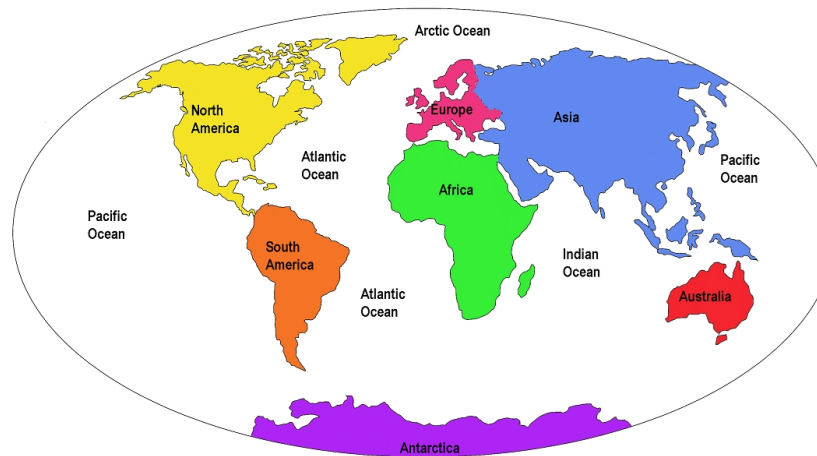


Year 7 Geography KNOWLEDGE ORGANISER

What is Geography? @TPA

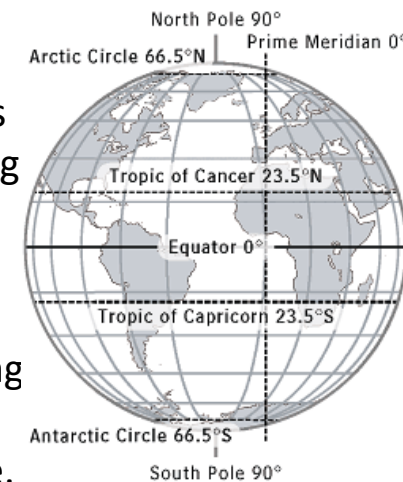
Continents and Oceans



Line of latitude and Longitude

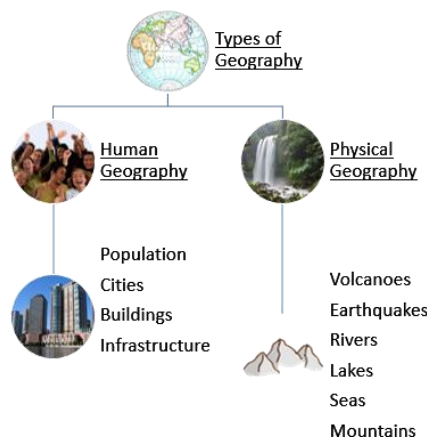
Latitude – horizontal lines around the Earth including The Equator, Tropics of Cancer and Capricorn

Longitude – vertical lines Around the Earth including The Meridian through London and the Date Line.



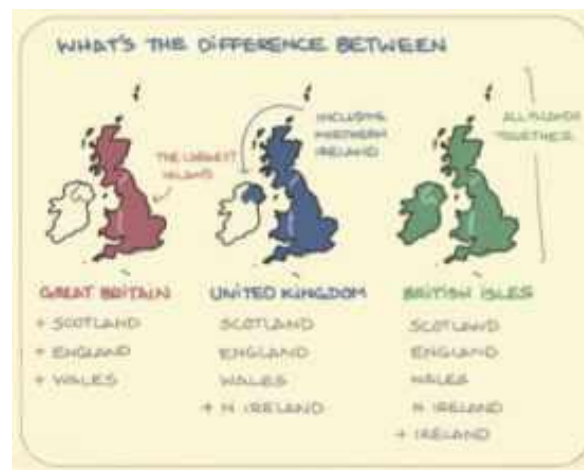
Main types of Geography

Consider:
Climate change
Floods
Hurricanes
Heatwaves
Coastal management



UK, GB, British Isles

Spot the difference



Key Words



Continent – large continuous landmass

Country – politically defined area

Density – how concentrated something is, for example – high population density means many people in one place

Distribution – pattern describing where something is

Economy – Money, use of it and resources

Environmental – natural world and the impact of human activity on it

Human Geography – study of the man made world and its population

Infrastructure - basic facilities and structures that help a something run, including roads, gas, electric, buildings, phone lines

Migration – movement of people from one place to another

Physical Geography – study of the nature world and features

Population – Inhabitants of a place

Social - People

What is the EU?

Group of 28 countries
EU formed 1992
(Before this it was the EEC – European Economic Community)



Population in the UK

More people live in the SE of the United Kingdom because of physical and human factors.

Physical factors: Flat land in the south is easier to build on. The weather in the south-east is warmer and drier than the north-west so more people choose to live there.

Human factors: Our capital city is in the SE of the UK, attracting business, trade, transport and infrastructure

EU Goals

- Goals
- The goals of the European Union are:
- promote peace, its values and the well-being of its citizens
 - offer freedom, security and justice without internal borders
 - sustainable development based on balanced economic growth and price stability, a highly competitive market economy with full employment and social progress, and environmental protection
 - combat social exclusion and discrimination
 - promote scientific and technological progress
 - enhance economic, social and territorial cohesion and solidarity among EU countries
 - respect its rich cultural and linguistic diversity
 - establish an economic and monetary union whose currency is the euro.

What makes the N/S divide?

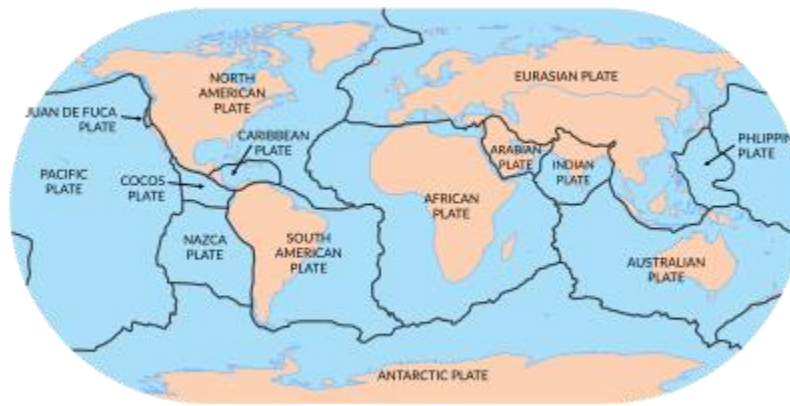
Access to jobs
Access to trade
Flat land vs Mountains
Dry vs regular rainfall
Location of the resources
Location of the major cities
House Prices
Government support



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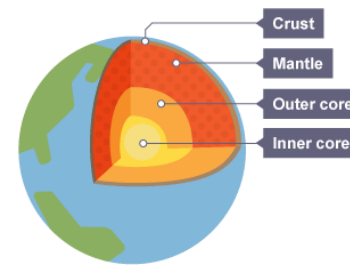
OUR RAGING PLANET @TPA

Earth's major tectonic plates



Earth's Structure

The Earth is made up of 4 major layers.



Inner Core – huge iron and nickel metal ball, 5,000°C

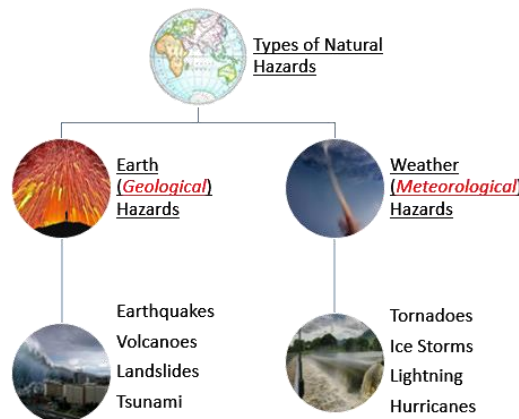
Outer Core – fluid iron and nickel layer with gases

Mantle – Lower part is solid, upper part is molten (moving)

Crust – rigid outer layer we live on.

