

Physical features: year 10 topics

Below are the key questions you should know in **depth and detail (SEE your PEE)**.. Fill in the columns by putting in the date for the first time you do it, then shade it a red, amber or green:

Red = I feel nervous/worried. I need to ask for help/update notes/attend catch-ups/avoid panicking.

Amber = I feel quite confident, but need to find out more detail, and then create further revision notes.

Green = I feel confident about this topic. I'll check my key points then use my time to revise something else.

If there are any gaps in your knowledge/understanding, create revision guides (mind map, case study cards, etc.) using your classbook, revision guide, and your own research.

Every time you revise a topic go back and assess yourself again. You will soon see how much progress you're making. **You should revisit each point at least THREE times to make sure you fully understand that aspect.**

Global Hazards

1.1. How can weather be hazardous?		RAG		
a. Why do we have weather extremes?	Outline of the global circulation system including the effects of high and low pressure belts in creating climatic zones.			
	How the global circulation of the atmosphere causes extremes in weather conditions in different parts of the world.			
	The extremes in weather conditions associated with wind, temperature and precipitation in contrasting countries.			
	The distribution and frequency of tropical storms and drought, and whether these have changed over time.			
	Outline the causes of the extreme weather conditions associated with tropical storms.			
	Outline the causes of the extreme weather conditions of El Niño/La Niña leading to drought.			
b. When does extreme weather become a hazard?	Case study of one international natural weather hazard events arising from extreme weather conditions; tropical storms. <ul style="list-style-type: none"> Have you studied the place specific causes (including the extreme weather conditions which led to the event), consequences of and responses to the hazard. 			
	Case study of one domestic natural weather hazard events arising from extreme weather conditions; drought. <ul style="list-style-type: none"> Have you studied the place specific causes (including the extreme weather conditions which led to the event), consequences of and responses to the hazard.. 			
1.2. How do plate tectonics shape our world?				
a. What processes occur at plate boundaries?	The structure of the Earth and how it is linked to the processes of plate tectonics including convection currents.			
	The processes that take place at constructive, destructive, conservative and collision plate boundaries as well as hotspots.			
	How the movement of tectonic plates causes earthquakes, including shallow and deep focus, and volcanoes, including shield and composite.			
b. How can tectonic movement be hazardous?	A case study of a tectonic event that has been hazardous for people, including specific causes, consequences of and responses to the event.			
c. How does technology have the potential to save lives in hazard zones?	How technological developments can have a positive impact on mitigation (such as building design, prediction, early warning systems) in areas prone to a tectonic hazard of your choice.			

Changing Climate

2.1. What evidence is there to suggest climate change is a natural process?		RAG		
a. What evidence is there for climate change?	The pattern of climate change from the beginning of the Quaternary period to the present day.			
	The range and reliability of evidence relating to climate change including evidence from sea ice positions, ice cores, global temperature data, paintings and diaries.			
b. Is climate change a natural process?	Outline the causes of natural climate change including the theories of sun spots, volcanic eruptions and Milankovitch cycles.			
	Investigate the natural greenhouse effect and the impacts that humans have on the atmosphere, including the enhanced greenhouse effect.			
c. Why is climate change a global issue?	Explore a range of social, economic and environmental impacts of climate change worldwide such as those resulting from sea level rise and extreme weather events. The impacts studied should relate to the 21st century.			
	Explore a range of social, economic and environmental impacts of climate change within the UK such as the impact on weather patterns, seasonal changes and changes in industry. The impacts studied should relate to the 21 st century.			

