

# Hellesdon High School

## GCSE Personal Learning Checklist

### Edexcel B 9-1

**Name:** \_\_\_\_\_

#### Paper 1 – Global Geographical Issues – Wednesday 13<sup>th</sup> May (AM)

Unit 1 – Hazardous Earth\*

Unit 2 – Development Dynamics\*

Unit 3 – Challenges of an Urbanising World\*\*

#### Paper 2 – UK Geographical Issues – Wednesday 3<sup>rd</sup> June (PM)

Unit 4 – The UK's evolving physical landscape

Unit 5 – The UK's evolving human landscape\*\*\*

Unit 6 – Geographical investigations

#### Paper 3 – People and Environment Issues: Making Geographical Decisions – Thursday 11<sup>th</sup> June (AM)

Unit 7 – People and the Biosphere

Unit 8 – Forests Under Threat

Unit 9 – Consuming Energy Resources

#### Major Case Studies will almost definitely be 8/12 mark questions relating to these

\*Haiti/Japan – Tectonics. Haiti/USA – Hurricanes

\* India

\*\*Mumbai

\*\*\*London

#### Best practice for revision

- Use the green revision book to **mind map** out each section
- Complete the review questions at the end of each chapter in the green revision book
- Use this checklist to map out major case studies
- Seneca Learning – keep revisiting it and redoing topics
- Complete the department mind maps (ask your teacher to print you some)
- Practice past paper questions



## Paper 1 – UNIT 1 – Hazardous Earth – Atmospheric hazards and climate change

I can...	Tick
explain how the global atmospheric circulation systems transfers and redistributes heat energy from the sun around the Earth.	
explain how the global ocean currents work to transfer and redistribute heat energy around the Earth.	
interpret climate graphs to explain how the climate varies in different places.	
explain how asteroid collisions, orbital changes, volcanic activity and variations in solar output are natural causes of climate change .	
name and describe different sources of evidence that we have for past natural climate change- ice cores, tree rings and historical sources (photographs, paintings etc.)	
explain how these sources can be used to reconstruct glacial and interglacial climate.	
explain how the climate has changed during the Quaternary and since Roman times to the present day.	
explain how human activities (industry, transport, energy and farming) produce greenhouse gases (carbon dioxide, methane) that cause the enhanced greenhouse effect.	
explain how this enhanced greenhouse effect is leading to global warming.	
explain how sea level rise, warming oceans, global temperature rise, declining Arctic ice and increased extreme weather events are evidence for human activity causing climate change.	
give examples of the possible consequences of global warming for people.	
Explain a range of projections for global temperature change and sea level rise in the future.	
explain why we can't be sure about future change- because of uncertainty about physical processes and human reasons.	
explain how a tropical cyclone forms including details about air pressure, rotation and structure.	
explain how the seasonal global distribution of tropical cyclones (hurricanes and typhoons) varies.	
Describe and explain where the source area of a tropical cyclone is and how the track will change over time.	
explain how global circulation of the atmosphere leads to tropical cyclones and why they might intensity (get stronger) or dissipate (become weaker).	
explain in the detail the following physical hazards of tropical cyclones: high winds, intense rainfall, storm surges, coastal flooding and landslides. I can explain the impact that these hazards have on people and their environment.	
explain why some countries are more vulnerable physically, socially and economically than others to the impacts of tropical cyclones.	
explain how countries can prepare for, and respond to, tropical cyclones: weather forecasting, satellite technology, warning and evacuation strategies, storm-surge defences.	
explain how effectiveness these methods were in one developed country ( <b><u>USA- Hurricane Matthew in Florida</u></b> ) and one developing country ( <b><u>Haiti- Hurricane Matthew</u></b> ). I can explain how each country was able to respond to the tropical cyclone.	

