**Geography Checklist – Use this to self assess your progress and target your revision**

Student Name: Tutor Group: Geography Teacher:

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| **Paper 1 Living with the Physical Environment Section A: The challenge of natural hazards (Hazards &Tectonic Hazards)** |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Natural hazards pose major risks to people and property.** |
| Definition of a natural hazard. |  |  |  |
| Types of natural hazard. |  |  |  |
| Factors affecting hazard risk. |  |  |  |
| **Tectonic Hazards: Earthquakes and volcanic eruptions are the result of physical processes.** |
| Plate tectonics theory. |   |   |   |
| Global distribution of earthquakes and volcanic eruptions and their relationship to plate margins. (Where?) |   |   |   |
| Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity. What happens at each plate margin? (descriptions, diagrams) |
| **Destructive (convergent) margins**: Oceanic to continental |   |   |   |
| **Constructive (divergent) margins** |   |   |   |
| **Conservative margins** |   |   |   |
| Can you draw an annotated diagram to show what happens at each margin type? |   |   |   |
| What landforms can be found at different margins? |   |   |   |
| How are earthquakes measured? |   |   |   |
| What is the difference between the focus and the epicentre of an earthquake? |   |   |   |
| **The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth** |
| Primary and secondary effects of a tectonic hazard. (earthquake / volcano) |   |   |   |
| Immediate and long-term responses to a tectonic hazard. (earthquake / volcano) |   |   |   |
| Use named examples to show how the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth. |
| **Case study:**  |   |   |   |
| **Case study:** |   |   |   |
| **Management can reduce the effects of a tectonic hazard** |
| Reasons why people continue to live in areas at risk from a tectonic hazard. |   |   |   |
| How monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard. |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
| Other: | **R** | **A** | **G** |
| Understand the meaning of common command words like describe, explain, analyse |   |   |   |
| P.E.E.L Technique |   |   |   |
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| **Weather Hazards** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Global atmospheric circulation helps to determine patterns of weather and climate.** |
| General atmospheric circulation model: **pressure belts** |   |   |   |
| General atmospheric circulation model: **surface winds** |   |   |   |
| Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions. |
| Global distribution of tropical storms (hurricanes, cyclones, typhoons). |   |   |   |
| An understanding of the relationship between tropical storms and general atmospheric circulation. |   |   |   |
| Causes of tropical storms and the sequence of their formation and development. |   |   |   |
| The structure and features of a tropical storm. |   |   |   |
| How climate change might affect the distribution, frequency and intensity of tropical storms |   |   |   |
| Tropical storms have significant effects on people and the environment. |
| Primary and secondary effects of tropical storms. |   |   |   |
| Immediate and long-term responses to tropical storms. |   |   |   |
| Use a **named example** of a tropical storm to show its effects and responses. |   |   |   |
| How monitoring, prediction, protection and planning can reduce the effects of tropical storms. |   |   |   |
| The UK is affected by a number of weather hazards. |
| An overview of types of weather hazard experienced in the UK. |   |   |   |
| Extreme weather events in the UK have impacts on human activity. |
| An **example** of a recent extreme weather event in the UK to illustrate: |   |   |   |
| ·       causes |   |   |   |
| ·       social, economic and environmental impacts |   |   |   |
| ·       how management strategies can reduce risk |   |   |   |
| Evidence that weather is becoming more extreme in the UK. |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| ICT skills (Word, PowerPoint, Research…) |   |   |   |
| Map skills |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
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| **Climate Change** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Climate change is the result of natural and human factors, and has a range of effects.** |
| Evidence for climate change from the beginning of the Quaternary period to the present day. |   |   |   |
| Possible main **natural** causes of climate change: |
| 1.     Solar output |   |   |   |
| 2.     Orbital geometry |   |   |   |
| 3.     Volcanic activity |   |   |   |
| Other possible natural causes (changes in atmospheric gas, surface reflection, tectonic activity |   |   |   |
| Possible **human** causes of climate change: |
| 1.     Use of fossil fuels |   |   |   |
| 2.     Agriculture |   |   |   |
| 3.     Deforestation |   |   |   |
| Can you differentiate between natural and human causes of climate change? |   |   |   |