Main types of Hazards

Consider:
Droughts
Floods
Heatwaves
Avalanches



Why is Alfred Wegener so important?

Alfred Wegener was a scientist who in 1912 proposed the idea of continental drift. His theory stated that the continents had drifted apart but he couldn't explain how. He had evidence from fossil patterns in Africa and South America. His theory was ignored until the 1950's when convection currents were proposed and linked.



Key Words



Constructive boundary – where two tectonic plates move away from each other creating new crust

Collision boundary – where two plates made of the same collide, forming mountains

Conservative boundary – where two plates slide past each other, creating friction which causes earthquakes

Destructive boundary – where two plates made of different materials meet, one plate is pushed under the other forming an ocean trench, then melts, rises and forms volcanoes

Earthquake – Is the release of energy caused by friction built up in the Earth's crust. The energy released causes ground movement.

Hazards – When an event poses a risk to humans
Lava – Molten rock on the surface

Magma – Molten rock under the ground
Plate margin (boundary) – Place where two plates meet.

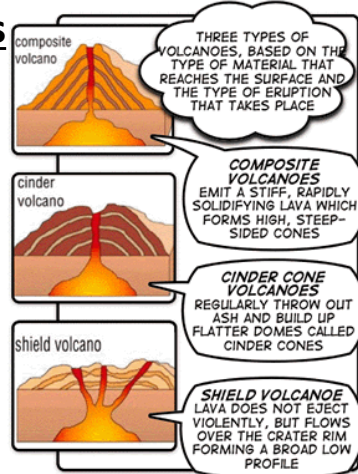
Tectonic plate – A piece of the earth's crust that moves.

Tsunami – means 'harbour wave'

Volcano(es) – an opening in the Earth's crust through which volcanic material is released.

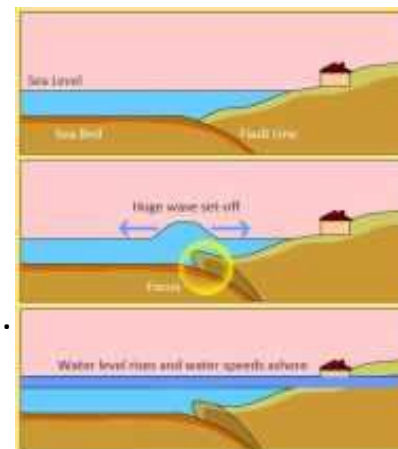
Different types of volcanoes

Volcanoes form when magma rises through the crust erupting onto the surface. Different volcano types causes different types of eruptions, some more explosive than others.
What is a hot spot volcano?



What is a tsunami and how does it form?

Tsunami's are caused by disturbances to the sea bed caused by landslides earthquakes or volcanoes. They produce a series of waves that move at 500km/hr to the shore.



Why live with volcanoes?

- Fertile soils
- Rich minerals
- Tourism (make money!)
- Provides natural energy



Disaster Preparedness



Calendar



Kit Creation Tips



Communication Plans



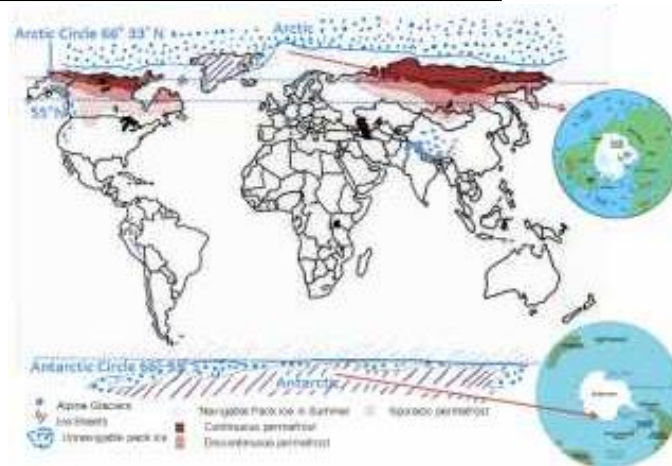
Evacuation Route

How to prepare for disasters, think about basic human need – food, water, shelter and medicine. Then think emergency response versus rebuilding response.

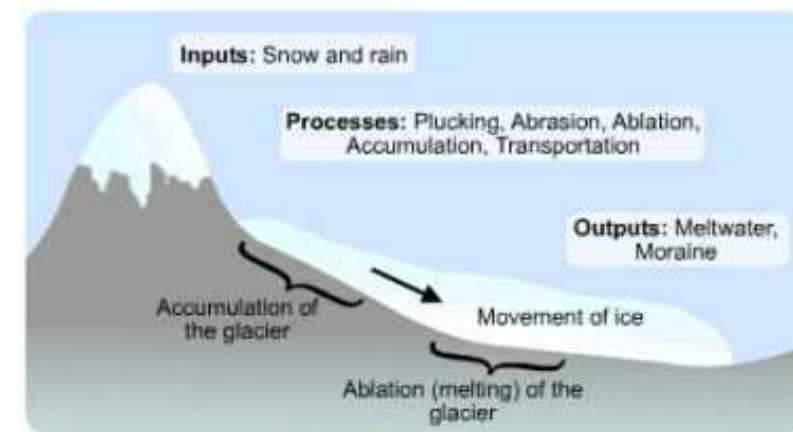
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THE BIG FREEZE @TPA

Where in the world is the ice?



Glacial Budget and System

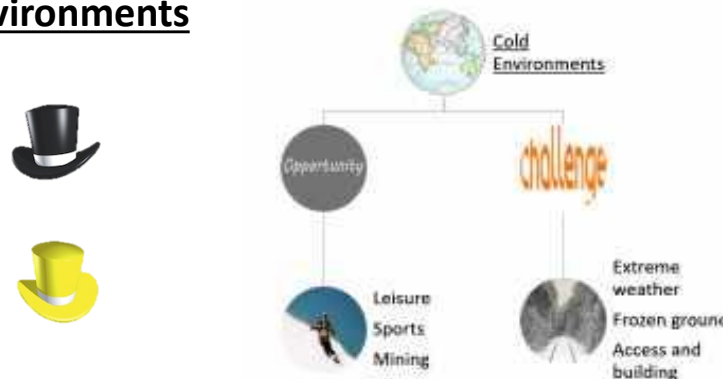


How do animals adapt to cold environments?

Label then annotate!



Advantages and Disadvantages of cold environments



Key Words



Anti-cyclone – high pressure weather system that moves clockwise and is associated with calm and fine weather. (Winter – freezing, Summer – heatwaves)

Biome – a large naturally occurring community of plants and animals found in a major habitat, e.g. forest or tundra.

Economic – relating to money

Environmental - relating to nature

Inputs - what is put in, taken in by a process or system

Glacier – Slow moving river of ice

Permafrost - a thick layer of soil that remains below freezing point throughout the year, occurring mostly in polar regions

Polar Biome – treeless tundra, glaciers, or a permanent or semi-permanent layer of ice

Primary effects – effects that happen immediately as a result of something

Outputs – the amount of something produced

Risk - a situation involving exposure to danger.

