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GEOGRAPHY AQA GCSE Paper 1 Workbook

Using the CGP guide (newest edition)

NAME:

CLASS:

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Use the paper 1 revision guide to complete this workbook. Draw diagrams in pencil and present your work neatly

Natural Hazards Pg. 2

1. Define the following key terms

Natural Hazard	
Natural Disaster	
Extreme Event	

2. There are two types of Natural Hazard. 1 = Geological and 2 = Meteorological

Finish these sentences

Natural hazards are caused by……..An example of a natural hazard is……
Meteorological hazards are caused by…… An example of a Meteorological hazard is……

3. Different factors affect Hazard Risk (the probability that a natural hazard occurs).

Fill in the table with the factors

Vulnerability	Capacity to cope
1	1
2	2

4. Nature of natural hazards

Join up the term with the correct definition

TYPE	How many times a hazard occurs
FREQUENCY	The more severe the hazard the greater the effects
MAGNITUDE	Some hazards risks are greater than others

Natural hazards – Effects and responses pg. 3

1. Define the following key terms

Primary effect	
Secondary effect	
Immediate response	
Secondary response	

2. What are the primary and secondary effects? *Fill in the table*

Primary Effects	Secondary Effects

3. What are the responses? *Fill in the table*

Immediate Responses	Long-term responses

Tectonic Plates Pg. 4

1. Define the following key terms

Crust	
Mantle	
Tectonic Plate	
Continental Crust	
Oceanic Crust	
Plate boundary	

2. Types of plate margin

Draw an annotated diagram of each type of plate margin

Destructive Margins

Constructive Margins
Conservative Margins

Volcanoes and Earthquakes pg 5

1. Where plates meet Volcanoes and Earthquakes occur

Finish this sentence

Volcanoes occur at …….. and ……..

Explain why a volcano is forms in the following places (you can use diagrams to support you explanation)

Destructive Plate Margin	Constructive Plate Margin	Hot Spots

Finish this sentence:

Earthquakes occur at ……., ……., and ……

Explain why earthquakes occur at:

Destructive margins -
Constructive margins -
Conservative margins -

What is the moment magnitude scale? How does it work? *Answer the question below*

Tectonic Hazards – Examples p6-7

Fill in the table using examples from the revision guide or in class

Higher Income Country (HIC)	Lower Income Country (LIC)
Place	Place
Date	Date
Size	Size
Primary Effects	Primary Effects
Secondary Effects	Secondary Effects
Immediate Responses	Immediate Responses
Long Term responses	Long Term responses

Come up with 5 key facts for each example:

Living with Tectonic Hazards pg. 8

1. Why do people live near Tectonic Hazards? *Give three reasons*

1
2
3

2. Management can reduce the effects of Tectonic Hazards

Complete the table

Management strategy	**How does it reduce the effects?**	**Rate the strategy from 1 (very good) to 5 (very bad) at how effective it is in reducing the effects**
Monitoring		1 – 2 – 3 – 4 – 5 Explain your choice….
Prediction		1 – 2 – 3 – 4 – 5 Explain your choice….
Protection		1 – 2 – 3 – 4 – 5 Explain your choice….

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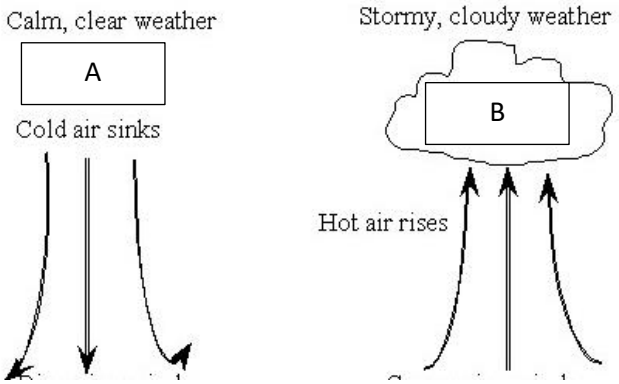
Planning		1 – 2 – 3 – 4 – 5 Explain your choice….

Global Atmospheric Circulation pg. 9

1. Define the following key terms

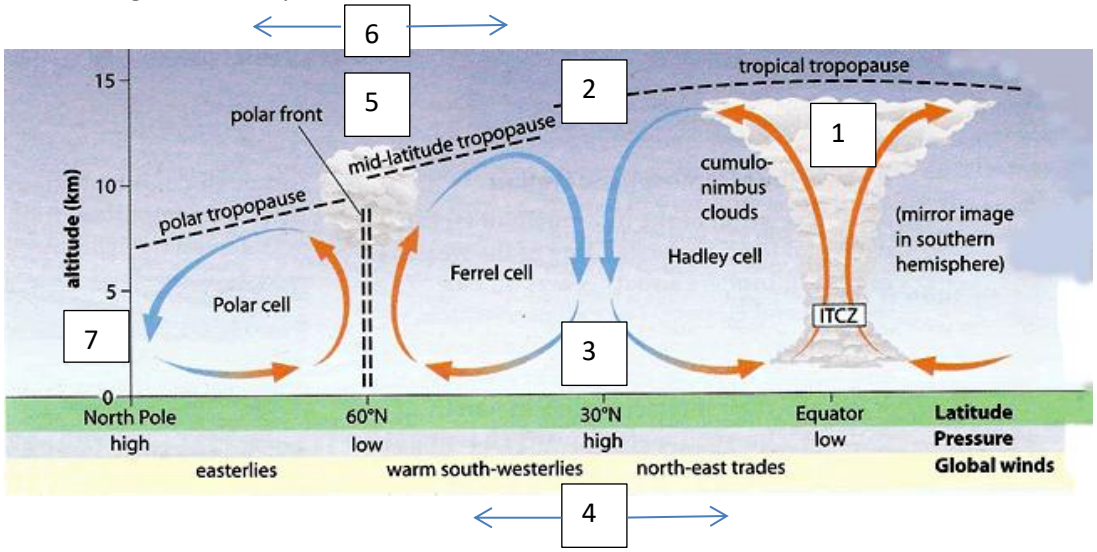
Global atmospheric circulation	
Low pressure	
High pressure	
Cells	

2. Which is high and which is low pressure?



A =
B =

3. How does global atmospheric circulation work?



Complete the table on the next page based on the diagram and pg. 9 in the revision guide.

