Belfairs Academy

GEOGRAPHY Fundamentals Map

YEAR 10 (2022/23)

Fundamentals	Skills
Coastal Landscapes in the UK: **Must be confident in the following:** Wave types and characteristics. • Coastal processes: • 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. • How geological structure and rock type influence coastal forms. • Characteristics and formation of landforms resulting from erosion – headlands and bays, cliffs and wave cut platforms, caves, arches and stacks. • Characteristics and formation of landforms resulting from deposition – beaches, sand dunes, spits and bars. • An example of a section of coastline in the UK to identify its major landforms of erosion and deposition. • Different management strategies can be used to protect coastlines from the effects of physical processes. • The costs and benefits of the following management strategies • hard engineering soft engineering • An example of a coastal management scheme in the UK to show: • the reasons for management • the management strategy • the resulting effects and conflicts.	<u>Cartographic skills</u> Cartographic skills relating to a variety of maps at different scales. <u>Atlas maps</u>: use and understand coordinates – latitude and longitude recognise and describe distributions and patterns of both human and physical features maps based on global and other scales may be used and students may be asked to identify and describe significant features of the physical and human landscape on them, e.g. population distribution, population movements, transport networks, settlement layout, relief and drainage analyse the inter-relationship between physical and human factors on maps and establish associations between observed patterns on thematic maps. <u>Ordnance Survey maps</u>: use and interpret OS maps at a range of scales, including 1:50 000 and 1:25 000 and other maps appropriate to the topic use and understand coordinates – four and six-figure grid references use and understand scale, distance and direction – measure straight and curved line distances using a variety of scales use and understand gradient, contour and spot height numerical and statistical information identify basic landscape features and describe their characteristics from map evidence identify major relief features on maps and relate cross-sectional drawings to relief features draw inferences about the physical and human landscape by interpretation of map evidence, including patterns of relief, drainage, settlement, communication and land-use interpret cross sections and transects of physical and human landscapes describe the physical features as they are shown on large scale maps of two of the following landscapes – coastlines, fluvial and glacial landscapes
River Landscapes in the UK • The long profile and changing cross profile of a river and its valley. • Fluvial processes: • erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion • transportation – traction, saltation, suspension and solution • Deposition – why rivers deposit sediment.	

• Characteristics and formation of landforms resulting from erosion – interlocking spurs, waterfalls and gorges. • Characteristics and formation of landforms resulting from erosion and deposition – meanders and ox-bow lakes. • Characteristics and formation of landforms resulting from deposition – levées, flood plains and estuaries. • How physical and human factors affect the flood risk – precipitation, geology, relief and land use. • The use of hydrographs to show the relationship between precipitation and discharge. • The costs and benefits of the following management strategies: • hard engineering – dams and reservoirs, straightening, embankments, flood relief channels soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration.	infer human activity from map evidence, including tourism. <u>Maps in association with photographs</u>: be able to compare maps sketch maps: draw, label, understand and interpret photographs: use and interpret ground, aerial and satellite photographs describe human and physical landscapes (landforms, natural vegetation, land-use and settlement) and geographical phenomena from photographs draw sketches from photographs label and annotate diagrams, maps, graphs, sketches and photographs. <u>Graphical skills</u> Graphical skills to: 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

Urban Issues and Challenges

Must be confident in the following:

- 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: social: access to services – health and education; access to resources – water supply, energy
- economic: how urban industrial areas can be a stimulus for economic development
- how urban growth has created challenges: managing urban growth – slums, squatter settlements
- providing clean water, sanitation systems and energy
- providing access to services – health and education
- reducing unemployment and crime
- 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

suggest an appropriate form of graphical representation for the data provided
complete a variety of graphs and maps – choropleth, isoline, dot maps, desire lines, proportional symbols and flow lines
use and understand gradient, contour and value on isoline maps
plot information on graphs when axes and scales are provided
interpret and extract information from different types of maps, graphs and charts, including population pyramids, choropleth maps, flow-line maps, dispersion graphs.

<u>Numerical skills</u>

demonstrate an understanding of number, area and scales, and the quantitative relationships between units
design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability
understand and correctly use proportion and ratio, magnitude and frequency
draw informed conclusions from numerical data.

<u>Statistical skills</u>

Statistical skills to:
use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class)
calculate percentage increase or decrease and understand the use of percentiles
describe relationships in bivariate data: sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends
be able to identify weaknesses in selective statistical presentation of data.

<u>Use of qualitative and quantitative data</u>

Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.

Examples of types of data:

• impacts of national and international migration on the growth and character of the city • how urban change has created opportunities: social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems • environmental: urban greening • how urban change has created challenges: social and economic: urban deprivation, inequalities in housing, education, health and employment • environmental: dereliction, building on brownfield and greenfield sites, waste disposal • 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.	maps fieldwork data geo-spatial data presented in a geographical information system (GIS) framework satellite imagery written and digital sources visual and graphical sources numerical and statistical information. <u>Formulate enquiry and argument</u> 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. <u>Literacy</u> Most communication is through the written word, raising the importance of good literacy skills. Students should be able to communicate information in ways suitable for a range of target audiences.

The changing economic world • 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. • 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 and 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.	

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