

Form 7 Geography

Summer Exam Revision 2022

Location Knowledge

You will need to be able to locate both **physical** and **human features** on a map of **Africa**.

Oceans and Seas

- Atlantic Ocean
- Indian Ocean

Rivers

- River Nile

Desert areas

- Sahara

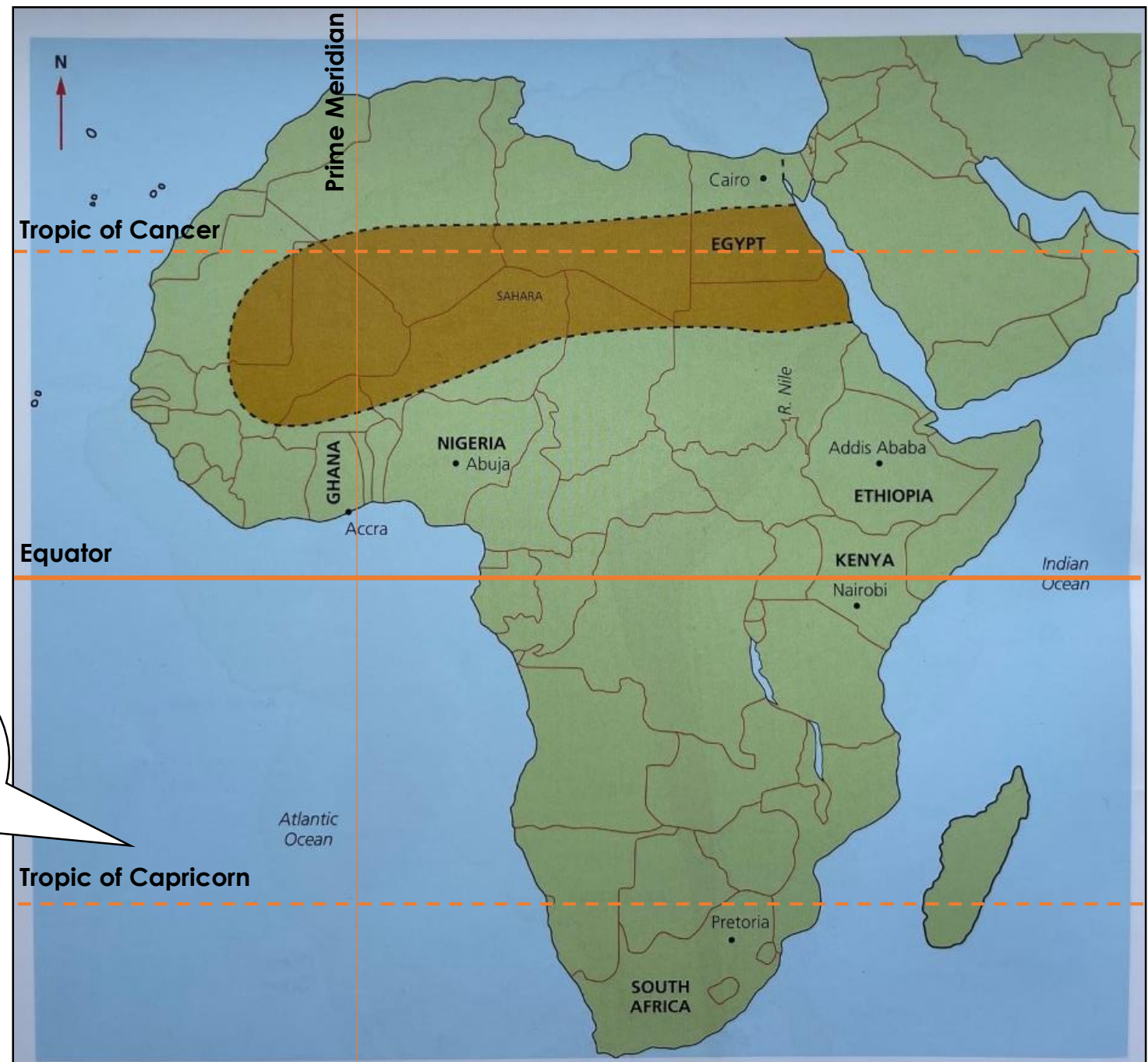
Major cities of Africa

- Accra (Ghana)
- Abuja (Nigeria)
- Cairo (Egypt)
- Nairobi (Kenya)

Oceans and Seas

- Atlantic Ocean
- Indian Ocean
- Mediterranean Sea

Remember the lines of latitude and longitude that pass through Africa.



