



CONTEXT & INTRODUCTION TO UNIT

In this unit you will learn how to use Ordnance Survey (OS) maps and the full range of information that they contain. You will then apply this core knowledge to what you investigated in the local area and the United Kingdom.

Prior knowledge: Links to skills taught in KS2 national curriculum – also checked in baseline assessment. There are links to the previous topic where Liverpool and Bootle are investigated the maps skills focus around the Liverpool and UK.

THE BIGGER PICTURE

Personal development opportunities.
Career links- Market researcher, nature conservation officer, environmental consultant, data analyst.
Career links- Cartographer, GIS mapping, city planner.

CORE KNOWLEDGE

Maps types and Keys

1. Maps are used to show information about places. Ordnance Survey (OS) maps are detailed maps used to represent human and physical features of the UK.
2. Different types of maps serve different purposes, such as political maps (showing borders) and physical maps (showing natural features).
3. Maps use compass points (N, NE, E, SE, etc.) to show direction and describe the location of places.
4. Using Latitude and Longitude to locate places on a world map
5. Symbols are small pictures or icons used on a map to represent features like rivers, roads, and buildings.
6. The key explains what the symbols and colours on the map mean, so the map can be read accurately.

Grid References

7. 4-figure grid references are used to identify a specific grid square on a map (e.g. 1234).
8. 6-figure grid references are used to locate an exact point within a grid square (e.g. 123456).

Topographic mapping

9. Scale shows the relationship between distances on the map and real-world distances (e.g. 1:25,000 means 1cm = 250m).
10. Scale bar to measure straight-line (as the crow flies) and route distances on a map.
11. Contour lines join points of equal height and are used to show the shape and height of the land.
12. Relief refers to the height and shape of the land's surface, including features such as hills, valleys, and slopes.

Physical & human Features

13. Physical features are natural parts of the landscape, such as rivers, mountains, lakes, and forests.
14. Human features are man-made elements on a map, such as roads, buildings, railways, and settlements.

Using OS Maps

15. OS maps help us understand and describe places in the UK and are used in fieldwork, planning, and navigation.

KEY VOCABULARY

- Ordnance Survey (OS)
- Map
- Scale
- Grid Reference
- 4-figure Grid Reference
- 6-figure Grid Reference
- Compass Rose
- Direction
- Contour Lines
- Relief
- Symbol
- Key / Legend
- Topography
- Human Feature
- Physical Feature
- Latitude
- Longitude
- OS Map Symbols
- Elevation



CONTEXT & INTRODUCTION TO UNIT

In this unit you will learn about what geography is and the two key strands it can be broken into (Human and physical), your local area Bootle, Liverpool and the northwest. You will look how Bootle has changed and perform an investigation into the environmental quality of Bootle and Southport as a comparison. You will also begin to look at how maps are used across geography.

Prior knowledge: pupils can link their own knowledge of the local area alongside their knowledge of maps and the skills associated with maps. Those who have looked at Liverpool or Bootle will be able to link this into their prior knowledge.

THE BIGGER PICTURE

*Career links- Market researcher, nature conservation officer, environmental consultant, data analyst.
RSE- an increasing awareness of the wider world, how and why landscapes can change, how changes impact on people.*

CORE KNOWLEDGE

Location and Historical Development

1. Bootle is located in the Metropolitan Borough of Sefton, within Merseyside in the northwest of England.
2. Originally a small village, Bootle developed significantly during the Industrial Revolution as a port town.
3. It played a key role in the Liverpool docklands, contributing to national and international trade.

Industrial and Economic Change

4. Major historical industries in Bootle included shipping, manufacturing, and warehousing.
5. In recent decades, the area has seen a shift from traditional industries to service-based employment.
6. Regeneration projects have aimed to address economic decline and unemployment.
7. Bootle has faced economic challenges, including high unemployment rates and social deprivation.

Demographics and Land Use

7. Bootle's population includes a mix of age groups and increasing ethnic diversity.
8. Land use includes residential zones, commercial areas, and light industrial estates.
9. Urban redevelopment has focused on improving housing, public spaces, and community facilities.

Transport and Infrastructure

10. Bootle has strong transport links, including train stations (Bootle New Strand, Bootle Oriel Road) and major bus routes.
11. The Port of Liverpool remains vital to the area's economy and logistics.
12. Infrastructure has developed over time to improve accessibility and economic opportunities.

Current Issues and Future Outlook

13. Key issues include economic deprivation, lack of affordable housing, and underperforming schools.
14. Regeneration and development plans aim to improve quality of life and attract investment.
15. Local government and community groups play an active role in shaping Bootle's future.