## Paper 1 – UNIT 1 – Hazardous Earth – Tectonic hazards

I can...	Tick
Describe each of the three main layers of the earth – crust, mantle and core	
Explain the differences between the oceanic and continental crust	
Define the terms lithosphere and asthenosphere	
Explain the differences between the inner core and the outer core	
Explain how the heat from the earth's core drives the movement of convection currents in outer core and mantle	
Describe the distribution of where the world's earthquakes and volcanic eruptions occur	
Explain how the plates move at the different plate boundaries – conservative, convergent and divergent	
Explain how a volcano is formed at a convergent plate boundary	
Explain how a volcano is formed at a divergent plate boundary	
Describe the primary and secondary impacts of the Haiti earthquake on people and property	
Evaluate the role of immediate response and relief efforts in the Haiti earthquake	
Describe the primary and secondary impacts of the earthquake in Sendai, Japan on people and property	
Explain the reasons for contrasting impacts on property and people in the two earthquakes, including <ul style="list-style-type: none"> <li>• Magnitude of earthquake</li> <li>• Distance from epicentre</li> <li>• Population density of area</li> <li>• Government planning including preparation of population</li> <li>• Government planning including earthquake resistant buildings</li> <li>• Area topography (coastal, low lying, mountainous etc.)</li> </ul>	
Explain how buildings are hazard-resistant in the developed and developing world	
Explain how the role of prediction, warning and evacuation can lead to fewer deaths in the world	
Evaluate the role of immediate response and relief efforts in the <u>Haiti</u> earthquake and the <u>Japan</u> Earthquake	

## Paper 1 – UNIT 2 – Development Dynamics

I can...	Tick
Examine contrasting (different) ways of defining development, using economic (money), social (people) and political (government) measures.	
Evaluate (advantages and disadvantages) different ways of measuring development, including Gross Domestic Product (GDP), the Human Development Index and measures of political freedom and corruption.	
<p>explain how the following things have led to global inequality (some countries developing faster or some countries having barriers to development)</p> <ul style="list-style-type: none"> <li>• history (colonialism / neo-colonialism)</li> <li>• spending on education and health</li> <li>• the climate</li> <li>• topography</li> <li>• international relations</li> <li>• governance (corruption / authoritarian / democratic)</li> </ul>	
explain how Rostow's modernization theory (the 5 stages) explains how and why countries develop over time.	
explain how Frank's dependency theory (the core-periphery model) explains how and why countries develop over time.	
Describe the global development gap and how this has changed over time.	
For one named developing country in Sub-Saharan Africa ( <b>India</b> ), consider possible factors influencing its development progress (Coastline, malaria, trade, history, education and health, colonialism, governance)	
Compare the <b>demographic</b> differences (fertility rates, death rates, population structures and maternal and infant mortality rates) of countries at different levels of development using population pyramids.	
Compare the characteristics of top-down and bottom-up strategies in terms of their scale, aims, funding and technology.	
Explain why globalisation is occurring and how this has lead to a <b>global shift</b> of manufacture and employment.	
<p><b>Skills:</b></p> <p>(1) Compare the relative ranking of countries using single indicators and HDI.</p> <p>(2) Interpret population pyramid graphs for countries at different levels of development.</p> <p>(3) Use income quintiles to analyse global inequality.</p>	

## Paper 1 – UNIT 2 – Development Dynamics – India Case Study

I can...	Tick
Describe India's place in the world today, including its population, cultural influence, economic position and political standing.	
Describe India's key economic trends using data – including the amount of FDI into India and the amount of exports from India since 1990.	
Explain how the government act to support FDI from TNCs including outsourcing.	
Compare the costs and benefits of different development strategies including NGO led projects ( <b>Biogas</b> ), inter-governmental schemes (top down - <b>Sardar Sarovar Dam</b> ) and investment of TNCs.	
Evaluate the impact of one large top-down project on different groups of people in a developing country.	
Explain the reasons for TNCs outsourcing manufacture and services to India	
Describe how levels of development may vary within a country (India) with regional differences evident, especially between an urban core (Maharashtra) and a rural periphery (Bihar).	
Explain why there are differences in levels of development within a country (India) with regional differences evident, especially between an urban core (Maharashtra) and a rural periphery (Bihar).	
Assess the impacts of social changes in India including, increased rural to urban migration, changing employment and increased government spending on healthcare and education.	
Discuss the advantages and disadvantages of economic change for different groups of people in India including women, children, working age adults, rural populations and India's educated middle class.	
Explain how economic change has impacted the environment in India.	
Evaluate the impacts of India's relations with other countries in the world, including its local region, its membership of international groups (G20, UN?) and its global trade (US, EU and China).	
<b>Skills:</b> Use numerical economic data to profile the chosen country Use proportional flow-line maps to visualise trade patterns and flows. Use data to calculate difference from the mean, for core and periphery regions.	

