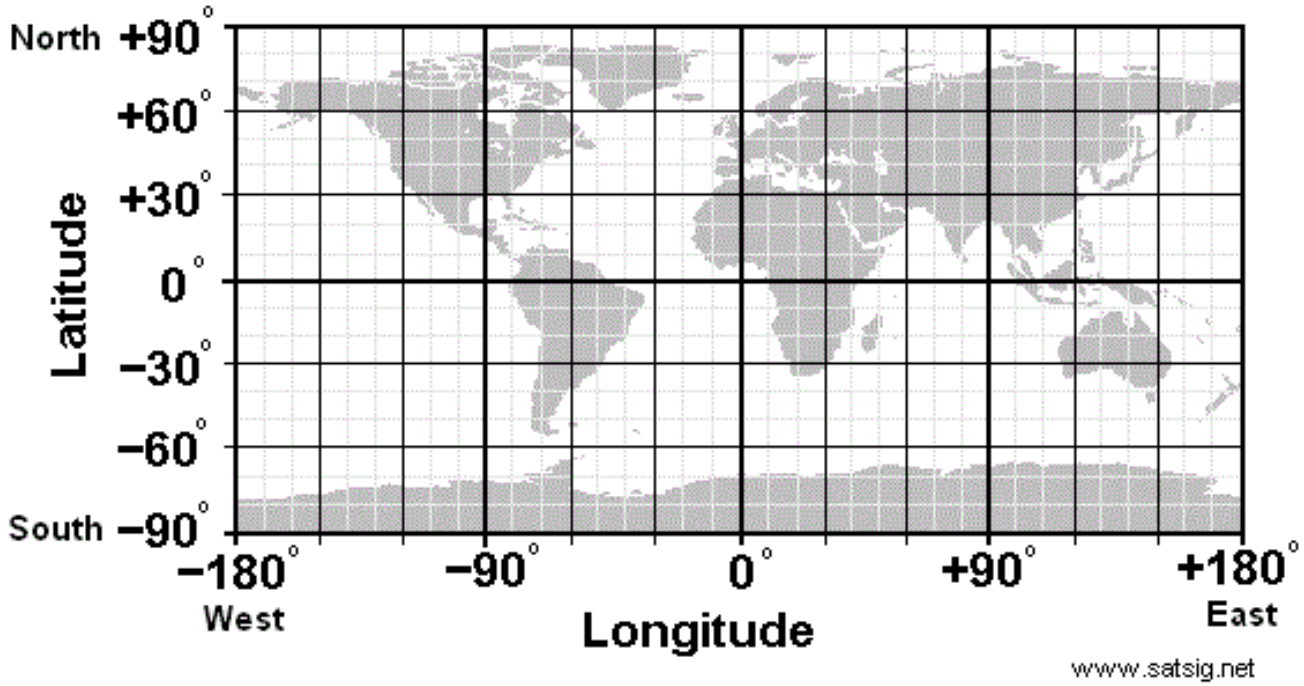
What are latitude and longitude?

To help locate where a place is in the world, people use imaginary lines:

- To find out how far **north** or **south** a place is, lines of **latitude** are used. These lines run parallel to the Equator.
- To find out how far **east** or **west** a place is, lines of **longitude** are used. These lines run from the top of the Earth to the bottom.



Task 2: Use the map to help you answer the questions



Section A

Which CONTINENTS do these lines of latitude pass through?

1 0° (Equator) _____, _____, _____
2 20°S _____, _____, _____
3 40°N _____, _____, _____
4 40°S _____, _____
5 60°N _____, _____, _____
6 80°S _____
7 20°N _____, _____, _____

Section B

Which CONTINENTS do these lines of longitude pass through?

1 0° _____, _____, _____
2 60°E _____, _____
3 120°E _____, _____, _____
4 60°W _____, _____, _____
5 100°E _____, _____
6 120°W _____, _____
7 Which continent does ALL the lines of longitude pass through?_____

Hemispheres

The **Equator** is at the centre of the lines of latitude and is at 0° latitude. Anything lying south of the Equator is in the **Southern Hemisphere** and is labelled °S. Anything lying north of the Equator is in the **Northern Hemisphere** and is labelled °N. The North Pole is 90° N and the South Pole is 90° S.

The line labelled 0° longitude is called the **Prime Meridian** or the **Greenwich Meridian** and runs through London. Anything lying east of the Greenwich Meridian is in the **Eastern Hemisphere** and is labelled °E. Anything lying west of the Greenwich Meridian is in the **Western Hemisphere** and is labelled °W.

What are time zones?

Time zones are divided by imaginary lines called **meridians** which run from the North Pole to the South Pole. There is an imaginary line running through the UK called the **Prime Meridian**. It runs through a place in London called **Greenwich**. The Prime Meridian splits the world into eastern and western **hemispheres**.

Time in countries to the east of the Prime Meridian is always in front of that in the UK. Time in countries to the west of the Prime Meridian is always behind that of the UK.

Time in different parts of the world

As the Earth rotates on its **axis**, the Sun only shines on the side of the Earth that it is facing. This means:

- it is **daytime** for the parts of the Earth that have the Sun shining on them
- it is **night-time** for places that are on the opposite side of the Earth and are in the shade

As it is night in some parts of the world while it is day in other parts, different places in the world have different times. This is why the world is divided into **24 different time zones**. One for each hour in a day. Very large countries that are spread out across many time zones, such as Russia or the USA, are divided into separate time zones.

Fast 5 Checkpoint 1: Answer the following questions;

1. Name the 7 continents……

   ……..

