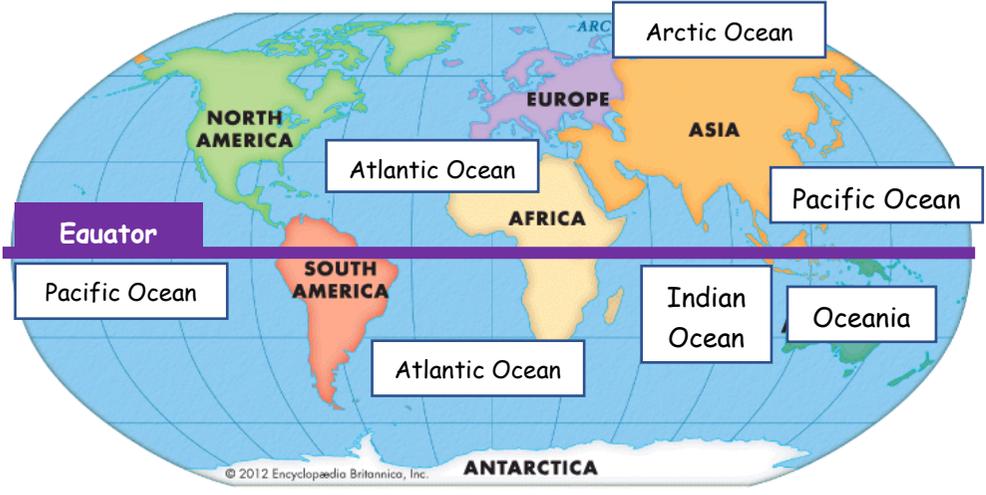




Subject: Geography

Knowledge Organiser - Introduction to Geography Issues

Continents and Oceans

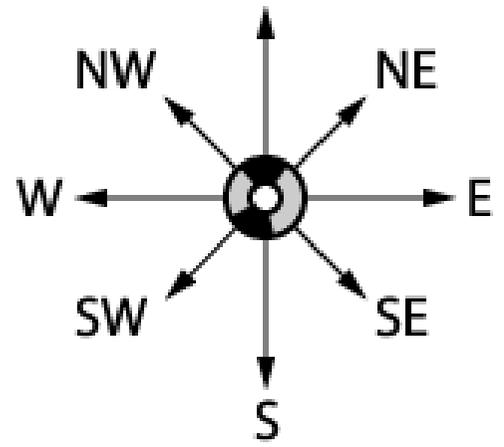


Geographical Keyterms

- Human Geography-** The study of how humans affect, or are affected by the earth.
- Physical Geography-** The study of the natural features of the earth.
- GIS-** Geographical Information Systems. These are used so as to layer different features on top of each other on a map.
- Ocean-** A large expanse of water/sea.
- Continent-** Any one of the seven large land masses on the earth.
- Longitude-** Vertical lines on a map that show how far East or West a place is. It is measured in degrees.
- Latitude-** Horizontal lines on a map that show how far North or South a place is. It is measured in degrees.

