Cantrell Primary School Geography Curriculum

Year 6: Our Changing World

How are environments evolving over time?

Objectives:

- Know how erosion and weathering can change the landscape
- Understand how coastal features are formed and identify coastal features of the UK
- Be able to explain how water and weather have changed the coastline of the UK over time
- Be able to explain how and why local urban landscapes change over time
- Be able to plan and carry out a fieldwork investigation in a local area using appropriate techniques
- Be able to present information gathered in fieldwork using a range of techniques
- Be able to explain how the types of industry in the local area have changed over time
- Predict how physical and human factors might changed the landscape in the future

Key Factual Learning:

- ✓ Weathering is wearing away or changing the appearance or texture of something by long exposure to the atmosphere.
- ✓ Physical weathering is caused by movements of the earth. One example of this is rain water freezing and expanding in a crack in a rock. Chemical weathering is caused by chemicals, often in rain water. Biological weathering is caused by plants and animals. This could include roots growing through pavement, or stone steps worn away by human feet.
- ✓ Erosion is the process in which the weather (wind, water and other natural elements) wears away landscapes.
- ✓ Features of coastlines include headlands, bays, beaches, cliffs, caves, arches, stacks and stumps. If a coastline is made of sections of harder and softer rock, these will erode at different speeds when attacked by waves. Where the softer rock has eroded more quickly, bays form. The harder rock erodes more slowly, and forms headlands sticking out from the coast and surrounding the bays on each side.
- ✓ Headlands themselves contain sections of softer rock. These softer sections of a headland will be eroded more quickly and caves will form. When two caves form on either side of a headland and these eventually join in the middle, an arch is formed. When an arch collapses, the column of rock left separated from the headland is called a stack. Over the time, the stack will continue to be eroded until it is a smaller stack, called a stump.
- ✓ Holderness in the north of England has one of Europe's fastest eroding coastlines, losing roughly 2m per year. As a result, the homes and livelihoods of people who live there are under threat.
- ✓ Coastal erosion in Cornwall has created an area of spectacular beauty. 5 million tourists visit Cornwall every year, and the area relies heavily on tourists, with 1 in every 5 jobs in Cornwall supported by the tourist industry.
- ✓ Urban landscapes also change over time. 'Development' means converting land to a new purpose by building new infrastructure (the basic structures and facilities like buildings, roads and power supplies that people need). 'Regeneration' means improving a place to make it more active and successful.
- ✓ Development and regeneration can take different forms: new housing, new shops/shopping centres, old buildings/factories being knocked down, trees cut down, new roads/bypass built, new schools built, new nature reserve or country park is opened.
- ✓ Urban landscapes can be developed and regenerated for a number of reasons. These might include trying to attract more people to an area to boost the economy by building better transport links, different shops to reflect changing shopping habits, places to rest and relax, creating a more scenic environment. Urban areas might also be developed and regenerated to make them safer. Due to increased levels of traffic, many town centres have large pedestrian areas (places closed to traffic and only accessible on foot).
- ✓ Some places are protected from regeneration or development and thus stay the same over time. This might be because they are Listed buildings (buildings of particular interest), nature reserves, Areas of Outstanding Natural Beauty, green belts, conservation or protection areas for wildlife, or places of historical importance.
- ✓ Fieldwork is when you go outside the classroom and find things out for yourself by collecting primary sources of information. When you plan your fieldwork investigation, you need to think about what to investigate, how to collect information and how to record data.
- ✓ After fieldwork, you should **analyse** your findings, by looking at all of them and trying to understand them; **present** your findings by explaining things clearly and making graphs to make the information easier to understand; **evaluate** your findings by thinking about how well you carried out your investigation and what you could do better next time.

Practical Tasks:

- Write a paragraph to explain the process involved in each of the three types of weathering.
- Label the features of a coastline on photographs of the British coast.
- Draw a series of diagrams to demonstrate how erosion forms coastal features: caves, arches, stacks and stumps.
- Watch information videos about coastal erosion in Holderness and how this affects the lives of people in this area, and then a video about the coastal path in Cornwall, and how coastal change has affected people here. Answer questions on the positive and negative aspects of coastal change.
- Compare photographs of urban environments from 40-50 years ago and the present day. Discuss and note what has changed, and potential reasons for these changes.
- Look specifically at two photographs of Bulwell market place and discuss how the environment has changed over time, and the potential reasons for these changes.
- Discuss and explain reasons why some places stay the same. Identify areas of Nottingham and Nottinghamshire that are will not be re-developed or face regeneration and the reasons behind this.
- Consider how we think the environment might change in the future, and answer questions to predict what changes might occur in our local area.
- Carry out fieldwork investigation: How could we continue to redevelop and regenerate our local area? Where is an area in need of change? How could we improve the area? Generate suggestions and make predictions. Collect information and create graphs/charts to interpret and present the information.

