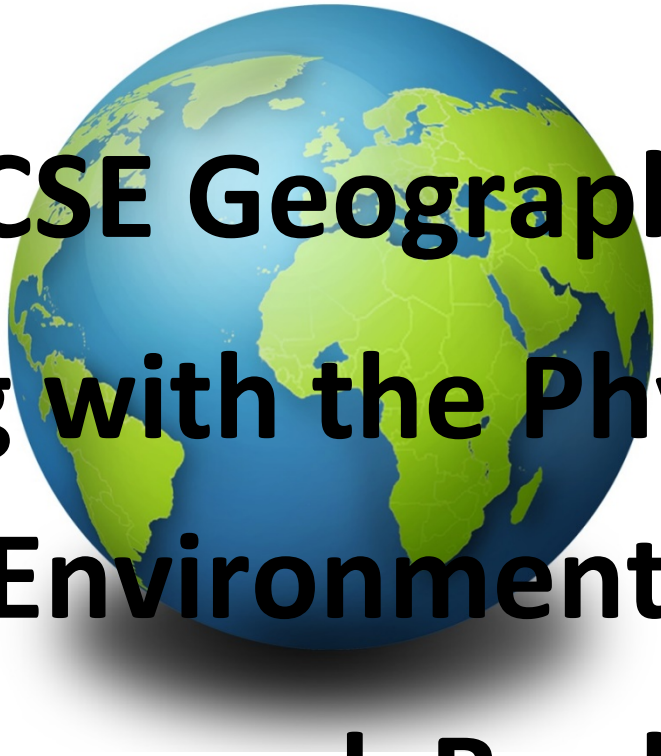
Geography Department



GCSE Geography

Living with the Physical Environment

Homework Booklet

Name:

Class:

Teacher:

The Living World

All videos can be found on The living world playlist on the Aylsham High Geography youtube channel. The video playlist will be on the right hand side when you use the URL. Scroll through the playlist to find the relevant video to watch.

https://www.youtube.com/watch?v=hIy0ZlyPPDg&list=PLPbjF2ezDZ9nueO0eyDWBpOsaqMxrLjKq

Question	**Video title**
Food chains (p.2)	Energy transfer in food chains
Tropical rainforests (p.2)	Rainforests 101: National Geographic Rainforests – Geography – Ecosystems and Biomes Why is biodiversity so important? What is the rainforest?
Tropical rainforest threats (p.3)	Climate 101: Deforestation / National Geographic How deforestation looks from space Deforestation effects on climate
Tropical rainforest 9 mark Q (p.5)	Amazon deforestation – BBC news Amazon rainforest: Once it's gone its gone forever Battle for the Amazon (3 parts) Deforestation effects on climate Amazon rainforest indigenous people in fight for survival Is the Amazon rainforest beyond saving? – BBC news Surge in deforestation in Amazon rainforest Amazon in turmoil as deforestation rages on despite coronavirus pandemic
Tropical rainforest sustainable management (p.6)	Sustainable development in the Amazon
Deserts (p.6)	Deserts – Geography – Ecosystems and Biomes David Attenborough on the World's Deserts
Desert threats (p.6)	Rwandans switch from subsistence to commercial farming
Desertification 9 mark Q (p.7)	Desertification Turning the tide on desertification in Africa Why is Africa building a Great Green Wall? BBC News Desertification – a visual disaster The Great Green Wall of Africa: Will it help fight climate change?
Slash and burn (p.8)	Belize: Slash and burn farming / Global ideas
Thar Desert 9 mark (p.9)	The Thar Desert – Deserts and life documentary 2016 Earth from Space: Thar Desert

Food Chains (use living world section of revision guide to help)

1. Explain how producers provide energy to the ecosystem

Ecosystem Location (use living world section of revision guide to help)