| What is the greenhouse effect? (annotated diagram + description in writing) |   |   |   |
| How are methane, carbon dioxide and nitrous oxide produced? |   |   |   |
| What are the effects of climate change on **people**? |   |   |   |
| What are the effects of climate change on the **environment**? |   |   |   |
| **Managing climate change involves both mitigation (reducing causes)** |
| Alternative energy production |   |   |   |
| Carbon capture |   |   |   |
| Planting trees |   |   |   |
| International agreements e.g. Rio de Janeiro, Kyoto, Paris (carbon credit, carbon sink) |   |   |   |
| **and adaptation (responding to change)** |
| Change in agricultural systems |   |   |   |
| Managing water supply |   |   |   |
| Reducing risk from rising sea levels |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
| Other: | **R** | **A** | **G** |
| Understand the meaning of common command words like describe, explain, analyse |   |   |   |
| P.E.E.L Technique |   |   |   |
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| **Section B: The Living World** |  |  |  |
| **Ecosystems** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.** |
| An example of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system. (e.g. |   |   |   |
| An understanding of: |
| ·       producers, consumers, decomposers |   |   |   |
| ·       food chain |   |   |   |
| ·       food web |   |   |   |
| ·       nutrient cycling |   |   |   |
| The balance between components. (producers, consumers, decomposers) |   |   |   |
| The impact on the ecosystem of changing one component. |   |   |   |
| An overview of the distribution and characteristics of large scale natural global ecosystems. |   |   |   |
| **Tropical rainforest ecosystems** have a range of distinctive characteristics. |
| The physical characteristics of a tropical rainforest |   |   |   |
| The interdependence of climate, water, soils, plants, animals and people. |   |   |   |
| How plants and animals adapt to the physical conditions. |   |   |   |
| Issues related to biodiversity |   |   |   |
| **Deforestation has economic and environmental impacts.** |
| Changing rates of deforestation. |   |   |   |
| A **case study** of a tropical rainforest to illustrate: |   |   |   |
| ·       causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth |   |   |   |
| ·       impacts of deforestation – economic development, soil erosion, contribution to climate change. |   |   |   |
| **Tropical rainforests need to be managed to be sustainable.** |
| Value of tropical rainforests to people and the environment. |   |   |   |
| Strategies used to manage the rainforest sustainably: |
| ·       selective logging and replanting |   |   |   |
| ·       conservation and education |   |   |   |
| ·       ecotourism and international agreements about the use of tropical hardwoods |   |   |   |
| ·       debt reduction |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
| **Other:** | **R** | **A** | **G** |
| Understand the meaning of common command words like describe, explain, analyse |   |   |   |
| P.E.E.L Technique |   |   |   |
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| **Hot deserts** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Hot desert ecosystems have a range of distinctive characteristics** |
| The physical characteristics of a hot desert. |   |   |   |
| The interdependence of climate, water, soils, plants, animals and people. |   |   |   |
| How plants adapt to the physical conditions. |   |   |   |
| How animals adapt to the physical conditions. |   |   |   |
| Issues related to biodiversity |   |   |   |
| **Development of hot desert environments creates opportunities and challenges.** |
| A **case study** of a hot desert to illustrate: |   |   |   |
| 1. development opportunities in hot desert environments: |
| ·       mineral extraction |   |   |   |
| ·       energy |   |   |   |
| ·       farming |   |   |   |
| ·       tourism |   |   |   |
| 2. challenges of developing hot desert environments: |
| ·       extreme temperatures |   |   |   |
| ·       water supply |   |   |   |
| ·       inaccessibility |   |   |   |
| **Areas on the fringe of hot deserts are at risk of desertification.** |
| Causes of desertification – climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion. |   |   |   |
| Strategies used to reduce the risk of desertification – water and soil management, tree planting and use of appropriate technology. |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
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| **Section C: Physical Landscapes in the UK** |  |  |  |
| **UK Physical Landscapes** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| The UK has a range of diverse landscapes. |
| Knows the location of major upland/lowland areas and river systems. |   |   |   |
| **Coastal Landscapes in the UK** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| The coast is shaped by a number of physical processes. |
| Know constructive and destructive wave differences and characteristics (e.g. Swash and backwash, etc). |   |   |   |