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1 – At the equator there is low pressure because…
2 – As the air cools it….
3 – At 30°N and 30°S there is high pressure because…
4- Some air moves towards…. Other air moves towards…
5- At 60°N and 60°S…
6 – Some air….
7 – At the poles there is high pressure because…

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Tropical Storms pg.10

1. What are the three different names given to tropical storms?
   a.
   b.
   c.

2. Describe the formation of a tropical storm and highlight the key words

1
2
3
4
5
6

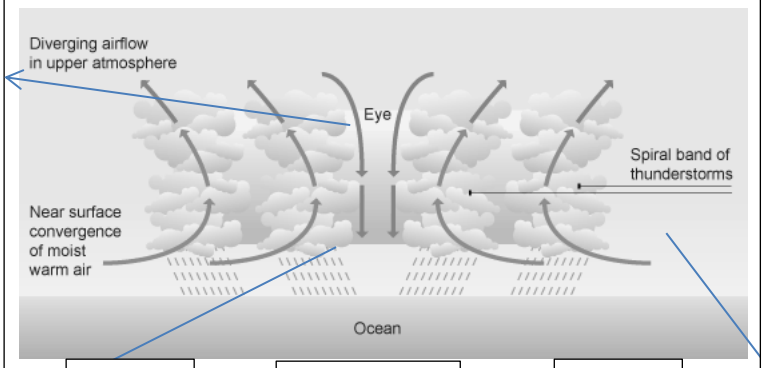
Features and structure of a tropical storm

Complete the diagram and explain how Climate Change will affect Tropical Storms

Explain how Climate Change may affect Tropical storms

Eye

300KM



West

Movement

East

Eyewall

Edge of the storm

Tropical Storms – Effects and Responses pg. 11

1. Typhoon Haiyan (LIC)

Low Income Country (LIC)
Place
Date
Primary Effects
Secondary Effects
Immediate Responses
Long Term responses

2. There are many ways of reducing the effects of tropical storms

Management strategy	**How does it reduce the effects?**	**Rate the strategy from 1 (very good) to 5 (very bad) at how effective it is in reducing the effects**
Prediction		1 – 2 – 3 – 4 – 5 Explain your choice….

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Planning		1 – 2 – 3 – 4 – 5 Explain your choice….
Protection		1 – 2 – 3 – 4 – 5 Explain your choice….

UK Weather Hazards – pg. 13

1. The UK experiences lots of different weather hazards.
   Complete the mind map below with rain, wind, snow and ice, thunderstorms, hail storms, heatwaves and drought

Weather hazards in the UK

2. Weather in the UK is becoming more extreme. *Complete the table*

Weather	How is becoming more extreme
Temperatures	
Rain	
Flooding	

Extreme UK weather Example pg. 14

1. Somerset Floods 2013-14
   Complete the table

When		
What		
Why		
Impacts		
Social impacts	*Economic Impacts*	*Environmental Impacts*

2. Management Strategies. *Complete the table*

Management Strategy	How did this reduce the impacts?
Prediction	

Protection	
Planning	

Climate Change – The evidence pg. 15

1. The earth is getting warmer. *Answer the questions below*

1 – What is climate change? …… …… ……
2 – What is the Quaternary period? …… …… …… …… ……
3 – What are glacial periods? …… …… ……
4- What are interglacial periods? …… …… ……
5- What is global warming? …… …… ……

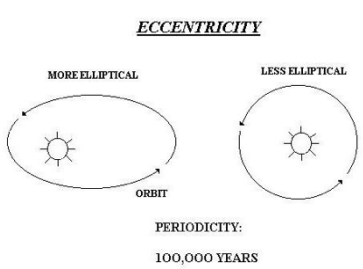
2. Evidence for Climate Change. *Fill in the boxes.*

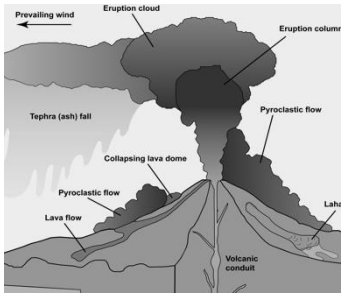
How ice and sediment cores give evidence for Climate Change?	How do Tree Rings give evidence for Climate Change?

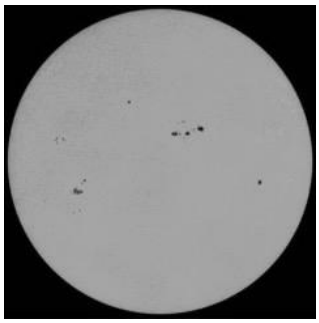
How does pollen analysis give evidence for climate change?	How do temperature records give evidence for climate change?

Climate Change – Causes pg.16

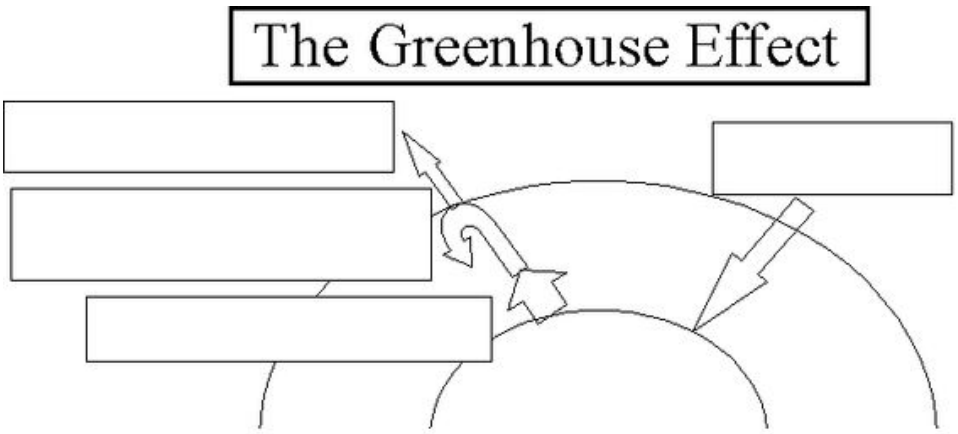
1. Natural causes of Climate Change. *Summarise the three causes of natural climate change.*







2. Human causes of climate change. *Label the greenhouse effect diagram. Fill in the boxes with human causes.*



Add the following labels to the correct box on the diagram -

gases in atmosphere trap some out-going long wave radiation, heating the atmosphere
short wave radiation from the sun
some long wave radiation leaves the atmosphere
earth emits long wave radiation

How does burning fossil fuels contribute to global warming?