1. Explain why tropical rainforests are found where they are

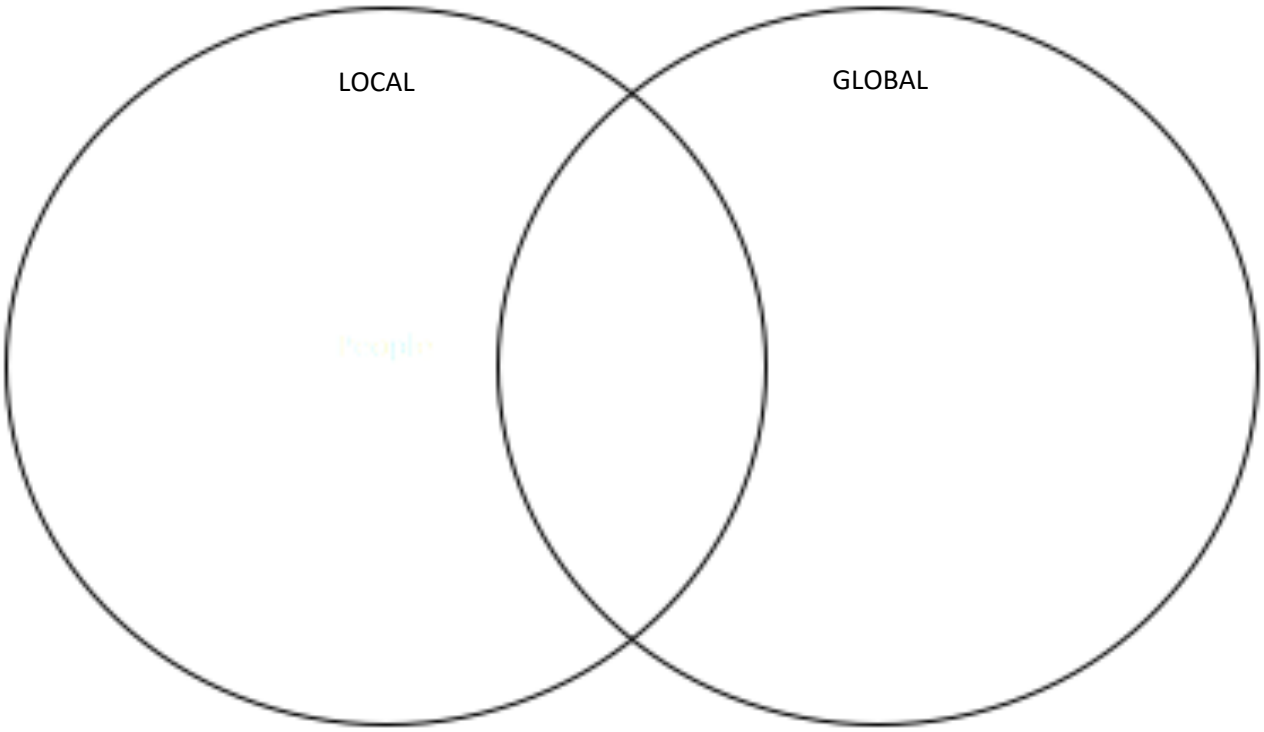
Tropical Rainforests (use living world section of revision guide to help)

1. What would happen to the nutrient cycle in a tropical rainforest if the trees are cut down?

2. Explain the importance of climate for the biodiversity of a tropical rainforest

Tropical Rainforest threats (use living world section of revision guide to help)

1. What impact does deforestation have on the local and global environment?



2. Geographical skills – Rates of deforestation

Usign the data in the table to answer the following questions:

a) Identify the country with the greatest loss in forest cover between 1990 and 2005 _____

b) Which country had the least forest cover in 2005?

_____

c) Which country had the most forest cover in 2005?

_____

d) What is the range for % forest cover in 2005?