| Can describe in detail each of the following: |   |   |   |
| •• weathering processes – mechanical, chemical |   |   |   |
| •• mass movement – sliding, slumping and rock falls |   |   |   |
| •• erosion – hydraulic power, abrasion and attrition |   |   |   |
| •• transportation – longshore drift |   |   |   |
| •• deposition – why sediment is deposited in coastal areas. |   |   |   |
| Distinctive coastal landforms are the result of rock type, structure and physical processes. |
| Know the differences between more and less resistant rock types. |   |   |   |
| Can recognise and explain the formation of the erosional landforms of: headlands and bays, |   |   |   |
| Can recognise and explain the formation of the erosional landforms of: wave cut platforms and cliffs |   |   |   |
| Can recognise and explain the formation of the erosional landforms of: caves, arches stacks and stumps |   |   |   |
| Can recognise and explain the formation of the depositional landforms of: beaches |   |   |   |
| Can recognise and explain the formation of the depositional landforms of: sand dunes |   |   |   |
| Can recognise and explain the formation of the depositional landforms of: spits |   |   |   |
| Can recognise and explain the formation of the depositional landforms of: bars |   |   |   |
| For the Jurassic Coast can name and identify its major landforms of erosion and deposition (e.g. Old Harry's Rock are Stacks, Studland is sand dunes etc). |   |   |   |
| Different management strategies can be used to protect coastlines from the effects of physical processes. |
| Know reasons to manage (protect) a coastline: |   |   |   |
| Can describe and the say the pros and cons of the hard coastal management technique of: sea walls |   |   |   |
| Can describe and the say the pros and cons of the hard coastal management technique of: rock armour |   |   |   |
| Can describe and the say the pros and cons of the hard coastal management technique of: gabion |   |   |   |
| Can describe and the say the pros and cons of the hard coastal management technique of: groynes |   |   |   |
| Can describe and the say the pros and cons of the soft coastal management technique of: beach nourishment and reprofiling |   |   |   |
| Can describe and the say the pros and cons of the soft coastal management technique of: dune regeneration |   |   |   |
| Can describe and the say the pros and cons of the soft coastal management technique of: managed retreat/coastal realignment |   |   |   |
| For the Holderness coast/Happisburgh know:  |   |   |   |
| •• the reasons for management |   |   |   |
| •• the management strategy |   |   |   |
| •• the resulting effects and conflicts. |   |   |   |
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| **River Landscapes in the UK** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| The shape of river valleys changes as rivers flow downstream. |
| Know what the long profile is and how it changes along a river |   |   |   |
| Know what the cross profile is and how it changes along a river |   |   |   |
| Can describe the fluvial processes: |   |   |   |
| •• erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion |   |   |   |
| •• transportation – traction, saltation, suspension and solution |   |   |   |
| •• deposition – why rivers deposit sediment. |   |   |   |
| Distinctive fluvial landforms result from different physical processes. |
| Can recognise and explain the formation of the erosional river landforms of: interlocking spurs |   |   |   |
| Can recognise and explain the formation of the erosional river landforms of: waterfalls and gorges. |   |   |   |
| Can recognise and explain the formation of the erosional and dispositional river landforms of: meanders. |   |   |   |
| Can recognise and explain the formation of the erosional and dispositional river landforms of: ox-bow lakes |   |   |   |
| Can recognise and explain the formation of the dispositional river landforms of: flood plains |   |   |   |
| Can recognise and explain the formation of the dispositional river landforms of: levées, |   |   |   |
| Can recognise and explain the formation of the dispositional river landforms of: estuaries |   |   |   |
| For the River Tees can say which of these landforms it has |   |   |   |
| Different management strategies can be used to protect river landscapes from the effects of flooding. |
| Using key terms can explain some physical factors that affect flood risk such as precipitation, geology, relief (shape of the land) |   |   |   |
| Using key terms can explain some human factors that affect flood risk such as land use |   |   |   |
| Can read and understand the components of a flood hydrograph (e.g. precipitation, discharge etc) |   |   |   |
| Can explain how a flood hydrograph shape might change |   |   |   |
| The costs and benefits of the following management strategies: |   |   |   |
| Can describe and the say the pros and cons of the hard river management technique of: dams and reservoirs,  |   |   |   |
| Can describe and the say the pros and cons of the hard river management technique of: flood relief channels |   |   |   |