How does cement production contribute to global warming?

How does deforestation production contribute to global warming?

How does deforestation contribute to global warming?

Effects of Climate Change pg. 17.

1. Temperatures are expected to rise by 0.3 – 4.8 °C. *Fill in the table with the effects on people and the environment*

Environmental impacts	Social impacts

Managing Climate Change pg. 18

1. Summarise the two different approaches to the management of climate change

Mitigation	
Adaption	

2. Mitigation strategies. *Summarise the mitigation strategies.*

Carbon Capture	Planting trees (afforestation)
International agreements	Alternative energy production

3. Adaption strategies. *Summaries the adaption strategies.*

Changing agricultural systems	Coping with rising sea levels.
Managing water supply	

Revision summary. Pg. 19. Answer the questions in the space below. Number them.

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Ecosystems pg. 20-21

1. An ecosystem includes all of the living (biotic) and non-living (abiotic) parts of an area. *Define the key terms*

Ecosystem	
Producer	
Consumer	
Food Chain	
Decomposer	
Nutrient Cycle	
Biodiveristy	

2. An example of an ecosystem – An example of a small scale ecosystem. *Draw the food web. Label the: <u>producers</u> and <u>consumers</u>*

Slapton Ley Reed Bed

3. Changes to one part of an ecosystem have a knock on effect. *Describe the impact of a hot summer and the hedgerow being trimmed*

Drought dries up the pools	Nutrient-rich runoff from farmland enters the lagoon

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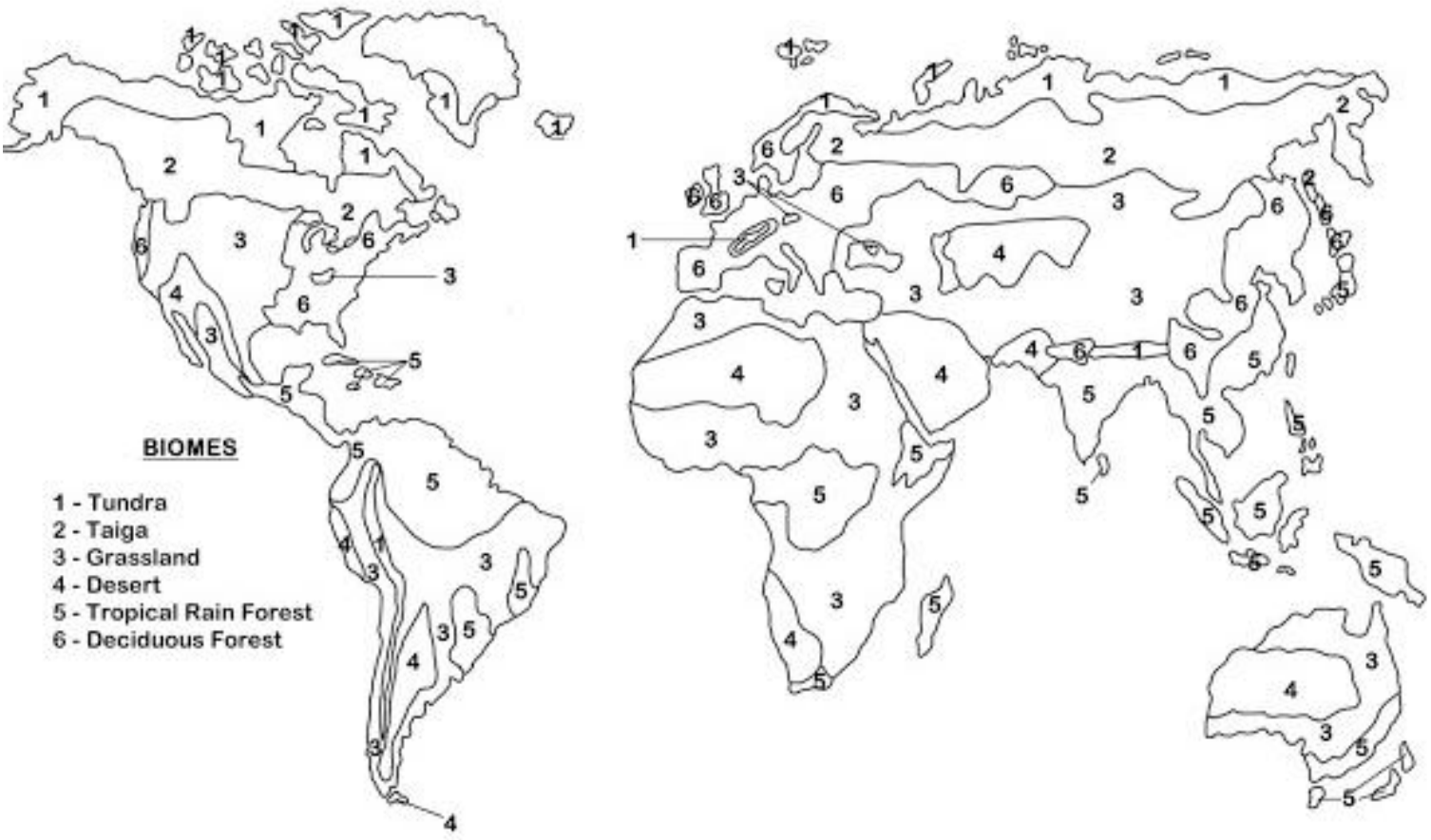
Global ecosystems – pg. 22

1. World's ecosystems. *Give the map a title and compass. Then colour in the map using the key.*



2. Characteristics of the global ecosystems. *Fill in the table with the location and characteristics*

Tundra	
Temperate deciduous forest	
Grassland	
Hot Deserts	
Tropical Rainforests	
Polar	

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Tropical rainforests pg.23-24

1. Tropical rainforests are Hot and Wet all year round. *Fill in the boxes with the characteristics of the TRF*

Climate

Soil

Plants

Animals

People

2. Rainforests are **interdependent** ecosystems.

Answer the questions

1. Why is the surface soil high in nutrients?

……

……..

