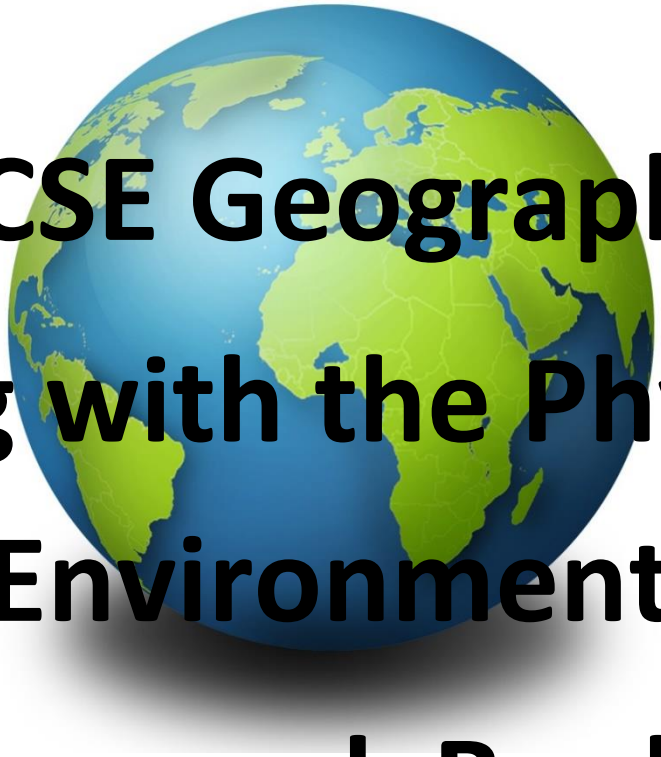
Geography Department



# 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<br>Rainforests – Geography – Ecosystems and Biomes<br>Why is biodiversity so important?<br>What is the rainforest? |
| Tropical rainforest threats (p.3) | Climate 101: Deforestation / National Geographic<br>How deforestation looks from space<br>Deforestation effects on climate |
| Tropical rainforest 9 mark Q (p.5) | Amazon deforestation – BBC news<br>Amazon rainforest: Once it's gone its gone forever<br>Battle for the Amazon (3 parts)<br>Deforestation effects on climate<br>Amazon rainforest indigenous people in fight for survival<br>Is the Amazon rainforest beyond saving? – BBC news<br>Surge in deforestation in Amazon rainforest<br>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<br>David Attenborough on the World's Deserts |
| Desert threats (p.7) | Rwandans switch from subsistence to commercial farming |
| Desertification 9 mark Q (p.8) | Desertification<br>Turning the tide on desertification in Africa<br>Why is Africa building a Great Green Wall? BBC News<br>Desertification – a visual disaster<br>The Great Green Wall of Africa: Will it help fight climate change? |
| Slash and burn (p.10) | Belize: Slash and burn farming / Global ideas |
| Thar Desert 9 mark (p.12) | The Thar Desert – Deserts and life documentary 2016<br>Earth from Space: Thar Desert |

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

1. Explain the role of a producer in an ecosystem

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

1. Describe the location of temperate deciduous biomes

2. Explain the location of tropical rainforests

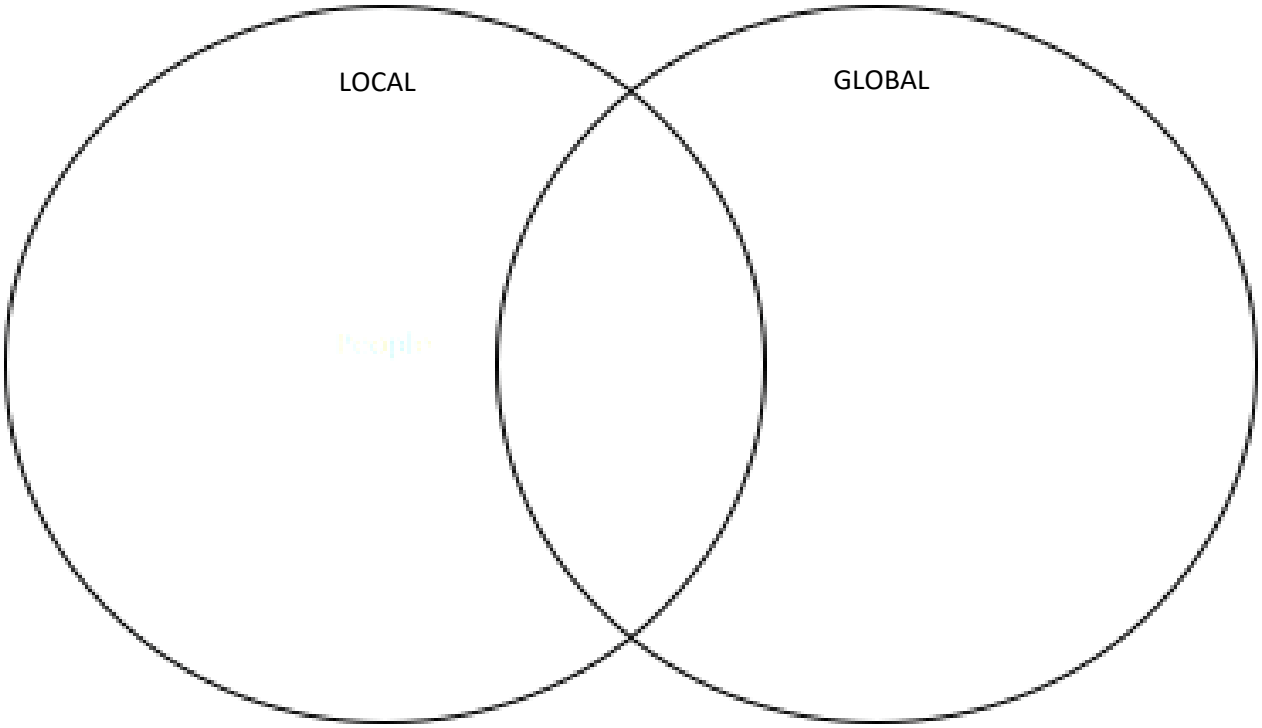
**Tropical Rainforests (use living world section of revision guide to help)**