_____

e) Calculate the mean, mode and median for the % forest cover shown

Mean = _____

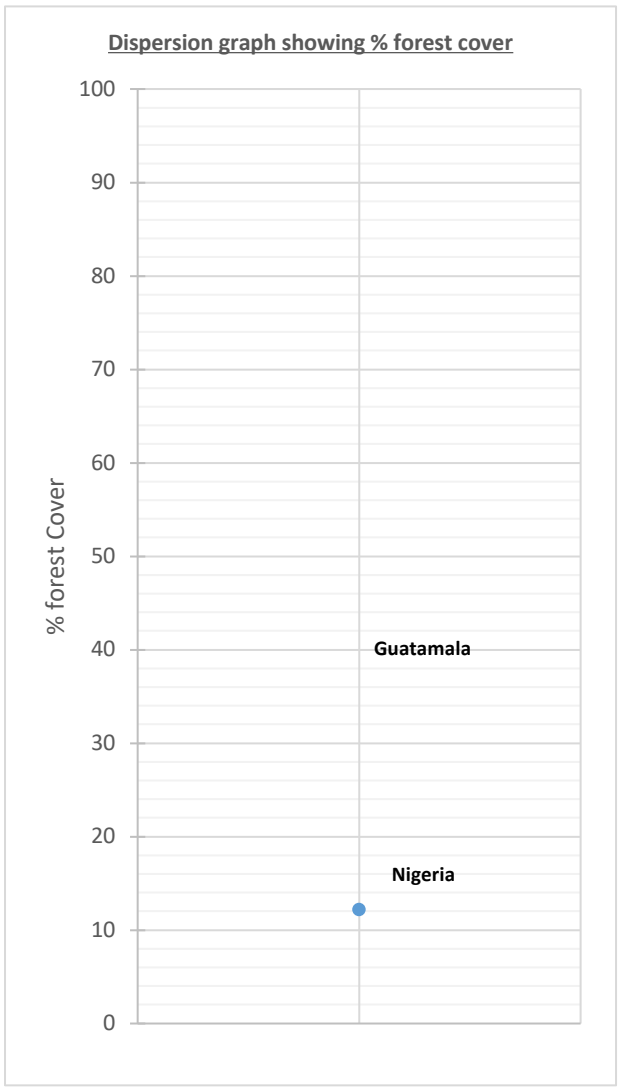
Mode = _____

Median = _____

Interquartile range = _____

f) Draw a dispersion graph of the % forest cover data using the template below

Country	% forest cover 2005	% change 1990 to 2005
Bolivia	54	-7
Brazil	57	-8
Brunei	53	-11
Cambodia	60	-19
Colombia	59	-1
Congo	66	-1
Guatemala	36	-17
Indonesia	49	-24
Madagascar	22	-6
Nigeria	12	-36
Panama	58	-2
Papua New Guinea	65	-7
Peru	54	-2
Senegal	45	-7
Sri Lanka	30	-18



Help Box

Measures of central tendency

Mode - Mode is the value that appears the most times

Mean – add all of the values in the column together and divide by the number of results, in this case 15

Median – rank the results in order from smallest to biggest. The median is the middle value on the list. In this case the 8th result in your list.

Inter Quartile Range (IQR)

Upper quartile (UQ) = Divides the upper half of the data (above the median) into 2 halves. In this case the 12th result in your ranked list.

Lower quartile (LQ)= Divides the lower half of the data into 2 halves. In this case the 4th result in your ranked list.

IQR = Upper Quartile minus Lower Quartile

9 mark exam question practice (use guidance from lesson plenary)

Using a case study of a tropical rainforest you have studied, discuss the impacts of deforestation (use living world section of revision guide to help)

STRUCTURE STRIP

Define deforestation

Brief description of location

State how much forest cover has been lost in this area (20%)

State a positive impact

Consider what type of impact this is (SEEP)

Evaluate how much of an impact this has had

State a positive or negative impact

Consider what type of impact this is (SEEP)

Evaluate how much of an impact this has had

State a negative impact

Consider what type of impact this is (SEEP)

Evaluate how much of an impact this has had

Conclusion – do the positive impacts outweigh the negative? (summarise briefly)

Stick whole class feedback sheet here

Tropical Rainforest Sustainable Management (use living world section of revision guide to help)

1. Contrast selective logging with clear cutting

Deserts (use living world section of revision guide to help)

1. Explain why the Thar Desert is a difficult place to live

Desert threats (use living world section of revision guide to help)

1. Contrast commercial farming and subsistence farming in the Thar Desert

9 mark exam question practice (use guidance from lesson plenary and the desertification links on http://coolgeography.co.uk/gcsen/living_world.php)