2. *Why are animal populations high?*

……..

……..

3. *How does deforestation contribute to global warming and drought?*

……..

……

……

4. *What would happen if the Agouti became extinct?*

……

……

Tropical Rainforests – Biodiversity pg. 25

1. Plants and animal's adaptations. *Explain how plants and animals have adapted to their environment.*

Feature of plant or animals	How does this help the plant or animal survive?
Buttress roots	
Drip tip leaves	
Emergent trees	
Suction cups	
Short wings	
Camouflage	
Swimming	

2. Rainforests have a very high biodiversity (50% of the world's plant, animal and insect species are found there). *Answer the questions*

    1. *Why is it biodiverse?*

……

……

    2. *Why are animals and plants vulnerable to change in the TRF?*

……

……

3. *How is deforestation and development changing the tropical rainforest?*

……..

……..

……..

……..

……..

Tropical Rainforests – Deforestation pg. 26

1. Deforestation is the main threat to the Tropical rainforest. *Explain why the TRF is cut down*

Reasons	**Why has this lead to deforestation?**
Population Growth	
Mineral Extraction	
Energy Development	
Commercial Logging	
Commercial Farming	
Subsistence Farming	

2. Rate of deforestation. *Complete the sentences.*

The rate of deforestation is……..

Globally the rate of deforestation is……

Hotspots for deforestation are ……..

Brazil and Indonesia accounted for almost half of the global total between …… and ……

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Deforestation CASE STUDY – Amazon Rainforest, South America Pg. 27

Where:

What:

When:

Causes

Environmental impacts (x2)	Economic impacts

Tropical Rainforests – Sustainable management. Pg. 28

***Sustainable Development**: Meeting the needs of today's population without compromising the needs of future generations*

1. It is important to protect the TRF. *Explain why it is important to protect the TRF*

Biodiversity: ……..

……..

Products: ……

……..

Long-term economic benefits: ……

……..

Greenhouse effect ……..

……..

Climate and the water cycle: ……..

……..

2. Sustainable management strategies. *Fill in the boxes with information about each strategy.*

Selective logging: only cutting down certain trees	Replanting: replacement of trees	Ecotourism: tourism that benefits, people, the environment and the economy.

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Tropical Rainforest – Sustainable Management pg. 29

1. Sustainable management strategies. *Fill in the boxes with each management strategy*

International Hardwood Agreements	Education
Reducing debt	Conservation

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Hot Deserts – Pg. 30

1. Hot deserts are found in Hot and Dry Climates. *Describe the characteristics of the Hot Deserts by filling in the table*

Climate	Animals	People
Soil		
Plants		

2. Hot Deserts are fragile, interdependent ecosystems. *Answer the following questions.*

    1. *How do plants spread their seeds?*

……

……

    2. *Why do plants struggle to grow in a Hot Desert?*

……

……

    3. *Why is there a low density of animals?*

……

……

    4. *How does the small amount of rainfall affect the Hot Desert?*

……

……

……

    5. What is Soil Erosion and how can it impact the Hot Desert Ecosystem?

……

……

……

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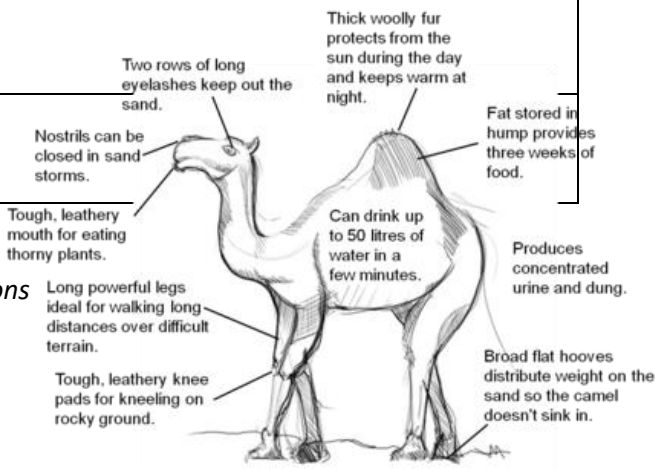
Hot Deserts – Biodiversity pg. 31

1. Plants and animals are adapted to the Hot, Dry Climate. *Explain how plants and animals have adapted to their environment.*

Feature of plant or animals	How does this help the plant or animal survive?
Roots	
Thick waxy skin	
Small leaves	
Seeds	
Nocturnal	
High body temperatures	
Camels Hump	
Triple eye lid and long eye lashes	



2. Biodiversity is higher in areas with water. *Answer the questions*

Where are most humans and animals found?

……

……

How are humans impacting on the Hot Desert Ecosystem?

……

……

Why are many animals under threat from extinction?

……

……

……

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Hot Deserts – CASE STUDY pg. 32

1. There are lots of **Development Opportunities** in the Sahara. *Fill in the boxes with the opportunities*

Mineral Resources

Oil and Gas

Solar Energy

A map of the Sahara Desert, Africa

Tourism

Farming

2. Challenges to development. *Fill in the boxes with the challenges*

Extreme Temperatures

Inaccessibility (poor transport links)

Water supply

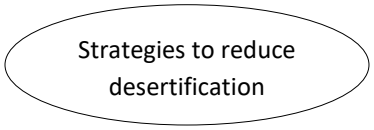
Desertification – pg 33.