2. Latitude is an imaginary line showing how far……. Or …….. a place is.
3. Longitude is an imaginary line showing how far…….. or …….. a place is.
4. Time zones are divided by imaginary lines called……..
5. The line of longitude running along 0 is called the **……**

How to use a map

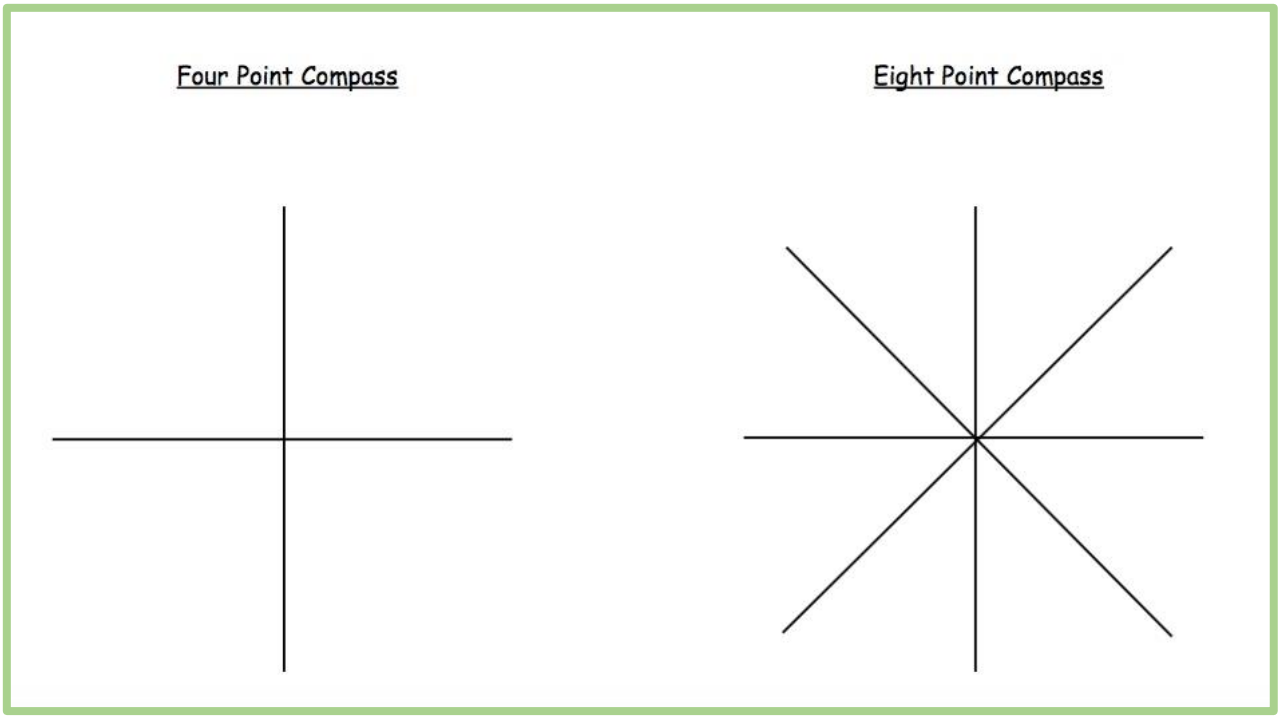
The top of most maps is **north** and a **compass** can be used to find which **direction** north is. Compasses show four directions - north, **east, south** and **west**.

The needle always points north, so when that is lined up with the map it is easy to see in which direction things are.

Task 3: Compass points:

1.Add North, East, South and West to the correct points on the 4 point compass.

2. Add North, South, East, West, North East, North West, South East and South West to the 8 point compass.

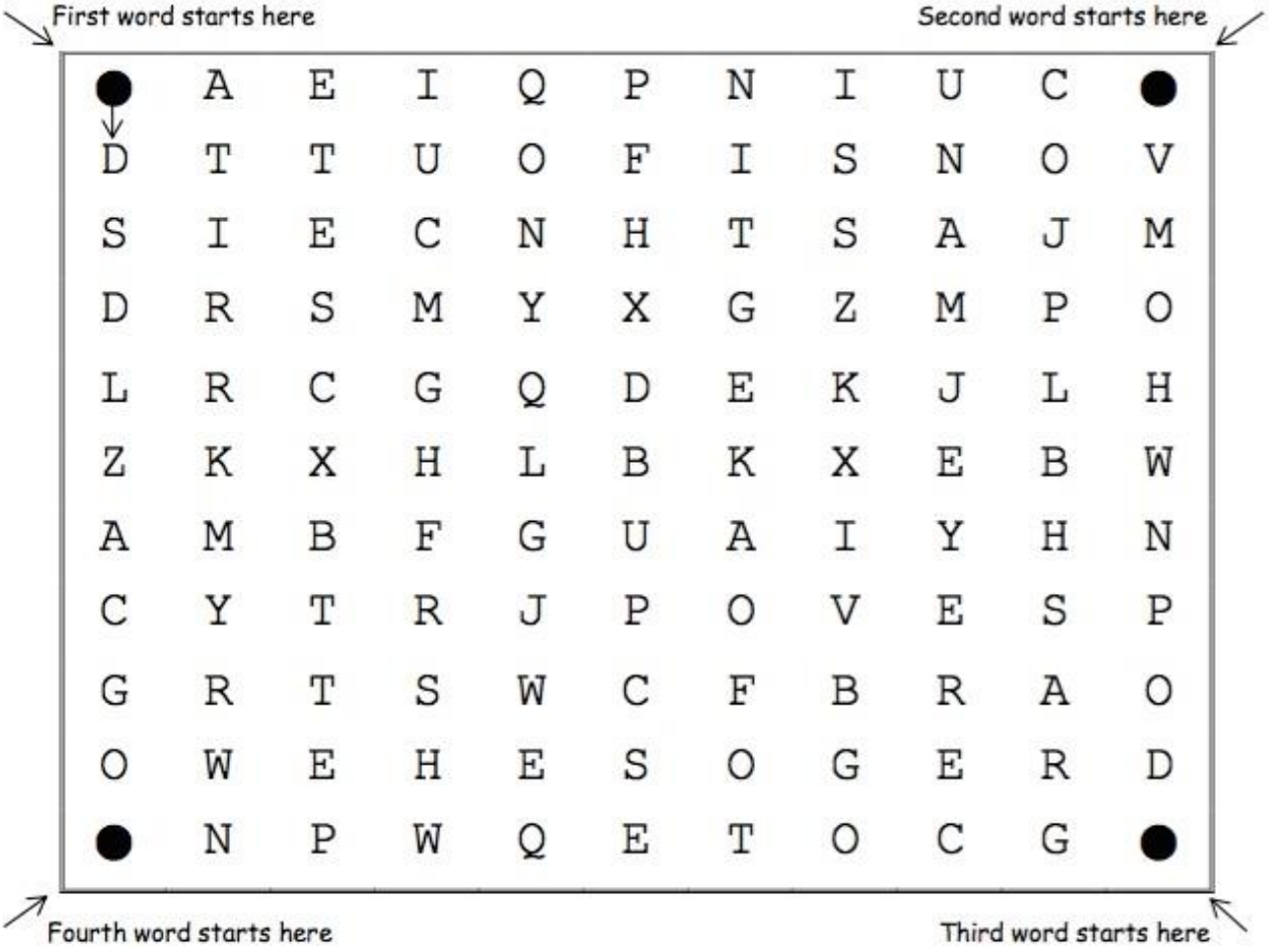


Maps are not drawn to the same size as the ground because they would be far too big! Instead they are drawn to a smaller **scale**.