1. Explain the impact of deforestation on the nutrient cycle in a tropical rainforest

2. Suggest why the climate is important for the biodiversity of a tropical rainforest

**Tropical rainforest impacts (use living world section of revision guide to help)**

1. What impact does deforestation have locally and globally? (positive and negative)




2. Contrast commercial farming and subsistence farming

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**3. Geographical skills – Rates of deforestation**

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

| Country | % forest cover 2015 |
|---|---|
| Bolivia | 47 |
| Brazil | 59 |
| Colombia | 53 |
| Congo | 56 |
| Guatemala | 33 |
| Indonesia | 49 |
| Nigeria | 12 |
| Panama | 57 |
| Papua New Guinea | 79 |
| Peru | 57 |
| Suriname | 97 |

a) Which country had the least forest cover in 2015?

_____

b) Which country had the most forest cover in 2015?

_____

c) What is the range for % forest cover in 2015?

_____

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

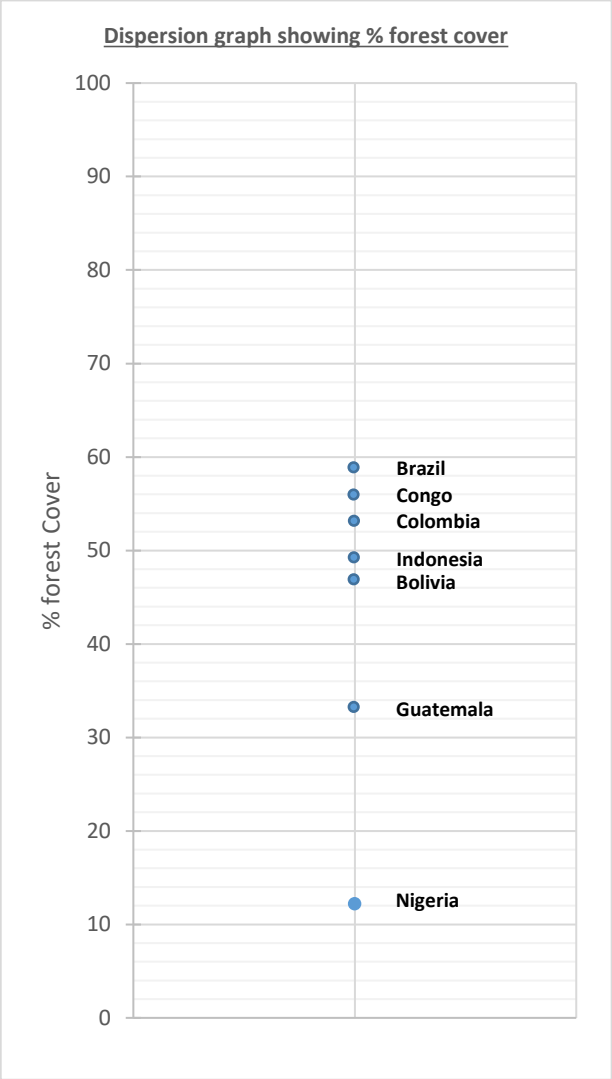
Mean = _____

Mode = _____

Median = _____

Interquartile range = _____

e) Complete the dispersion graph of the % forest cover for Panama, Papua New Guinea, Peru and Suriname