8 Point Compass

N = North E = East S = South W = West
Example: NE = North East



Major Countries and their Capital Cities

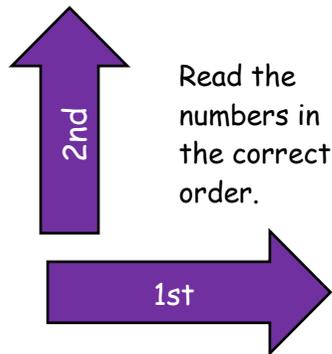




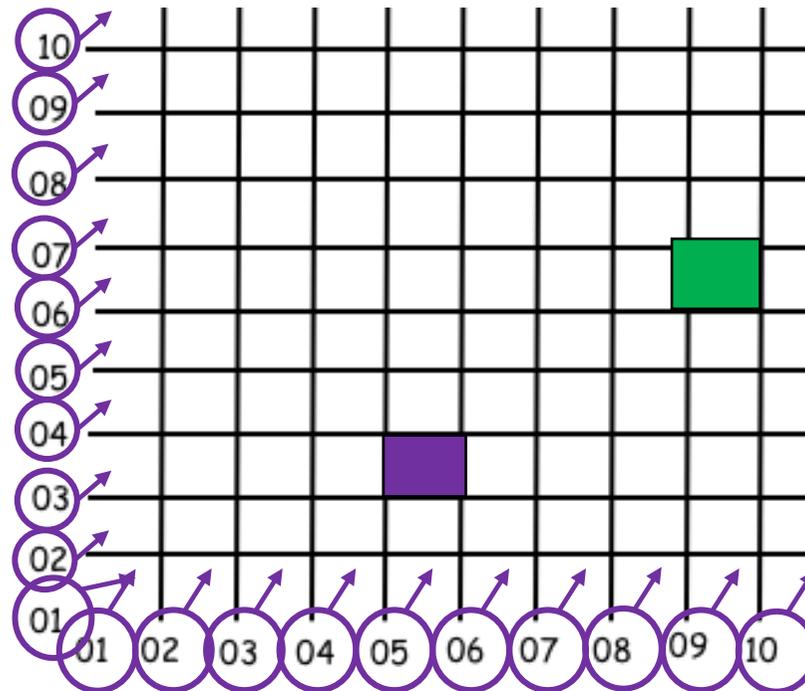
4 Figure Grid References

Rules to remember:

- It has 4 numbers
- You read all 'box' numbers to the right
- Read the number across the bottom (horizontal) first, then the number up the side (vertical) second



Read the numbers in the correct order.



The purple box is (05, 03). You read the bottom number first and then up the side. You always need **FOUR** numbers in your answer.

The green box is (09, 06). You read the bottom number first and then up the side. You always need **FOUR** numbers in your answer.

Key Words:

Grid Reference: This can either have 4 or 6 numbers and it helps you to find something in a specific place on a map.

Contour lines: A series of lines on a map which connects areas of the same height.

Symbols: A picture used to show a particular feature on a map.

Key: A list of symbols and colours used to show information on a map.

Key Geographical Facts!

4 countries in the United Kingdom: England, Scotland, Wales, Northern Ireland.

Highest mountain in the world: Mount Everest (in Nepal and Tibet).

Highest mountain in the UK: Ben Nevis (Scotland).

Longest river in the world: The Amazon River (mostly in Brazil).

Longest river in the UK: The River Severn

Biggest (hot) desert: Sahara (found in 12 different countries in Northern Africa).

Biggest desert: Antarctica.

Biggest rainforest: The Amazon Rainforest.

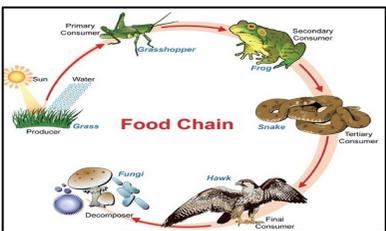
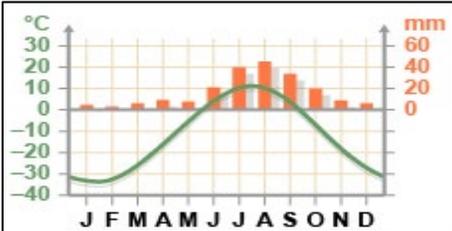
Biggest ocean in the world: The Pacific Ocean.



Subject: Geography

Knowledge Organiser - Topic 1: Exploring Ecosystems

Ecosystem = An ecosystem is all of the living (plants, animals and organisms) and the non-living (weather, earth, sun, soil, climate, atmosphere) in an environment. An ecosystem is effected by the climate. We read climates using a **climate graph**.



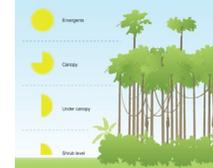
Climate Graphs - One axis for temperature and one for rainfall. The bar chart is always the rainfall and the line graph is always the temperature. Use the months and figures when describing the climate e.g. the coldest month is February at -33 degrees.