Evaluate the management of desertification in a location you have studied

STRUCTURE STRIP

Define desertification

Brief description of location

Give a couple of reasons desertification occurs

State an example of management

Explain how this helps

Include a specific detail

Evaluate the success of this at managing desertification

State an example of management

Explain how this helps

Include a specific detail

Evaluate the success of this at managing desertification

State an example of management

Explain how this helps

Include a specific detail

Evaluate the success of this at managing desertification

Stick whole class feedback sheet here

Interleaved revision section

1. Explain how you could stop the process of desertification (use living world section of revision guide to help)

_____

_____

_____

_____

_____

_____

2. Describe one example of how human action can disrupt the balance of an ecosystem (use living world section of revision guide to help)

_____

_____

_____

_____

_____

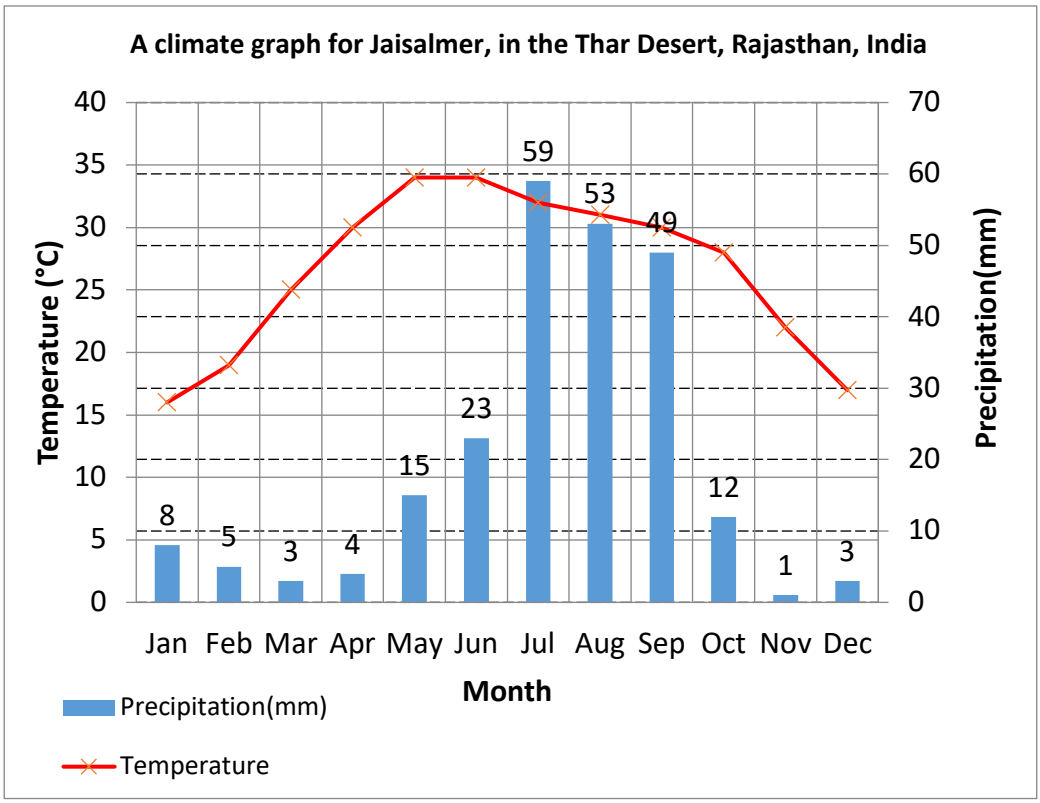
_____

_____

3. Annotate the photograph to show at least 3 features of slash and burn agriculture in one colour and at least three examples of damage this process does in another colour

Interleaved revision section

Geographic skills – Desert climate (use living world section of revision guide to help)



Using the graph above, answer the following questions:

1. What is the lowest temperature in Jaisalmer? _____
2. What is the highest temperature in Jaisalmer? _____
3. Calculate the range in rainfall *(highest value minus lowest value)* _____

INTERLEAVED REVISION SECTION ON THE LIVING WORLD

Interleaved revision section: 9 mark exam question practice (use the desertification links on http://coolgeography.co.uk/gcsen/living_world.php to help you)