## 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 an impact of deforestation (e.g social)

Include a specific detail

Explain the impact

Evaluate how much of an impact this has had

State a impact of deforestation (e.g social)

Include a specific detail

Explain the impact

Evaluate how much of an impact this has had

Write a 1 sentence conclusion identifying if impacts are largely positive or negative

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

_____

_____

_____

_____

2. Outline a benefit of ecotourism in sustainably managing the tropical rainforest

_____

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

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

_____

_____

_____

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_____

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

1. Evaluate (opportunites and challenges) the development of tourism in the Thar Desert

_____

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2. Evaluate (opportunities and challenges) the development of renewable energy development in the Thar Desert

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**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

State a management technique

Include a specific detail

Explain how this helps reduce desertification

Evaluate the success of this technique at managing desertification

State a management technique

Include a specific detail

Explain how this helps reduce desertification

Evaluate the success of this technique at managing desertification

Stick whole class feedback sheet here

**Interleaved revision section**

1. Explain one way desertification can be prevented (use living world section of revision guide to help)

_____

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2. Suggest one way human actions can disrupt the balance of an ecosystem (use living world section of revision guide to help)

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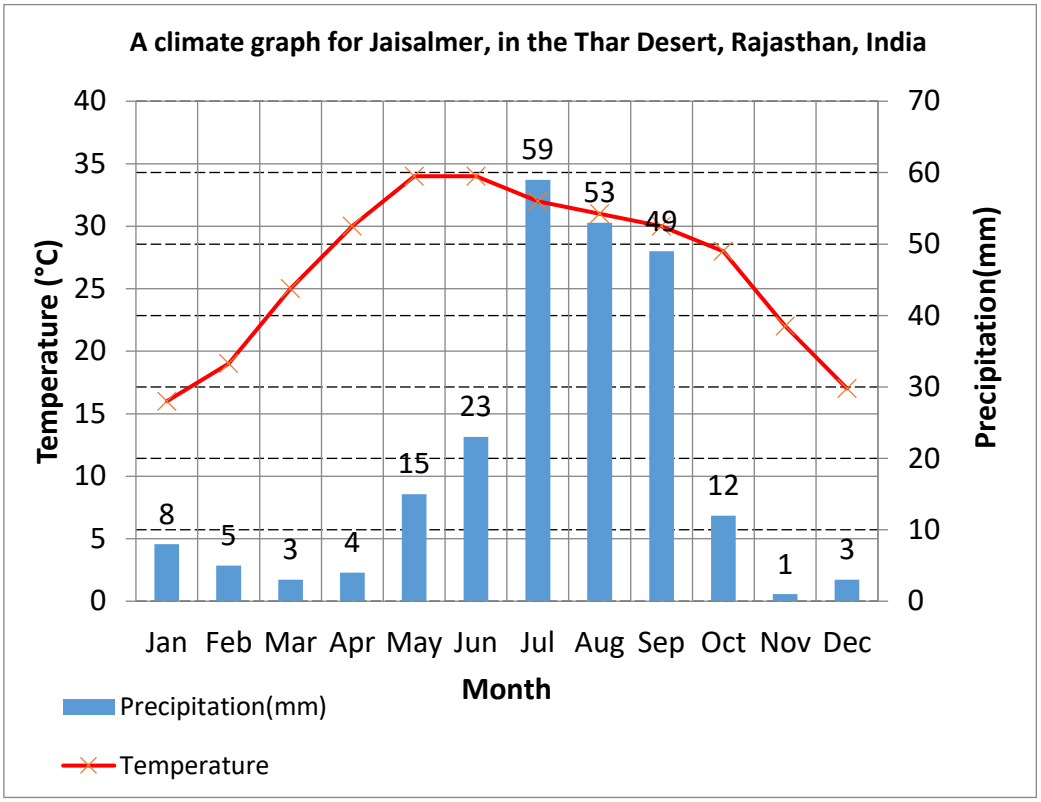
3. Annotate the photographs to show the impact of human activities on the tropical rainforest

**Deforested area**

**Slash and burn agriculture**

**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)* _____
4. Describe the climate shown on the graph

_____

_____

_____

_____

_____

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

**Assess the extent to which opportunities and challenges are created in a hot desert environment you have studied**

Feedback:

# The Physical Landscapes of the UK

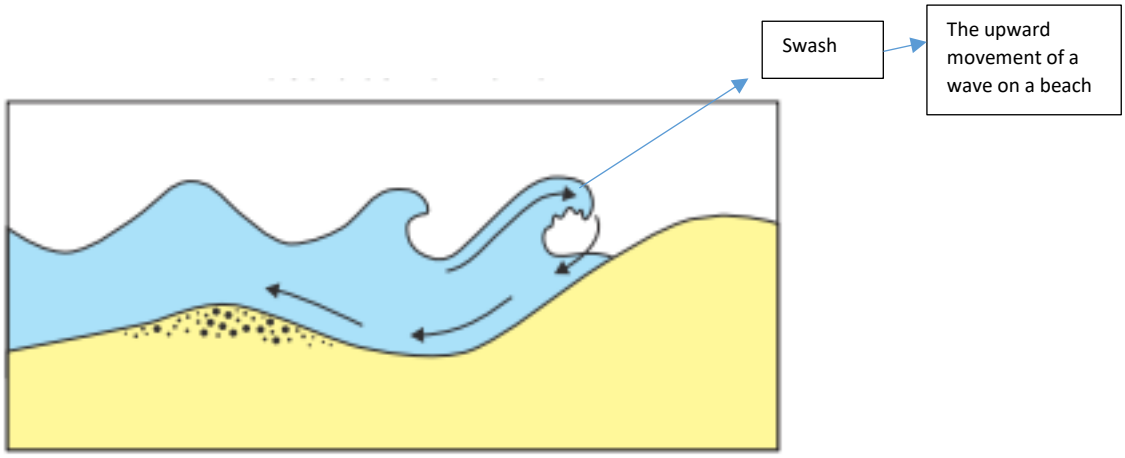
All videos can be found on The physical landscapes of the UK playlist on the Aylsham High Geography youtube channel. The video playlist will be on the right hand side when you use the URL. Scroll through the playlist to find the relevant video to watch.

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

| **Question** | **Video title** |
|---|---|
| Coastal processes (p.14) | GCSE geography revision – coastal processes<br>The 4 coastal processes of coastal erosion |
| Coastal landforms (spits and bars) (p.14-15) | Landforms coasts (GCSE geography)<br>Coastal landforms |
| Coastal landforms (stumps) (p.15) | Old Harry erosion<br>West Wales – Sea arches and stacks<br>Sea stack: A landform of coastal erosion |
| Coastal management (p.16) | GCSE geography revision – coastal management<br>Coastal management<br>A level GCSE KS3 geography – coastal management<br>Should we protect properties affected by coastal erosion? |
| River processes (p.16) | River processes |
| River landforms (meanders) (p.17) | Meandering river – dyed red<br>Meanders and ox bow lakes<br>Why do rivers curve?<br>Stream channel demo – meander cutoff during flood |
| Flood management 6 mark Q (p.18) | UK Floods: What can the IK do to prevent flooding?<br>Flooding in Morpeth Sept 2008<br>Morpeth flood alleviation scheme – official opening<br>Morpeth floods – five years on<br>BBC Inside out – Morpeth flood HD |
| Flood hydrograph (p.20) | Complete storm hydrograph in small stream channel |
| Sand dunes (p.21) | Marvellous Marram Grass |
| River landforms (waterfalls) (p.22) | How waterals are formed<br>The River Severn – Waterfalls and gorges |

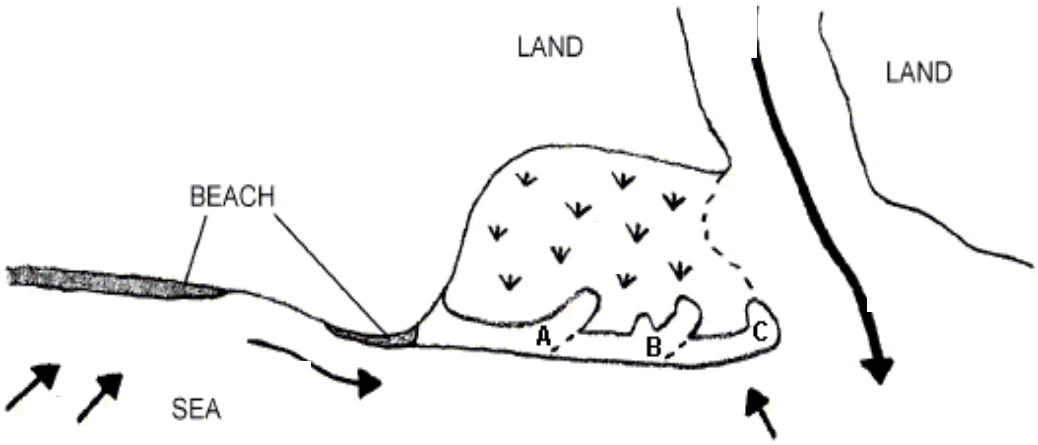
## Coastal processes (use physical landscapes section of revision guie to help)