Distinctive Landscapes

3.1. What makes a landscape distinctive?		RAG		
a. What is a landscape?	How the concept of a landscape can be defined, including the differences between built and natural landscapes.			
b. Where are the physical landscapes of the UK?	Overview of the distribution of upland, lowland and glaciated landscapes in the UK.			
	Overview of the characteristics of these landscapes which make them distinctive including their geology, climate and human activity.			
3.2. What influences the landscapes of the UK?				
a. What physical processes shape landscapes?	The geomorphic processes that are involved in shaping landscapes, including: <ul style="list-style-type: none"> ○ weathering (mechanical, chemical, biological) ○ mass movement (sliding, slumping) ○ erosion (abrasion, hydraulic action, attrition, solution), ○ transport (traction, saltation, suspension, solution), ○ deposition. 			
	• The formation of coastal landforms including headlands, bays , cave, arch, stack, beach and spit.			
	• The formation of river landforms including waterfall, gorge, v-shaped valley, floodplain, levee, meander, ox-bow lake.			
b. What are the characteristics of your chosen landscapes?	Case study of one coastal landscape to include the study of: <ul style="list-style-type: none"> ○ its landforms created by geomorphic processes ○ the geomorphic processes operating at different scales and how they are influenced by geology and climate ○ how human activity, including management, works in combination with geomorphic processes to impact the landscape. 			
	Case study of one river basin, to include the study of: <ul style="list-style-type: none"> ○ its landforms created by geomorphic processes ○ the geomorphic processes operating at different scales and how they are influenced by geology and climate how human activity, including management, works in combination with geomorphic processes to impact the landscape.			

Sustaining Ecosystems

4.1. Why are natural ecosystems important?		RAG		
a. What are ecosystems?	Understand the concept of an ecosystem as being the interdependence of climate, soil, water, plants and animals.			
	Outline the global distribution of polar regions, coral reefs, grasslands, temperate forests, tropical forests and hot deserts.			
	Overview of the climate, flora and fauna within these ecosystems.			
4.2. Why should tropical rainforests matter to us?				
a. What biodiversity exists in tropical rainforests?	The distinctive characteristics of a tropical rainforest ecosystem, including the climate, nutrient cycle, soil profile and water cycle.			
	The interdependence of climate, soil, water, plants, animals and human activity in tropical rainforests.			
b. Why are tropical rainforests being 'exploited' and how can this be managed sustainably?	Explore the value of tropical rainforests through the study of their goods and services.			
	Human impacts in the tropical rainforest from activities such as logging, mineral extraction, agriculture and tourism.			
	A case study to illustrate attempts to sustainably manage an area of tropical rainforest, such as ecotourism, community programmes, biosphere reserves and sustainable forestry, at a local or regional scale.			
4.3. Is there more to polar environments than ice?				
a. What is it like in Antarctica and the Arctic?	Outline the distinctive characteristics of Antarctica and the Arctic, including climate, features of the land and sea, flora and fauna.			
	The interdependence of climate, soil, water, plants, animals and human activity in either the Antarctic or the Arctic polar region.			
	Explore a range of impacts of human activity on either the Antarctic or the Arctic ecosystems, such as scientific research, indigenous people, tourism, fishing, whaling and mineral exploitation.			
b. How are humans seeking a sustainable solution for polar environments?	A case study to examine one small-scale example of sustainable management in either the Antarctic or the Arctic such as sustainable tourism, conservation and whaling.			
	A case study to examine one global example of sustainable management in either the Antarctic or the Arctic by investigating global actions such as Earth Summits or the Antarctic Treaty.			

Human features: year 11 topics

Urban Futures

5.1. Why do more than half the world's population live in urban areas?		RAG		
a. How is the global pattern of urbanization changing?	How urban growth rates vary in parts of the world with contrasting levels of development.			
	Outline characteristics of world cities and megacities and their changing distribution since 1950.			
b. What does rapid urbanization mean for cities?	Understand the causes of rapid urbanisation in LIDCs, including the push and pull factors of rural-urban migration and internal growth.			
	<ul style="list-style-type: none"> Investigate the consequences of rapid urban growth in LIDCs. Understand the causes and consequences of contrasting urban trends in ACs, including suburbanisation, counter-urbanisation and re-urbanisation. 			
5.2. What are the challenges and opportunities for cities today?				
This enquiry question is studied through case studies of one city in an AC and one city in an LIDC or EDC to answer sub-questions a and b.				

a. What is life like for people in a city?	<ul style="list-style-type: none"> • The city's location and importance within its region, the country, and the wider world. • Patterns of national and international migration and how this is changing the growth and character of the city. • Explore the ways of life in the city, such as culture, ethnicity, housing, leisure and consumption. • Investigate the contemporary challenges that affect life in the AC city, such as housing availability, transport provision, access to services and inequality. • Investigate the contemporary challenges that affect life in the LIDC or EDC city, such as squatter settlements, informal sector jobs, health or waste disposal. 			
b. How can cities become more sustainable?	For each city investigate one initiative to make it more sustainable, such as use of brownfield sites, waste recycling and transport improvements.			

