Paper 1 (Physical)
Section A: The Challenge of Natural Hazards
- ☐ Define a natural hazard and give examples
- ☐ The different factors affecting hazard risk

Tectonic hazards
- ☐ The distribution of earthquakes and volcanoes (plate tectonics)
- ☐ The differences between destructive, constructive, and conservative plate boundaries
- ☐ Contrasting case studies of a tectonic hazard in HICs (Chile 2010) and LICs (Nepal 2015): causes, primary and secondary effects, immediate and long-term responses
- ☐ Reasons for people choosing to live in areas at risk from tectonic hazards
- ☐ 3Ps (Prediction, Planning and Protection) for tectonic hazards

Weather hazards
- ☐ Global atmospheric circulation (Hadley, Ferrell and Polar cells) and links to weather around the world
- ☐ The distribution of tropical storms (locations and why)
- ☐ The formation of tropical storms (what do they need to form?)
- ☐ Case study of a tropical storm (Typhoon Haiyan 2013): primary and secondary effects, immediate and long-term responses
- ☐ The effect of global warming on future tropical storms
- ☐ 3P's (Prediction, Planning and Protection) for tropical storms
- ☐ Causes of extreme weather in the UK (UK's weather roundabout)
- ☐ Case study of UK extreme weather event (Somerset Levels Floods 2014): causes, impacts (social, environmental, and economic), immediate and long-term responses
- ☐ Causes of increasing extreme weather in the UK (climate change etc)

Climate change
- ☐ Evidence for climate change (e.g. ice cores, tree rings)
- ☐ Natural causes of climate change (Orbital changes- Milankovitch cycles, sunspots, volcanoes)
- ☐ Human causes of climate change (enhanced greenhouse gas effect)
- ☐ Managing climate change- mitigation (CSC, afforestation etc)
- ☐ Managing climate change- adaptation (building flood barriers etc)

Section B: The Living World
Ecosystems
- ☐ Define what an ecosystem/ biome is (food webs, nutrient cycle, biotic/ abiotic factors)
- ☐ Example of a UK ecosystem (freshwater pond) and its interdependence
- ☐ Distribution and characteristics of global biomes

Tropical Rainforest
- ☐ Characteristics (climate, soils, vegetation)
- ☐ Plant and animal adaptations (drip tips, buttress roots, poison arrow frog, sloth)
- ☐ Case study of a tropical rainforest (Malaysian, Asia): causes and impacts of deforestation, management (international agreements, ecotourism, selective logging)

Hot Desert
- ☐ Characteristics (climate, soils, vegetation)
- ☐ Plant and animal adaptations (camel, fennec fox, cacti, ephemeral flowers)
- ☐ Case study of a hot desert (Thar Desert, India/ Pakistan): opportunities and challenges
- ☐ Case study of desertification (The Sahel region, Africa): solutions to desertification

Section C: UK Physical Landscapes
- ☐ Relief of land across the UK (upland/ lowland areas)
Coasts
- ☐ Characteristics of constructive and destructive waves
- ☐ Coastal processes of erosion (hydraulic action, abrasion, attrition, solution), transportation (longshore drift) and deposition
- ☐ Subaerial processes (weathering and mass movement)
- ☐ Concordant and discordant coastlines

- ☐ Erosional landforms (wave-cut platforms, crack, cave, arch, stack, stump)
- ☐ Depositional landforms (beaches, spits, bars)
- ☐ Hard and soft engineering- costs and benefits of each
- ☐ Case study of a UK coastline (Medmerry, Dorset Coastline): landforms, management

Rivers
- ☐ The difference between the long profile (upper, middle lower course) and cross profile
- ☐ Processes of erosion, transportation, deposition in a river
- ☐ Upper course landforms and their formation (waterfalls, gorges, v-shaped valleys)
- ☐ Middle course landforms and their formation (meanders, oxbow lakes)
- ☐ Lower course landforms and their formation (levees, floodplains, estuaries)
- ☐ Hydrographs- river discharge and lag time
- ☐ Hard and soft engineering for flooding- costs and benefits of each
- ☐ Case study of a UK river (River Tees): landforms, flood management