1. Annotate (state and define) the image with at least 4 characteristics of a wave



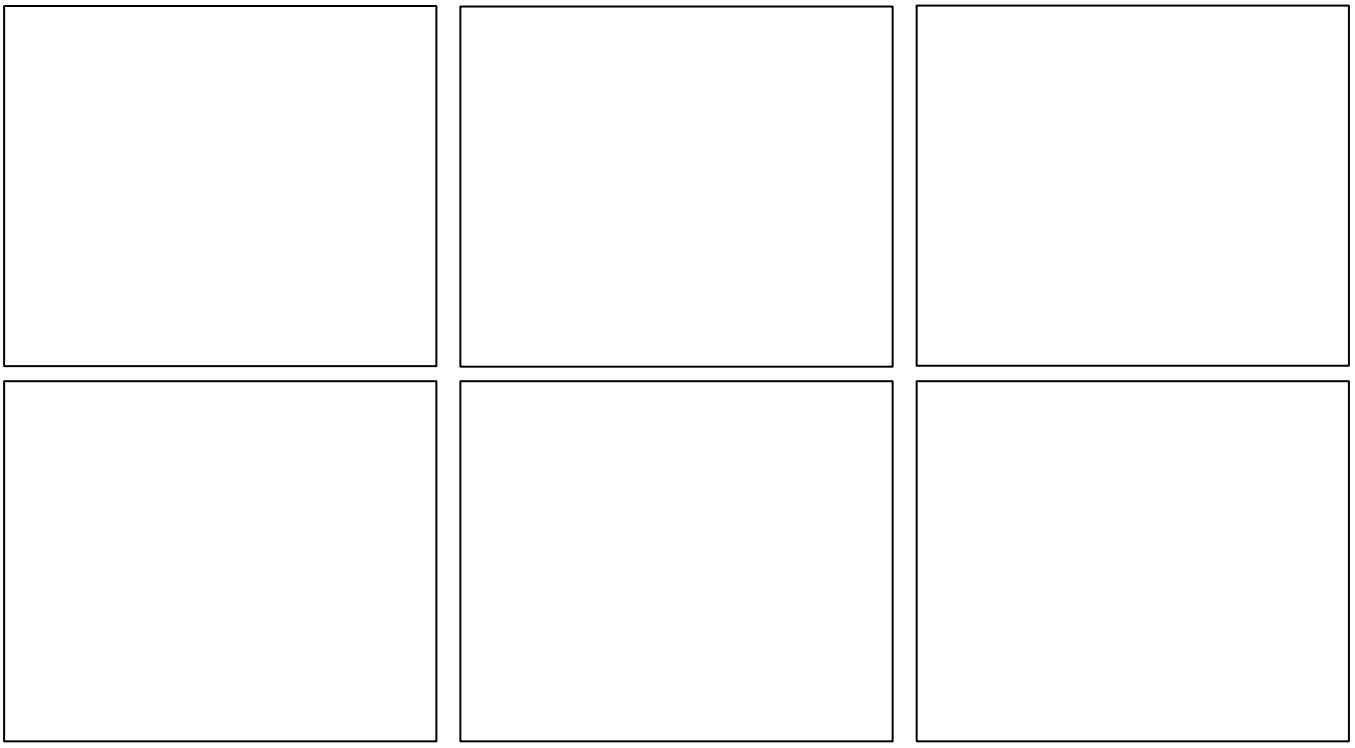

## Coastal landforms (use physical landscapes section of revision guide to help)

1. Using the diagram (e.g. label, annotate, refer to in answer), explain how a spit is formed



2. Contrast a spit with a bar

3. Explain the formation of a stump (use a series of up to 6 annotated diagrams in your answer)



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

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

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

1. Explain how velocity changes along a rivers course

_____

_____

_____

_____

_____

2. Explain why sediment size changes along a rivers course

_____

_____

_____

_____

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_____

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

1. Explain the processes involved in the development of a meander

Inside of meander bend:

_____

_____

_____

_____

Outside of meander bend:

_____

_____

_____

_____

2. Explain why deposition happens at a river estuary

_____

_____

_____

_____

_____

_____

_____

_____

**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?

State a reason why flood management was needed (e.g. natural factors / flood impacts)

Include a specific detail

Explain the flood management used

Justify why this management strategy was chosen (link back to reason)

State a reason why flood management was needed (e.g. natural factors / flood impacts)