| Can describe and the say the pros and cons of the hard river management technique of: straightening,  |   |   |   |
| Can describe and the say the pros and cons of the hard river management technique of: embankments, |   |   |   |
| Can describe and the say the pros and cons of the soft river management technique of: flood warning and preparation |   |   |   |
| Can describe and the say the pros and cons of the soft river management technique of: flood plain zoning |   |   |   |
| Can describe and the say the pros and cons of the soft river management technique of: planting trees |   |   |   |
| Can describe and the say the pros and cons of the soft river management technique of: river restoration |   |   |   |
| CASE STUDY OF FLOOD MANAGEMENT:  |
| •• why the scheme was required |   |   |   |
| •• the management strategy |   |   |   |
| •• the social, economic and environmental issues. |   |   |   |

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| **Paper 2 Challenges in the human environment** |  |  |
| **Section A: Urban issues and challenges** |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |  |  |
| **A growing percentage of the world’s population lives in urban areas** |  |  |
| The global pattern of urban change. |   |   |   |  |  |
| Urban trends in different parts of the world including HICs and LICs. |   |   |   |  |  |
| Factors affecting the rate of urbanisation – migration (push–pull theory), natural increase. |   |   |   |  |  |
| The emergence of megacities. |   |   |   |  |  |
| **Urban growth creates opportunities and challenges for cities in LICs and NEEs.** |  |  |
| A **case study** of a major city in an LIC or NEE to illustrate: |   |   |   |  |  |
| ·       the location and importance of the city, regionally, nationally and internationally |   |   |   |  |  |
| ·       causes of growth: natural increase and migration |   |   |   |  |  |
| ·       how urban growth has created **opportunities**: |  |  |
| o   **social:**  |  |  |
| §  access to services – health and education; |   |   |   |  |  |
| §  access to resources – water supply, energy |   |   |   |  |  |
| o   **economic**: how urban industrial areas can be a stimulus for economic development |   |   |   |  |  |
| ·       how urban growth has created **challenges**: |   |   |   |  |  |
| o   managing **urban growth** – slums, squatter settlements |   |   |   |  |  |
| o   providing **clean water**, **sanitation systems** and **energy**  |   |   |   |  |  |
| o   providing **access to services** – health and education |   |   |   |  |  |
| o   **reducing unemployment and crime**  |   |   |   |  |  |
| o   **managing environmental issues** – waste disposal, air and water pollution, traffic congestion |   |   |   |  |  |
| An example of how urban planning is improving the quality of life for the urban poor. |   |   |   |  |  |
| **Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges.** |  |  |
| Overview of the distribution of population and the major cities in the UK. |   |   |   |  |  |
| A **case study** of a major city in the UK to illustrate: |   |   |   |  |  |
| ·       the location and importance of the city in the UK and the wider world |   |   |   |  |  |
| ·       impacts of national and international migration on the growth and character of the city |   |   |   |  |  |
| ·       how urban change has created opportunities:  |  |  |
| o   social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems |   |   |   |  |  |
| o   environmental: urban greening |   |   |   |  |  |
| ·       how urban change has created challenges:  |  |  |
| o   social and economic: urban deprivation, inequalities in housing, education, health and employment |   |   |   |  |  |
| o   environmental: dereliction, building on brownfield and greenfield sites, waste disposal |   |   |   |  |  |
| o   the impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements. |   |   |   |  |  |
| An **example** of an urban regeneration project to show: |  |  |
| ·       reasons why the area needed regeneration |   |   |   |  |  |
| ·       the main features of the project |   |   |   |  |  |
| Urban sustainability requires management of resources and transport. |  |  |
| Features of **sustainable urban living**: |  |  |
| ·       water and energy conservation |   |   |   |  |  |
| ·       waste recycling |   |   |   |  |  |
| ·       creating green space |   |   |   |  |  |
| How **urban transport strategies** are used to reduce traffic congestion. |   |   |   |  |  |
| **Unit skills** | **R** | **A** | **G** |  |  |
| Map skills |   |   |   |  |  |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |  |  |
| Interpreting data and trends |   |   |   |  |  |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |  |  |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |  |  |
| **Other:** | **R** | **A** | **G** |  |  |
| Understand the meaning of common command words like describe, explain, analyse |   |   |   |  |  |
| P.E.E.L Technique |   |   |   |  |  |