The scale on a map is a set of numbers that can be used to compare distances and can be written, for example, as 1:25,000. This means that the actual size of the ground is 25,000 times bigger than it is on the map. The same scale can also be written as 4cm to 1km, so every four centimeters on the map is one kilometre in real life.

Task 4: Using Direction

Follow the directions to find the key words:



First Word	
Direction	Letter
Go S	D
Go SE	
Go S	
Go NE	
Go E	
Go NW	
Go NE	
Go SE	
Go S	

Second Word	
Direction	Letter
Go W	
Go S	
Go SE	
Go SW	
Go NW	
Go W	
Go N	

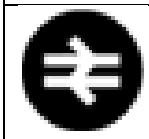
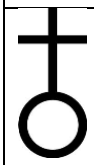
Third Word	
Direction	Letter
Go W	
Go NW	
Go SW	
Go N	
Go NE	
Go E	
Go NE	
Go NW	
Go W	

Fourth Word	
Direction	Letter
Go	N
Go	O
Go	R
Go	T
Go	H
Go	W
Go	E
Go	S
Go	T

Symbols

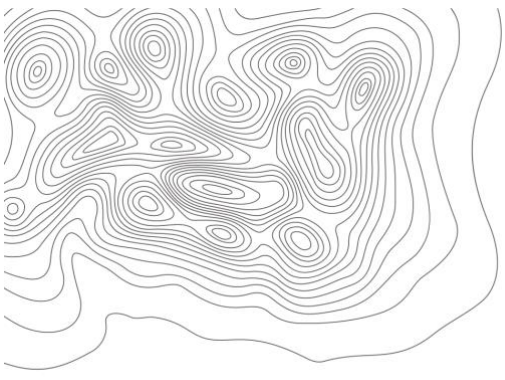
Symbols are generally the same on most types of map. For example, buildings or **tourist attractions** are shown with blue symbols. Different types of roads are shown in different colors - blue for a **motorway**, red for a **main road** and yellow or orange for **narrower roads**. Dotted green lines are usually used to show **footpaths**.

Task 5: Match the symbols to the correct description

		*School*
Sch		*Place of worship*
		*Parking*
		*Railway Station*
		*Campsite*

Contours

Some maps, especially ones that people use to find their way around the countryside, contain brown **contour lines**. These are lines that show high and low areas of land.



The contour lines join up areas of the same height, and when they are close together it means the hill or mountain is **steep**. When they are far apart it means the land is gently sloping, or **undulating**.

Grid References

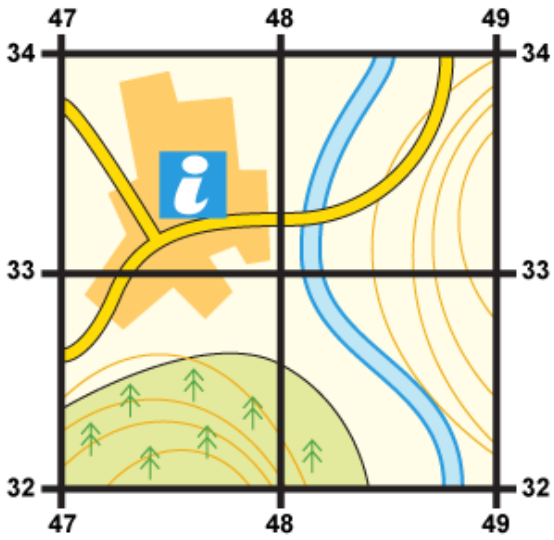
A grid of squares helps the map-reader to locate a place. The vertical lines are called **eastings**. They are numbered - the numbers increase to the east. The horizontal lines are called **northings** as the numbers increase in an northerly direction.

Things to remember:

- When you give a grid reference, always give the easting first: "**Along the corridor and up the stairs**".

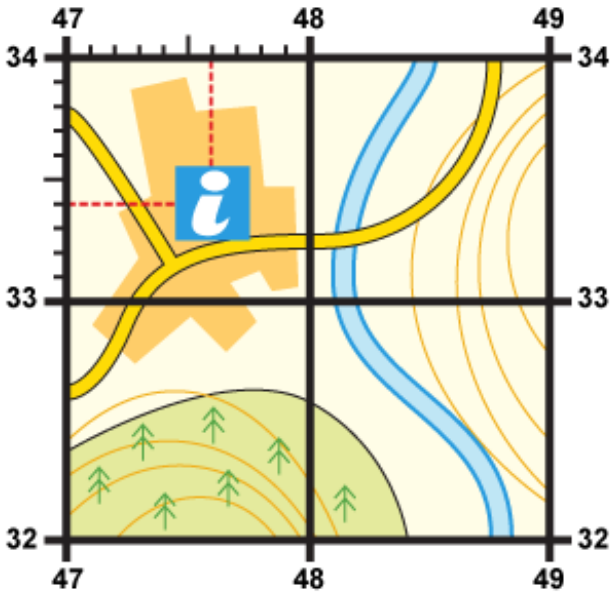
Four-figure grid references can be used to pinpoint a location to within a square. To find the number of the square:

- Start at the left-hand side of the map and go east until you get to the bottom-left-hand corner of the square you want. Write this number down.
- Move north until you get to the bottom-left corner of the square you want. Look at the number of this grid line and add it to the two-digit number you already have.
- This is your four-figure grid reference.
- In this case, the tourist information office is in grid square 4733.