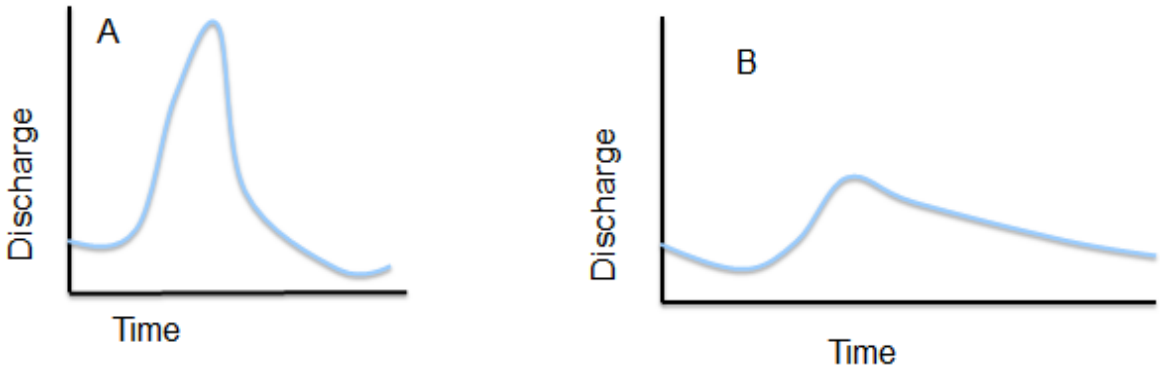
Include a specific detail

Explain the flood management used

Justify why this management strategy was chosen (link back to reason)

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. Explain the process of longshore drift

2. Suggest why plants are important for 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 ? | | |
| Number of waves breaking per minute ? | | |
| Is the gradient of the beach steep or gentle ? | | |

4. Explain the formation of a waterfall (use a series of up to 6 annotated 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.24) | Tectonics of planet Earth<br>The early Earth and plate tectonics<br>Plate tectonics |
| Global atmospheric circulation (p.25) | Understanding global atmospheric circulation<br>What is global circulation? (Part 1)<br>What is global circulation? (Part 2) |
| Earthquakes (p.26) | Earthquakes 101: National geographic |
| Tropical storms (p.26) | How do hurricanes form?<br>Formation of a tropical cyclone<br>Hurricanes and why they form<br>How do tropical storms form? |
| Typhoon Haiyan (p.26) | Typhoon Haiyan: Aerial footage shows how Tacloban has recovered 6 months on |
| Climate change (p.27-29) | Climate change 101 with Bill Nye<br>Causes and effects of climate change: National geographic<br>Is climate change causing more extreme weather?<br>How climate change makes hurricanes worse<br>Climate change: The facts<br>What happens if the world warms up by …? (Sky news) |
| UK extreme weather 6 mark Q (p.32) | UK snow forecast: Storm Emma to smash Britain<br>The week Britain froze<br>Britain's weather to get more extreme as climate warms<br>Why this summers extreme weather could become the norm – is climate change to blame?<br>Extreme weather 2018 – more in 10 years than in decades |

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

1. Contrast the different types of plate margin by completing the table below

| **Plate margin** | **Draw simple arrows to show the movement** | **Describe what happens at this plate margin** | **What features are created at this plate margin?** |
|---|---|---|---|
| Constructive | | | |
| Destructive | | | |
| Conservative | | | |
| Collision | | | |