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| **Section B: The changing economic world** |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **There are global variations in economic development and quality of life.** |
| Different ways of classifying parts of the world according to their level of economic development and quality of life. |   |   |   |
| Different economic and social measures of development: gross national income (GNI) per head, birth and death rates, infant mortality, life expectancy, people per doctor, literacy rates, access to safe water, Human Development Index (HDI). |   |   |   |
| Limitations of economic and social measures. |   |   |   |
| Link between stages of the Demographic Transition Model and the level of development. |   |   |   |
| Causes of uneven development: physical, economic and historical. |   |   |   |
| Consequences of uneven development: disparities in wealth and health, international migration. |   |   |   |
| **Various strategies exist for reducing the global development gap.** |
| An overview of the strategies used to reduce the development gap: investment, industrial development and tourism, aid, using intermediate technology, fair-trade, debt relief, microfinance loans. |   |   |   |
| An **example** of how the growth of tourism in an LIC or NEE helps to reduce the development gap. |   |   |   |
| **Some LICs and NEEs are experiencing rapid economic development which leads to significant social, environmental and cultural change.** |
| A **case study** of one LIC or NEE to illustrate: |   |   |   |
| ·       The location and importance of the country, regionally and globally |   |   |   |
| ·       The wider political, social, cultural and environmental context within which the country is placed |   |   |   |
| ·       The changing industrial structure. |   |   |   |
| ·       The balance between different sectors of the economy. |   |   |   |
| ·       How manufacturing industry can stimulate economic development |   |   |   |
| ·       The role of transnational corporations (TNCs) in relation to industrial development. |   |   |   |
| ·       Advantages and disadvantages of TNC(s) to the host country  |   |   |   |
| ·       The changing political and trading relationships with the wider world |   |   |   |
| ·       International aid: types of aid, impacts of aid on the receiving country |   |   |   |
| ·       The environmental impacts of economic development |   |   |   |
| ·       The effects of economic development on quality of life for the population |
| **Major changes in the economy of the UK have affected, and will continue to affect, employment patterns and regional growth.** |
| Economic futures in the UK: |   |   |   |
| Causes of economic change: de-industrialisation and decline of traditional industrial base, globalisation and government policies |   |   |   |
| Moving towards a post-industrial economy: development of information technology, service industries, finance, research, science and business parks |   |   |   |
| Impacts of industry on the physical environment. |   |   |   |
| An **example** of how modern industrial development can be more environmentally sustainable |   |   |   |
| Social and economic changes in the rural landscape in **one** area of population growth. |   |   |   |
| Social and economic changes in the rural landscape in **one** area of population decline. |   |   |   |
| Improvements and new developments in road and rail infrastructure, port and airport capacity |   |   |   |
| The north–south divide. |   |   |   |
| Strategies used in an attempt to resolve regional differences |   |   |   |
| The place of the UK in the wider world. |   |   |   |
| Links through trade, culture, transport, and electronic communication. |   |   |   |
| Economic and political links: The European Union (EU) and Commonwealth. |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |
| **Other:** | **R** | **A** | **G** |
| Understand the meaning of common command words like describe, explain, analyse |   |   |   |
| P.E.E.L Technique |   |   |   |

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| **Section C: The challenge of resource management** |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Food, water and energy are fundamental to human development.** |
| The significance of food, water and energy to economic and social well-being. |   |   |   |
| An overview of global inequalities in the supply and consumption of resources. |   |   |   |
| **The changing demand and provision of resources in the UK create opportunities and challenges.** |
| An overview of resources in relation to the UK. |   |   |   |
| **Food:**  |   |   |   |
| ·       the growing demand for high-value food exports from low income countries and all-year demand for seasonal food and organic produce |   |   |   |
| ·       larger carbon footprints due to the increasing number of ‘food miles’ travelled, and moves towards local sourcing of food |   |   |   |
| ·       the trend towards agribusiness. |   |   |   |
| **Water:**  |   |   |   |
| ·       the changing demand for water  |   |   |   |