## Paper 1 – UNIT 3 – Challenges of an urbanising world

I can...	Tick
Describe past (since 1980) and current global trends in urbanisation, how it varies between global regions, and future projections of global urbanisation.	
Explain the global pattern of megacities (size, location, growth rates) and how in many countries some urban areas have disproportionate economic and/or political influence (urban primacy).	
Explain how economic change and migration (national and international) contributes to the growth and/or decline of cities in the developing, emerging and developed countries.	
Explain why urban economies are different in the developing, emerging and developed countries (formal versus informal employment, relative importance of economic sectors, working conditions).	
Explain how and why urban population numbers, distribution and spatial growth change over time (urbanisation, suburbanisation, de-industrialisation, counter-urbanisation and in some cases, regeneration).	
Describe the characteristics of different urban land uses (commercial, industrial, residential) and the factors that influence land-use type (accessibility, availability, cost, planning regulations).	

## Paper 1 – UNIT 3 – Challenges of an urbanising world - Mumbai Case Study

Explain the significance of site, situation and connectivity of the megacity in a national (environmental and cultural), regional and global context.	
Describe the megacity's structure (Central Business District (CBD), inner city, suburbs, urban-rural fringe) in terms of its functions and building age.	
Describe reasons for past and present trends in population growth (rates of natural increase, national and international migration, economic investment and growth) for the megacity.	
Explain how population growth has affected the pattern of spatial growth and changing urban functions and land use.	
Explain the opportunities for people (access to resources and employment) living in the megacity.	
Evaluate the challenges for people living in the megacity caused by rapid population growth (housing shortages, the development of squatter and slum settlements, inadequate water supply and waste disposal, poor employment conditions, and limited service provision and traffic congestion).	
Explain the pattern of residential areas of extreme wealth and contrasted with slums and squatter settlements, and reasons for differences in quality of life within the megacity and the political and economic challenges of managing the megacity.	
Evaluate the advantages and disadvantages of city-wide government (topdown) strategies for making the megacity more sustainable (managing water supply, waste disposal, transport and air quality). <b>VISION MUMBAI</b>	
Evaluate the advantages and disadvantages of community and NGO-led bottom-up strategies for making the megacity more sustainable (city housing, health and education services in the megacity). <b>LSS</b>	

## Paper 2 – UNIT 4 – The UK's evolving physical landscape – Geology and Coasts

I can...	Tick
Explain the role of geology and past processes in creating the UK's upland areas	
Explain the relationship between landscape and geology; Tees-Exe line	
Describe the main characteristics of different rock types <ul style="list-style-type: none"> <li>• Sedimentary</li> <li>• Igneous</li> <li>• Metamorphic</li> </ul>	
Explain how upland and lowland landscapes have been created; <ul style="list-style-type: none"> <li>• Weathering</li> <li>• Slope-processes</li> <li>• Post-glacial river processes</li> </ul>	
Explain how human activity influences the UK's physical landscape	
Explain what discordant and concordant coastlines are and how they are formed	
Explain how rock type can influence coastal erosion	
Explain how waves are created	
Explain how the processes of attrition, abrasion, hydraulic action and solution affect the changes along the coastline	
Identify different erosional landforms and explain how they have been created; <ul style="list-style-type: none"> <li>• headlands, bays, cave, arch, stack, stump, wave cut notch/platform</li> </ul> Identify different depositional landforms and explain how they have been created; <ul style="list-style-type: none"> <li>• sand dunes, spits, bars, lagoons, tombolos</li> </ul>	
Explain the process of longshore drift	
**Explain how human activity effects coastal landscapes	
Describe and explain how climate change might increase the risk of erosion and flooding on coastlines	
**Explain the impact coastal erosion has on people	
**Assess the costs and benefits of hard and soft engineering flood management schemes	
**Explain why different groups of people have different views on coastal management.	
Define the terms Integrated Coastal Zone Management (ICZM) and Shoreline Management Plan – discuss the four possible SMP options.	