Ordnance Survey (OS) Map Skills

Students should know and understand:

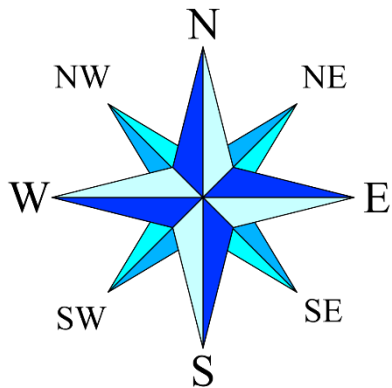
- 4-figure and 6-figure grid references
- eastings, northings
- spot heights and contours
- direction
- orientation (8 points of the compass)
- distance
- area

Students should be able to:

- follow routes
- identify relief and landscape features (slope steepness, plateau, flood plain, valley, headland, bay and features included in the glossary: see Appendix II)
- annotate simple sketch sections
- use maps in decision-making
- understand site, situation and shape of settlements

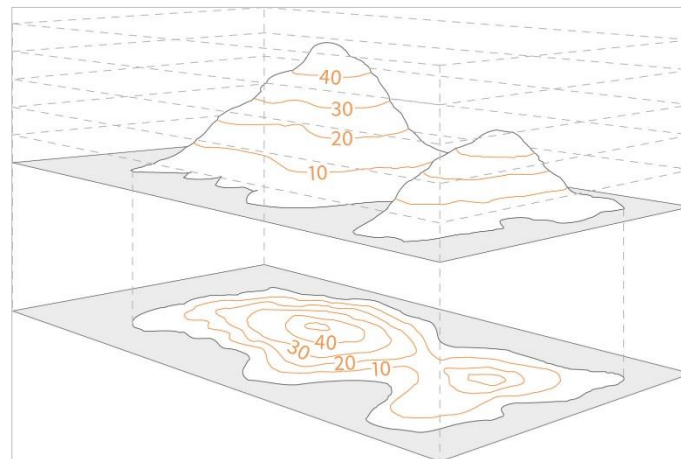
Direction

The exam will ask you to state the direction that one feature lies **from** another. The easiest mistake to make is to travel the wrong way between the two places. For example: *What direction is the church **from** the town hall?*



Spot Heights and Contours

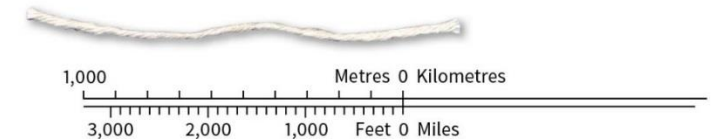
Hills, slopes and mountains are represented on a map using contour lines. These are lines that join places of equal height. By studying the contour lines you can work out lots about the surrounding terrain including gradients of hills, valleys and steepness of climbs.



Measuring Distance

You can measure **straight line distances** on a map with a ruler.

To measure **actual distances** from one place to another you can use a piece of string or a strip of paper.