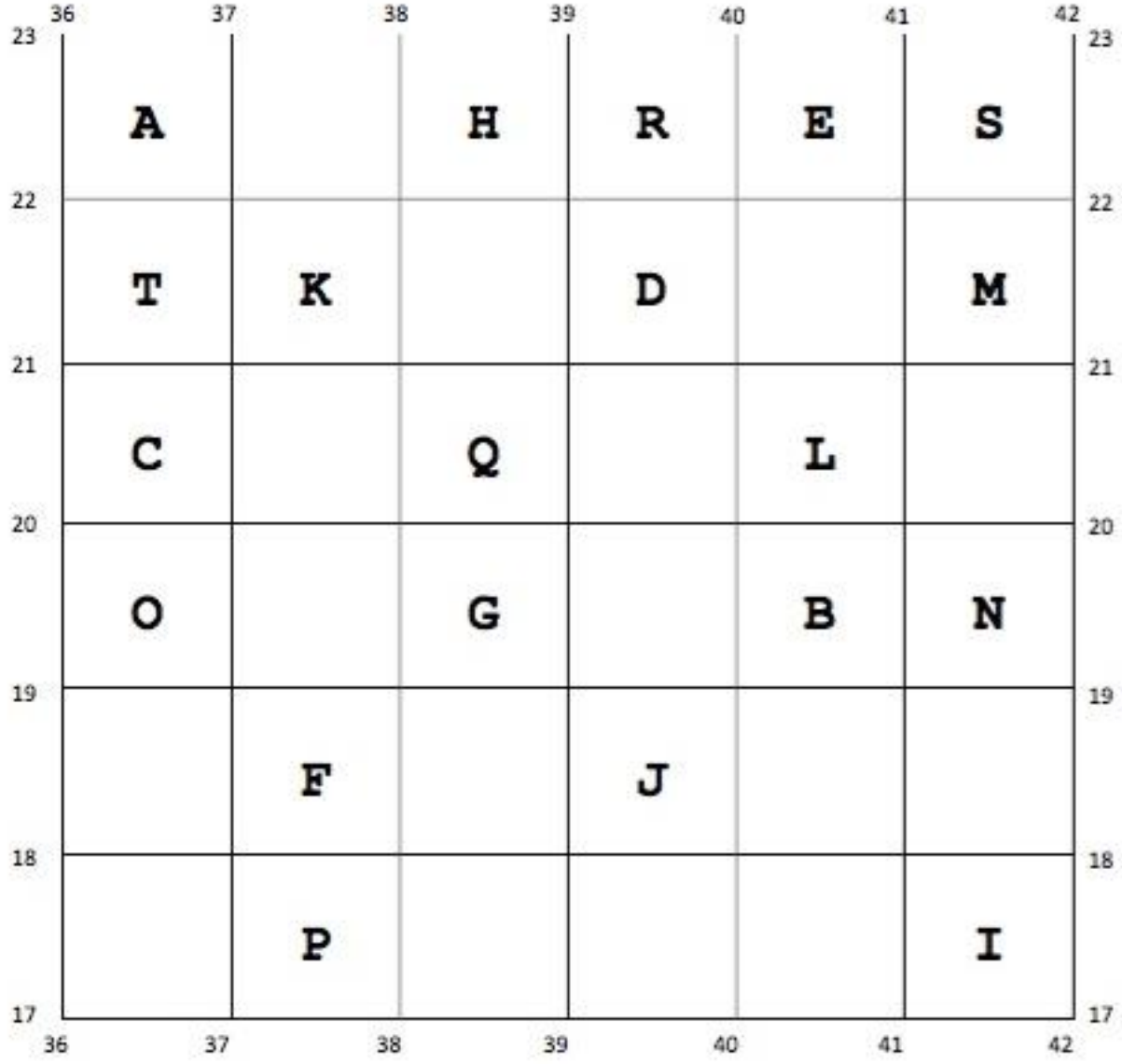
Sometimes it is necessary to be even more accurate. In this case you can imagine that each grid is divided into 100 tiny squares. The distance between one grid line and the next is divided into tenths.

1. First, find the four-figure grid reference but leave a space after the first two digits.
2. Estimate or measure how many tenths across the grid square your symbol lies. Write this number after the first two digits.
3. Next, estimate how many tenths up the grid square your symbol lies. Write this number after the last two digits.
4. You now have a six figure grid reference. In this instance, the tourist information office is located at 476334.



Task 6: Fill in the grid square of each letter below, one example is done for you.

A 36,22	F	K	P
B	G	L	Q
C	H	M	R
D	I	N	S
E	J	O	T



Fast 5 Checkpoint 2: Answer the following questions;

1. Maps are not life sized, the are drawn to ……
2. A red line on a map represents what? ……
3. Contour lines show the …….. of the land
4. When lines are close together this means land is ……
5. When lines are far apart this means land is ……

The UK

The United Kingdom is made up of 4 countries, England Scotland, Wales and Northern Ireland.

Task 7: Label the 4 countries on the map;