| ·       water quality and pollution management |   |   |   |
| ·       matching supply and demand – areas of deficit and surplus |   |   |   |
| ·       the need for transfer to maintain supplies.  |   |   |   |
| **Energy:**  |   |   |   |
| ·       the changing energy mix – reliance on fossil fuels, growing significance of renewables |   |   |   |
| ·       reduced domestic supplies of coal, gas and oil |   |   |   |
| ·       economic and environmental issues associated with exploitation of energy sources. |   |   |   |
| **Unit skills** | **R** | **A** | **G** |
| Map skills |   |   |   |
| High quality literacy skills (can you write with sophisticated fluency?) |   |   |   |
| Interpreting data and trends |   |   |   |
| High quality evaluation skills (balanced arguments and your own opinions) |   |   |   |
| Ability to think synoptically (using content from a range of topics and units) |   |   |   |

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| **Energy** |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |  |  |
| **Demand for energy resources is rising globally but supply can be insecure, which may lead to conflict.** |  |  |
| Areas of **surplus** (security) and **deficit** (insecurity): |  |  |
| ·       global distribution of energy consumption and supply |   |   |   |  |  |
| ·       reasons for increasing energy consumption: economic development, rising population, technology |   |   |   |  |  |
| ·       factors affecting energy supply: physical factors, cost of exploitation and production, technology and political factors. |   |   |   |  |  |
| Impacts of **energy insecurity**: |  |  |
| ·       exploration of difficult and environmentally sensitive areas |   |   |   |  |  |
| ·       economic and environmental costs |   |   |   |  |  |
| ·       food production |   |   |   |  |  |
| ·       industrial output |   |   |   |  |  |
| ·       potential for conflict where demand exceeds supply |   |   |   |  |  |
| **Different strategies can be used to increase energy supply.** |  |  |
| Overview of strategies to **increase energy supply**: |  |  |
| ·       Renewable (biomass, wind, hydro, tidal, geothermal, wave and solar)  |   |   |   |  |  |
| ·       Non-renewable (fossil fuels and nuclear power) sources of energy |   |   |   |  |  |
| ·       An **example** to show how the extraction of a fossil fuel has both advantages and disadvantages.  |   |   |   |  |  |
| Moving towards a **sustainable resource future**: |  |  |
| ·       Individual energy use and carbon footprints.  |   |   |   |  |  |
| ·       Energy conservation: designing homes, workplaces and transport for sustainability, demand reduction, use of technology to increase efficiency in the use of fossil fuels |   |   |   |  |  |
| ·       An **example** of a local renewable energy scheme in an LIC or NEE to provide sustainable supplies of energy. |   |   |   |  |  |

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| **Paper 3: Geographical Applications** |
| **Geographical Skills** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| **Cartographic Skills** |   |   |   |
| Atlas Maps: |   |   |   |
| ·       I can use and understand coordinates – latitude and longitude |
| ·       I can recognise and describe distributions and patterns of both human and physical features |
| ·       I can use maps to identify and describe significant features of the physical and human landscape eg population distribution, population movements, transport networks, settlement layout, relief and drainage. |
| ·       I can analyse the inter-relationships between physical and human factors on maps and establish associations between observed patterns on thematic maps. |
| **Ordnance Survey Maps**: |   |   |   |
| ·       I can use and interpret OS maps at a range of scales (and other maps appropriate to the topic) |
| ·       I can use and understand coordinates – four and six-figure grid references. |
| ·       I can use and understand scale, distance and direction – measure straight and curved line distances using a variety of scales. |
| ·       I can use and understand gradient, contour and spot height. |
| ·       I can use numerical and statistical information. |
| ·       I can identify basic landscape features and describe their characteristics from map evidence. |
| ·       I can identify major relief features on maps and relate cross-sectional drawings to relief features. |
| ·       I can draw inferences about the physical and human landscape by interpretation of map evidence, including patterns of relief, drainage, settlement, communication and land-use. |
| ·       I can interpret cross sections and transects of physical and human landscapes. |
| ·       I can describe the physical features as they are shown on large scale maps of coastal and fluvial landscapes. |
| ·       I can infer human activity from map evidence, including tourism. |
| **Maps in associate with photographs**: |   |   |   |
| ·       I can compare maps |
| ·       **sketch maps**: I can draw, label, understand and interpret them. |
| ·       **Photographs**: I can use and interpret ground, aerial and satellite photographs. |