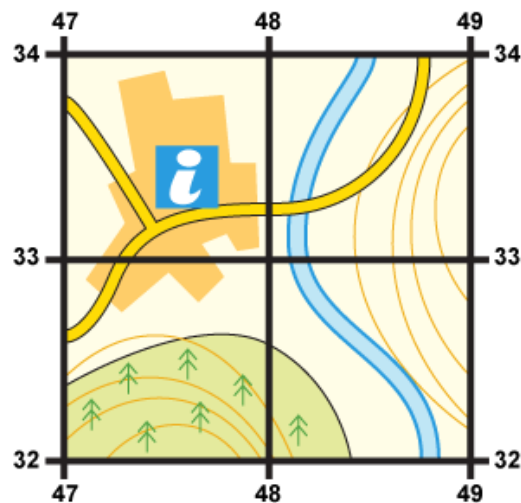


4 and 6 figure grid references

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

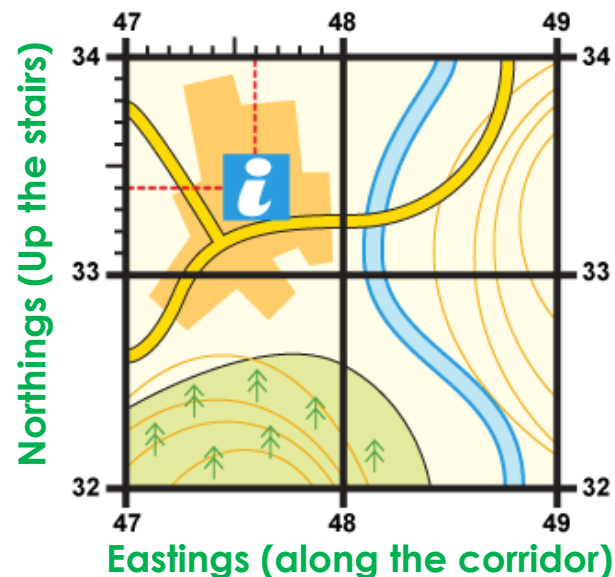
When you give a grid reference, always give the easting first: "**Along the corridor and up the stairs**".

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



1. 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.**
2. 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**

Six-figure grid references 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. **47_33_**
2. Estimate or measure how many tenths across the grid square your symbol lies. Write this number after the first two digits. **476**
3. Next, estimate how many tenths up the grid square your symbol lies. Write this number after the last two digits. **334**
4. You now have a **six figure grid reference**. In this instance, the tourist information office is located at **476334**.

Weather and Climate

What is the difference between weather and climate?

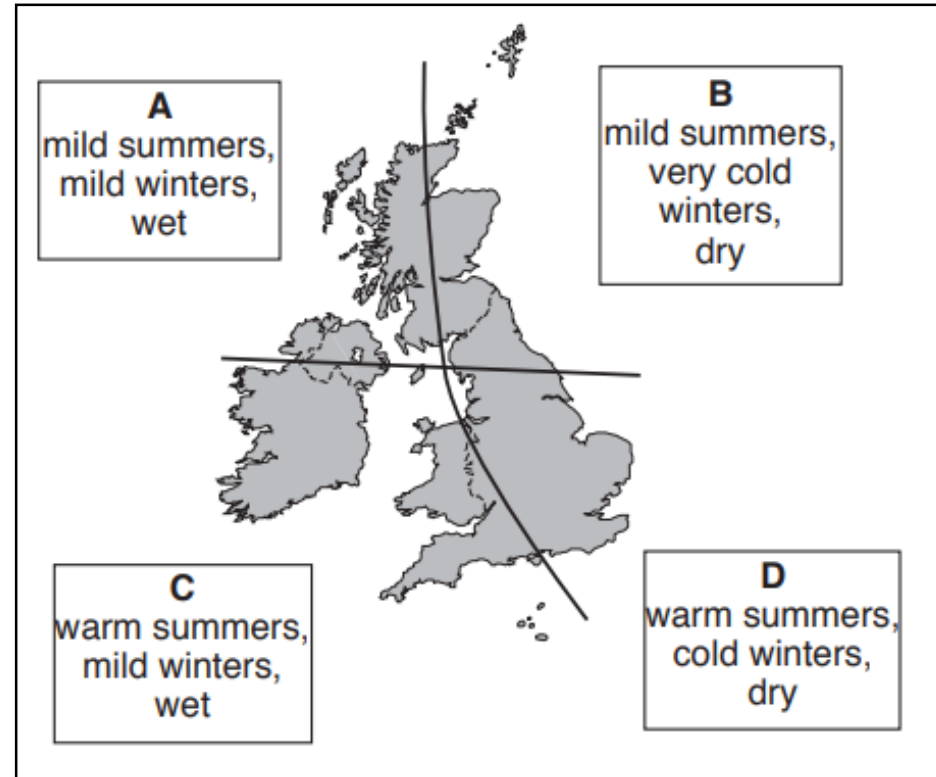
Weather – the day to day conditions in the atmosphere

Climate – the average pattern of weather conditions over a number of years.

Different types of climate around the world include;

Tropical, Arid, Temperate, Mediterranean, Polar and Mountain. Britain has a **Temperate** climate. (This means it is a **moderate climate** which is neither extremely hot, nor cold).

The UK has a **mild** climate or **temperate** climate and the sea affects the weather. In general, this means that the UK gets **cool, wet winters** and **warm, wet summers**. The weather is also very **changeable**.



Microclimate – the climate of a small area e.g. a garden, school grounds.

Microclimate is affected by;

- **Aspect** (the direction a place is facing)
- **Shelter**
- **Buildings**
- **Ground surface**

Temperature variations across the UK.

Even though we have a temperate climate. It is different for different parts of the UK.