The Capital City of England is _____

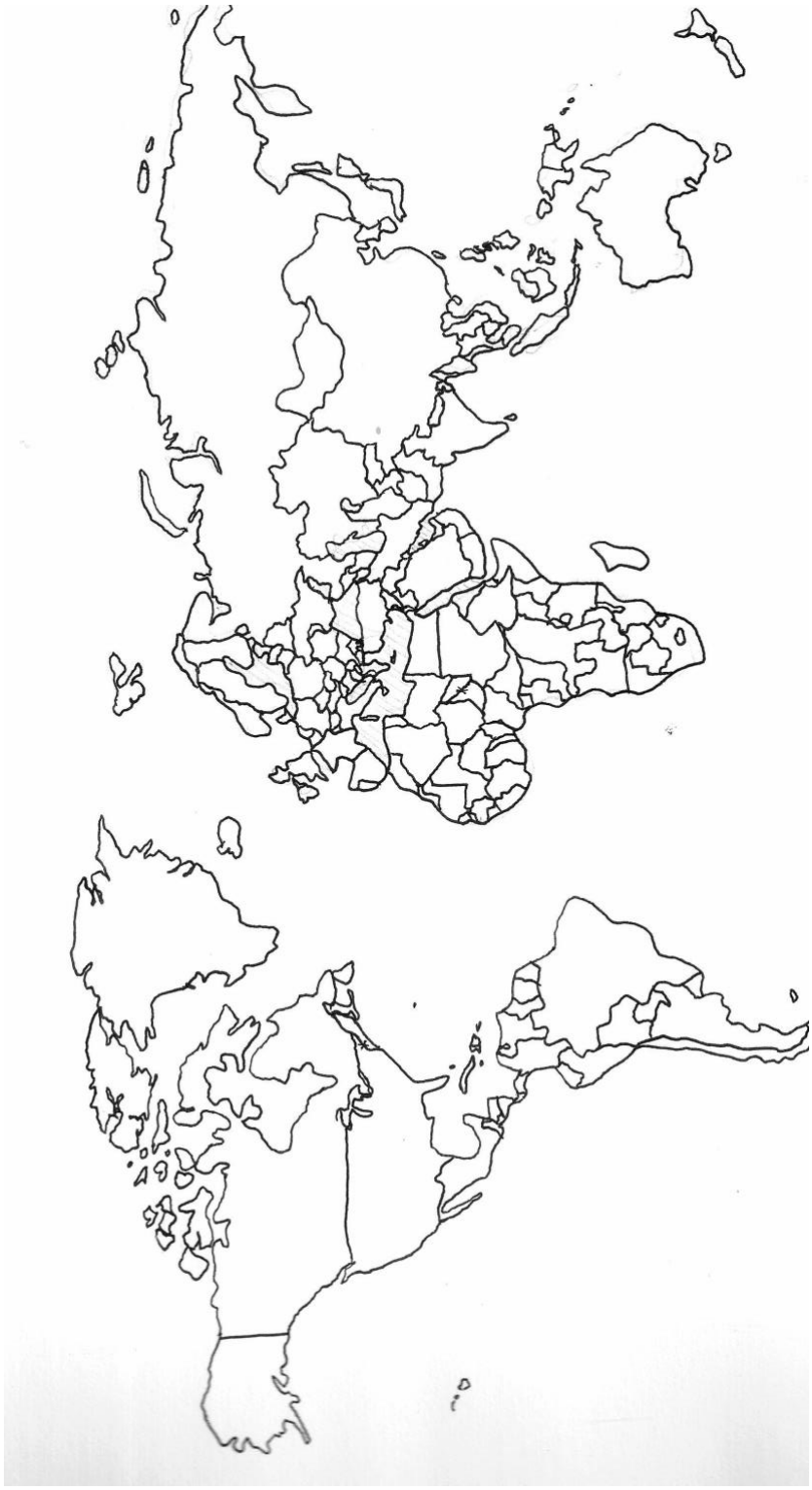
The Capital City of Scotland is _____

The Capital City of Wales is _____

The Capital City of Northern Ireland is _____

Section 2: Places around the World

Task 1: Label one country in each continent



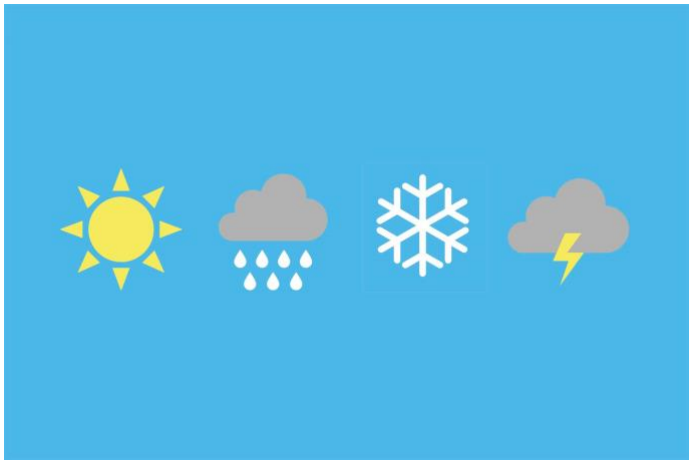
1. Complete the table below for the UK, one country in Europe and one country in South America.

Country	**Population**	**Flag**	**Capital City**	**Physical Features** (e.g. famous mountains, rivers etc)
United Kingdom				

Section 3: The Natural World

1. Weather & Climate

What is weather?



Weather is a description of what the conditions are like in a particular place. For example, it could be:

- hot or cold
- wet or dry
- windy or calm
- stormy, with thunder and lightning

What is climate?

Climate is a description of the average weather conditions in a certain place for the past 30 or so years.

Different areas of the world have different climates. Climate is influenced by lots of different things, including:

- how near or far it is from the Equator
- how near or far it is from the sea
- how high or low the ground is
- its position on a continent

Climate change

The climate across the world has changed naturally over thousands and millions of years. In the past, the UK has experienced both freezing **ice ages** and warm **tropical** climates.

Today however, because people have been burning **fossil fuels** to power homes, factories and vehicles, more **carbon dioxide** has entered the Earth's atmosphere. Carbon dioxide acts like a **greenhouse**. It lets the sun's rays through to heat up everything inside the atmosphere, but stops the heat from escaping. This is making our planet warm faster than it naturally would and is causing world climates to change.

Task 1: Describe the weather conditions today;

……

……

……

……

The water cycle

Water on Earth is **constantly moving**. It is recycled over and over again. This recycling process is called the water cycle.

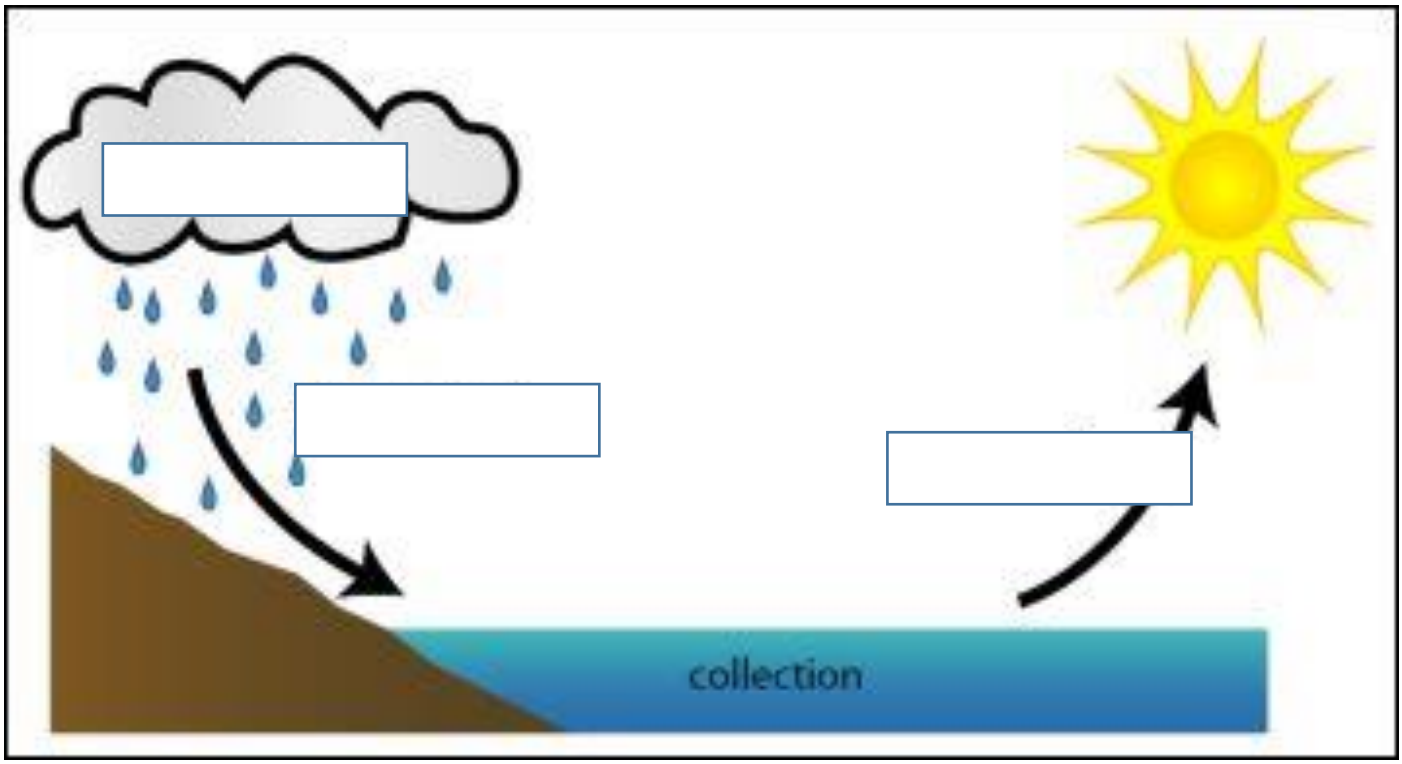
1. Water evaporates into the air
The sun **heats up** water on land, in rivers, lakes and seas and turns it into water vapour. The water vapour rises into the air.