\*\*Named locations – Happisburgh, Bacton, Great Yarmouth, Mundesley, Hemsby, Cromer

## Paper 2 – UNIT 4 – The UK's evolving physical landscape – Rivers

I can...	Tick
Describe how channel shape and characteristics change along a river profile for a named river, including width, depth, velocity and gradient	
Explain how the processes of attrition, abrasion, hydraulic action and solution affect the changes in channel shape and characteristics	
Explain how the transport processes of traction, saltation, suspension and solution affect the changes in channel shape and characteristics	
Explain the role of erosion processes, transport and deposition in river landform formation, including:  1) Interlocking spurs 2) Waterfalls 3) Meanders 4) Oxbow lakes 5) Flood plains 6) Levees	
Explain the role of geology and slope processes on river valley shape and sediment load, including:  1) Biological weathering 2) Chemical weathering 3) Physical weathering	
Explain the human and physical factors that can cause rivers to flood	
Interpret two contrasting storm hydrographs, one with a short lag time and the other with a long lag time	
Explain how human actions and physical differences can alter hydrograph shape and increase flood risk through urbanisation and land use change – e.g. deforestation	
Assess the costs and benefits of hard and soft engineering flood management schemes	
<b>One named river</b> – physical factors causing flooding, human factors causing flooding, defences – soft and hard.	



## Paper 2 – UNIT 5 – The UK's evolving human landscape

I can...	Tick
Identify key differences between core and rural (population density and age structure, economic activities and settlement)	
define the term population density	
<p>Explain how UK and EU government policies have attempted to reduce differences between core and rural areas</p> <ul style="list-style-type: none"> <li>• enterprise zones</li> <li>• investment in transport infrastructure</li> <li>• regional development</li> </ul>	
Explain why national and international migration over the past 50 years has altered the population geography of the UK	
Describe the characteristics of the four employment sectors; primary, secondary, tertiary and quaternary	
Explain why the decline in primary and secondary sectors and the rise of the tertiary and quaternary sectors in urban and rural areas has altered economic	
<p>Examine the differences between the Northeast and Southeast regions of the UK</p> <ul style="list-style-type: none"> <li>• Economic</li> <li>• Social</li> <li>• infrastructure</li> </ul>	
Explain why globalisation, free-trade policies (UK and EU) and privatisation has increased foreign direct investment (FDI)	
Explain the impact TNC's have on the UK's economy	
Explain the significance of site, situation and connectivity of London in a national, regional and global context.	
<p>Describe the structure of cities including the following sectors</p> <ul style="list-style-type: none"> <li>• CBD</li> <li>• Inner city</li> <li>• Rural – urban fringe</li> </ul>	
Describe the characteristics of different sectors of the city in terms of its functions and variations in building age and density, land-use and environmental quality.	
Explain the causes of national and international migration that influence growth and character the different parts of London, including age structure, ethnicity, housing, services and culture)	