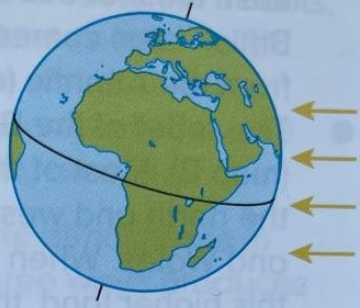
You need to know:

What factors affect the climate of the UK?

- **Latitude**
- **Prevailing winds**
- **Relief**
- **Ocean Currents**
- **Altitude**

Temperature Variations in the UK can be explained by a number of factors; (you need to learn two factors.

Latitude, or distance from the Equator. The further you are from the Equator, the colder it gets. This means that it is usually cooler in the north of the British Isles than the south.



Altitude, or height above sea level. The higher you go in the atmosphere, the colder it gets. That is why mountain tops are covered in snow when there is none lower down. Temperature falls by about 1°C for every 150 metres in height.



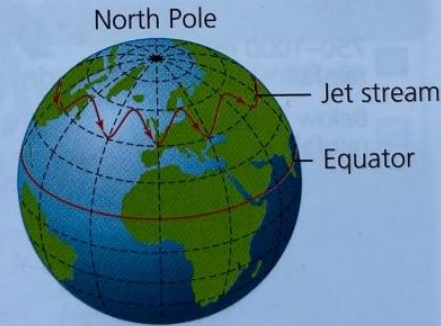
Distance from the sea. The land warms up and cools down more quickly than the sea. Places further inland become hotter in summer and colder in winter. That is why the coast is cooler in summer but milder in winter.



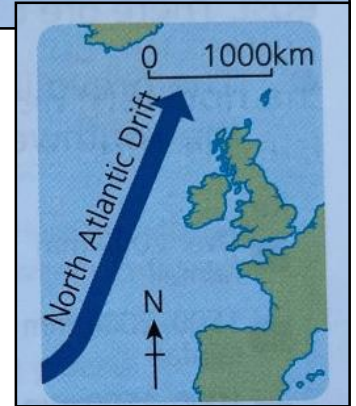
Prevailing wind is the main direction from which the wind normally blows. In the British Isles, the prevailing wind blows from the southwest (on average, 70 per cent of the time), bringing warm moist air across the Atlantic Ocean, hitting the west coast first.



The **jet stream** is a fast-flowing current of air, high in the atmosphere, that separates warm tropical air from cold polar air. The course of the jet stream varies, flowing north or south of the British Isles at different times. In winter, the jet stream can cause storms and heavy rainfall to be driven across the British Isles, which may cause flooding.



North Atlantic Drift is an **ocean current** that brings warm water across the Atlantic from the Equator to the British Isles. It warms the air above it and makes our climate warmer than you might expect from the latitude we are on.



You need to be able to;

- Describe how temperature **changes with altitude.**
- Explain **one of the other factors** that cause temperatures across the UK to vary. (e.g. **latitude, ocean current** or **prevailing wind**)

