# Rivers

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| **Key learning objective** | **Sub learning objective** | **Got good notes?****Revised?** |
| Explain the main hydrological characteristics and processes which operate within rivers and drainage basins | I understand how the hydrological cycle works  |  |
| I can describe the hydrological cycle as a system |  |
| I can identify and label the key features of a drainage basin  |  |
| I can describe and explain how a river changes from source to mouth using the Bradshaw Model and the long profile of a river.  |  |
| Demonstrate an understanding of the work of a river in eroding, transporting and depositing | I understand the 4 different ways in which a river can erode material  |  |
| I understand the 4 ways in which a river transports material |  |
| Describe and explain the formation of the landforms associated with these processes | I can explain the formation of:* A river valley
* Waterfall
* Pothole
* Meander
* Ox bow lake
* Delta
* Levee
* Floodplain
 |  |
| I can draw a fully labeled diagram of the above landforms |  |
| I can identify these features on an OS map |  |
| Demonstrate an understanding that rivers present hazards and offer opportunities for people | I can draw a flood hydrograph and identify what it shows |  |
| I can identify the human and physical causes of flooding |  |
| I can explain the effects of a specific flood- a hazard of living near a river |  |
| I can explain the benefits of living near a river |  |
| Explain what can be done to manage the impacts of river flooding | I can describe the difference between hard and soft engineering.  |  |
| I can explain the benefits and costs of using hard and soft engineering on a river area.  |  |
| I can use specific detail to explain how the flood risk is managed in a specific area.  |  |

# Plate Tectonics

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| **Key learning objective** | **Sub learning objective** | **Got good notes?****Revised?** |
| Describe the main types and features of volcanoes and earthquakes | I can define the word volcano and distinguish between active, dormant and extinct volcanoes |  |
| I can identify the key features of a composite volcano  |  |
| I can identify the key features of a shield volcano |  |
| I can identify the key features of and earthquake such as focus and epicenter  |  |
| I can identify how earthquakes are measured by the Richter and Mercalli scales  |  |
| Describe and explain the distribution of earthquakes and volcanoes. | I can describe the distribution of volcanoes and earthquake zones |  |
| I can identify the layers of the earth |  |
| I can differentiate between the two types of crust |  |
| I can explain what happens at a divergent/ constructive pate margin |  |
| I can explain what happens at a convergent/ destructive plate margin |  |
| I can explain what happens at a conservative plate margin  |  |
| Describe the causes of earthquakes and volcanic eruptions and their effects on people and the environment | I can explain why volcanoes happen at hotspots  |  |
| I can explain the long and short-term effects of a volcanic eruption |  |
| I can describe and explain the causes and effects of a named volcano: Montserrat |  |
| I can explain the long and short-term effects of an earthquake |  |
| I can describe and explain the causes and effects of a named earthquake: Haiti  |  |
| Demonstrate an understanding that volcanoes present hazards and offer opportunities for people | I can describe the different volcanic hazards such as lava, ash, pyroclastic flows, mudflows, etc and I can describe the likely hazards of each for people. |  |
| I can explain the benefits of living in volcanic regions. |  |
| Explain what can be done to reduce the impacts of earthquakes and volcanoes | I can explain how volcanoes can be predicted along with any equipment that is used |  |
| I understand the importance of the importance of evacuation and warning systems |  |
| I can describe the measures taken to reduce the examples of measures taken to reduce the impact of volcanoes |  |
| I can explain why people live in earthquake zones |  |
| I can explain what can be done to manage the risk in earthquake zones |  |

# Population

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| **Objectives: I can** | **Got good notes?****Revised?** |
| Describe and give reasons for the rapid increase in the world's population.  |  |
| Identify the major influences on population density and population distribution. Reference should be made to physical, economic and human factors.  |  |
| Examine a case study of a country that is sparsely populated  |  |
| Examine a case study of a country that is densely populated  |  |
| Define over and under population  |  |
| Explain the causes of over and under population  |  |
| Provide case studies of an over populated and under populated country  |  |
| Understand the main cause of change in population size  |  |
| Explain varying reasons for high and low birth and death rates  |  |
| Explain the impact of HIV/AIDs in a country  |  |
| Describe and explain the demographic transition model  |  |
| Give reasons for contrasting rates of natural population change  |  |
| Identify features of population pyramids for countries at different stages of development  |  |
| Explain implications of countries with different population structures.  |  |
| Examine case study for a population with a high dependent population  |  |
| Explain why population structures are changing  |  |
| Examine issues of a country with a high rate of natural population growth  |  |
| Examine issues of a country with a low rate of natural population growth (or population decline)  |  |
| Link population pyramids to different stages of the demographic transition model  |  |
| Explain problems of rapid population growth  |  |
| Evaluate a population policy to reduce population growth  |  |