Desertification: the process by which fertile land becomes desert

1. Desertification is caused by Human and Physical (natural) factors. *Fill in the table.*

Physical Causes: Climate Change	Human Causes

2. The risk of desertification can be reduced by different management strategies. *Mind map the four examples.*



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Revision summary. Pg. 38. Answer the questions in the space below. Number them.

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The UK Physical Landscape pg. 39

1. Uplands (over 200m) and lowland (below 200m) areas of the UK. *Complete the sentences.*

Most upland areas are found in …….. and …….

Most lowland areas are found in …… and ……..

Cities tend to be located in areas of …….. For example …….

2. Map of the UK. *With a ruler and pencil annotate on the UK landscapes – River Clyde lower Valley, lake District, Snowdonia, Dorset Coats, the Fens, Holderness Coast, Grampian Mountains*

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Coastal Weathering and Erosion Pg. 40

1. Weathering is the breakdown of rocks where they are, erosion is when the rocks are broken down and carried away by something e.g. seawater. *Explain how Mechanical Weathering and Chemical Weathering breakdown rocks.*

Weathering	Definition	How does it work?
Mechanical	The breakdown of rock without changing its chemical composition	
Chemical	The breakdown of rocks by changing its chemical composition	

2. Mass movement is when material falls down a slope because of gravity. It is much more likely to happen after heavy rainfall, as it makes the slope slippery. *Draw a labelled diagram of each type of mass movement.*

Slides	Slumps	Rockfalls

3. Three types of erosion wearing away coasts. *Fill in the table.*

Type	How does it work?
Hydraulic Power	
Abrasion	
Attrition	

4. Destructive waves cause erosion. *Draw a labelled diagram of a destructive wave*

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Coastal Transportation and Deposition pg. 41

1. Transportation is the movement of material. *Draw a diagram of Long Shore Drift and describe how it works*

Diagram of Longshore Drift
How does it work? (explain in your own words)

1. There are four process of transportation. *Complete the table.*

Type	Definition	Diagram
Traction		
Saltation		
Suspension		
Solution		

2. Deposition. *Answer the question*
    1. *What is deposition? Where and when does it happen?*

……

……

……

3. Constructive waves. *Draw a labelled diagram of a constructive wave.*

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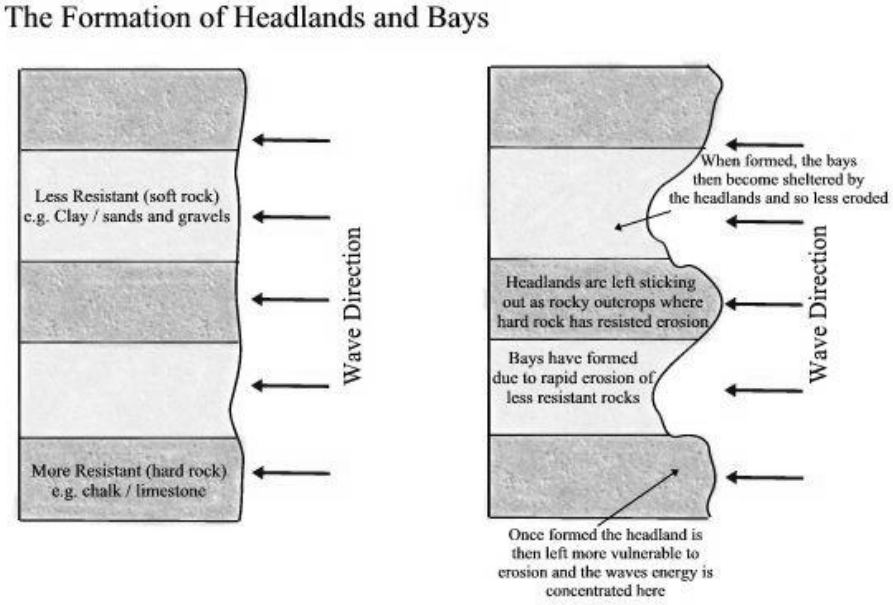
Coastal Landforms – Caused by Erosion pg. 42

1. Waves Erode Cliffs to form Wave Cut Platforms. *Draw an annotated diagram of the formation.*

1	2	3	4	5

2. Headlands and Bays. *Explain how headlands and bays are formed.*



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3. Caves, Arches, Stacks and Stumps. *Draw an annotated diagram of Caves, Arches, Stacks and Stumps*

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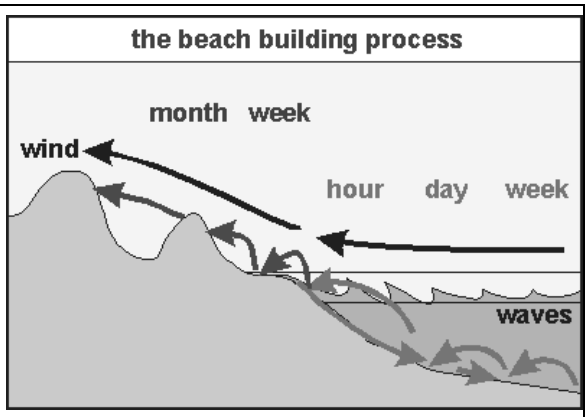
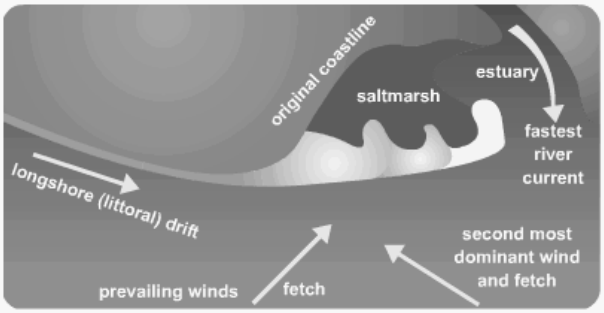
Depositional Landforms along the coastline Pg. 43