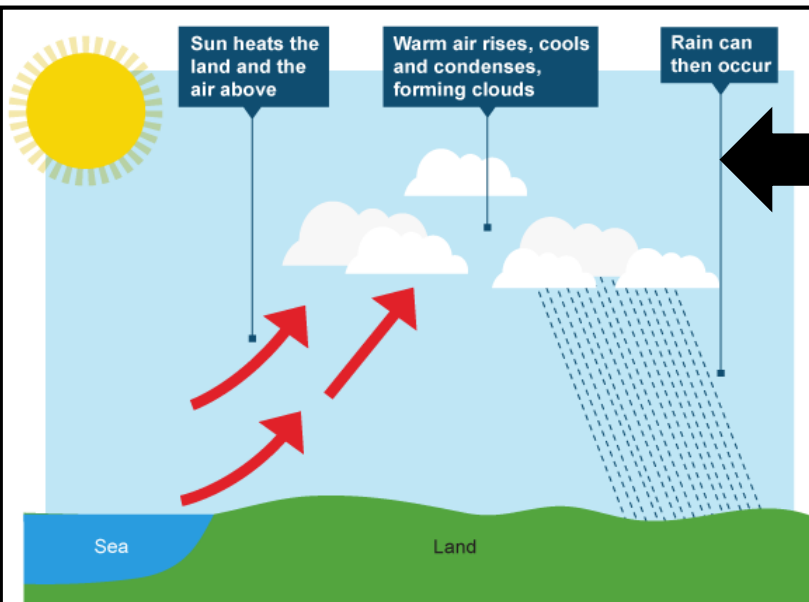
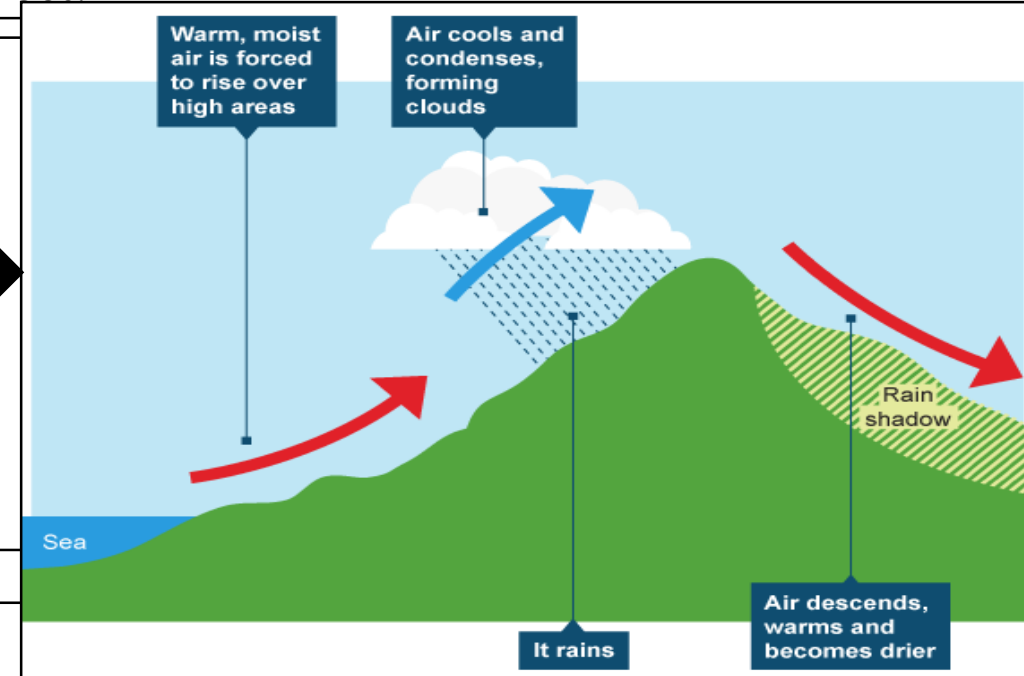
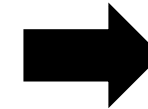
Which types of rainfall commonly affect Britain?

There are 3 main types of rainfall, **Convective**, **Relief** and **Frontal**.

You need to be able to draw an annotated diagram of **Relief Rainfall**. **Relief Rainfall** is common on the west of the UK due to the warm moist air coming in over the sea which is then forced to rise over mountainous areas.

Relief rainfall

- Prevailing winds bring warm, moist air to the western British Isles.
- Air is forced to rise over high areas.
- Air cools and condenses.
- Clouds form and it rains.
- Air descends on the other side of the mountains.
- It warms up and therefore becomes drier.



What is Convective Rainfall?

- The sun shines on the ground and heats it up.
- When the land warms up, it heats the air above it.
- This causes the **air to expand** and **rise**.
- As the air rises it **cools and condenses**.
- Water droplets form and can become cumulonimbus clouds.
- If this process continues then rain will fall.

This type of rainfall is very common in **tropical areas** but also in areas such as South East England during **warm sunny spells**.

Rivers and Coasts

Processes of River Erosion

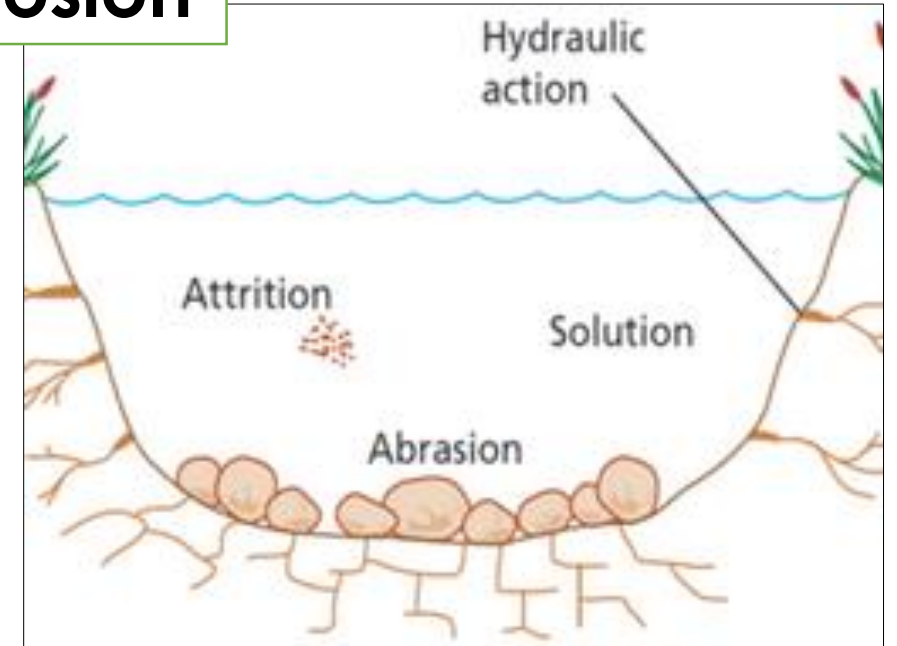
Rivers change the shape of the land. They do this in three ways;

