Firs Primary School Geography Progression and Coverage

Purpose of study

A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people, cultivating a sense of compassion and agency that will remain with them for the rest of their lives. Teaching should equip pupils with a sense of place including a knowledge and understanding of diverse places, people, resources and natural and human environments. It should promote a deep understanding of the Earth's key physical and human processes, their impact on us and the impact of our actions on the world and how these impacts can be managed. As pupils progress, their growing knowledge about the world should help them to strengthen their understanding of the interaction between physical and human processes, and of the formation and values of landscapes, environments and communities and our roles as active global citizens in shaping a fairer, better, and more sustainable world. Geographical knowledge, understanding and skills provide the frameworks and approaches that explain how the Earth's features at different scales and our societies are shaped, impacted, interconnected and change over time.

Δims

The national curriculum for geography aims to ensure that all pupils:

- develop a sense of place beginning with their own locality including exploring emotions and experiences connected to that place
- develop contextual knowledge of the location of globally significant places both terrestrial and marine including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes
- understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time
- understand that there are global inequalities in terms of power, access to resources, ecological footprints and how people are impacted by weather, climate and climate change
- are competent in the geographical skills needed to:
- -collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes
- -interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS)
- -communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length
- -evaluate sources of evidence relating to human and physical geographical features and processes.

Early Years Foundation Stage

Understanding the World ELG

(People Culture and Communities ELG)

Children at the expected level of development will:

- Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps
- Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps

National Curriculum Key Stage 1

1. Locational knowledge

- 1.a) name and locate the world's seven continents and five oceans
- 1.b) name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas

2. Place knowledge

- 2.a) understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country
- 2.b) understand and connect with their local area, developing an appreciation of its meaning to themselves and others

3. Human and physical geography

- 3.a) identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles
- 3.b) recognise human and physical features in their local area, including landmarks that identify these places and spaces

use basic geographical vocabulary to refer to:

3.c) key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation,

National Curriculum Key Stage 2

1. Locational knowledge

- 1.a) locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- 1.b) name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time
- 1.c) identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

2. Place knowledge

- 2.a) understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country and a region within North or South America, Africa or Asia
- 2.b) study and understand their local environment to develop a sense of their place and agency within it
- 2.c) appreciate that places are changing, often unpredictably, and adapting to change.

3. Human and physical geography

describe and understand key aspects of:

3.a) physical geography, including: climate, climate zones, climate change, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

seasons, weather, and how these change over time 3.d) key human features, including: city, town, village, factory, farm, house, office, port, harbour, shop, waste and pollution.

4. Geographical skills and fieldwork

- 4.a) use world maps, atlases, the internet and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage
- 4.b) use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map
- 4.c) use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key 4.d) use simple fieldwork and observational skills to study the

- 3.b) human geography, including: types of settlement and land use, economic activity including trade links and simple circular economies, and the distribution and disparity of natural resources including energy, food, minerals and water and the impact of our extraction and use of those resources on the environment
- 3.c) connection and interaction between physical and human geography and how this impacts environments and communities locally and globally through, for example, climate change [including a range of different perspectives such as those of the local community as well as indigenous communities and other ethnic backgrounds from the global south].

4. Geographical skills and fieldwork

- 4.a) use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- 4.b) use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
- 4.c) use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies
- 4.d) devising and using their own maps with effective symbology
- 4.e) collaborative action projects stemming from local enquiries they have conducted about issues they have chosen to investigate

geography of their school and its grounds and the key human and physical features of its surrounding environment. **EYFS** Year 1/Year 2 Cycle A **Enchanted Woodland** Objectives covered: 2.b, 3.c, 4.b, 4.c, 4.d, Update to include Green Trees Award Activity: Discover your school's tree equity score. Link to English - write letters and send to local authority to persuade them to plant more trees in our area. https://www.woodlandtrust.org.uk/support-us/act/your-school/green-UK tree-schools-award/discover-your-schools-tree-equity-score/ Maps Fieldwork Opportunities • observe and record seasonal changes (e.g. to flowering plants and deciduous trees) in the school grounds and local area Fieldwork Techniques • drawing a freehand map (e.g. of the school grounds, local street or park) using a simple compass and cardinal compass directions (north, south, west, east) • taking digital photos (e.g. of buildings in the locality, things seen on a bus journey) • collecting and sorting natural objects (e.g. leaves, twigs, stones) to investigate their properties • using a simple recording technique (e.g. smiley/sad faces worksheet) to express their feelings about a specific place and explaining why they like/dislike some of its features Expected Fieldtrip Elvaston Castle (alternative fieldtrip locations must include woodland) **Suggested Sequence of Lessons** (see also Medium Term Plan on One Drive, other resources include knowledge organiser and Retrieval Practice quiz) Lesson 1 and 2 Explore site map of Elvaston Castle (or alternative woodland location for fieldtrip) with the class. Discuss - what human and physical features do they think they will see? What do they notice? How do they think the

area will be different from where the school is? From where they live?