Rural – countryside

Secondary effects – knock-on effects that happen immediately as a result of something

Stores – a quantity or supply of something kept for use as needed

Social – relating to people

Tundra biome – a vast, flat, treeless Arctic region of Europe, Asia, and North America in which the subsoil is permanently frozen

Urban - in, relating to, or characteristic of a town or city.

What was the 'Beast from the East'?

Beginning on 22 February 2018, Great Britain and Ireland were affected by a cold wave, dubbed the Beast from the East by the media and officially named Anticyclone Hartmut, which brought widespread unusually low temperatures and heavy snowfall to large areas

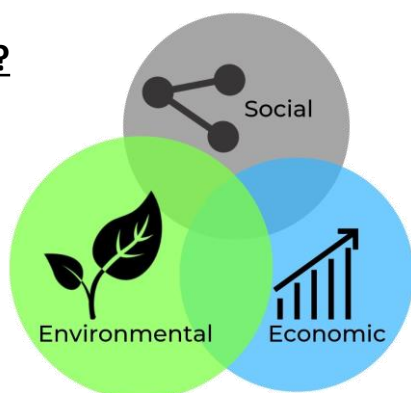


Risk facing cold environments?

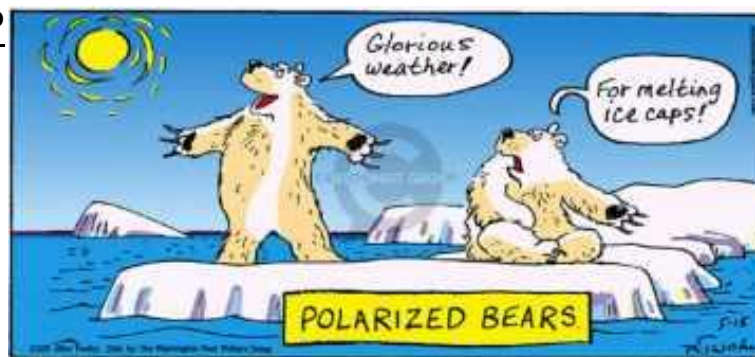


How can we manage the Future of cold environments?

Sustainable Development means to meet the needs of today without compromising future generations ability to meet their own needs



Future of cold environments – what will happen next?



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MISCONCEPTIONS OF PLACE @TPA

Where in the world...



Place is...

A location

An experience

Somewhere lived

Somewhere visited



Features of Africa

True or **False**:

Africa has the longest river

Africa is a continent

There are 54 countries in Africa

Africa has a large rainforest

The Sahara desert is in Africa

Madagascar is in Africa

Africa has volcanoes and earthquakes



Stereotypes of Africa

Why do we stereotype?



Key Words

Colonialism - when a country takes control of other land outside its own country borders by turning those lands into a colony

Development - the process in which someone or something grows or changes and becomes more advanced

Diversity - a range of different things

Enquiry - an investigation using stages and questions

HIC (High Income Country) - a wealthy and developed country

Inequality - two things that are uneven or not equal

LIC (Low Income Country) - a poor and less developed country

Mass Tourism - a form of tourism that involves tens of thousands of people going to the same resort often at the same time of year

Misconception - a view or opinion that is incorrect because based on faulty thinking or understanding

NEE (Newly Emerging Economy) - a nation that is moving toward becoming more advanced, usually by means of rapid growth and industrialisation.

Place - a particular position, point, or area in space; a location

Racism - prejudice, discrimination, or antagonism directed against someone of a different race based on the belief that one's own race is superior

Stereotype - a widely held but fixed and oversimplified image or idea of a particular type of person or thing

Tourism in Africa

Good source of income

Different ecosystems

Variety on one continent

Cheap holidays

Global travel

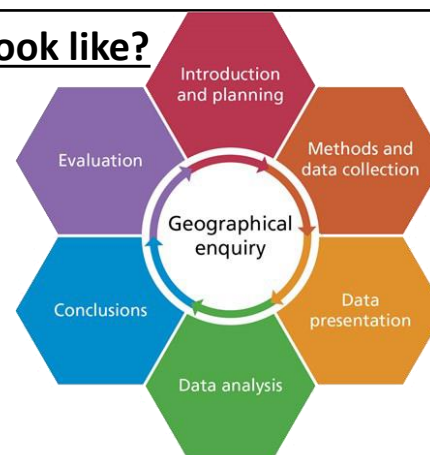
Opportunities and challenges



Opportunities and challenges of tourism in Africa

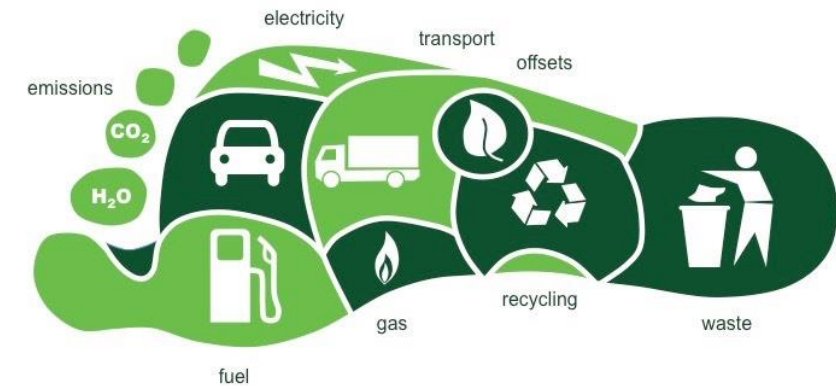
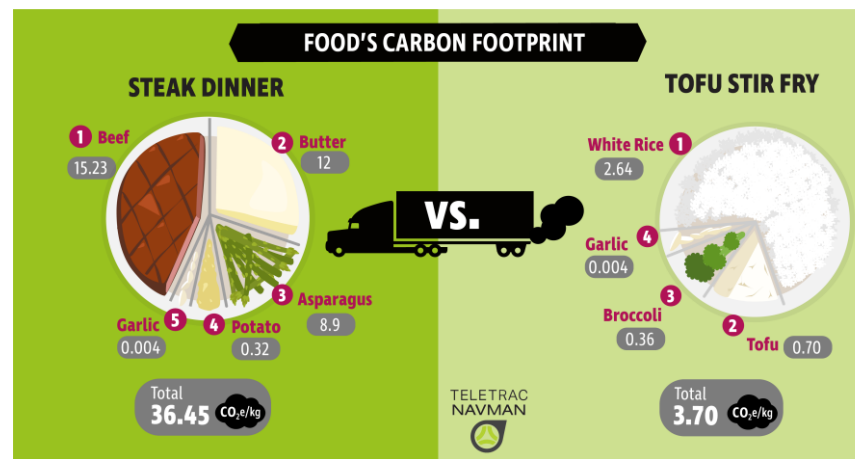


What does an enquiry look like?



Year 7 Geography KNOWLEDGE ORGANISER

Geography of Food @TPA



Why study food in Geography?

- Food scarcity/ poverty
- Supply/ Demand
- Climate influences what we can and cannot grow
- Impact of food miles on the environment
- Grow/ Buy local
- Globalisation



What are food miles?

Food miles are the distance your food has to travel to get from the grower to your plate.

- Dole (Ship):** Ships use the equivalent of 4 gallons of fuel per ton moved 1,000 miles. Ships emit about 97 lbs of carbon per ton moved 1,000 miles.
- Lorries (Truck):** Lorries use the equivalent of 7 gallons of fuel per ton moved 1,000 miles. Lorries emit about 152 lbs of carbon per ton moved 1,000 miles.
- Aeroplanes (Jet):** Aeroplanes use the equivalent of 165 gallons of fuel per ton moved 1,000 miles. Aeroplanes emit about 495 lbs of carbon per ton moved 1,000 miles.