For a hot desert environment you have studied, discuss the challenges presented to humans living in the region and explain how they have been overcome

Feedback:

The Physical Landscapes of the UK

All videos can be found on The physical landscapes of the UK playlist on the Aylsham High Geography youtube channel. The video playlist will be on the right hand side when you use the URL. Scroll through the playlist to find the relevant video to watch.

https://www.youtube.com/playlist?list=PLPbjF2ezDZ9lpyBXYxTHwmNzYCupwxSvG

Question	**Video title**
Coastal processes (p.12)	GCSE geography revision – coastal processes The 4 coastal processes of coastal erosion
Coastal landforms (bars) (p.12)	Landforms coasts (GCSE geography) Coastal landforms
Coastal landforms (stumps) (p.13)	Old Harry erosion West Wales – Sea arches and stacks Sea stack: A landform of coastal erosion
Coastal management (p.13)	GCSE geography revision – coastal management Coastal management A level GCSE KS3 geography – coastal management Should we protect properties affected by coastal erosion?
River processes (p.14)	River processes
River landforms (meanders) (p.14)	Meandering river – dyed red Meanders and ox bow lakes Why do rivers curve? Stream channel demo – meander cutoff during flood
Flood management 6 mark Q (p.15)	UK Floods: What can the IK do to prevent flooding? Flooding in Morpeth Sept 2008 Morpeth flood alleviation scheme – official opening Morpeth floods – five years on BBC Inside out – Morpeth flood HD
Flood hydrograph (p.16)	Complete storm hydrograph in small stream channel
Sand dunes (p.17)	Marvellous Marram Grass
Waves (p.17)	iGCSE geography coasts – constructive v destructive waves – geogpodcast
River landforms (waterfalls) (p.18)	How waterals are formed The River Severn – Waterfalls and gorges

Coastal processes (use physical landscapes section of revision guie to help)

1. Label the photograph with key features of a wave

Coastal landforms (use physical landscapes section of revision guide to help)

1. Explain how a bar differs from a spit

_____

_____

_____

_____

_____

_____

_____

2. Describe and explain the formation of a stump (use a series of up to 6 diagrams in your answer)

Coastal management (use physical landscapes section of revision guide to help)

1. Annotate the photograph to explain how sand dune management can protect the coastline

River processes (use physical landscapes section of revision guide to help)

1. Explain what would happen to a drainage basin if an area was deforested (and hence interception removed)

2. Describe and explain one change in a river channel that could increase the possibility of erosion taking place

River landforms (use physical landscapes section of revision guide to help)

1. Describe the main characteristics of a meander

6 mark exam question practice (use guidance from lesson plenary)

Justify the reasons why flood management was required in a location you have studied (use physical landscapes section of revision guide to help)

STRUCTURE STRIP

Describe location of Morpeth and the river it sits upon

When did the last major flood occurred

What were the causes of the flood?

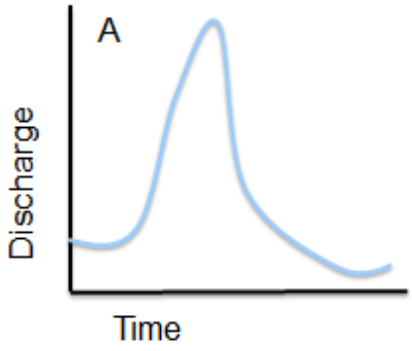
Explain why management was needed and what was done

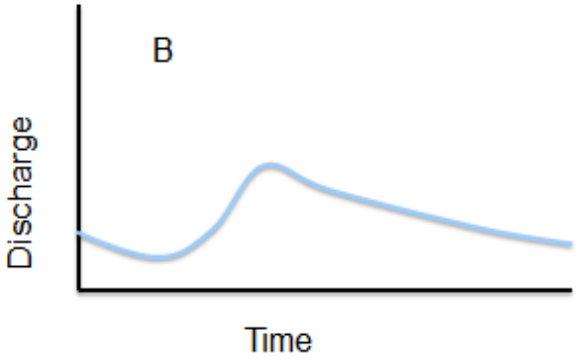
What impacts did the flood have? (SEE)