2. Water vapour condenses into clouds
Water vapour in the air **cools** down and changes back into tiny drops of liquid water, forming clouds.

3. Water falls as precipitation
The clouds get **heavy** and water falls back to the ground in the form of rain or snow.

4. Water returns to the sea
Rain water runs over the land and collects in lakes or rivers, which take it **back to the sea**. The cycle starts all over again.

Task 2: Fill the correct key word in each box to complete the water cycle diagram.



2. Biomes

What are biomes?

Biomes are areas of our planet with similar **climates**, **landscapes**, **animals** and **plants**. What lives in each biome depends on:

- how warm or cold it is
- how dry or wet it is
- how fertile the soil is

The animals in a biome depend upon plants for food. The plants in a biome often also depend upon the animals for spreading pollen and seeds so that new plants can grow. So both plants and animals rely on each other to stay alive.

Types of biome

Tropical **rainforests** are hot and wet all year round. They are home to half of all the different types of plants and animals on the planet.

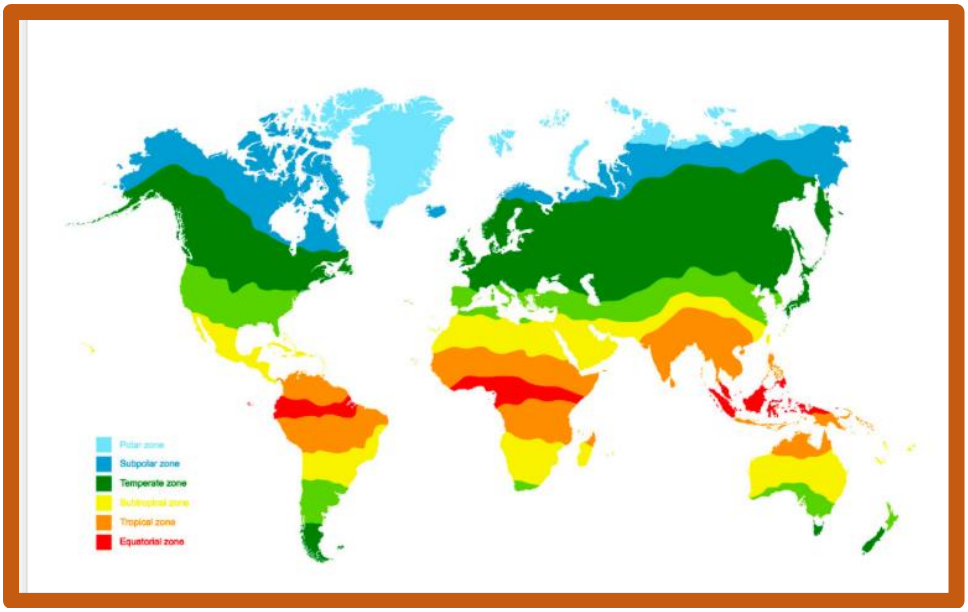
Deserts are hot and dry all year round. The only things that grow are cacti and small shrubs because the soil is shallow and rocky. Animals come out at dusk when it is cooler.

The **savannah** is hot all year round with a long, dry season. Only grasses and shrubs grow here but it is home to lots of different types of animals such as elephants, zebras and wildebeest.

Woodlands are habitats where the main plants found are trees, but mosses, ferns and lichen can also be found. The climate is warm and mild, with more rain falling in the winter than the summer.

Grasslands are areas of land that are vast and open, with grasses being the main plants. The largest grasslands are found in East Africa. Zebras, giraffes, elephants and rhinos can all be found living in grasslands.

The **tundra** is the coldest of all the biomes. There is very little rain or snow and the temperatures are freezing. Winters are long and summers are short. Part of the soil is frozen all year round, although the top part defrosts in summer and plants such as mosses can grow.



Task 3: Complete the following table;

Biome	Climate	Plants/Animals found here
Desert		
Savanah		
Woodland		
Grassland		
Tundra		

3. What are mountains?

Mountains are areas of land that are much higher than the land surrounding them. They are higher and usually steeper than a **hill** and are generally over 600 metres high. They are often found together in a group called a **mountain range**.

Some well-known mountain ranges in the four countries that make up the UK include:

- the Cairngorms in Scotland
- the Pennines in England
- the Mourne Mountains in Northern Ireland
- Snowdonia in Wales

How are mountains formed?

The highest mountain ranges are created by **tectonic plates** pushing together and forcing the ground up where they meet. This is how the mountains of the Himalayas in Asia were formed.

Tectonic plates are also at work under the Atlantic Ocean, but instead of forcing the ground up, the two plates in the middle of the Atlantic Ocean are actually moving apart in opposite directions. This causes **lava** to **erupt** out of the gap that is left. As it cools down, the lava creates a long line of mountains - the longest mountain range on Earth.

Other mountains - usually those that stand on their own - are created by **ancient volcanoes**. Ben Nevis in Scotland was once a very large **active volcano**. It last erupted millions of years ago and the eruption was so violent that it caved in on itself.