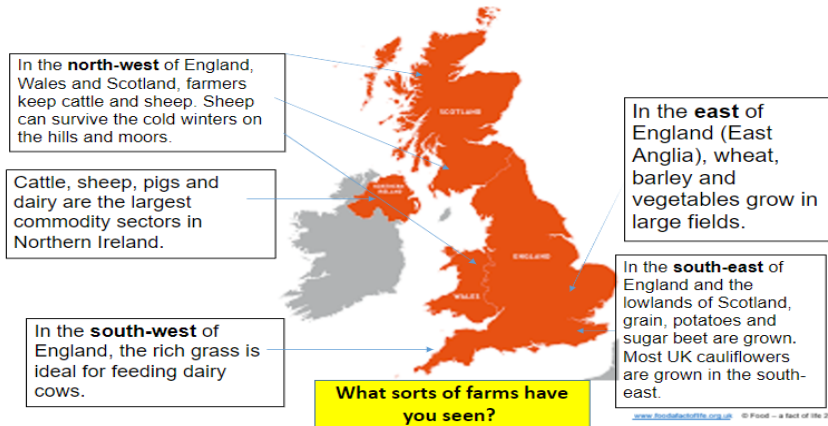
Check food labels for country of origin!

Key Words

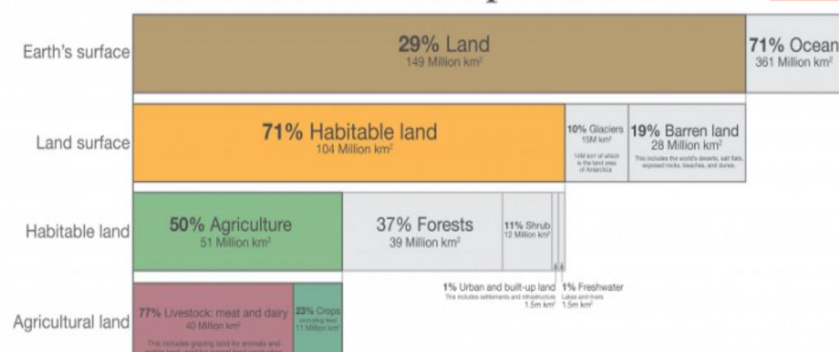


- Food miles** – distance travelled for an item of food from its source to its destination
- Carbon footprint** - the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community.
- Food security** – the population has access to enough food for a healthy diet
- Food scarcity** – the food intake does not meet the needs of the population of a place
- Surplus** – more than enough to meet demands/ needs
- Deficit** – not enough to meet demands/ needs
- Distribution** – the spread of where things are
- Globalisation** - the process by which businesses or other organisations develop international influence or start operating on an international scale
- Sustainability** – the ability of something to maintain or "sustain" itself over time
- Sustainable Development** - development that meets the needs of the present, without compromising the ability of future generations to meet their own needs

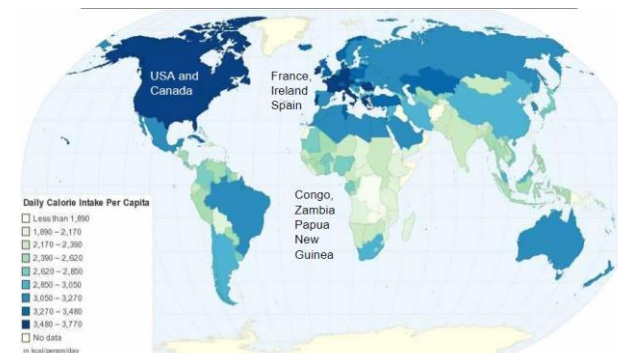
Some parts of the United Kingdom have excellent soil for crops, while others are used for cattle, sheep, pigs and poultry.



Global land use for food production



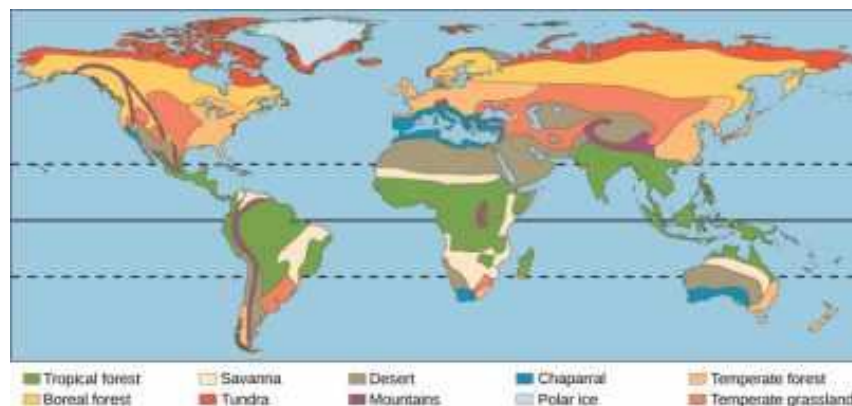
Calorie intake per person around the world



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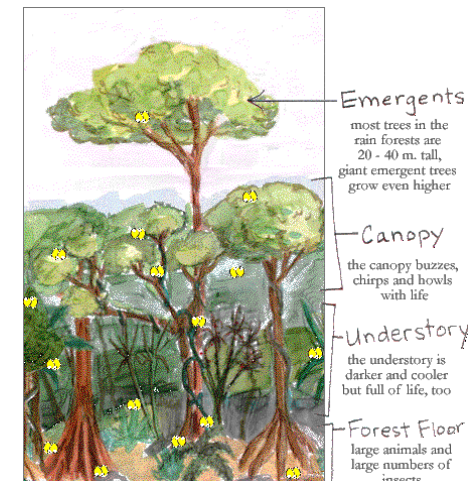
Opportunities and Challenges of the rainforest @TPA

Earth's major biomes



Rainforest Structure

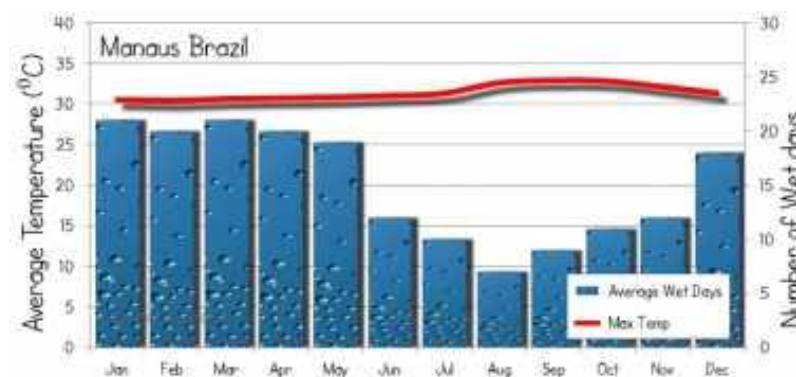
Each rainforest layer has its own plants and animals that have adapted to their environment. Only 2% sunlight reaches the forest floor compared to 100% in the emergent layer.



Location of the Tropical Rainforest

The rainforests are located near the equator between the Tropics of Cancer and Capricorn in South America, Africa and SE Asia. They require the intense heating from the sun and the generation of rain due to convection and condensation to create the high temperatures and high rainfall that allow the forest to thrive.