1. **Beaches, Spits, Bars and Sand Dunes are all created by deposition.** *In the boxes explain how they form. You can use diagrams if you wish.*

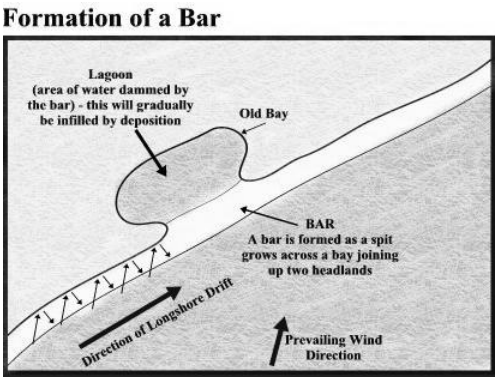
Beaches



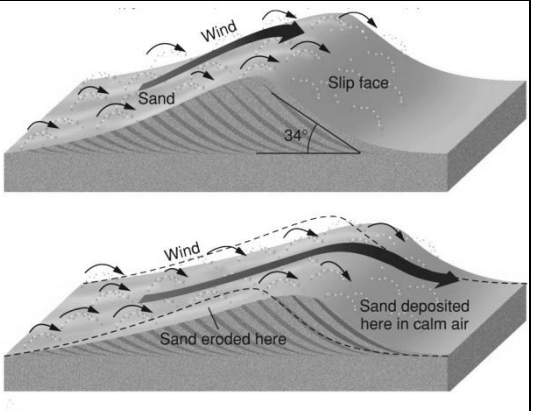
Spits



Bars



Sand Dunes



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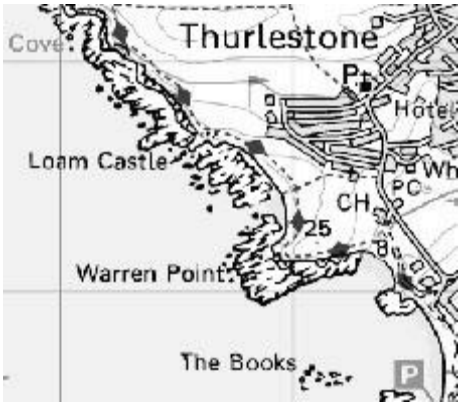
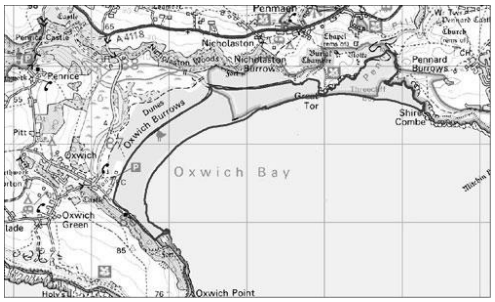
Identifying Coastal Landforms pg 44

1. Identifying Landforms caused by erosion. *Label Stacks, Cliffs and Wave Cut Platform. Describe their features on an OS Map.*



2. Identify Landforms created by deposition. *Label Shingle beach, Sand beach, Spit. Describe their features on an OS MAP.*



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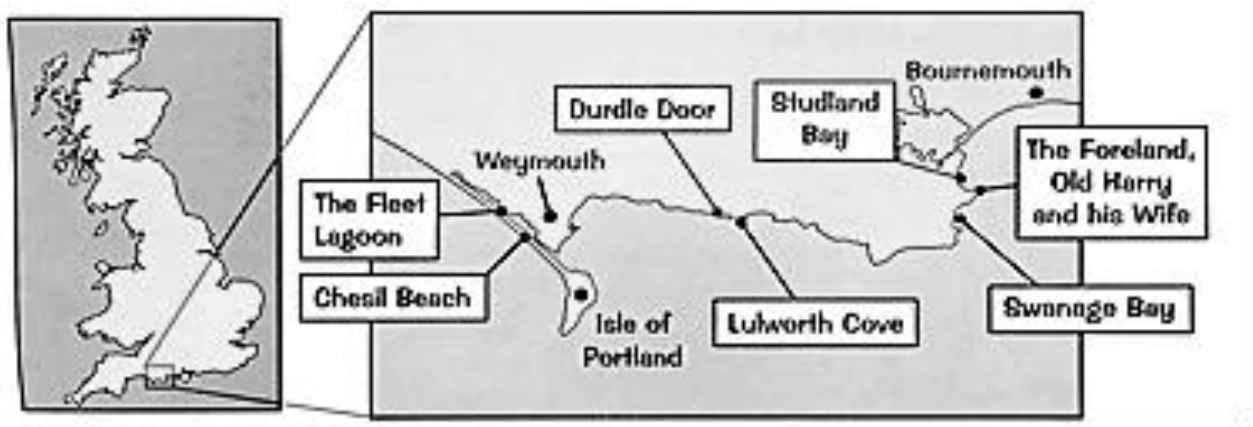
Coastal Landscapes – pg. 45

1. The Dorset Coast has examples of many coastal landforms. *Fill in the boxes.*

A Map of the UK and the Dorset Coastline



Durdle Door	Lulworth Cove
Chesil Beach	Swanage Bay, The Foreland and Studland Bay

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Coastal Management Strategies pg. 46

1. Define the following key terms

Hard Engineering	
Soft Engineering	

2. Sea defences. *Fill in the table*

Defence	What is it?	Benefits	Costs

3. Managed retreat. *Answer the questions*

1. What is managed retreat?

2. Why and when is it used?

3. Why does it create conflict?

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Coastal management – EXAMPLE – Lyme Regis p. 47

1. *Complete the table.*

2.

Why do the cliffs need protecting?
How is the coastline protected?
What are the positive effects of the management scheme?
What conflicts has the management scheme caused?
In your own opinion, is the management scheme a success or a failure? Explain your answer using chains of reasoning.

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Revision summary. Pg. 48. Answer the questions in the space below. Number them.