2. Explain what happens at a subduction zone

_____

_____

_____

_____

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

_____

_____

_____

_____

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

1. Suggest two reasons for the difference in solar energy received (insolation) between the equator and the poles

- _____
  _____
  _____
  _____
- _____
  _____
  _____
  _____

2. Does rising air lead to high or low pressure?

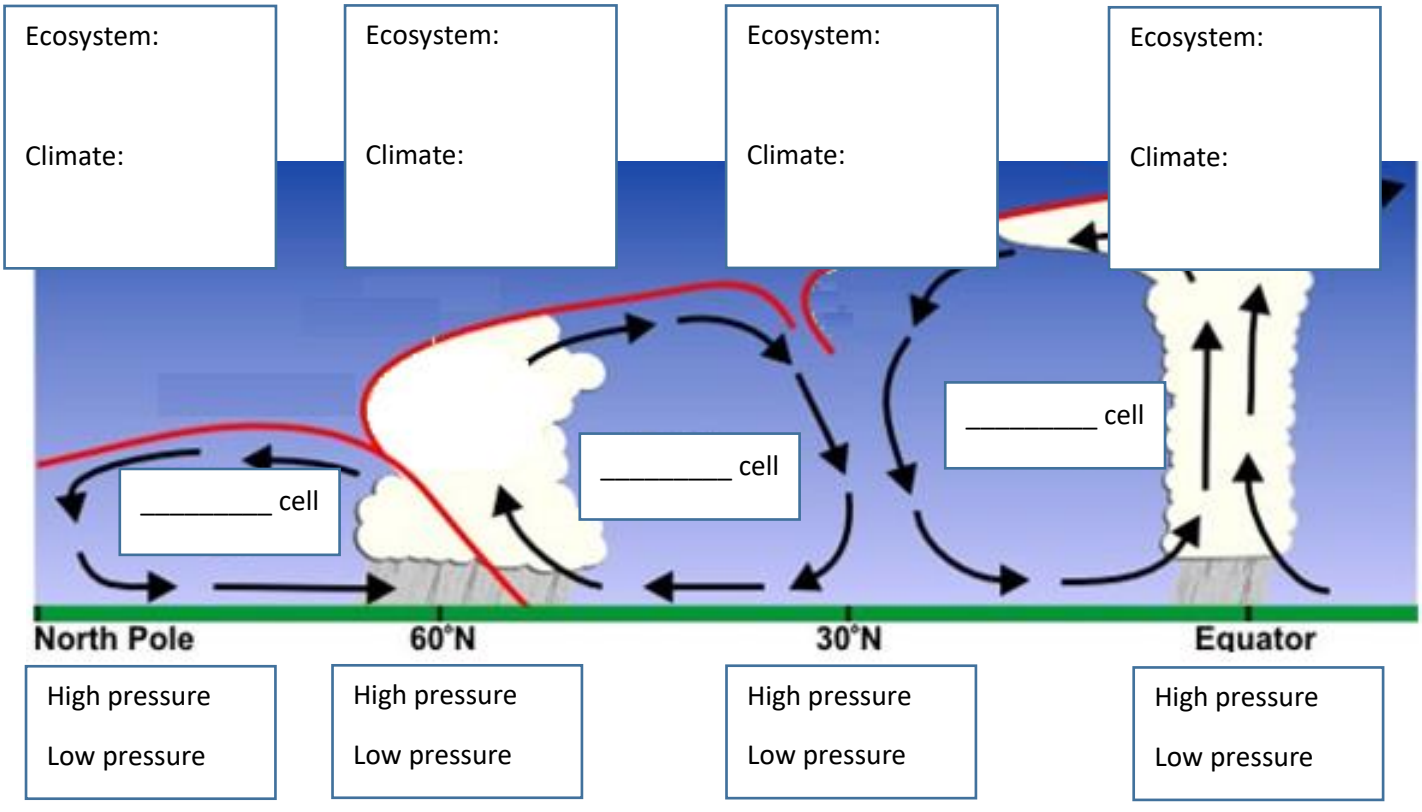
_____

3. Describe the movement of air between different pressure belts

_____

_____

4. Complete the diagram of global atmospheric circulation by filling in the gaps or selecting the correct word



## Earthquakes

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

_____

_____

_____

_____

2. Suggest two reasons why people live in tectonically active areas

- _____
  _____
  _____
- _____
  _____
  _____

## Tropical storms (use natural hazards section of revision guide to help)

1. Suggest two physical conditions required for a tropical storm to form

- _____
  _____
- _____
  _____

2. Outline one environmental reason why the Phillipines suffered badly during Typhoon Haiyan

_____

_____

_____

3. Outline one socio-economic reason why the Phillipines suffered badly during Typhoon Haiyan

_____

_____

_____

4. Explain how protection measures can reduce the impacts of tropical storms

_____

_____

_____

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

1. Explain the term climate change

_____

_____

_____

_____

2. Explain one natural and one human cause of climate change

NATURAL:

_____

_____

_____

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_____

_____

HUMAN:

_____

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3. Contrast the natural and enhanced greenhouse effect