Climate graph of the Tropical Rainforest



Key Words



- Biomes** – large scale global ecosystem where plants and animals exist within a certain set of conditions
- Distribution** – pattern describing where something is
- Ecosystem** – a community of plants and animals living within a set of environmental conditions
- Environmental** – natural world and the impact of human activity on it
- Equator** – 0 degree line of latitude around the centre of the earth
- Fauna** - animals
- Flora** – plants and vegetation
- HEP (Hydro-Electric Power)** - energy that is harnessed from water, usually by building a dam to control the flow of water that then generates electricity
- Photosynthesis** – process that allows plants, bacteria, and algae to take carbon dioxide and, with the help of a little sunlight, turn it into the oxygen we all breath
- Resource** – a stock or supply of materials that can be used
- Tropic of Cancer/ Capricorn** –lines of latitude around the Earth at 23° north or south of the Equator (note: Cancer is in the north)

Opportunities in the rainforest



- 1/5 worlds bird species live here
- 25% of worlds medicines sources from here
- 20% of worlds water and oxygen comes from here
- 'Lungs of the Planet' is a nickname given to it
- Resources like Gold, Iron, Nickel, Rubber are found here, as well as wood – obviously!
- Amazon has over 5000 species of fish

Challenges in the rainforest



- Uncontacted indigenous tribes live here, living off the forest without the modern world
- Trees provide income for the country
- Rivers can be harnessed to make energy – at a price. HEP
- Under the forest lie a range of minerals mined for money.

Why did the rainforest make the headlines in 2019?

- Over 80,000 fires
- Ban on burning
- \$22 million aid
- 44,000 troops
- 747 supertankers



Who is Jair Bolsonaro?

President Bolsonaro, was elected President in January 2019 in Brazil. His goals are to make the most of the rainforest to build Brazil's position in the world, making money and providing resources. Is there a problem? His nickname is "captain chainsaw" – thoughts?



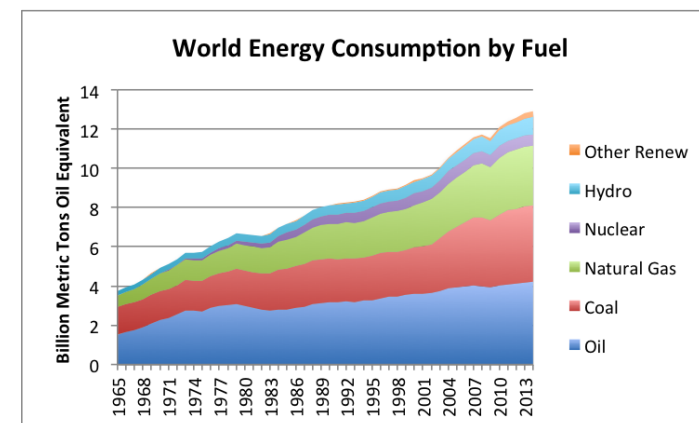
Largest fires since 2008

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Future Worlds –
adapting to the future
@TPA



Worlds Resources



Threats to our planet home

- Shrinking rainforests → less oxygen
- Warming planet → shrinking ice caps
- Warming oceans → *thermal expansion*
- Increased population → less to go around
- Lack of *resources* → food, water, energy shortages

Supply and demand

As the world's population grows, so does our need for resources. When describing the graphs above – remember – GCSE (A) to help you complete the task.

If we have too much of something it becomes *surplus* and if we don't have enough to meet demand, we have a *deficit*.

Key Words



Adaptation – the process of change to meet the needs of wider change. This can be:

Behavioural – an action that aids survival

Physiological – job changes in the body

Structural – changing a body part

Deficit – Not enough of something to meet demand

Demand – the amount of something needed to meet the needs

Development – the process of change, can be improvement or decline. (In Geography, it is the process of changes in society for people's lives)

Environmental – natural world and the impact of human activity on it

Supply – the provision of something that is needed

Surplus – having more than you need

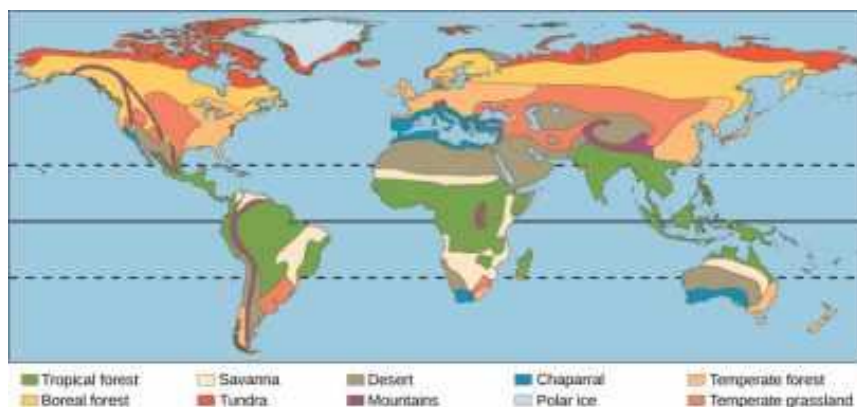
Sustainable Development – meets the needs of the present without compromising the ability of future generations to meet their own needs

Sustainability – the ability to maintain something

Thermal Expansion – when water gets water it expands taking up more space (increasing its volume)

Water transfer schemes – Process of moving water from one place to another to meet demand.

Worlds Deserts



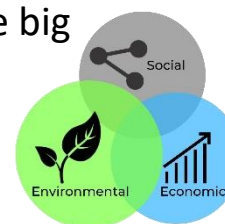
How can we adapt?

Plants and animals adapt their appearance, their behaviour or what they eat to survive. Emergent trees grow buttress roots to stay standing, rainforest animals learn to cope with the hot, humid conditions. How can humans adapt to our changing planet?



Sustainability

Sustainability is about balance. Considering people, the *environment* and the money side of decision making, it helps us see the big picture. Making decisions for the future is important as it means things will last and serve the population of the future and us!



Water water everywhere...

As population continues to grow and the demand for water continues to grow with it, where will our water come from?

Water transfer schemes

are needed to meet growing demands of the people.



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Changing Island Home @TPA

Portsmouth – What's in a name?

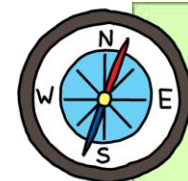
Original: The city's Old English name "Portesmuða" is derived from port, meaning a haven, and muða, the mouth of a large river or estuary.

Today: a port city in southern England on the English Channel; Britain's major naval base.



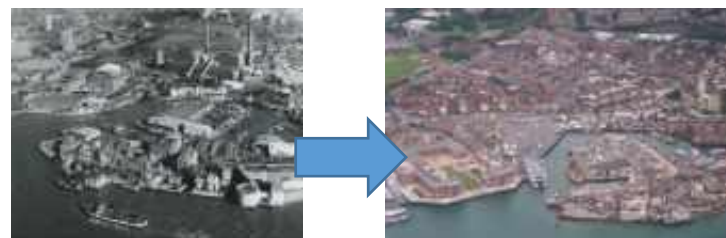
Where is it?

Country, Region, County
Island
City



How has Portsmouth changed?

Industrial areas in Old Portsmouth, Naval dockyards, canal systems – where are they now?



Key Words

Amenities – something that contributes to wellbeing and comfort

Brown field – sites of land that have previously been built on

Economic – relating to money

Gentrification – the process of renovating and improving a house or district so that it conforms to modern standards

Green field – sites of land that have not previously been built on (green spaces)

Infrastructure – the basic physical and organisational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise

Investment - the action or process of adding/ putting in money for profit or growth.

Land Use Model – a general overview of the structure of a city based on land use and housing type.

Maritime – relating to the sea

Port – a town or city with a harbour or access to navigable water where ships load or unload

Powerhouse - a country or organisation that has a lot of power or influence

Regeneration – the action or process of re-growth or being improved through a clear out and clean up.