Explain why management was needed and what was done

Stick whole class feedback sheet here

Geographical skills – Flood hydrograph (use physical landscapes section of revision guide to help)





1. Complete the table below by studying the hydrographs above

Which of the 2 hydrographs is most likely to:	A	B	REASON
Flood			
Have thick deciduous vegetation			
Be in an urban area			
Have flood defences along the river			
Have permeable soils			
Have had a prolonged period of rainfall prior to this event			

Interleaved revision section

1. Why are beaches said to be temporary features?

2. Why are plants important to the development of a sand dune? (use physical landscapes section of revision guide to help)

3. Contrast the features of a constructive and destructive wave (complete the table below) (use physical landscapes section of revision guide to help)

	Constructive	Destructive
Which is stronger, swash or backwash ?		
Erosion or deposition ?		
Large or small wave height ?		
Frequent or infrequent ?		
Is the gradient of the beach steep or gentle ?		

4. Describe and explain the formation of a waterfall (use a series of up to 6 diagrams in your answer) (use physical landscapes section of revision guide to help)

The Challenge of Natural Hazards

All videos can be found on The challenge of natural hazards playlist on the Aylsham High Geography youtube channel. The video playlist will be on the right hand side when you use the URL. Scroll through the playlist to find the relevant video to watch.

https://www.youtube.com/playlist?list=PLPbjF2ezDZ9lZFGf4Yv26RYGZTrNMhZFq

Question	**Video title**
Plate margins (p.20)	Tectonics of planet Earth The early Earth and plate tectonics Plate tectonics
Global atmospheric circulation (p.21)	Understanding global atmospheric circulation What is global circulation? (Part 1) What is global circulation? (Part 2)
Earthquakes (p.22)	Earthquakes 101: National geographic
Typhoon Haiyan (p.22)	Typhoon Haiyan: Aerial footage shows how Tacloban has recovered 6 months on
Climate change (p.22-24)	Climate change 1010 with Bill Nye Causes and effects of climate change: National geographic
Plate margins (p.26)	Tectonics of planet Earth The early Earth and plate tectonics Plate tectonics
Tropical storms (p.26)	How do hurricanes form? Formation of a tropical cyclone Hurricanes and why they form How do tropical storms form?
Climate change (p.26)	Climate change 101 with Bill Nye Causes and effects of climate change: National geographic Is climate change causing more extreme weather? How climate change makes hurricanes worse Climate change: The facts What happens if the world warms up by …? (Sky news)
UK extreme weather 6 mark Q (p.27)	UK snow forecast: Storm Emma to smash Britain The week Britain froze Britain's weather to get more extreme as climate warms Why this summers extreme weather could become the norm – is climate change to blame? Extreme weather 2018 – more in 10 years than in decades

Plate margins (use natural hazards section of revision guide to help)

1. Explain why we get earthquakes but not volcanoes at conservative plate margins

2. Explain the importance of convection currents to the movement of tectonic plates

Global atmospheric circulation (use natural hazards section of revision guide to help)

Explain how the global atmospheric system affects the climate of tropical rainforests and hot deserts [6 marks]

Read the two model answers below:

1. Annotate the good parts in one colour

Answer 1:

Global atmospheric circulation distributes heat around the Earth. The Hadley cell is responsible for the climate in tropical rainforests and hot deserts.

The equator receives highest insulation due to the sun being directly overhead at this point, meaning a smaller surface area is heated by the sun's energy. This leads to evaporation of moisture.

Evaporating moisture becomes less dense so rises away from the Earth's surface, creating low pressure. The air will gradually cool and condense as it rises, creating clouds and precipitation at the equator.

The air moves outwards from the equator. The air cools and becomes more dense, eventually sinking at 30° latitude. Sinking air creates high pressure and does not condense so no clouds are formed and therefore the climate remains dry.

Answer 2:

Global atmospheric circulation distributes heat around the Earth.

The equator is heated by the Sun, resulting in low pressure. This creates a weather cell.

Moisture rises and creates clouds and rainfall before sinking at 30° latitude. At this point sinking air creates high pressure but no clouds.