KEY VOCABULARY

Accessibility
Catchment Area
Community
Crime Rate
Data Collection
Demographic Indicators
Economic Activity
Environment Quality Survey
Fieldwork
Green Space
Healthcare
Human Geography
Hypothesis
Industrial Decline
Infrastructure
Land Use
Location
Perception of Place
Physical Geography
Quality of Life
Regeneration
Rural Areas
Sustainability
Transport Links
Unemployment
Urban Areas
Urban Change
Urban Planning



CONTEXT & INTRODUCTION TO UNIT

In this unit you will learn about the formation, features, and importance of rivers. Rivers are natural flowing bodies of water that shape the landscape and support both ecosystems and human activity. They are formed from sources in highland areas and flow downhill due to gravity, creating landforms such as waterfalls, meanders, and deltas along their journey. Rivers are shaped by physical processes like erosion, transportation and deposition, which change from the upper course to the lower course. While rivers provide essential resources such as water for drinking, farming and industry, they can also pose risks, especially through flooding. Human activities such as urban development and deforestation can increase these risks, but a range of river management strategies can help reduce the impacts.

Prior knowledge: Map skills, our local area

THE BIGGER PICTURE

Personal development opportunities.
Career links- environmental scientist, Environmental Lawyer, Renewable Energy Engineer, Ecologist, Wildlife Conservationist.

CORE KNOWLEDGE

Location and Source of Rivers

1. Most rivers begin in upland or mountainous areas where rainfall is high.
2. The source is where a river starts—usually a spring or a bog.
3. Rivers flow downhill due to gravity, eventually reaching a mouth at the sea or a lake.
4. Rivers in the UK, like the River Mersey and River Thames, begin in upland areas and flow through a variety of landscapes.

Changes from Source to Mouth

5. As a river moves downstream, it becomes **wider, deeper, and faster**.
6. The gradient (slope) becomes gentler, and the volume of water increases.
7. The size and shape of the river channel changes, and sediment becomes smaller and more rounded.
8. Human settlements are more likely to be found along the middle and lower courses due to flat land and fertile soil.

Physical Processes and Landform Development

9. Rivers shape the landscape through **erosion, transportation, and deposition**.
10. Erosion creates features such as **V-shaped valleys, waterfalls, and gorges** in the upper course.
11. In the middle course, meanders and river cliffs form as the river erodes sideways.
12. In the lower course, **oxbow lakes, floodplains, levees, and deltas** are created through deposition.

Human Interaction and River Management

13. Rivers provide **freshwater, transport routes, irrigation, and hydroelectric power**.
14. Urban development and deforestation can increase flood risks and pollution.
15. **Hard engineering** (dams, flood walls) and **soft engineering** (afforestation, flood zoning) are used to manage rivers.
16. Examples like the **River Mersey** show how people adapt to and manage rivers to reduce flood risk

KEY VOCABULARY

- Source
- Mouth
- Tributary
- Confluence
- Channel
- Watershed
- Drainage Basin
- Floodplain
- Estuary
- Erosion
- Transportation
- Deposition
- Hydraulic Action
- Abrasion
- Attrition
- Solution
- Traction
- Saltation
- Suspension
- Solution
- V-shaped Valley
- Waterfall
- Meander
- Oxbow Lake
- River Cliff
- Slip-off Slope
- Urbanisation
- Flooding
- Hard Engineering
- Soft Engineering
- Afforestation



Context and Introduction to Unit

In this unit you will learn about **microclimates** – the small-scale variations in climate that can be found within a local area. While “climate” usually refers to long-term weather patterns over large regions, microclimates describe how temperature, rainfall, wind, and humidity can vary in very localised spaces, such as a park, a street, or even your school grounds. Microclimates are influenced by features of the environment, including relief (hills and valleys), vegetation (trees and plants), water sources (ponds, rivers, or coastlines), and human activity (buildings, roads, traffic). For example, urban areas often create **urban heat islands**, where built-up surfaces like concrete and tarmac absorb and release heat, making the area warmer than surrounding countryside. By investigating microclimates in our local area, we can see how physical and human features combine to shape the environment we live in. Microclimates matter because they affect how comfortable places feel, influence biodiversity, and even shape where people choose to build or spend time. Understanding them also helps us think about how to design sustainable cities and adapt to future changes in climate.