## Paper 2 – UNIT 5 – The UK’s evolving human landscape - LONDON CASE STUDY

I can...	Tick
Assess the reasons for different levels of inequality, in employment and services, education, health in the different parts of London; <b><u>Newham and Richmond</u></b> .	
Explain how parts of a <u>named</u> city have experienced decline as a result of deindustrialisation and de-population (particularly <b><u>London Docklands</u></b> )	
Explain the causes of de-industrialisation for a <u>named city</u> ; out of town shopping centres, retail parks, business parks, e-commerce	
Explain how named parts of the city have experienced economic and population growth	
Assess the reasons for re-urbanisation that are taking place in <u>London</u> <ul style="list-style-type: none"> <li>• Space</li> <li>• Investment</li> <li>• Studentification</li> <li>• Gentrification</li> </ul>	
Assess the positive and negative social, environmental and economic impacts of regeneration and rebranding	
Describe how <b><u>Stratford</u></b> has been rebranded	
Evaluate the strategies aimed at making urban living more sustainable and improving quality of life in the city (recycling, employment, green spaces, transport, affordable and energy-efficient housing)	
Explain how the city and accessible rural areas ( <u>commuter villages near London, Devon</u> ) are <b><u>interdependent</u></b> (flows of goods, services and labour)	
Explain how and why <b><u>Devon/Cornwall</u></b> have experienced economic and social changes	
Explain the challenges facing rural areas ( <b><u>Cornwall</u></b> )- How has a decline in the primary industry impacted these areas	
Assess the costs and benefits of new income and economic opportunities in rural areas (economic diversity in <b><u>Cornwall</u></b> , the met office in <b><u>Devon</u></b> )	

## Paper 2 – UNIT 6 – Geographical investigations

I can...	Tick
<b><u>Coasts– physical investigation</u></b>	
<b>Formulate Enquiry Questions –</b> <ul style="list-style-type: none"> <li>Explain the kinds of questions capable of being investigated through fieldwork in coastal environments.</li> <li>Describe the question we were investigating</li> </ul>	
<b>Select appropriate fieldwork methods –</b> <ul style="list-style-type: none"> <li>Explain how we used one quantitative fieldwork method (sediment size, groyne analysis, gradient) to measure changes in beach characteristics</li> <li>Explain how we used one qualitative fieldwork method (land use field sketches) to collect data on factors that might influence effectiveness of defences (land use)</li> </ul>	
<b>Use primary and secondary sources –</b> <ul style="list-style-type: none"> <li>Explain how we used two primary fieldwork methods (beach profile, cross sectional area) to measure changes in beach characteristics</li> <li>Explain how we used one secondary fieldwork method (historic satellite images) to compare the effectiveness of coastal management</li> </ul>	
<b><u>London, Stratford – human urban investigation</u></b>	
<b>Formulate Enquiry Questions –</b> <ul style="list-style-type: none"> <li>Explain the kinds of questions capable of being investigated through fieldwork in urban environments (deprivation, environmental quality, perception, crime)</li> <li>Describe the question we were investigating – how does quality of life vary between two areas or how does regeneration affect quality of life.</li> </ul>	
<b>Select appropriate fieldwork methods –</b> <ul style="list-style-type: none"> <li>Explain how we used one quantitative fieldwork method (environmental quality) to compare two areas</li> <li>Explain how we used one qualitative fieldwork method (people’s views and perceptions of the areas) to compare quality of life between the two areas.</li> </ul>	
<b>Use primary and secondary sources –</b> <ul style="list-style-type: none"> <li>Explain how environmental quality surveys and perception surveys helps us investigate quality of life (index of multiple deprivation)</li> <li>Explain how census and crime data helps us investigate how quality of life varies.</li> </ul>	

## Paper 2 – UNIT 6 – Geographical investigations

I can...	Tick
<b><u>All investigations – could be an 8 mark question on any of these points.</u></b>	
explain the range of techniques and methods used in fieldwork, including observation and different kinds of measurement.	
explain the kinds of question capable of being investigated through fieldwork and understand the geographical enquiry processes appropriate to investigate them.	
Process and present fieldwork data in various ways, including maps, GIS, graphs and diagrams (hand-drawn and computer-generated).	
Analyse and explain data collected in the field, using knowledge of relevant geographical case studies and theories.	
Draw evidenced conclusions and summaries from fieldwork transcripts and data.	
Reflect critically on fieldwork data, methods used, conclusions drawn and knowledge gained, including <ul style="list-style-type: none"> <li>• <b>Links to theories / case studies (longshore drift / regeneration)</b></li> <li>• <b>Patterns, trends and anomalies</b></li> <li>• <b>Accuracy and reliability of data – sampling, time of day, sample size, methods</b></li> </ul>	