Key Vocabulary:

Weathering, erosion, landscape, physical weathering, chemical weathering, biological weathering, coast, bay, headland, beach, dune, cave, cliff, arch, stack, stump, spit, border, invasion, conquest, development, regeneration, pedestrianised, infrastructure, fieldwork

Cross-Curricular Links:

Science – Evolution (gradual changes over a very long period of time)
History – History of the local area (Bulwell)
Geography – Knowing our World unit (studying OS maps of Bulwell and creating their own sketch maps of the local area)

Cantrell Primary School Geography Curriculum

Year 6: Knowing Our World

Locational Knowledge: The UK and local area, the world and continents

Objectives:

- Know the names of and locate at least ten counties in England (Nottinghamshire, Derbyshire, Leicestershire, Yorkshire, Lincolnshire, Cornwall, Devon, Kent, Northumberland, Norfolk, Cumbria)
- Be able to read an Ordnance Survey map of the local area and know what most of the OS symbols stand for
- Be able to understand and use six-figure grid references
- Be able to make a sketch map of the local area using symbols, a key and a scale.
- Know and locate the Prime/Greenwich Meridian, know about time zones and work out differences
- Know the names of a number of European capitals, and at least ten major cities in the world
- Identify the position and difference between latitude and longitude

Key Factual Learning:

- ✓ England is divided into areas called counties. A county is a smaller area of the UK containing lots of towns and villages.
- ✓ County councils are the top level of local government. They control the local area and the services within, such as education, transport, policing, fire & public safety, social care, libraries, and waste management.
- ✓ We live in the county of Nottinghamshire. Nottinghamshire is bordered by the counties of Leicestershire to the South, Lincolnshire to the East, Derbyshire to the West and South Yorkshire to the North. Other well-known counties in England include Cornwall, Devon, Kent, Northumberland, Norfolk and Cumbria.
- ✓ The main city in Nottinghamshire is Nottingham. The City of Nottingham is administratively independent from Nottinghamshire County. Mansfield is the second largest settlement in the county, and Newark-on-Trent and Worksop are two other historic market towns which were established in the Anglo-Saxon times.
- ✓ Ordnance Survey (OS) is the national mapping agency for Great Britain. Common symbols that are useful for reading OS maps are motorways (blue lines), main roads (pink lines), railways stations (pink dots), campsites, cycle trails, nature reserves, areas of forest, picnic sites and places of worship.
- ✓ Four-figure grid references are used to locate a particular grid square on a map. To create a four-figure grid reference you use the grid lines and grid numbers. The horizontal gridlines are called northings and they increase as you move northwards. The vertical gridlines are called eastings and they increase as you move eastwards. (Recap from LKS2)
- ✓ Six-figure grid references are used to find an exact location within a grid square, so they are much more accurate than four-figure grid references. The grid square is divided into tenths, and the first three numbers give the easting which includes the number of tenths, while the last three numbers give the northing which includes the number of tenths (eg 015792 = square 01.5 across, and square 79.2 up).
- ✓ Some of the more well-known European capital cities include Berlin (Germany), Paris (France), Rome (Italy), Madrid (Spain), Moscow (Russia), Amsterdam (The Netherlands), Warsaw (Poland) and Athens (Greece).
- ✓ The biggest cities in the world include Tokyo (Japan), Delhi (India), Shanghai (China), Sao Paolo (Brazil), Mexico City (Mexico), Cairo (Egypt), New York (USA), Buenos Aires (Argentina), Manila (The Philippines) and Lagos (Nigeria).
- ✓ To help locate where a place is in the world, people use imaginary lines called lines of latitude and longitude. Lines of latitude run parallel to the equator. Lines of latitude are used to find out how far north or south a place is. Lines of longitude run from the North Pole to the South Pole. Lines of longitude are used to find out how far east or west a place is.
- ✓ The line labelled 0° longitude is called the Prime Meridian or the Greenwich Meridian and it runs through London. Anything lying east of the Greenwich Meridian is in the Eastern Hemisphere and is labelled °E. Anything lying west of the Greenwich Meridian is in the Western Hemisphere and is labelled °W.

Practical Tasks:

- Learn the definition of a county and what impact county councils can have on an area.
- Locate and label Nottinghamshire and the surrounding counties on a map. Locate and label other well-known counties on a map of the UK.
- Use the internet to research towns and places of interest in Nottinghamshire, and label these on a map of the county.
- Look at OS maps and discuss what the symbols on the map mean. Complete matching activity to show what each symbol stands for.
- Recap on how four-figure grid references are used to locate a particular square on an OS map.
- Learn about six-figure grid references and complete 'Cracking the code' activity by reading OS maps and finding places at given co-ordinates.
- Look at OS map of Bulwell and identify the location of local landmarks using six-figure grid references.
- Create their own sketch maps of the local area, using common OS map symbols, a key and scale.
- Find, locate and label capital cities on a map of Europe.
- Find, locate and major non-European cities on a map of the world.
- Learn the difference between lines of longitude and latitude. Use at atlas to find the longitude and latitude of the European capital cities and the major non-European cities that we have found.

Key Vocabulary:

county, Nottinghamshire, Derbyshire, Leicestershire, Yorkshire, Lincolnshire, Cornwall, Devon, Kent, Northumberland, Norfolk, Cumbria, Ordnance Survey map, six-figure grid reference, easting, northing, latitude, longitude, Prime Meridian (Greenwich Meridian), capital city, Berlin, Paris, Rome, Madrid, Moscow, Amsterdam, Warsaw, Athens, Tokyo, Delhi, Shanghai, Sao Paolo, Mexico City, Cairo, New York, Buenos Aires, Manila, Lagos.

Cross-Curricular Links:

English – Kensuke's Kingdom and Michael's voyage around the world