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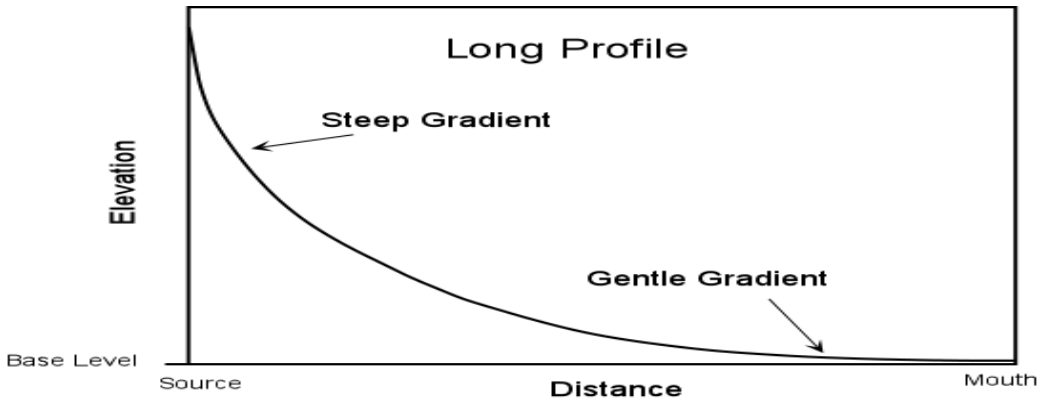
The River Valley pg. 49

1. Define the following key terms

Upper course	
Middle course	
Lower course	
Long Profile	
Cross profile	
Vertical erosion	
Lateral erosion	

1. The long profile and cross section of a river. *Label on the upper, middle and lower course. Complete the table below.*



Course and gradient			
Valley and channel shape			
Cross profile			

2. Vertical and Lateral Erosion. Describe and draw a diagram for each one.

Vertical Erosion	Lateral Erosion

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Erosion, Transportation and Deposition pg. 50

1. Erosion, Transportation and Deposition. *Fill in the tables with the types of erosion and transportation.*

Types of Erosion (the wearing down of material by the river)

Hydraulic Action	Abrasion
Attrition	Solution

Types of Transportation (the movement of material by the river)

Traction	Suspension
Saltation	Solution

2. Deposition (the dropping of material). *Explain why a river deposits materials.*

Reason 1

Reason 2

Reason 3

Reasons 4

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River Landforms in the Upper Course – Erosion pg. 51

1. Waterfalls and Gorges are found in the Upper course. *Draw an annotated diagram of waterfall formation*

2. Interlocking Spurs. Label the interlocking spurs on the image and explain how they form

How are interlocking spurs formed?

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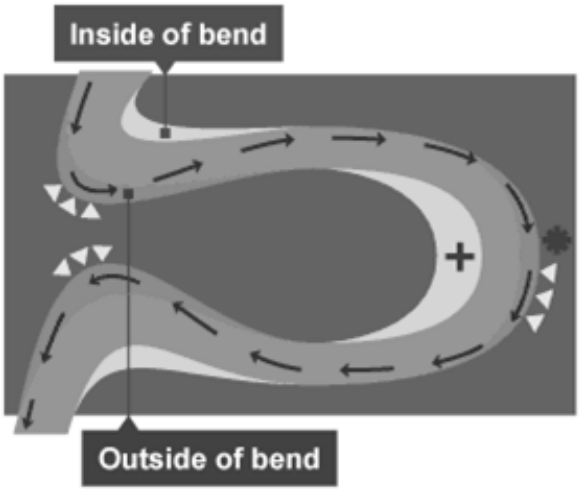
River Landforms in the Middle Course – Meanders (Erosion and Deposition) pg. 52

1. Meanders. *Annotate the diagrams.*



2. Cross profile of a meander. *Draw a labelled diagram of a cross profile for a meander*

3. Ox-Bow Lake formation. Draw a three stage diagram showing the formation of an Ox-box lake

1	3	5
2	4	6

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River Landforms – Deposition – Lower Course pg. 53

1. Flood plains. *Describe flood plains*

2. Levees are natural embankments. *Draw a diagram of their formation*

1	2	3

3. Estuaries are tidal areas where the river meets the sea. *Draw a diagram of the estuary at high and low tide*

High Tide	Low Tide

How are estuaries formed?

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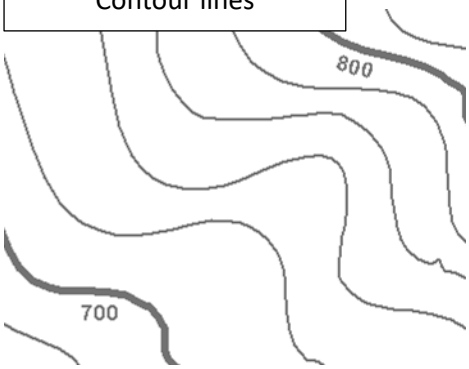
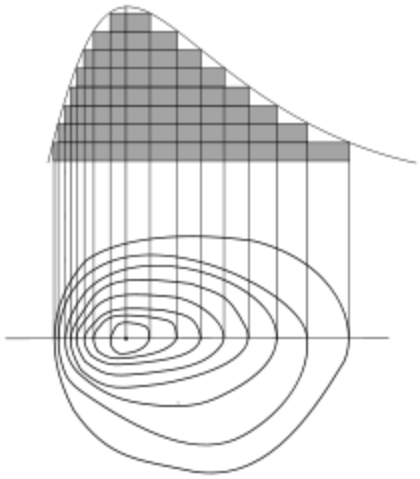
Identifying River Landforms pg. 54

1. Contour lines – Join areas of equal height. Shown in orange on an OS map. The numbers refer to the number of meters above sea level. So for example the contour lines below show a line that is 700m above sea level and 800m above sea level. The second image shows that the closer the lines are together the steeper the hill is.