## Paper 3 – UNIT 7 – People and the Biosphere

I can...	tick
define the term biome clearly	
locate onto a world map the major biomes (Tropical Rainforests, Tropical and Temperate Grasslands, Boreal Forests, Tundra, Deserts, Temperate Forests)	
describe characteristics of all major biomes- basic plants and animals	
construct and read from a climate graph	
explain the Inter-Tropical Convergence Zone	
explain how latitude effects climate (temperature)	
explain how pressure belts effect climate (rainfall)	
explain how local factors effect climate (altitude, rock type, soils, drainage etc)	
use the terms photosynthesis, regulation, nutrient cycle and hydrological cycle clearly	
give reasons why resource use is leading to over exploitation (consumerism, urbanisation, industrialisation, deforestation)	
explain <b>Malthusian</b> theory of population growth (food production and population growth)	
explain <b>Boserupian</b> theory of population growth (food production and population growth)	

## Paper 3 – UNIT 8 – Forests under threat

I can...	tick
describe the location of Tropical Rainforests (continents, latitude, countries)	
describe the location of the Taiga (continents, latitude, countries)	
explain why the climate in Tropical Rainforests is equatorial (actual data)	
explain why the climate in the Taiga is sub-arctic (actual data)	
define the terms biotic and abiotic	
give examples of biotic and abiotic things in a biome	
explain how nutrients move in the nutrient cycle	
explain which nutrient stores are largest in the Taiga and Tropical Rainforest	
draw and understand a food web	
define biodiversity	
explain why there is more biodiversity in the rainforest	
state and explain adaptations of plants and animals to equatorial and sub-arctic climates	
explain and give data to back up why the Amazon is being lost (DIRECT THREATS: cattle ranching, logging, mining)	
explain and give data to back up why the Taiga is being lost (DIRECT THREATS: acid precipitation, forest fires, pests and diseases)	
explain how climate change is an INDIRECT threat to forest areas	
explain what CITIES and REDD do to protect Tropical Rainforest areas.	
explain what is meant by the term sustainable management.	
explain how 'national parks' and 'protected wilderness' schemes can protect the taiga	
Explain the priorities and views of various stakeholders, including <ul style="list-style-type: none"> <li>• TNCs</li> <li>• Indigenous peoples</li> <li>• Governments</li> <li>• environmentalists</li> </ul>	

## Paper 3 – UNIT 8 – Forests under threat

I can...	tick
classify energy sources as renewable, recyclable or non-renewable	
describe the distribution of energy (geology, relief and climate, development)	
explain how different countries use energy at different rates (due to economic development, industry, and access to traditional fuel sources)	
Explain how extracting energy has impacts on the environment (local, regional and global)	
describe the current distribution of oil around the world	
define the term geo-politics and link this to the fluctuating price of oil	
explain the process of fracking as an unconventional oil supply	
explain the Anthabasca oil sands and the benefits and costs of this as an oil supply	
explain how we can be more energy efficient using examples to state how we can improve housing (example- Woking)	
explain how 'Santander bikes' are reducing energy consumption in London	
Evaluate the benefits and costs of different renewable energy sources (wind, solar, HEP, biofuels, hydrogen)	
explain different attitudes to energy consumption (TNC, Climate scientists, Governments, Consumers, Environmental Groups)	

## Major skill for paper 3

### Make a geographical decision

- use evidence to justify a choice
- explain the social, economic and environmental benefits of your choice
- explain how your choice will have the most benefits now and into the future
- Critique (talk about the negatives) other options using the same criteria