Settlement – a place where people establish a place to live; hamlet, village, town or city

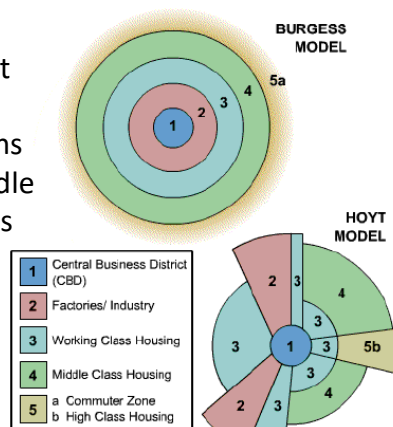
Urban Greening – public landscaping and urban forestry projects to improve views and air quality

Urban Sprawl – the spread or expansion of towns or cities into the surrounding countryside



What are land use models?

In 1920 and 1930's Burgess and Hoyt developed these models based on cities in USA. Burgess said that towns and cities always built from the middle out growing over time, with business in the middle and large houses around the edge. Hoyt developed this further when transport became more influential, changing the arrangement of business and houses through rail and road networks.



What will Portsmouth look like in the future?

Urban greening, clean transport, modern buildings, gentrification, regeneration? Future of the Royal Navy and the dockyards – business or tourism?



Is Portsmouth a future economic powerhouse?

Portsmouth has one of the strongest marine and maritime economies in the UK, as well as being the home to the Royal Navy. It is also home to global giants in the advanced manufacturing, defence, technology and the aerospace industry, BAE Systems, IBM, Babcock, QinetiQ, Airbus Defence & Space, and PALL Europe to name but a few, sit side by side with SMEs and thriving start-up companies. With Ben Ainslie Racing alongside other high-profile sporting, cultural and festival event programme, the city continues to further its reputation and profile as a location for world-class business, investment and events

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Made in China
@TPA

Where is China and how is it connected?



Facts on China:

Chinese new years celebrations last 15 days
Each year is represented by an animal (2020 is the year of the rat)
The Forbidden City contains 9000 rooms
Great wall of China stones are held together with sticky rice in mortar
More people speak Mandarin as their first language than any other language in the world
The word "ketchup" may come from a Chinese word for pickled-fish sauce



China's Geography:

Main features



Four types of industry:



Key Words



Economic Powerhouse – Strong money place (a country who posses the ability to drive world economy)

Emissions - the production and discharge of something, especially gas or radiation.

NEE (Newly Emerging Economy) - a nation that is moving toward becoming more advanced, usually by means of rapid growth and industrialisation.

Manufacturing - the making of articles on a large scale using machinery; industrial production

Pull Factor – things that attract a person to a place e.g. jobs, money, education

Push Factor – things that force a person away from an area e.g. no job, poor health, no opportunities

Rural to Urban Migration – movement of people from the countryside to the city for work, living and making money

Urbanisation - increase in the proportion of people living in towns and cities

Manufacturing (Make it) in China



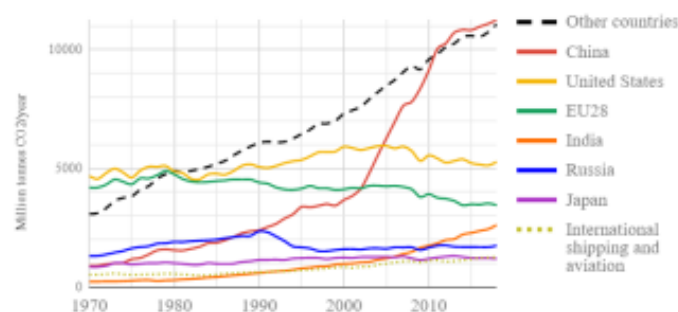
Cheap Labour
Quick process
Large workforce

Long hours
Poor work conditions
Low pay

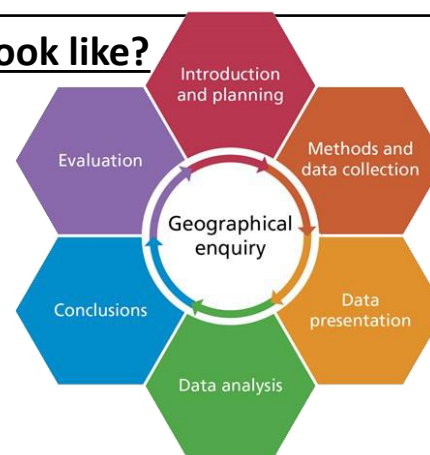
Mountains:
Rivers:
Bordering countries:

Why have emissions in China increased?

World fossil carbon dioxide emission 1970-2018



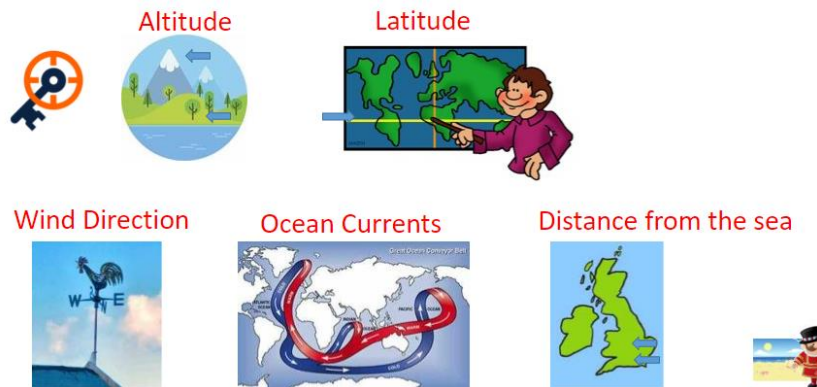
What does an enquiry look like?



Year 8 Geography KNOWLEDGE ORGANISER

Weather and Climate @TPA

Influences on the UK climate



The Met Office is the **national meteorological service for the UK**. We provide critical weather services and world-leading climate science, helping you make better decisions to stay safe and thrive.

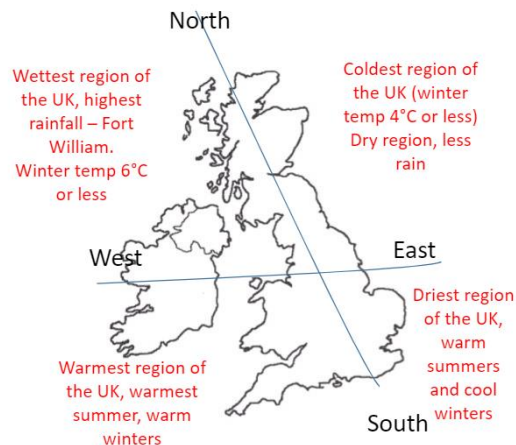


Check your understanding:
Weather or climate?



Features of the UK climate

- Relief (flat vs mountains)
- Distance from the equator
- Distance from the sea
- Prevailing winds



Key Words

- Weather** – Day to day changes in temperature, rainfall, cloudcover
- Climate** – Change over average time period of 30 years for temperature, rainfall
- High Pressure** – Weather system that spins clockwise and produces calm, settled weather and can include heatwaves in winter and cold snaps in winter
- Low Pressure – (Depression)** - Weather systems that spin anti-clockwise and produce unsettled weather including cloudy spells, variable winds, rainfall and at times stormy conditions
- Typhoon – (Cyclone, Hurricane)** – Extreme weather event featuring low pressure with a clear eye and eye wall and bands of clouds and rain spinning out from the centre
- Barometer** – tool used to measure atmospheric pressure
- Isobars** – lines of atmospheric pressure of equal values
- Relief** – the shape of the land (hills versus flat)
- Altitude** – height about sea level
- Latitude** – lines drawn across the equator showing distance from it in degrees (poles 90°)
- Prevailing winds** – main wind direction for a place (shown by the direction the wind is coming from)
- Continentality** – the distance in land from the sea (the further in land, the drier and more extreme the temperatures are likely to be)

Forecasting

- Fronts bring rain
- Isobars – closer Together = windier
- H/ L show pressures
- Blue spikes – cold
- Red circles – warm

What does it look like?	What does it mean?
	Where cold air pushes under warm air forcing it to rise – creates clouds
	Warm air pushes in and rises up – creates clouds
	Warm front and cold front join up
	Are like contours in air pressure, they join points of equal air pressure together to form a line. Closer together = windy. Far apart = calm
	Pressure points on a map to show how high or low the pressure is.