The highest mountains in the UK are:

- Ben Nevis in Scotland (also the highest in the UK)
- Scafell Pike in England
- Slieve Donard in Northern Ireland
- Snowdon in Wales

Task 3: Answer the following questions;

1. What is a mountain?

……

2. What height must it be to be considered a mountain?

……

3. What is the name given to an area where mountains are grouped together?

……

4. Explain one way mountains are formed.

……

……..

……

5. What is the highest mountain in Scotland? ……..

6. What is the highest mountain in England? ……..

4. Rivers

Task 4: Fill in the blanks to figure out what a river is and how they form;

What is a river?

A river is a moving body of water that flows from its _____ **(where it starts)** on high ground, across land, and then into another body of water, which could be a **lake**, the **sea**, an **ocean** or even another river, this end point of the river is called the _____.

A river flows along a **channel** with _____ on both sides and a _____ at the bottom. If there is lots of rainfall, or snow or ice melting, rivers often rise over the top of their banks and begin to flow onto the _____at either side.

Bed ***Source*** ***Banks*** ***Mouth*** ***Floodplain***

How are rivers formed?

Rivers usually begin in _____ areas, when rain falls on high ground and begins to flow **downhill**. They always flow downhill because of gravity.

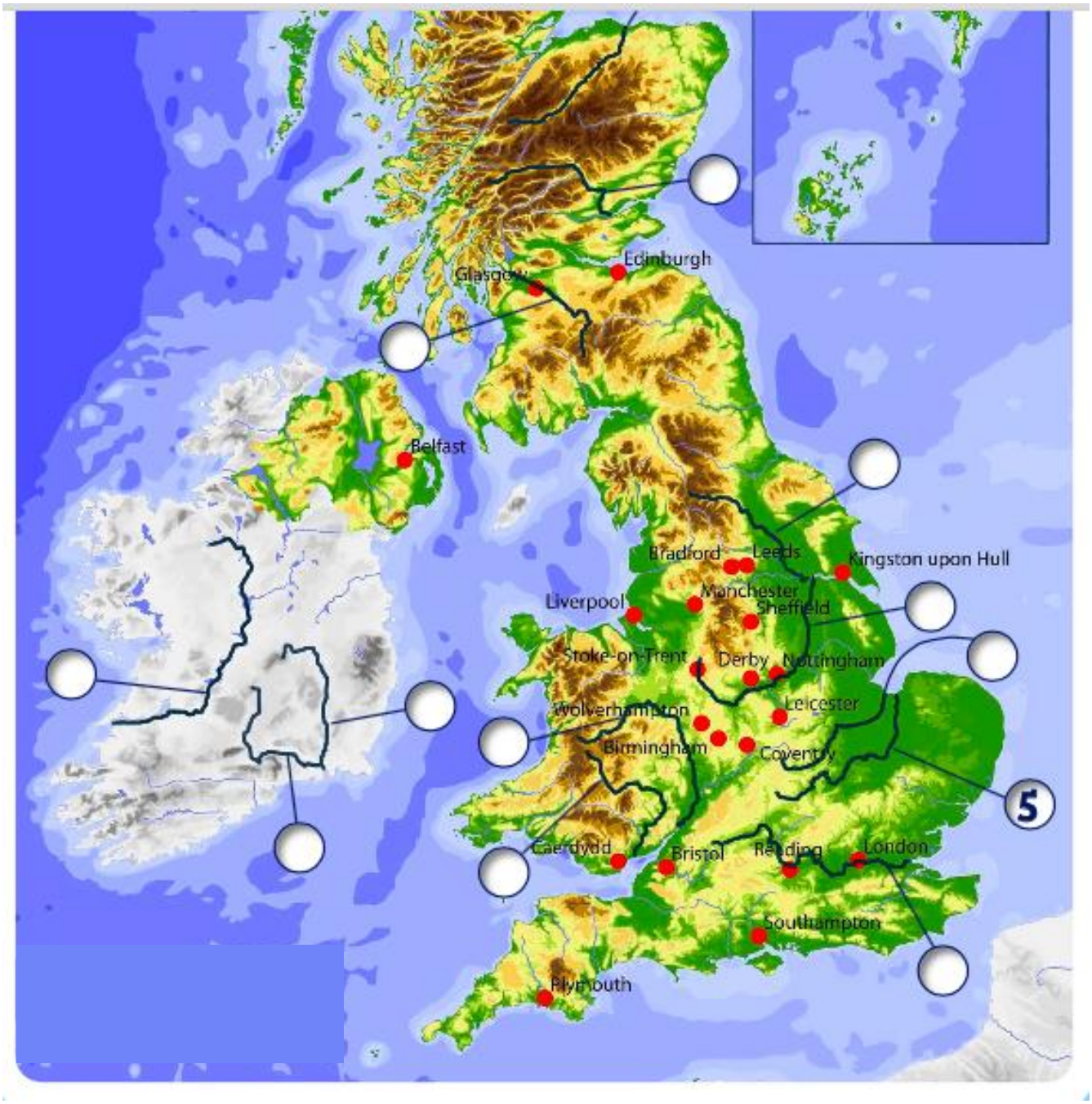
They then flow across the land - **meandering** - or going around objects such as hills or large rocks. They flow until they reach another body of water. A meander is a _____ in a river.

As rivers flow, they _____- or wear away - the land. Over a long period of time rivers create **valleys**, or **gorges** and **canyons** if the river is strong enough to erode rock. They take the _____ (bits of soil and rock) and carry it along with them.

Bend ***Upland*** ***Sediment*** ***Erode***

Rivers in the UK

Task 5: Using an atlas or the internet, place the correct number in each circle to identify the rivers of the UK and Ireland.



1 River Shannon 2 River Severn
3 River Thames 4 River Trent
5 River Great Ouse 6 River Wye
7 River Ure/Ouse 8 River Barrow
9 River Tay 10 River Suir
11 River Spey 12 River Clyde

5.Volcanoes

What are volcanoes?

A volcano is an opening in the Earth's **crust** that allows **magma**, hot ash and gases to escape. Volcanoes can look like mountains or small hills, depending on what type they are.

Magma is **molten rock** - rock that is so hot it has turned into liquid. When magma reaches the surface of the Earth it is called lava and comes out of the volcano as a volcanic eruption, along with gases and ash.

Volcanic eruptions

Most volcanic eruptions are caused by **tectonic plates** moving towards each other, which usually produces violent eruptions. Other volcanoes, such as Mauna Loa in Hawaii are caused by **hot spots** in the Earth's crust. These do not erupt violently and lava usually flows slowly out of them.