Discuss landmark the children might look out for (e.g. Moorish Temple,

children use the key to identify locations of bird hides, seating, toilets,

Golden Gates). Discuss the Key – what do the symbols mean. Can

café etc on the map?).

Urban Pioneers (Double unit) - Part 1

Objectives covered: 2b, 2c, 3b, 3c, 4c, 4e

Use maps and graphs to investigate local issues and quality of life through a neighbourhood survey with residents. (Could link up with secondary schools as a transition project). Pupils to explain maps created and outcomes of surveys

Year 3/4

Cycle A

Use historical maps to compare changes in local land use over time.

Fieldwork Opportunities

 When learning about settlements, to investigate how buildings, land use and local facilities have changed over time; and investigate local development plans through visits to derelict sites, empty shops or buildings or places where developments (e.g. road, housing, industrial, retail or leisure schemes) are proposed

Suggested Fieldwork Trip:

This fieldwork could be linked to the learning in Art and Design – a walk around the Friar Gate/Uttoxeter Road area looking at historical, and modern buildings, as well as new developments including the new Cathedral School site, and the derelict factory site by Friar

https://digimapforschools.edina.ac.uk/learning-resources/resource/quick-primarygeography-ideas-historic-twist.html

Choose from activities 1,2 and/or 3 from Digimaps document - 'Quick Primary Geography ideas with a historic twist!'. https://digimapforschools.edina.ac.uk/learningresources/resource/quick-primary-geography-ideas-historic-twist.html (and also on One Drive).

In activity 1 children locate Firs Primary School on Digimaps, then use historical maps to see how land use in the area has changed over time. Children should then also extend this activity by locating Bemrose School and Bishop Lonsdale on the modern OS map. They should add location makers to each school. Then use historical maps to see how the land use has changed. They should recognise that Bishop Lonsdale is a new school, and that in the 1890s there was no building on the land currently occupied by the school. They should also be able to observe how the land used by Bemrose School has increased over time, as the school expanded.

Child's War

Objectives covered: 1a, 3a, 3b, 4a

Global Trade

All lesson plans and resources for this unit can be found on the Royal Geographical Society website at: https://www.rgs.org/schools/teaching-resources/global-trade/

Year 5/6

Cycle A

Note – This unit would be an ideal opportunity to discuss the impact that the Russia/Ukraine War has had on global supply chains and economies including the trade of oil, gas, sunflower oil and grain. Teachers should try to include references to this as appropriate in the teaching sequence to provide a relevant and recent context for the learning.

Lesson 1

In the first lesson of the module, pupils are given a clear definition of trade: 'the buying and selling of goods and services we want and need'. They consider whether they could live without exchanging goods and services. Pupils gain an understanding of the geographical concept of scale, and track how the scale at which trade can be carried out on has increased through time, from local to global. They learn trade now links people in locations all over the world. Pupils explore what developments have enabled trade to be carried out on a global scale, focusing on improved technology, transport, and communications. The main activity involves creating a trade timeline which compares the scale of trade at three different time periods (The Stone Age, 17th Century and 21st Century).

Lesson 2

(This lesson links directly with the 'Food miles' activity from Sustainability Education: A Classroom Guide unit Food and Farming: Healthy Choices (page 142).

In this lesson, pupils are encouraged to consider where food comes from. They use maps and atlases to locate the source of a range of popular food products from a typical shopping list. The terms 'import' and 'export' are introduced and pupils learn that the natural resources available, land mass, and climate of a country determine what types of food they export and import. Pupils discover that global trade enables us to have access to many foods that cannot be obtained within the national borders of the UK. The class is encouraged to consider the journey their food takes from source to sale in the main activity by labelling the source locations of food products on a blank world map and drawing the trade link to the UK.

As a class plot a route on the map that you will follow on your visit? What are the human and physical features they can see on the map?

Year 2: Discuss compass directions in relation to the site map, and compare the site map to the Google maps view – can they identify the main roads leading to Elvaston Castle that appear on the Site Map on the Google Map? Ask children to answer questions about the Site Maps using compass directions e.g. which landmark is east of the cricket ground? Which direction should I travel if I want to go to Alvaston? Which tree is east of the dragonfly area?