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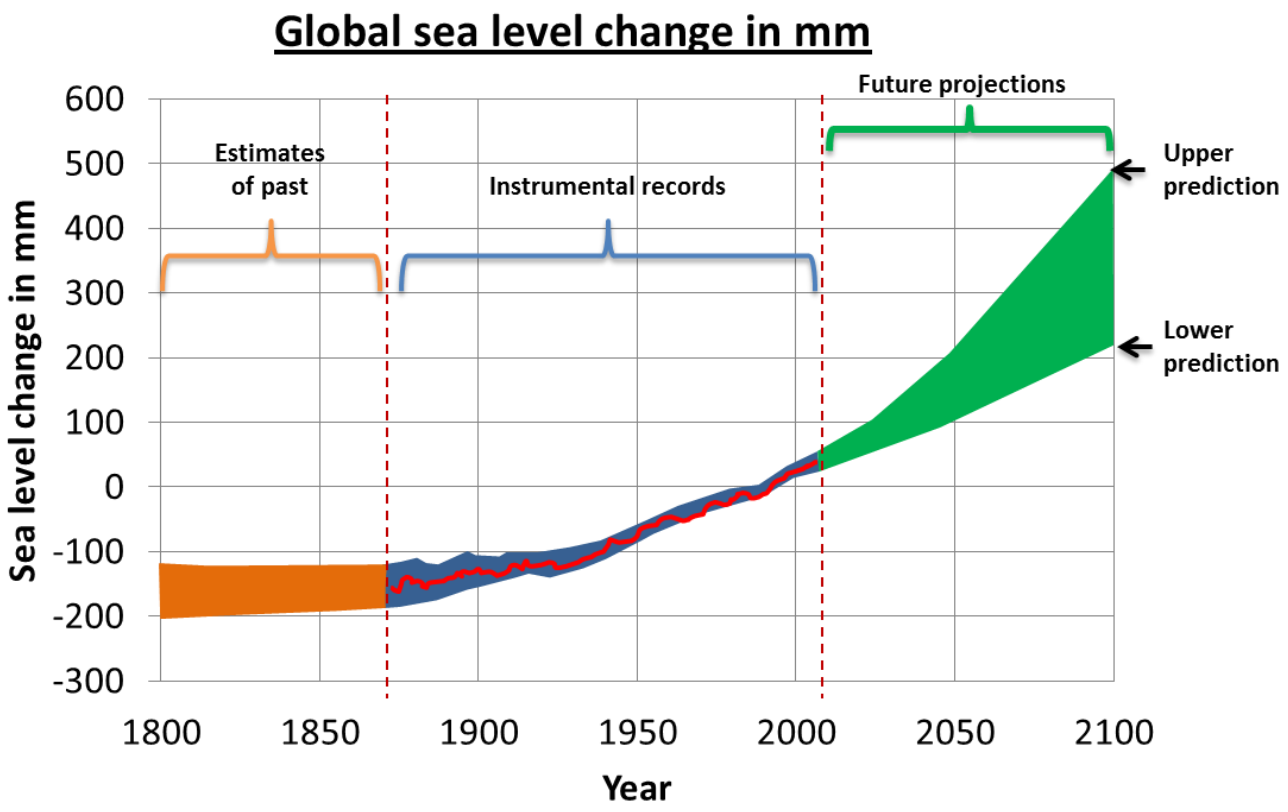
4. Geographical skills – global sea level change




Describe the changes and predicted changes in sea level since 2000 (include data in your answer)

_____

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**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<br><br>State that natural and human factors contribute to changing climate |
| State a natural cause of climate change<br><br>Explain how this causes climate change<br><br>Evaluate the significance of this cause |
| State a human cause of climate change<br><br>Explain how this causes climate change<br><br>Evaluate the significance of this cause |
| Write a 1 sentence conclusion to consider the significance of natural factors (long term causes) and human factors (recent causes of change) |

Stick whole class feedback sheet here

**Interleaved revision section**

1. Explain why volcanic eruptions occur at destructive plate margins but not at conservative plate margins (use natural hazards section of revision guide to help)

2. Outline one reason why the UK does not experience 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)**

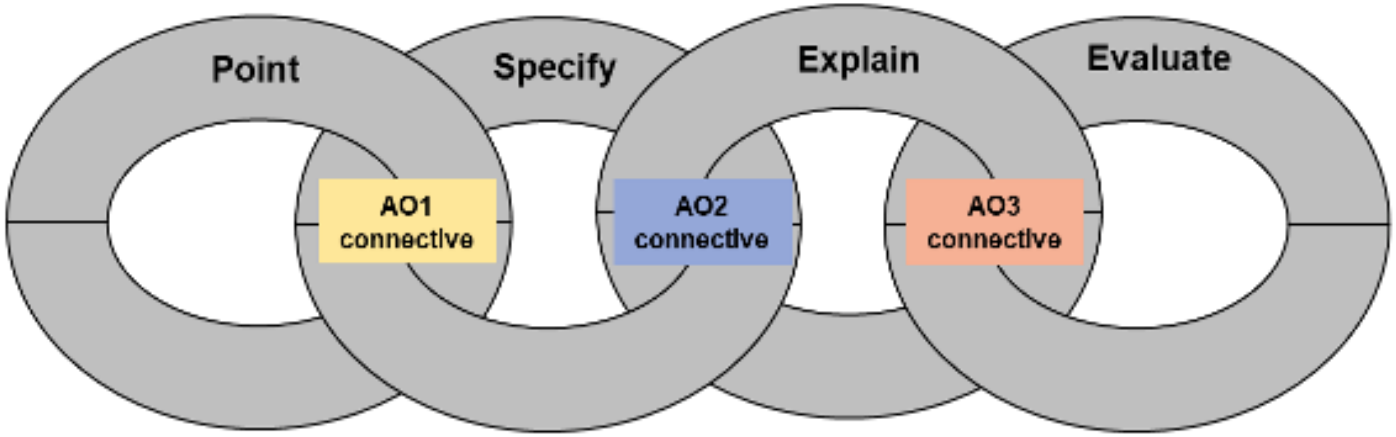
**STRUCTURE STRIP**

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