Who are the Met Office?

Key causes of Climate Change

Human activity through:

- Transport and emissions
- Industry & burning fossil fuels
- Agriculture: cattle farming

Natural causes:

- Greenhouse effect
- Earth's orbit
- Solar energy, volcanic activity, meteors

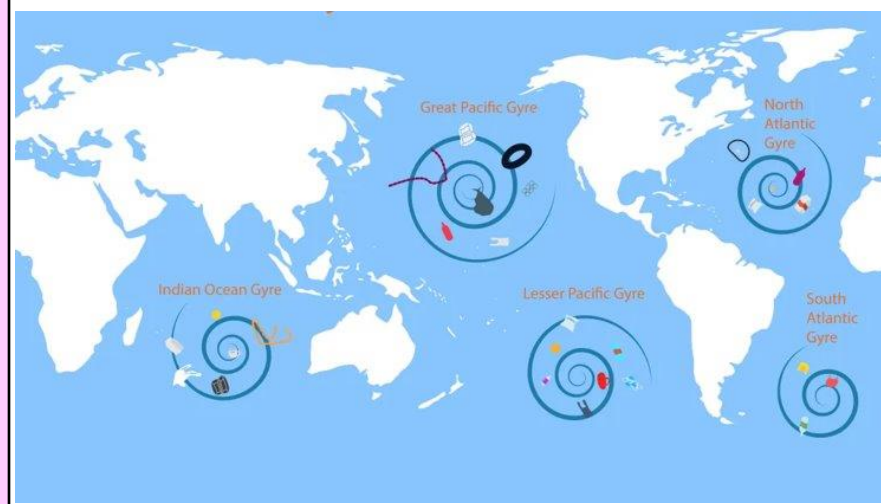
Evidence of Climate change

- Tree rings
- Ice Cores
- Sea Level change
- Ice melting
- CO2 levels
- GHG concentrations



Year 8 Geography KNOWLEDGE ORGANISER

Plastic Oceans @TPA



How to deal with the waste
 Reduce amount used
 Reusable products
 Recycle

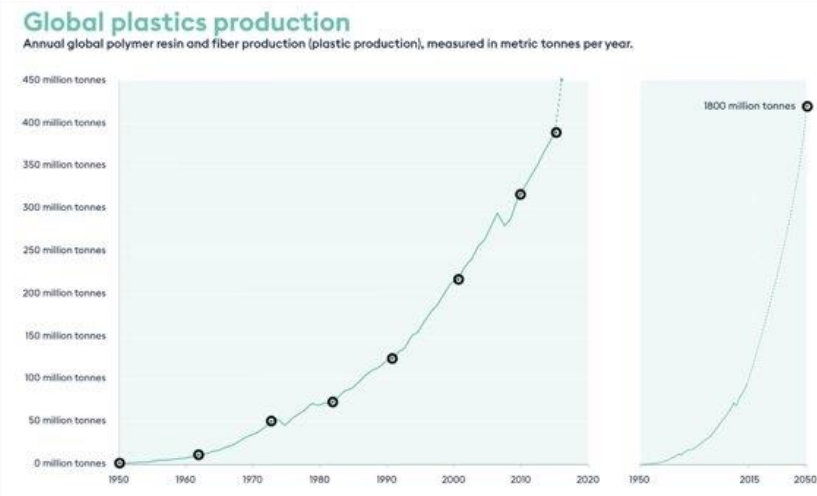


Nurdles:

Microplastics:



Plastic usage has increased



The amount of plastic that we use within the world has increased dramatically over the last 70 years and is only predicted to go further. A lot of this waste is SUP, so ends up in landfill and makes its way to the oceans



Key Words



Oceans – is the body of salt water that covers approximately 70.8% of the surface of Earth

Seas – Smaller body of salt water that is often surrounded by land and connected to an ocean

Nurdles – small plastic pellets used to create plastic items

Micro-plastics – Small broken down pieces of plastic

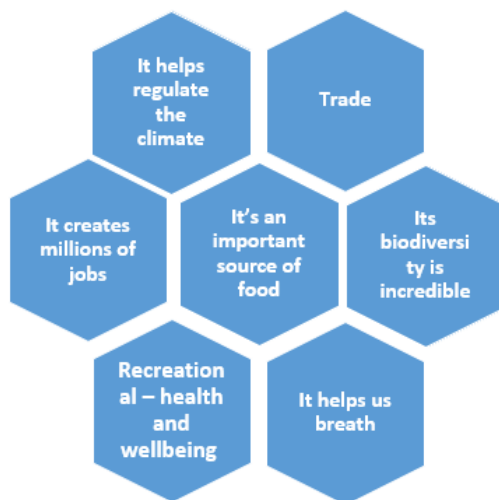
Gyre – A large system of circulating ocean current, formed by global wind patterns

Single use plastic (SUP) – plastic that is used only once before being thrown away

Reusable – something that can be used more than once (meaning it will not be thrown away)

Recycling – some plastics are recyclable which means they can be melted down and made into something new

Why are the Oceans Important?



Covers 70% of the Earth

80% of living things



- | | | |
|-----------------|---------------------------|---------------|
| 1 South China | 5 Gulf of Mexico | 10 East China |
| 2 Caribbean | 6 Arabian Sea | 11 Andaman |
| 3 Mediterranean | 7 Sea of Okhotsk | 12 Black Sea |
| 4 Bering | 8 Sea of Japan (East Sea) | 13 Red Sea |
| | 9 Hudson Bay | |



Portsmouth was built around its harbour as it is a safe place for boats/ships.

This meant it was a perfect place for shipping/trade and boat building.

Year 9 Geography

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Hazardous Earth - Climate

@TPA

Case Study: Typhoon Haiyan 2013



Causes

Started as a tropical depression on **2nd November 2013** and gained strength. Became a Category 5 “**super typhoon**” and made landfall on the Pacific islands of the Philippines.

Effects

- Almost **6,500 deaths**.
- **130,000 homes destroyed**.
- Water and sewage systems destroyed had caused **diseases**.
- **Emotional grief** for dead.

Management

- The UN raised **£190m in aid**.
- USA & UK **sent helicopter carrier ships** deliver aid remote areas.
- **Education** on typhoon preparedness.

Primary affects of Tropical storms

- The intense winds can destroy whole communities, building and communication networks
- Storms surges can flood large areas and destroy everything in path.

Secondary impacts of Tropical Storms

- People are left homeless causing – poverty, distress and ill health
- Shortage of clean water and lack of proper sanitation creating spread of diseases
- Businesses damage or gone causing unemployment
- Shortage of food as crops damaged



Key Words

Low Pressure – Caused by hot air rising. Causes stormy cloudy weather.

High Pressure – Caused by cold air sinking. Causes clear and calm weather.

The Greenhouse effect – caused by greenhouse gases (such as CO₂), creating a blanket around the earth, trapping heat in.