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| THE FOLLOWING TOPICS ARE **NOT** ON THE MID-COURSE ASSESSMENT. WE’VE ADDED THE OBJECTIVES HERE IN CASE YOU WANT TO SPEND ANY TIME REORGANISNG/ADDING TO YOUR NOTES FOR THESE TOPICS OVER THE SUMMER. |

# Weather and Climate

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| **Key learning objective** | **Sub learning objective** | **Got good notes?****Revised?** |
| Describe how weather data is collected | I can define the terms weather and climate |  |
| I can describe how weather data is collected:* Rain gauge
* Maximum-minimum thermometer,
* wet-and-dry bulb thermometer (hygrometer),
* Sunshine recorder,
* Barometer,
* Anemometer and wind vane
 |  |
| I can describe and explain the characteristics, siting and use made of a Stevenson screen  |  |
| I can illustrate a method for identifying cloud types and the amount of cloud |  |
| Make calculations using information from weather instruments  | I can analyse the data (describe trends) and make calculations such as annual total, daily total, mean, median, mode, range, maximum, minimum, etc. |  |
| Use and interpret graphs and other diagrams showing weather and climate data | I can use data to draw graphs and diagrams of weather data |  |
| I can describe what each graph shows – looking for trends, giving evidence, identifying anomalies. |  |
| I can produce a climate graph. |  |
| I can use appropriate skills to analyse climate graphs |  |
| Climate and natural vegetation: Equatorial climates  | I can describe the distribution of rainforest areas from the map and name some of the areas |  |
| I can draw and analyse a climate graph for a case study area of rainforest area |  |
| I can explain the factors that affect the climate of rainforest areas |  |
| I can explain the structure of the rainforest |  |
| I can describe nutrient cycling in the rainforest and link this to the climate and soils of rainforest areas |  |
| I can give an example of a typical food chain or food web in the rainforest |  |
| I can explain the concept of biodiversity  |  |
| I have a detailed case study of a rainforest area |  |
| Climate and natural vegetation: Desert climates | I can describe the distribution of hot deserts from the map and name some of the deserts. |  |
| I can draw and analyse a climate graph for a case study area of hot desert |  |
| I can explain the factors that affect the hot desert climate |  |
| I can draw and label a food web for a hot desert climate and link this to a specific area |  |
| I understand the soil profile of the hot desert region and can link this to the ecosystem characteristics |  |
| I can explain how plants and animals have adapted to the desert climate and explain the limitations for plant growth |  |
| I have a detailed case study of a desert area |  |

# Coasts

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| **Key learning objective** | **Sub learning objective** | **Got good notes?****Revised?** |
| Demonstrate an understanding of the work of the sea and wind in eroding, transporting and depositing | I understand the difference between constructive and destructive waves |  |
| I can describe the four types of wave erosion  |  |
| I understand how coasts transport material and the process of longshore drift  |  |
| I understand why coasts deposit material and why this creates sand dunes  |  |
| Describe and explain the formation of the landforms identified with these processes | I can complete fully annotated diagrams and explanations (with a named example) to show the formation of:* cliffs
* wave–cut platforms
* caves
* arches
* stacks
* bay and headland coastline
 |  |
| I can produce fully annotated diagrams and explanations to show the formation of each type of depositional landform:* Beaches
* Spits
* sand dunes
 |  |
| I can describe a transect through a sand dune.  |  |
| I can use OS maps to identify the features along a coastline.  |  |
| Describe coral reefs and mangrove swamps and the conditions required for their development | I can use maps to describe the distribution of Mangrove swamps |  |
| I understand the conditions the Mangrove swamps need to develop |  |
| I can distinguish between different types of reef and describe – atoll, fringing and barrier |  |
| I can give named examples of mangrove swamps and coral reefs  |  |
| Demonstrate an understanding that coasts present hazards and offer opportunities | I can explain what opportunities are offered by the coast |  |
| I identify the hazards found on the coast including coastal erosion and tropical storms  |  |
| Explain what can be done to manage the impacts of coastal erosion | I can describe the difference between hard and soft engineering.  |  |
| I can explain the benefits and costs of using hard and soft engineering on a coastline.  |  |