2. What makes 'answer 1' a more successful answer than 'answer 2'?

_____

_____

_____

_____

_____

_____

_____

Earthquakes

1. Justify why both immediate and long-term responses are needed after an earthquake

Weather case study (use natural hazards section of revision guide to help)

1. Why did the Phillipines suffer badly during Typhoon Haiyan?

2. How can human factors contribute to a higher death toll when tropical storms hit poorer countries?

Climate change (use natural hazards section of revision guide to help)

1. Explain how climate change is different from global warming

2. Describe and explain one natural and one human cause of climate change

NATURAL:

_____

_____

_____

_____

_____

_____

_____

HUMAN:

_____

_____

_____

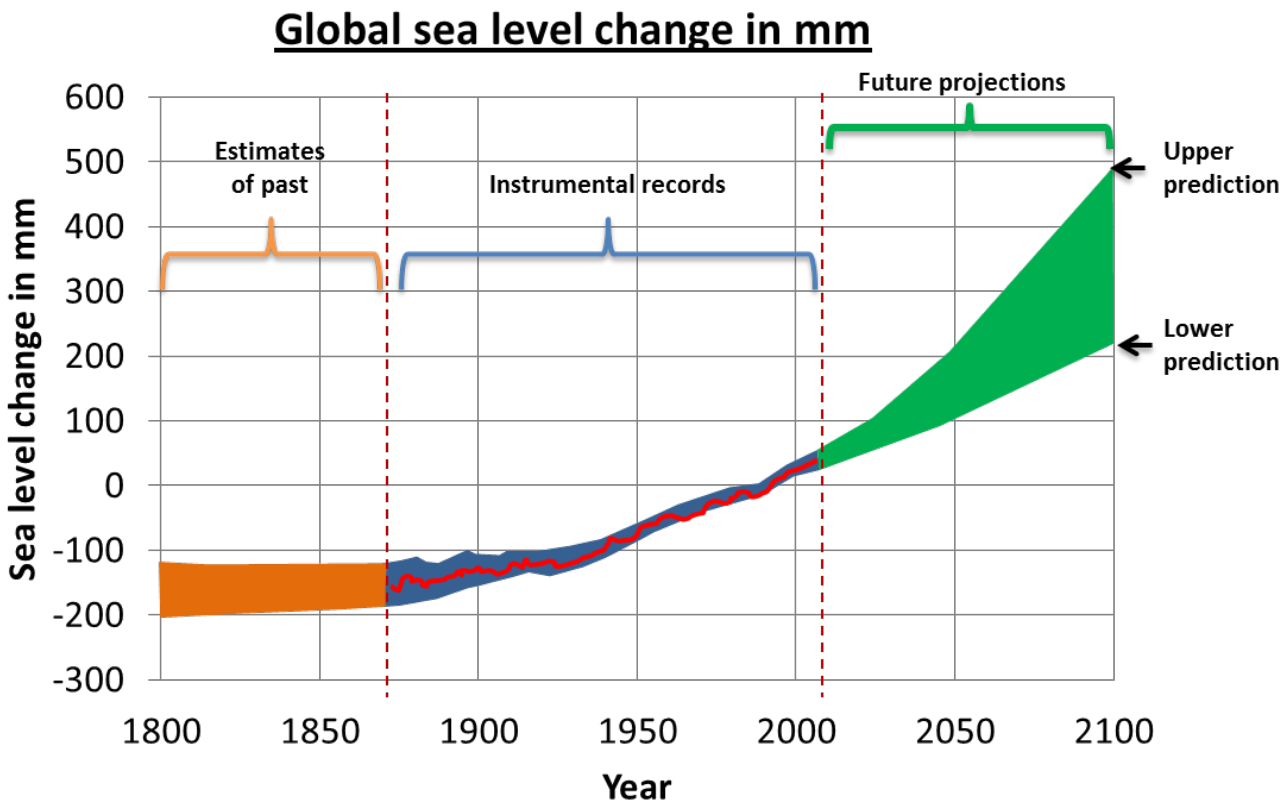
_____

_____

_____

_____

3. Geographical skills – global sea level change



Describe the changes in sea level predicted in the graph above (include data in your answer)