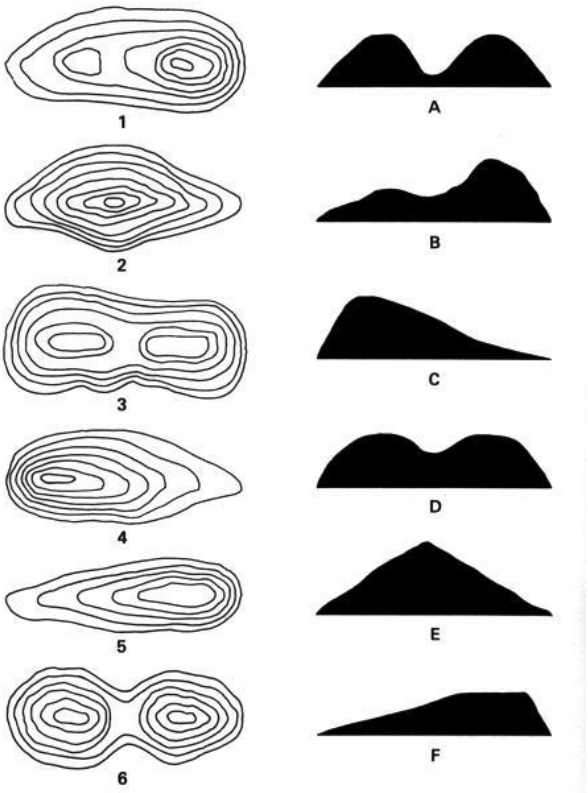
Contour lines



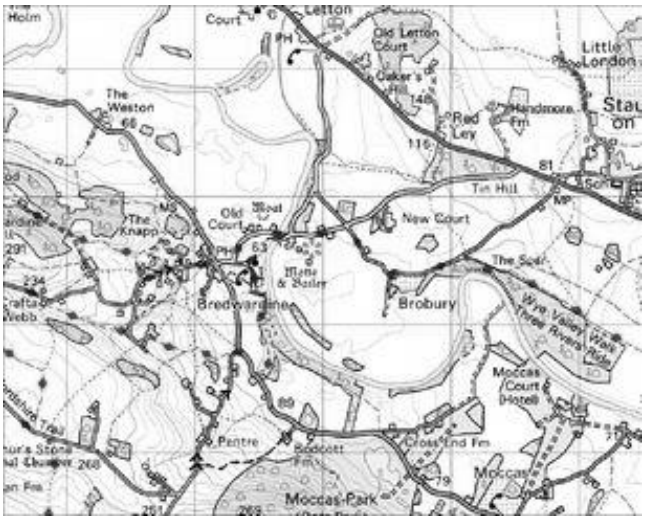
Gradient

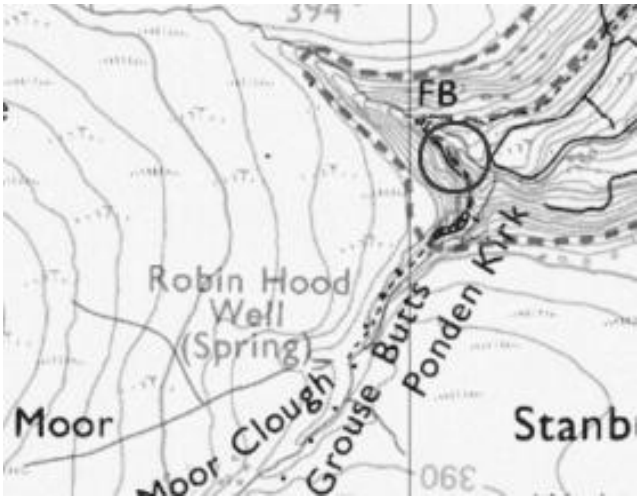


Match the lines with the correct hill



Identify the river landforms on the OS Maps





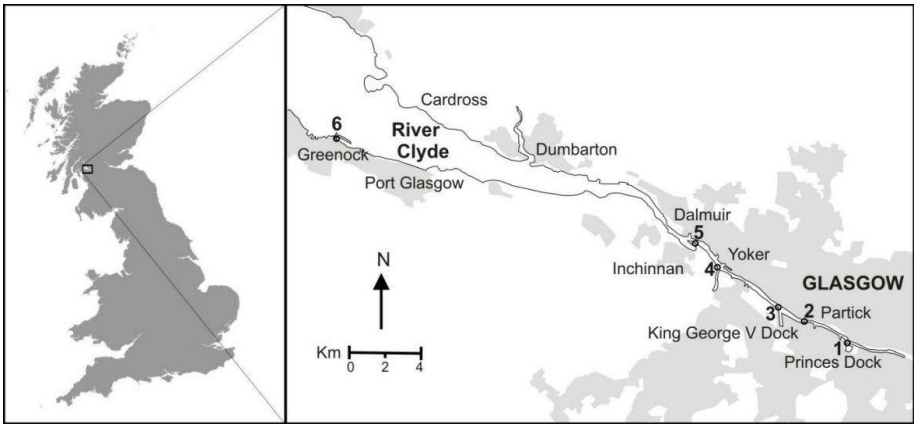
River Landscapes – Example the River Clyde pg. 55

1. **The River Clyde flows through Scotland.** *Fill in the tables*

Describe the location
Describe the river

Describe the features

Feature	What is it? Where is it found?
Waterfall	
Gorge	
Interlocking Spur	
Flood plain	
Meanders	
Oxbow lake	



River Discharge and flooding. Pg. 56

1. Hydrographs. *Draw a sketch of a hydrograph*

Define the key terms

Discharge	
Peak discharge	
Lag time	
Rising Limb	
Falling Limb	
Infiltration	
Surface run-off	
River Channel	

2. Rivers Flood due to physical and Human Factors. *Fill in the table*

Human Causes	Physical Causes

4. Define the following key terms

Hard Engineering	
Soft Engineering	

5. Sea defences. *Fill in the table*

Defence	What is it?	Benefits	Costs

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Flood Management Example: Oxford pg. 58

1. *Fill in the table*

When did it flood?
Why does Oxford need flood defences?
Describe the flood management scheme.

3. Economic and Environmental Issues. *Complete the table*

Social	Economic	Environmental

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Revision summary. Pg. 59. Answer the questions in the space below. Number them.

……Use lined paper to continue