Paper 2 (Physical)
Section A: Urban Issues and Challenges
- ☐ Rates of urbanisation around the world and factors affecting (migration and natural increase)
- ☐ Distribution and characteristics of megacities

Urban World
- ☐ Case study of a NEE city (Rio de Janeiro, Brazil): location, importance, reasons for growth
  - o Opportunities- access to healthcare, education, water supply, energy and economic development in urban industrial areas
  - o Challenges- growth of favelas, lack of clean water, sanitation, informal employment, crime, waste disposal, air/ water pollution, traffic congestion
  - o Urban planning to improve the quality of life for the urban poor (Favela Bairro Project)
- ☐ Case study of a HIC city (Bristol, UK): location, importance, reasons for growth (international and natural migration changing the city's characteristics)
  - o Opportunities- cultural mix, recreation, entertainment, employment, integrated transport systems, urban greening
  - o Challenges- inequalities in housing, education, employment, urban deprivation, dereliction of buildings, greenfield/ brownfield sites, water disposal, urban sprawl (commuter towns)
  - o Regeneration to improve the city (Temple Quarter Regeneration)
- ☐ Example of urban sustainability (BedZED, London): conserving water and energy, recycling waste, creating green space, urban transport strategies

Section B: The Changing Economic World
- ☐ Different ways of classifying parts of the world according to their level of development.
- ☐ Identify different economic and social measures of development and their limitations.
- ☐ Demographic Transition Model
- ☐ Causes and consequences of uneven development (physical, economic, wealth, health)
- ☐ Strategies to reduce the development gap and one example case study
- ☐ Case Study of NEE: Nigeria
  - o Location and importance of the country regionally and globally
  - o Nigeria's political, social, cultural and environmental context
  - o Nigeria's changing industrial structure (manufacturing industry boosts economy)
  - o Role of transnational corporations (TNC) in Nigeria (Shell and Unilever)
  - o Types of aid
  - o The effects of economic development on quality of life for the population

Section C: The Challenge of Resource Management
- ☐ Importance of food, energy and water to social and economic wellbeing
- ☐ Distribution of resources around the world (uneven distribution)

UK resources
- ☐ Distribution of UK's resources
- ☐ Food- changing demand for different food (seasonal food and organic produce), food miles, agribusiness

- ☐ Water- changing demand for water, water quality and pollution, supply and demand (areas of deficit and surplus), ways to manage water
- ☐ Energy- changing energy mix, reducing reliance on fossil fuels, issues with exploitation of energy sources

Option 4: Food (do not answer the energy or water section)
- ☐ Global distribution of food resources (surplus and deficit)
- ☐ Increase in food consumption globally
- ☐ Factors affecting food availability (climate change, technology, water supply, conflict, poverty)
- ☐ Impacts of food insecurity (famine, under-nutrition, soil erosion, increasing prices, social unrest)
- ☐ Managing/ increasing food supply in certain areas (appropriate technology, sustainable production etc)
- ☐ <u>Example of a large-scale agricultural development</u> (Thanet Earth / IBIS): advantages and disadvantages
- ☐ <u>Example of a LIC small-scale agricultural development</u> (Appropriate technology/Agroforestry): sustainable production

<u>Paper 3</u>

Section A: Issue Evaluation
- ☐ Using Figures to make a decision about a relevant geographical issue – Pre-release booklet material to be released in March 2023

Section B: Fieldwork (Familiar and unfamiliar fieldwork)
- ☐ Setting up a suitable enquiry question (River Tillingbourne and Leatherhead)
- ☐ Selecting, measuring, and recording appropriate data (primary/ secondary data methods, sampling methods)
- ☐ Processing and presenting fieldwork data (visual, graphic and cartographic methods)
- ☐ Describing, analysing, and explaining fieldwork data (making links, using statistical techniques)

Section C: Geographical skills
- ☐ OS maps (4/6 figure grid references)
- ☐ Graph skills
- ☐ Numerical/ statistical skills (mean, mode, range, median, ratio)
- ☐ Literacy (SPaG- Spelling, Punctuation and Grammar)

Take your time, breathe, BUG the question, and give it your best shot! Good luck Geographers! ☺