| ·       I can describe human and physical landscapes (landforms, natural vegetation, land-use and settlement.) |
| ·       I can draw sketches from photographs. |
| ·       I can label and annotate diagrams, maps, graphs, sketches and photographs.  |
| Graphical skills |   |   |   |
| ·       I can select and construct appropriate graphs and charts to present data, using appropriate scales – line charts, bar charts, pie charts, pictograms, histograms with equal class intervals, divided bar, scattergraphs, and population pyramids. |   |   |   |
| ·       I can suggest an appropriate form of graphical representation for the data provided. |
| ·       I can complete a variety of graphs and maps – choropleth, isoline, dot maps, desire lines, proportional symbols and flow lines. |
| ·       I can use and understand gradient, contour and value on isoline maps. |
| ·       I can plot information on graphs when axes and scales are provided. |
| ·       I can interpret and extract information from different types of maps, graphs and charts, including population pyramids, choropleth maps, flow-line maps, dispersion graphs. |
| ·         |
| Numerical skills |   |   |   |
| ·       I can demonstrate an understanding of number, area and scales and the quantitative relationships between units. |   |   |   |
| ·       I can design fieldwork data collection sheets and collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability. |
| ·       I understand and correctly use proportion and ratio, magnitude and frequency. |
| ·       I can draw informed conclusions from numerical data. |
| Statistical skills |   |   |   |
| ·       I can use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class.) |   |   |   |
| ·       I can calculate percentage increase or decrease and understand the use of percentiles. |
| ·       I can describe relationships in bivariate data: sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends. |
| ·       I can be able to identify weaknesses in selective statistical presentation of data. |
| Use of qualitative and quantitative data |   |   |   |
| ·       I can use qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information. |   |   |   |
| ·       Data types: Maps, fieldwork data, geospatial data (GIS), satellite imagery, written and digital sources, visual and graphical sources, numerical and statistical information |
| Formulate enquiry and argument |   |   |   |
| I demonstrate the ability to: |   |   |   |
| ·       Identify questions and sequences of enquiry |
| ·       Write descriptively, analytically and critically |
| ·       Communicate their ideas effectively |
| ·       Develop an extended written argument |
| ·       Draw well-evidenced and informed conclusions about geographical questions and issues |
| Literacy |   |   |   |
| ·       I can communicate information in ways suitable for a range of target audiences. |   |   |   |
| ·       I have good literacy skills [SPaG]. |
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| **Fieldwork** |  |  |  |
| **Unit content: RAG the following throughout, or at the end of the unit.** | **R** | **A** | **G** |
| Suitable Enquiry Question |   |   |   |
| I know the factors that need to be considered when selecting suitable questions. |   |   |   |
| I understand the geographical theory/concept underpinning the enquiry |   |   |   |
| I know the different sources of primary and secondary evidence including locations |   |   |   |
| I know the potential risks of both human and physical fieldwork and how reduced |   |   |   |
| Selecting, measuring and recording appropriate data |   |   |   |
| I can explain the difference between primary and secondary data |   |   |   |
| I can identify and select appropriate human and physical data |   |   |   |
| I can explain the measuring and recording of data using different sampling methods |   |   |   |
| Select appropriate ways of processing and presenting fieldwork data |   |   |   |
| I appreciate that there are a range of visual graphic and cartographic methods |   |   |   |
| I can select and use accurately appropriate presentation methods |   |   |   |
| I can describe, explain and adapt presentation methods |   |   |   |
| I can explain the causes of a tropical storm. |   |   |   |
| Describing, analysing and explaining fieldwork data |   |   |   |
| I can describe, analyse and explain the results of fieldwork data. |   |   |   |
| I can establish links between data sets. |   |   |   |
| I can use appropriate statistical techniques |   |   |   |
| I can identify anomalies in fieldwork data |   |   |   |
| Reaching conclusions |   |   |   |
| I can draw evidenced conclusions in relation to original aims of the enquiry |   |   |   |
| Evaluation of geographical enquiry |   |   |   |
| I can identify the problems of data collection methods |   |   |   |
| I can identify the limitations of data collected |   |   |   |
| I can suggest other data that might be useful |   |   |   |
| I can explain the extent to which conclusions were reliable |   |   |   |