Ice sheets – large areas of ice covering land.

Ice cores – extracted from ice sheets, made up of layers. The deeper the layer the further back in time it is.

Analysing the gases trapped in the layers can tell you what the climate was like.

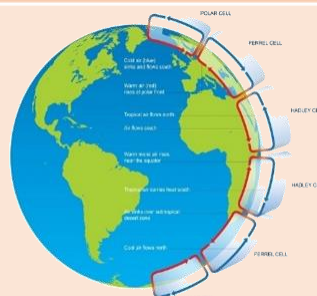
Tree rings – As a tree grows it lays down 1 ring each year, the thickness of this ring can tell you what the climate was like that year (thick = warmer, thin = colder)

Coriolis effect – This spinning of the earth means that anything that is not attached to the ground will begin to spin. For example water and storms. Except for on the Equator.

Natural climate change – how the earths climate has been changing over millions of years do to such things as: Orbital Changes, Sun spots, volcanic activity

Atmospheric circulation is the large-scale movement of air by which heat is distributed on the surface of the Earth.

Hadley cell	Largest cell which extends from the Equator to between 30° to 40° north & south .
Ferrel cell	Middle cell where air flows poleward between 60° & 70° latitude.
Polar cell	Smallest & weakness cell that occurs from the poles to the Ferrel cell.



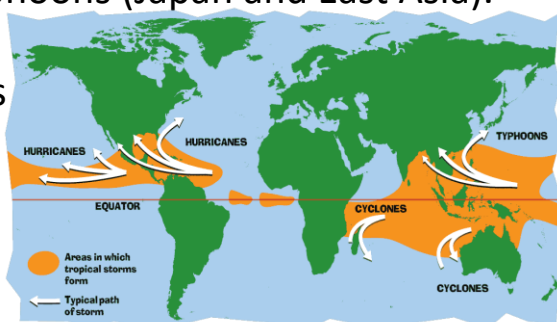
Formation of Tropical Storms

- 1 The sun’s rays heat large areas of ocean in the summer and autumn. This causes warm, moist air to rise over particular spots
- 2 Once the temperature is 26.5degrees C, the rising warm moist air leads to a low pressure. This eventually turns into a thunderstorm. This causes air to be sucked in from the trade winds.
- 3 The rotation of the earth (Coriolis effect) makes the thunderstorm begin to spin
- 4 When the storm begins to spin faster and the wind goes above 74mph, a tropical storm (such as a hurricane) is officially born
- 5 With the tropical storm growing in power, more cool air sinks in the centre of the storm, creating calm, clear conditions called the eye of the storm.
- 6 When the tropical storm hits land, it loses its energy source (the walm water) and it begins to lose strength. Eventually it will ‘blow itself out’.

Distribution of Tropical storms

They are known by many names, including hurricanes (North America), cyclones (India and Australia) and typhoons (Japan and East Asia).

They all occur in a band that lies roughly 5-15 degrees either side of the Equator.



Management of Tropical Storms

Protection – preparing for tropical storms may involve construction projects that will improve protection

Development – often scale of impact connected to development of the country in terms of preparation

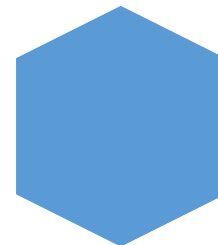
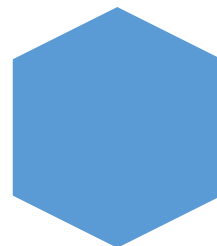
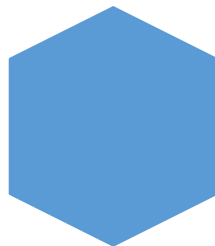
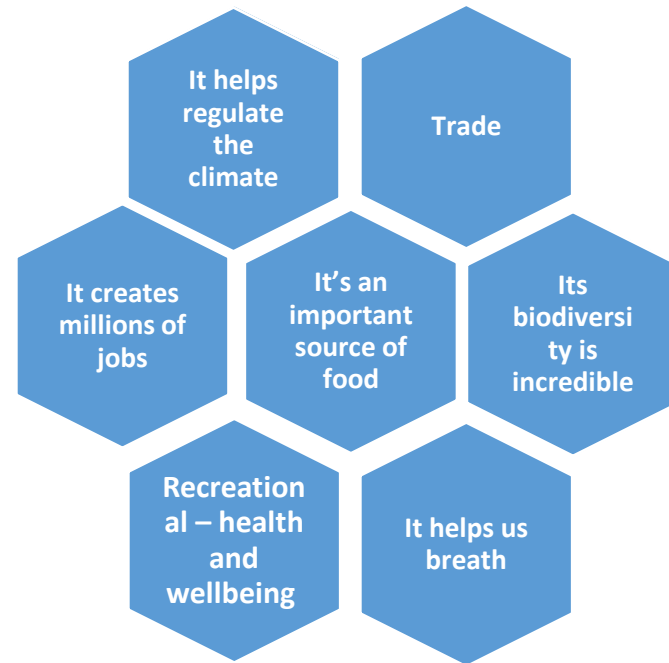
Prediction – Constant monitoring can help give advanced warning of tropical storms

Aid – aid involves assisting after storm, commonly in LICs

Planning – Involves getting people and the emergence services ready to deal with impact

Education – teaching people about what to do in a tropical storm

Useful tools from KO's



**DISCIPLINARY
KNOWLEDGE**



Types of
Geography



Human
Geography



Population
Cities
Buildings
Infrastructure



Physical
Geography



Volcanoes
Earthquakes
Rivers
Lakes
Seas
Mountains



Types of Natural Hazards



Earth
(*Geological*)
Hazards



- Earthquakes
- Volcanoes
- Landslides
- Tsunami



Weather
(*Meteorological*)
Hazards



- Tornadoes
- Ice Storms
- Lightning
- Hurricanes

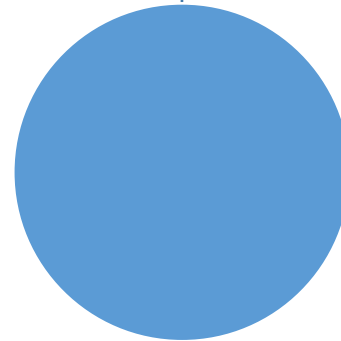
**DISCIPLINARY
KNOWLEDGE**



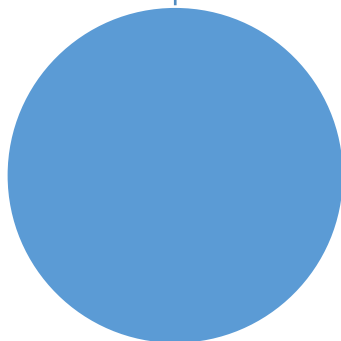
Tropical
Rainforest



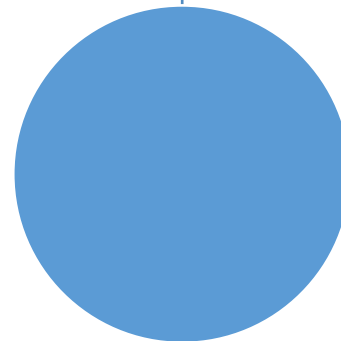
Earth
(*Geological*)
Hazards



Weather
(*Meteorological*)
Hazards



Earthquakes
Volcanoes
Landslides
Tsunami



Tornadoes
Ice Storms
Lightning
Hurricanes

**DISCIPLINARY
KNOWLEDGE**



Cold
Environments

Opportunity

challenge



Leisure
Sports
Mining



Extreme
weather
Frozen ground
Access and
building