Erosion – rivers **wear away the land** by the action of flowing water on the channel. They widen and deepen their valley.

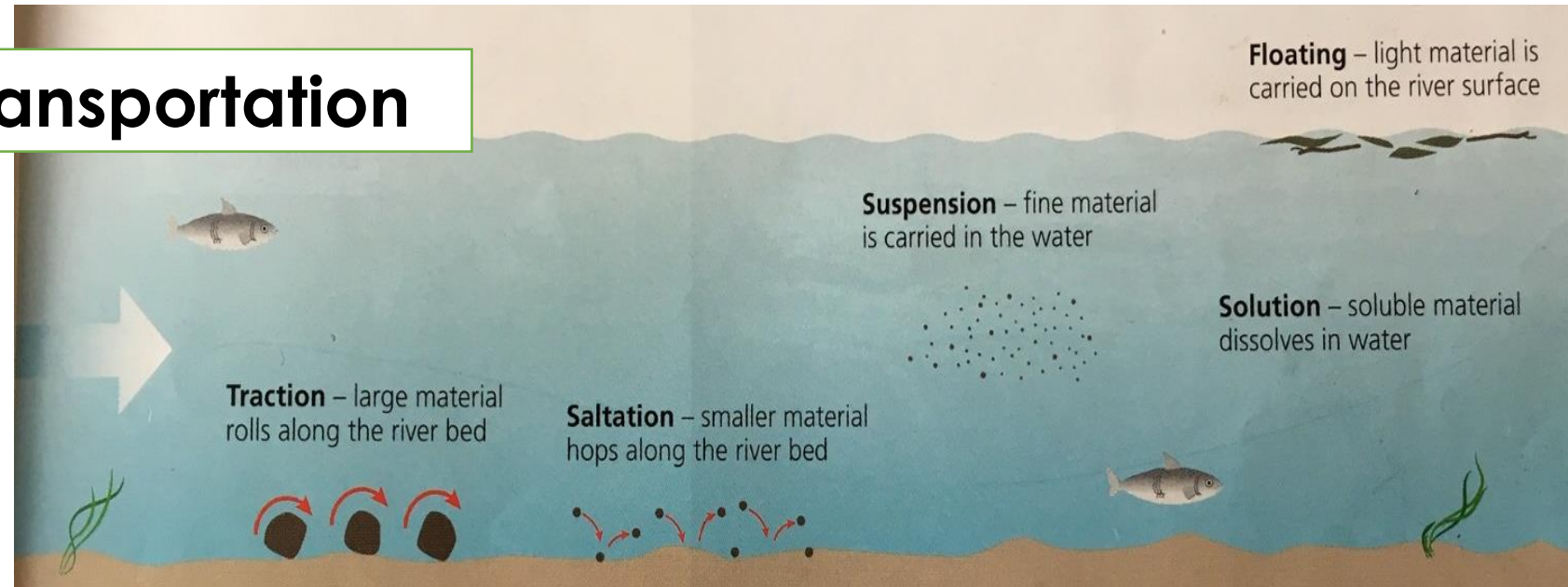
Transportation – rivers carry away the material they have eroded. The faster the river flows, the more material it can transport.

Deposition – as the river slows down, rivers **drop the material** they have transported. They build up new land.

Weathering – the **breakdown of rocks** in situ by mechanical, chemical or biological means.



Processes of River Transportation



Coastal Deposition Landforms

How is sediment moved along a beach?