Development

6.1. Why are some countries richer than others?		RAG		
a. What is development and how can it be measured?	Definition of 'development' and the ways in which countries can be classified, such as AC, EDC and LIDC.			
	Global distribution of ACs, EDCs and LIDCs.			
	Economic and social measures of development, such as GNI per capita and Human Development Index, and how they illustrate the consequences of uneven development.			
b. What has led to uneven development?	Outline the human and physical factors influencing global uneven development.			
	Explore the factors that make it hard for countries to break out of poverty, including debt, trade and political unrest.			
6.2. Are LIDCs likely to stay poor?				
This enquiry question is studied through one case study of an LIDC to answer sub-questions a, b and c.				
a. How has an LIDC developed so far?	Overview of the economic development of an LIDC, including influences of population, society, technology and politics, particularly in the past 50 years, or post-independence			
	Explore whether Rostow's model can help determine the country's path of economic development.			
	The extent to which the relevant Millennium Development Goals have been achieved for this LIDC.			
	Investigate how the LIDC's wider political, social and environmental context has affected its development.			
b. What global connections influence its development?	The country's international trade, such as potential reliance on a single, or few, commodities and how this influences development.			
	The benefits and problems of trade and Trans National Company (TNC) investment for development.			
	The advantages and disadvantages of international aid or debt relief for its development.			
c. What development strategy is most appropriate?	Compare the advantages and disadvantages of one top-down and one bottom-up strategy in the country.			

UK in the 21st Century

7.1. How is the UK changing in the 21st century?		RAG		
a. What does the UK look like in the 21st century?	Overview of human and physical geographical characteristics of the UK, including population density, land use, rainfall and relief, and significant issues associated with these characteristics, including water stress and housing shortages.			
b. How is the UK's population changing?	Overview of population trends in the UK since 2001, using population pyramids and migration statistics, to determine its position on the Demographic Transition Model.			
	An understanding of the causes, effects, spatial distribution and responses to an ageing population.			
	A summary of the how the population structure and ethnic diversity of a named place of the UK has changed since 2001.			
c. How is the UK's economy changing?	Identify major economic changes in the UK since 2001 by examining changes in the job market including political priorities, changing employment sectors and working hours.			
	Investigate the pattern of core UK economic hubs.			
	Identify the changes in one economic hub and its significance to its region and the UK.			
7.2 Is the UK losing its global significance?				
a. What is the UK's political role in the world?	Examine the UK's political role in one global conflict through its participation in international organisations.			
b. How is the UK's cultural influence changing?	<ul style="list-style-type: none"> • Explore the UK's media exports and their global influence including television programmes and film. • The contribution of ethnic groups to the cultural life of the UK through one of food, media or fashion. 			

Natural resource use

8.1. Will we run out of natural resources?		RAG		
a. How has increasing demand for resources affected our planet?	Outline the factors leading to demand outstripping supply of food, energy and water.			
	Overview of how environments and ecosystems are used and modified by humans including: <ul style="list-style-type: none"> ○ mechanisation of farming and commercial fishing to provide food ○ deforestation and mining to provide energy ○ reservoirs and water transfer schemes to provide water. 			
8.2. Can we feed nine billion people by 2050?				
a. What does it mean to be food secure?	Understand the term 'food security' and the human and physical factors which influence this.			
	How world patterns of access to food are illustrated, such as the world hunger index and average daily calorie consumption.			
	Investigate the differences between Malthusian and Boserupian theories about the relationship between population and food supply.			
b. How can countries ensure their food security?	Case study of attempts to achieve food security in one country to include: <ul style="list-style-type: none"> • Investigation of statistics relating to food consumption and availability over time. • The success of one attempt in helping achieve food security at a local scale such as food banks, urban gardens and allotments. • The effectiveness of one past and one present attempt to achieve food security at a national scale such as global food trade, GM crops, 'The Green Revolution' and food production methods. 			

c. How sustainable are these strategies?	Explore the environmental, economic and social sustainability of attempts to achieve food security, in relation to: <ul data-bbox="279 145 1069 324" style="list-style-type: none">• ethical consumerism, such as fairly traded goods and food waste• food production, such as organic methods and intensive farming• technological developments, such as GM crops and hydroponics• small scale 'bottom up' approaches, such as urban gardens and permaculture.			
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