Prior knowledge: Map skills, Our local area, Rivers

Career link Urban Planner, Environmental Consultant , Meteorologist , Landscape Architect , Ecologist, Climate Scientist

CORE KNOWLEDGE

Definition and key features of Microclimates

1. A microclimate is a local atmospheric zone where the climate differs from the surrounding area.
2. Microclimates are influenced by localised factors such as surface materials, vegetation, shelter, and human activity.
3. Common examples include shaded areas under trees, urban streets between tall buildings, and parks within cities.

Factors Affecting Microclimates

4. Surface Type – Dark surfaces like tarmac absorb more heat (warmer microclimates); light surfaces reflect heat (cooler microclimates).
5. Vegetation – Areas with trees or grass are cooler and more humid due to shade and evapotranspiration.
6. Shelter – Buildings, walls, and fences block wind, creating warmer, calmer microclimates.
7. Aspect – South-facing slopes (in the UK) receive more sunlight, making them warmer than north-facing slopes.
8. Water Bodies – Lakes and ponds can cool nearby areas through evaporation and have a moderating effect on temperature.
9. Altitude – Higher areas are generally cooler due to reduced air pressure and temperature.
10. Urban Microclimates – Towns and cities often form ‘urban heat islands’ due to concrete surfaces, traffic, and lack of vegetation.

Impacts and Relevance of Microclimates

10. Microclimates affect where people live, how buildings are designed, and how land is used (e.g. farming, recreation).
11. Understanding microclimates is important for sustainable planning, climate adaptation, and local environmental management.

Fieldwork and Investigation Skills

12. Measuring temperature, wind speed, and humidity in different locations to identify microclimate variation.
13. Using tools such as thermometers, anemometers, and data loggers in practical investigations.
14. Recording and analysing data to identify patterns and draw conclusions about the local environment.
15. Presenting findings using graphs, maps, and annotated photographs.

KEY VOCABULARY

- Microclimate
- Shelter
- Aspect
- Altitude
- Urban Heat Island
- Vegetation
- Shade
- Wind Speed
- Humidity
- Temperature
- Precipitation
- Surface Materials
- Concrete
- Tarmac
- Evaporation
- Transpiration
- Sheltered vs Exposed
- Human Activity
- Built Environment
- Natural Environment



CONTEXT & INTRODUCTION TO UNIT

In this unit you will learn about the causes, impacts, and management of tourism. Tourism is the activity of people travelling to and staying in places outside their usual environment for leisure, business, or other purposes. People travel for a variety of reasons, including to experience natural landscapes, cultural attractions, historical sites, or urban areas. Tourism can bring economic, social, and environmental benefits, but it can also create challenges such as overcrowding, habitat loss, and pressure on local resources. Understanding these impacts helps communities and governments manage tourism sustainably.

Prior knowledge: Geographical skills, Our local area, Rivers, Microclimates

THE BIGGER PICTURE

Personal development opportunities.
Career links- Travel and Tourism Manager, Tour Guide, Hotel or Resort Manager, Event Coordinator, Conservation Officer, Ecotourism Consultant

CORE KNOWLEDGE

Definition and Key Features of Tourism

1. Tourism is travel for leisure, business, or other purposes, domestic or international.
2. Relies on attractions, transport, accommodation, and services.
3. UK examples: Blackpool, London, Lake District.

Impacts of Tourism

Environmental

4. Habitat loss from construction.
5. Litter, pollution, and erosion from visitors.
6. Disturbance to wildlife.

Economic

7. Creates jobs and income.
8. Seasonal employment and dependence on tourism.

Social and Cultural

9. Cultural exchange between locals and visitors.
10. Overcrowding, lifestyle changes, and higher prices.

Management and Responses

11. Environmental: national parks, footpaths, waste management.
12. Economic: support local businesses, year-round jobs, tourist taxes.
13. Social/Cultural: educate tourists, community involvement, visitor limits.
14. Example: Lake District – footpaths, car parks, visitor centres manage tourism.

Responses to challenges

15. International and domestic travel was severely restricted due to lockdowns and border closures.
16. Many tourism businesses, including hotels, airlines, and attractions, faced financial losses and temporary closures.
17. Job losses and reduced income affected employees in the tourism and hospitality sectors, particularly seasonal workers.
18. Governments and tourism organisations introduced safety measures, support packages, and promoted local tourism to help the industry recover.

KEY VOCABULARY

- Tourism
- Domestic Tourism
- International Tourism
- Attraction
- Accessibility
- Accommodation
- Leisure Time
- Disposable Income
- Environmental Impacts
- Economic Impacts
- Social Impacts
- Cultural Impacts
- Sustainable Tourism
- Footpath Erosion
- Habitat Loss
- Urban Tourism
- Rural Tourism
- Visitor Management
- Tourist Tax
- Seasonal Employment