- Waves approach a beach at an angle of 45 (swash)
- This is due to the prevailing **wind** direction
- Waves return at right angles (**backwash**)
- This process moves sediment along a beach until there is a barrier or a break in the coastline.
- The process is called **Longshore Drift**.

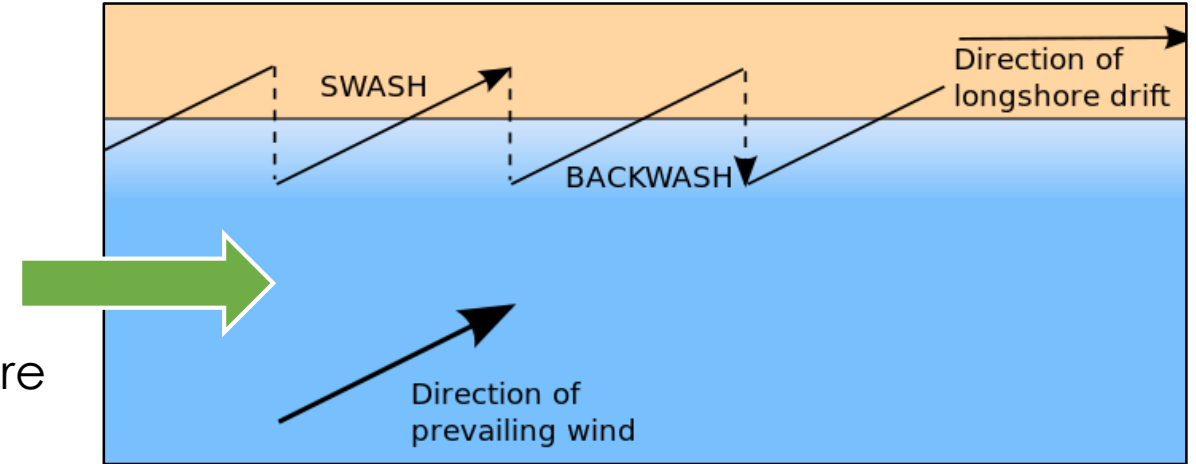
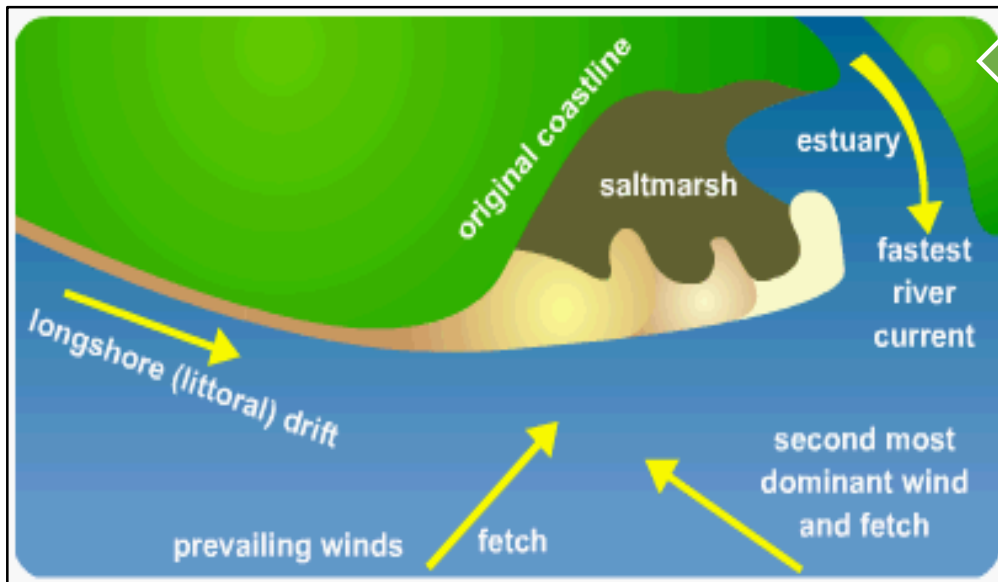
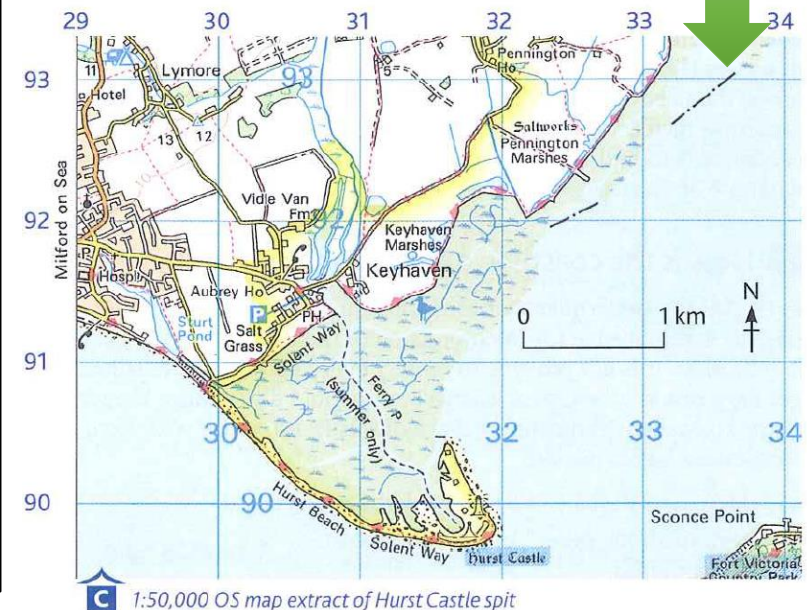