Food Chains - Used to show how energy is passed through the ecosystem to support all life. The arrow shows the direction of energy flow.

Tropical Rainforests - The Amazon, South America

Tropical Rainforests are in hot (tropical) locations near to the equator.

Animals - Adaptations help animals survive in the rainforest e.g. monkeys, sloths and flying squirrels are perfectly adapted to living in the trees.



Forest Floor/Shrub level - It is very dark at this level so it is hard for plants to grow.

Understorey - It is dark at this level. Young trees trying to find light and space to grow into.

Canopy - The main layer of trees between 60m-90m high. 90% of the animals live here.

Emergent Layer- These are the tallest trees who get the most sun.

The Sahara Desert, Africa

A desert is an area with annual rainfall of less than 25cm. It can be hot or cold.

Adaptations - plants (e.g. cactus) and animals (e.g. camels) can survive with very little water. Camels have adapted to survive in the desert, with long eye lashes to protect against wind and wide hooves to walk in the sand.

Bedouin People - Nomads live in the desert. They have to travel to find food and water for their animals so they have no permanent home. They live in tents and wear a 'thobe' to protect them from the sun and wind.



The Great Barrier Reef, Australia

The Great Barrier reef is the largest reef in the world.

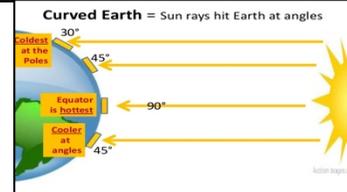
The Great Barrier Reef is the size of about 70 million football fields! Over 1500 kinds of fish live there.

Climate Change - This is a big threat to the coral reef. Increasing sea temperatures cause the coral to die and go white (bleaching). This means marine animals lose their habitat and can't survive e.g. the clown fish.



Siberian Tundra, Northern Russia

Latitude - This is the distance from the equator. The further away from the equator, the less sunlight energy there is due to the angle of the Earth. This is why Siberia is much colder compared to the tropical ecosystems.



Tundra - This is a cold ecosystem with few trees and permafrost (frozen soil). There is a low biodiversity meaning there is only a small variety of plants and animals.

Nenets - These people are reindeer herders that live nomadically. They follow the reindeer during the winter as the reindeer search for food. The reindeer are used for meat, blood to drink, leather for tents and fur for warmth. The Nenets also get food by ice fishing.



Subject: Geography

Knowledge Organiser- Topic 4: Microclimates

What is fieldwork?
 Practical research that is done outside of the classroom. It is often done to test a hypothesis.

Microclimate: A small area where the climate differs to the general surroundings.

- Factors that effect a microclimate:**
- **Aspect**- the way something is facing. South facing slopes in the Northern hemisphere are much warmer because they get more sunlight.
 - **Shelter**- how much protection a place has. More shelter means less wind so the place would be warmer.
 - **Surface**- the colour (black absorbs heat, white reflects it so lighter surfaces are generally cooler).
 - **Buildings**- more heat near to buildings.

The different pieces of equipment we use in a fieldwork investigation:

Clinometer: Used to measure the gradient/slope of the land.

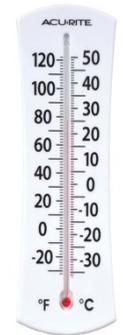


Compass: Used to identify direction.

Anemometer: Used to measure the speed of the wind.



Thermometer: Used to measure air temperature.



Measuring Tape: Used to measure the length or width of something.



Rain Gauge: Used to measure the amount of rain that falls in an area.