Eruptions from volcanoes can be very dangerous. They can produce:

- **pyroclastic flows** - fast moving clouds of hot ash, gas and rock
- **ash clouds** - small pieces of rock and glass that can be carried in the air for many kilometers
- **volcanic bombs** - large bits of very hot rock blown out of a volcano

Volcanoes can, however, help people living near them earn money by bringing in tourists to the area and improving the soil so that crops can be grown.

Task 6: Answer the following questions

1. What is a volcano? …….
2. What is magma?.....
3. What is magma called when it reaches the surface?.....
4. What causes volcanic eruptions?.....
5. Why are volcanoes dangerous?.....
6. Why can volcanoes sometimes be positive?.....

Structure of the Earth

The Earth is made up of different layers:

- the **core** at the centre, which is mainly metal
- the **mantle**, which is mainly rock
- the **crust**, which is the part we can see

The crust (together with the upper layer of the mantle) is made up of different pieces, called **plates**. These plates fit together like a jigsaw and are moving at a rate of a few centimetres a year, in different directions and at different speeds.

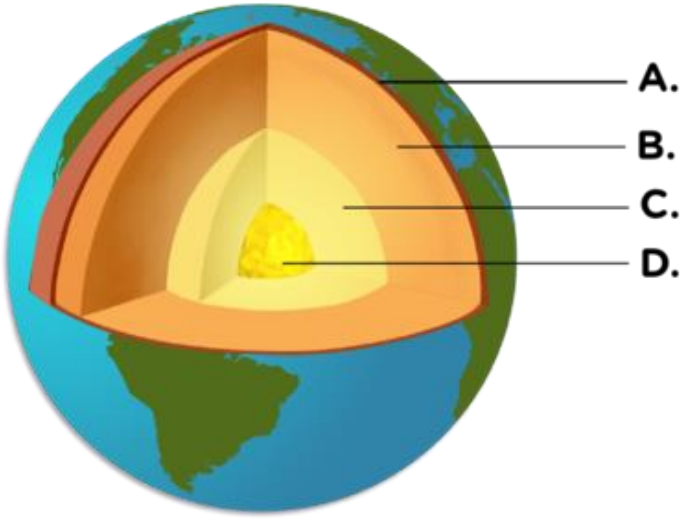
Some plates slide past each other, others move away from each other and some bump into each other. Sometimes these plates lock together when they meet. This is called a **plate boundary** or a **fault line**.

What are earthquakes?

As plates carry on moving in different directions over long periods of time, friction causes energy to build up. Eventually it becomes so great that the energy is released, which creates a shock wave - an **earthquake**. If the earthquake is beneath the ocean it can create a huge **tidal wave**, called a **tsunami**.

- There are thousands of earthquakes across the world each day and some are so small that they can only be detected by specialist equipment. Others can be so intense that they can create lots of damage and destroy towns and cities. The **Richter** magnitude scale is used to measure the size of earthquakes.
- Many earthquakes occur around the Pacific Ocean. People who live there, in countries such as Japan, are used to earthquakes happening and build earthquake-resistant buildings that sway with the shock waves rather than fall down.
- Although there are earthquakes in the UK, they are rare and so small that most people do not feel them.

Task 7: Identify each layer of the earth;



A_____ B_____ C_____ D_____

Task 8: Answer the following questions;

Q1: What are earthquakes measured on ……

Q2: What causes earthquakes? ……..

……

Q3: What is a tidal wave caused by an earthquake called? ……

Q4: Give one location that experiences earthquakes regularly? ……

……

Section 4: The Human Environment

1. Settlements

Settlements are **places** where people live and sometimes work.

They can be small or large depending on how many people live there and how many **facilities** there are.

Facilities are places where certain things happen, for example, schools for education, parks for playing or shops for selling things.

Types of settlement

Task 1: Match the start to the correct end of the sentence.

A **hamlet**		is the largest type of settlement, containing lots of buildings and lots of people. They usually have hospitals, sports facilities, universities, shops, offices, many houses and a cathedral.
A **village**		is a very small settlement with just a group of houses.
A **town**		is larger than a village, with lots of houses, primary and secondary schools, as well as sometimes having a railway station and shopping centre.
A **city**		is also small but may have houses, a primary school, a few shops, a Post Office and a village hall.

In the UK however, some cities may be small. This is because some settlements have a **cathedral** and this makes them a city. For example, St Davids in Wales and the City of London in England.

Some settlements also have a special use, or function. For example:

- **ports** - by a river or sea for ships to transport goods
- **market towns** - where local farmers sell goods
- **resorts** - for people to go on holiday

Task 2: Tick which settlement type you would expect to find each of the following;

	Find it in a Village	Find it in a Town	Find it in a City
Office block			
University			
Bank			
Little shop			
Pub			
Department store			
Castle			
Cottage			
Windmill			
Factory			
Church			
Hospital			
School			
Library			
Village hall			
Airport			
Mosque			

2.Trade

What is trade?

Buying and **selling** things is called trade. Trade is an important way for countries to make money and has been happening across the world for hundreds of years. Today, goods are carried around the world in container ships from port to port and by airplane.

Export and import

People in the UK can **sell** things they make when people in other countries want them. This might be because they can't make them themselves or because they are cheaper or better quality. Sending **goods** like this to other countries is called **export**. There are also things, such as bananas or oranges, that are hard to grow in the UK and we have to **buy** these things from abroad. This is called **import**.

Sometimes countries need experts from abroad such as engineers, scientists or teachers. These experts can sell their **services** to people around the world and this is called a **service industry**. The service industry is the UK's main industry today and we import more goods than we export.

What is economic activity?

The word 'economy' describes how a country or place is doing in producing and making goods, and how much money it has. The amount a country sells and makes is called **economic activity**.

There are a wide range of goods that countries can sell, such as:

- gold
- silver
- milk
- fish

If a country has a lot of goods that are in high demand then it can become **wealthier** by selling them. Businesses employ more people and people have more money to spend. This is known as a **boom** or an **upturn**.

However, if demand falls, then prices will too, making the country **poorer**. Businesses employ fewer people and people have less money to spend. This is known as a **slump**, or a **downturn**.

Task 3: Answer the following;

1. What is it called when we sell things to other countries?

.....

2. What is it called when we buy things from other countries?

.....

3. What word do we use to describe both import and export?

.....

4. What type of industry provides a person's skill to help others?

.....

5. What reason might someone import goods from another country?

.....