Diagram to show how a sand spit forms.

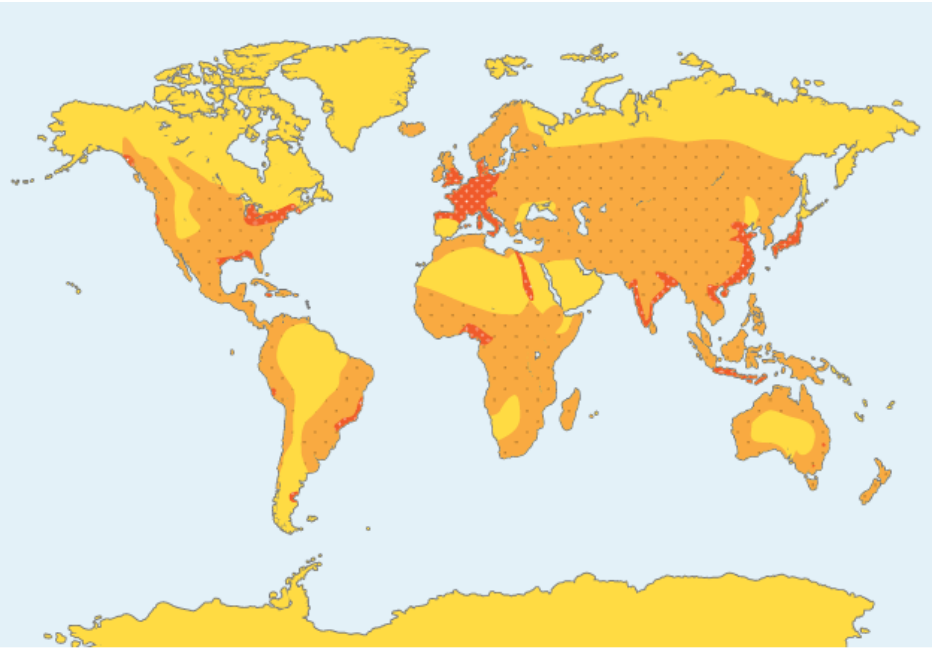


- **Longshore drift** moves sand along a beach
- When it reaches a break in the coastline it starts to be **deposited** and a **spit** forms
- The spit continues to grow outwards and may form a **hooked end** if the wind direction changes
- Behind the spit in the calm water a **salt marsh** may form
- **The spit will never grow over the estuary due to the moving river water**

On an OS map, a spit would look like this



Population and Settlement



- **Population distribution** is the spread of people across the world, i.e. where people live.
- **Population density** is the number of people living in a particular area – usually 1 square kilometre – and can be written as total population/land area.

The **population** of the world is now **7.8 billion people**, the vast majority of whom live in the developing world. The world's population is spread unevenly across the globe with concentrations of large numbers of people living in the same area.

Population density is measured by the number of people per square kilometre. Areas can be densely or sparsely populated.
Densely populated areas – lots of people, often crowded e.g. cities
Sparsely populated areas – few people, lots of space e.g. countryside (rural)

Densely populated areas (lots of people live there)	Sparsely populated areas (few people live there)
Pleasant Climate	Too hot or too cold
Good farmland	Mountainous or steep slopes
Industry and jobs	Natural Hazards e.g. volcanoes
Good transport links (road, rail etc)	Poor transport links