9 mark exam question practice (use guidance from lesson plenary)

To what extent is it natural or human causes driving changes in the Earth's climate (use natural hazards section of revision guide to help)

STRUCTURE STRIP
Define climate change State that natural and human factors contribute to changing climate
Describe a natural cause of climate change Evaluate the significance of this cause
Describe 1 natural cause of climate change Evaluate the significance of this cause
Explain the enhanced greenhouse effect Evaluate the significance of this cause
Brief conclusion to consider long term changes (related to natural factors) vs recent rapid changes (related to human factors)

Stick whole class feedback sheet here

Interleaved revision section

1. Explain why volcanic eruptions are more violent at destructive plate margins than at constructive (use natural hazards section of revision guide to help)

2. Why does the UK not get tropical storms? (use natural hazards section of revision guide to help)

3. Explain the key differences between the causes of climate change before 1850 and since 1850 (use natural hazards section of revision guide to help)

Interleaved revision section: 6 mark exam question practice

The weather of the UK is becoming more extreme. Use evidence to support this statement (use natural hazards section of revision guide to help)

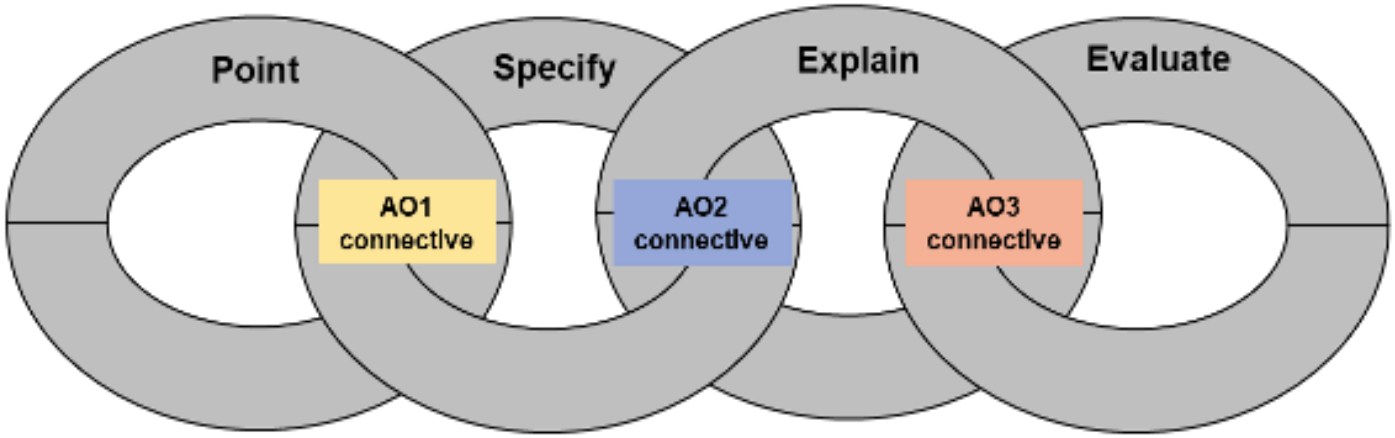
STRUCTURE STRIP

Feedback:

AO1 Connectives
For example…
An example is…
Such as..
In (give location)…
In (give figure)…
Give case study specific information
Give a fact/figure/ date
Give a definition of a key word

AO2 Connectives
This means that…
This is because of…
The reason for this is…
An underlying cause is…
A consequence of this is..
As a result…
Due to this…
This shows that…
Consequently…

AO3 Connectives
This is effective/ ineffective because…
This is significant/ insignificant because…
This is important/ unimportant because…
To a great large/some/small/ slight extent this shows…
This is limited because…
I largely/slightly/somewhat agree/disagree because….
This is easy/difficult to manage because…
This is more/less likely/unlikely to have happened in…
The extent of ___was worse in ____ because



AO3 Scale
Time *long term, short term, immediate, delayed, days, weeks, months, years*
Severity *large, small, highly, lesser, very, catastrophic, mild, slight, fatal, minimal, moderate*
Space *global, national, local, international, regional*