Year 1: As above but using 'up, down, left and right, next to' etc instead of compass directions. Teachers may wish to create a simplified version of the site map with fewer features and simpler key.

https://www.derbyshire.gov.uk/site-

 $\underline{elements/documents/pdf/leisure/countryside/countryside-sites/country-parks/elvaston/elvaston-country-park-site-map.pdf}$



Lesson 3: Elvaston Castle Fieldtrip

- Children visit Elvaston Castle to document trees and plants found and record seasonal observations.
- They should take digital photos of significant trees/plants (to be added later to a physical map), and also of key physical and human features found.
- Children be provided with a simple sketch map of the route (need clipboards and pencils!). They should add detail to their maps as they go recording what they have seen and where e.g. any human/physical features they see.
- They should collect natural objects linking to their learning in science.
- Year 2 should have compasses throughout the visit, and should be asked to comment on the relative location of different features e.g. is the castle north or south from the lake? What direction does East Avenue run from/to? From the castle, what direction is it to get to the playground? etc

Lesson 4:

In their books children add detail to an outline map of the site, recording what they found and adding photos of key objects/features to the relevant places to create a story map representing their visit. Year 2 should create symbols and try to use a Key.

Lesson 5:

Children should use a simple recording technique (e.g. smiley/sad faces worksheet) to express their feelings about different locations around

In activity 2, children should use the internet to search for historical images of the three schools, adding them to their maps. These could be printed for whole class or individual topic books.

In activity 3 children use Digimaps to try to locate the street they live on. Can they find their house? How has their street changed over time?

Extension -

Children could learn about other changes of land use in Derby over time using Digimaps historical maps e.g. changes to Markeaton Park over time e.g. the original location of Markeaton Hall and Park, and when Markeaton Hall was demolished. (https://www.derbytelegraph.co.uk/news/nostalgia/gallery/sad-demise-of-markeaton-hall-6621272 for photos and more information). Children should again use the internet to search for historical images, adding them to their maps.

Lesson 2 and 3

Fieldwork preparation.

Use Google maps street view to show children Friar Gate, focusing particularly on images of the Friar Gate Bridge, and also those that show a closer view of the derelict warehouse site. Ask children if they recognise the area? Has anyone walked past here? Show children where it is on the map in relation to the school. Ask children – does anyone know what this building/bridge used to be used for? Explain that the large building was once used to house trains and goods that were transported on trains from the station there – the bridge was for the railway line. Show Digimaps current OS map of the area, then use the historical maps to show where the railway line used to run.

What is it used for now? Discuss the term derelict.

Watch short film (approx. 11mins) 'Forgotten History: Derby Friar Gate' https://www.youtube.com/watch?v=3cYuEilcLuw.

Discuss as a class (or small groups):

- What are some of the views about the site in the video? What do they like about it now, while it is derelict? (e.g. street art, flowers and plants growing nature)
- What are the disadvantages of leaving it derelict? (E.g. vandalism, fires, drugs, litter, buildings becoming dangerous).
- How has some of the site been redeveloped so far? How is it being used? (car parking)
- If the site is redeveloped what do these people want to make sure developers do? (try to preserve/renovate the existing historical buildings)
- What big new development was being planned for part of the site when this video was made? (Derby Cathedral School). How did the people in the film think it would improve the area (might help the developers to raise enough money to restore the existing warehouse, might pressure them to develop the rest of the site to make it a safer area for the school).

Now show images of the new Derby Cathedral School, which has now been built. Show where it is sited using the modern OS map on Digimaps – this can be compared to the aerial view which does not show the new school building. Use the line tool to mark out the area that will be visited for the field trip and that represents the 'site' e.g:

This food miles calculator is a useful tool that can be used to support the learning: https://www.foodmiles.com/. As well as providing the food mileage for different food types from different countries around the world, it also calculates the carbon required depending on the method of transport ie, road, air or sea.

Lesson 3

As the unit develops and pupils gain a greater understanding of trade and its global scale, they are introduced to the multi-step journey of complex manufactured goods and the global supply chain they go through from source to sale. The definition of global supply chain is given to pupils 'the journey travelled by clothing, food items and other products through different factories, suppliers and warehouses before ending up as the finished product we buy in shops'. They explore the three broad stages of the global supply chain: primary, secondary and tertiary and learn what job roles and activities belong to each. Pupils focus on the case study example of cotton clothing and the multi-stop journey cotton goes on as it is transformed into clothing items. The main activity involves applying their knowledge of the primary, secondary and tertiary stages of the supply chain of this case study example.