Data Presentation: Bar Chart

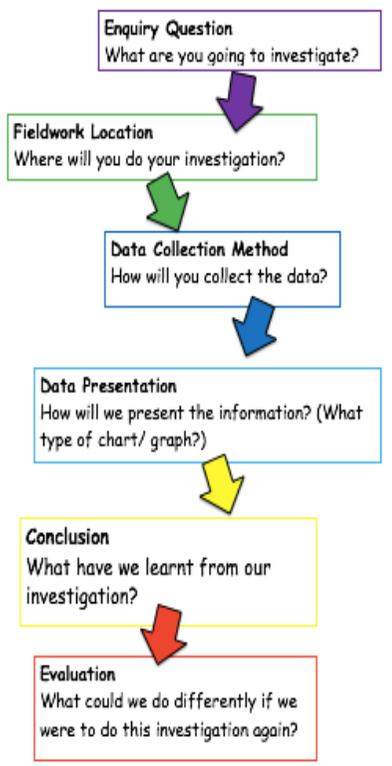
Must include:

- A title (A bar chart to show...)
- Labelled axis (x and y)
- A key
- Neatly drawn bars (with a pencil)

If you're interested in learning more about weather and climate, follow the link! ☺

http://www.bbc.co.uk/bitesize/ks3/geography/physical_processes/weather_climate/revision/3/

The Different Elements of Geography Fieldwork





Subject: Geography

Knowledge Organiser- Topic 2: Development and The BRICs

How do we categorise countries?

AC: Advanced Country (Eg. England, USA)

EDC: Emerging Developing Country (Eg. India, Russia)

LIDC: Low Income Developing Country (Eg. Nigeria, Zambia)

AC: Generally richer countries. They have a high number of doctors per 1,000 people. They have high life expectancy and high adult literacy rates.

EDC: Generally countries who are manufacturing many products (they make lots of things). They are using this money to improve their education and health care services.

LIDC: Generally poorer countries, lower life expectancy and lower number of doctors per 1,000.

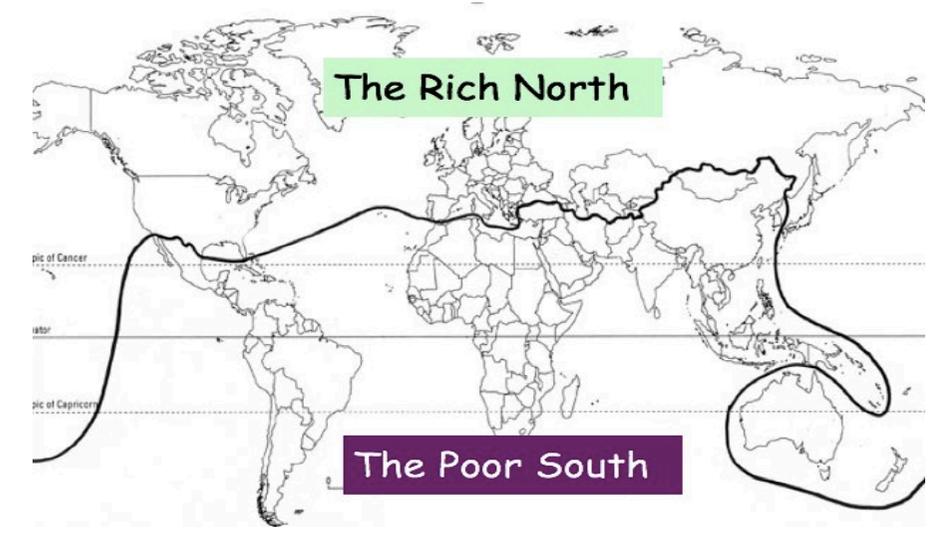
This is the Brandt line. It is used to separate the rich countries in the North and the poor countries in the South. It was drawn in the 1980s.

Is it still useful? It was drawn so long ago that it is a bit outdated. Many of the countries have changed and are now much wealthier. We do not only measure development in terms of how rich a country is, we also look at how good their education is and how many doctors they have.

The EDC countries that we focus on are called the BRICs.

B: Brazil R: Russia I: India C: China S: South Africa

These countries are special because they have the fastest growing economies in the whole world. We think in about 20 years some of these countries will be the most powerful.



How do we measure development?

Social Measures:

Infant Mortality: The number of children who die before reaching the age of 1.

Literacy Rate: The percentage of adults who can read and write.

Life Expectancy: The average lifetime of a person.

Economic Measures:

GDP (Gross Domestic Product): The total value of goods and services a country has.

GNI (Gross National Income): The average amount of money per person a country has.