Lesson 4

In this lesson, the class examines global trade from a different perspective: what the UK exports to other countries and which countries the UK exports the most to. This lesson is cross-curricular with the KS2 mathematics national curriculum data handling objectives and involves interpreting and creating graphs to show data related to UK exports in the system of global trade. The idea of a pattern of global trade: that more developed countries export valuable manufactured goods and import less valuable, primary products is introduced to pupils. The pupils consider the geographical reasons behind this pattern, mainly related to human geography and how developed the country is. The main activity involves creating a bar chart to show the top 10 products exported by the UK and money made from each of these exports. Pupils assess whether these are complex manufactured or primary products and raw materials.

Lesson 5

(This lesson links directly with the 'Fairtrade' activity from Sustainability

Education: A Classroom Guide unit Food and Farming: Healthy Choices (page 143) In this lesson pupils question the fairness of global trade and are introduced to the idea of global citizenship: our actions impacting others in other locations around the world. The benefits of fair global trade are explained and pupils learn how those living in less developed countries can help themselves out of poverty through their work with fairtrade organisations. Pupils compare the prices of fair and non-fair trade products and discover why it is that fairtrade products can cost a little more. They discover where the additional cost goes (supporting communities of producers and manufacturers ensuring good working conditions and fair wages). The class explores the Fairtrade Foundation website to discover what products you can buy fairtrade and look at the website's interactive map to find the location of fairtrade producers. The main activity involves creating a poster outlining the reasons why consumers should pay more for fairtrade goods.

Lesson 6

The final lesson of the unit teaches pupils the term and concept of 'highest-valued exports'. The pupils learn that the highest-valued export of a country is the good that makes the country the most money through global trade. Thinking geographically, pupils consider physical and human features of each country that determine what type of export makes that country the most money. Case studies of the highest-value export of the more developed USA and less developed Liberia give pupils an in depth understanding of how it is both physical and human geography of a country that determines this (climate, resources, skills, technology, and communication systems). The main activity involves using online maps to match the highest-value export to country names found in an atlas or digital map. The pupils research the physical and human features of each country to discover the reasons behind the highest-valued export. The module ends with a Fairtrade Tea Party celebration of learning and discussion of global trade. Pupils are encouraged to share their personal opinions on global trade, and enjoy the fair

Elvaston Castle and explaining why they like/dislike some of its features. More able Year 2 s could try and create their own survey questions and tally chart or pictograms. Challenge – linked to maths – can children answer questions based on a tally chart/pictogram of the survey results e.g. which tree was most popular? Which flower did most people see? Did children like the lake or the castle best?

Lesson 6:

Children create their own maps of an imaginary castle grounds. They should use symbols to represent human and physical features e.g. orchard, lake, picnic area, stream, path, stable, castle, bridge etc. Year 2s should create a Key and add a compass. Year 2 more able challenge – can you add the following to your map?; there must be a pond to the south of the castle, there should be stream running from east to west etc..

Key Vocabulary:

Tier 1 Vocabulary (Everyday, familiar language)	Tier 2 Vocabulary (General academic language, used across subjects)	Tier 3 Vocabulary (Subject-specific geography terms)
tree	environment	human feature - Man-made parts of a place, e.g. buildings, paths.
wood	location	physical feature - Natural parts of a place, e.g. rivers, hills.
path	direction	Compass - A tool showing North, South, East, and West.
map	observe	Symbol - A simple picture used to represent something on a map.
gate	route	Key - A guide explaining what symbols on a map mean.
lake	compare	aerial view - A view of something from above.
park	record	Fieldwork - Learning outdoors by observing and collecting information.
road	describe	seasonal change - Changes that happen in nature during different times of the year.
bridge	protect	Habitat - The natural home of a plant or animal.
house	important	Climate - The usual weather patterns in a place over time.

Additional Positional Vocabulary for Year 1 (Year 2 SEND/NtE):

next to

in front of

behind

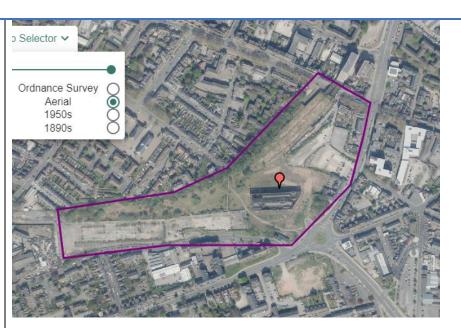
left

right

near

far

above below



Ensure children can identify the key landmarks e.g. main warehouse building, Friar Gate Bridge etc.

As a class, create a set of survey questions to take on the fieldtrip asking local stakeholders about their views on the development of Friar Gate. Children should consider who they will try to ask e.g. pupils, teachers, parents at Derby Cathedral School, residents of the local area, people who work in the area etc.

Lesson 4 and 5

Fieldwork trip to Friar Gate and Derby Cathedral School

Children visit Friar Gate and the new Cathedral School. They should take photographs of different areas of the site e.g. carparks, bridge, arches, school, main warehouse etc (that they can reach safely! – discuss health and safety issues of building sites/derelict buildings with children before visit.)

It should be possible to make links with the Headteacher at the school to arrange for pupils to look inside the school and around the grounds. If possible, children could interview pupils or staff at the school – what are their thoughts about the school building? Location? How do they feel about the rest of the Friar Gate site? How would they like it to be developed and why?

A group of children could also ask to interview people working in local businesses about their views on the site and how it should be further developed. If possible interview local residents.

Lesson 6

Children should complete one of the following activities to show what they have learned over the unit:

- Create an annotated and labelled time line of images of the Friar Gate site to show how the land use has changed over time. This could include historical photos and current photos taken on the field trip, maps of the site from different times (Digimaps) and aerial images. Screen shots from Google Earth could also be used.
- Write a letter to local planners or the developers with ideas for how the site should be developed in the future, and why, making reference to the views of people in the video 'Forgotten History: Derby Friar Gate' and any stakeholders interviewed/surveyed during the fieldtrip.
- Create their own sketch map of the site showing their proposals for future development. The sketch map should include the site of the new Cathedral School, and should include labels to explain what they have added and why e.g. a new leisure centre, because it could be used by schools in the area, is close to the city centre and it could be developed be renovating the warehouse/ a nature reserve to protect the wildlife that has grown in the area etc.
- Write a chronological report explaining how land use has changed over time on the site and why e.g. referring to the need for rail to transport coal and how this changed due to improved road networks.

trade snacks they brought in. An end of unit assessment is also included as part of lesson six.

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Мар	Global	Fairtrade
Atlas	Local	Import
Globe	Trade	Export
Buy	Producer	Natural resource
Sell	Produce	Landmass
Shop	Goods	Climate
Make	Technology	Primary
Grow	Transport	Secondary
	Communication	Tertiary
	Manufactured	Supply chain
	Citizenship	Raw materials
	Wages	
	Conditions	
	Developed	
	Developing	

Golden Nuggets

- 1. Children should be able explain the terms 'import' and 'export'.
- 2. They should be able to match some job roles and activities to primary, secondary and tertiary stages of a supply chain
- 3. They should be able to describe what 'Fairtrade' means.

between

Additional Tier 3 Vocabulary for Year 2 (For Year 2, compass directions are Tier 3 vocabulary, as they are subject-specific terms essential for geographical orientation.)

North

South

East

West

North-East (extension for more able)

North-West (extension for more able)

South-East (extension for more able)

South-West (extension for more able)

Golden Nuggets:

- I can name and describe human and physical features in my local environment and places I study. (all)
- I can use a simple map, including symbols and a key, to find and show places. (all)
- I can use directional language (and compass directions in Year 2) to describe where things are. (all)
- I can observe and record information about places using fieldwork skills like taking photos, drawing maps, and collecting data. (most)
- I can explain why places like woodlands are important for people, animals, and the planet, and suggest ways we can help protect them from climate change and other dangers. (some)

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Map	Historical	Aerial view
Changes	Derelict	Sketch map
Time	Site	Land use
Same	Survey	
Different	Stakeholder	
Transport	Development	
Rail	Redevelopment	
Train	Restoration	
Car	Preserve	
Road	Conservation	
Bridge	Proposal	
Building		
Safe		
Unsafe		
Dangerous		
School		

Golden Nuggets:

- 1. Children should be able to identify some of the ways that land use in the local area has changed over time and why.
- 2. Children should be able to identify differences in land use over time through comparison of maps from different time periods.

Urban Pioneers (Double unit) – Part 2 Objectives covered: 3b, 3c, 4a, 4b, 4c

UK - Local area fieldwork

- Develop map skills. Create routes to visit using Digimaps and do a 'flyover' before going out in the field.
- Map features found and create StoryMaps.using Digimaps children to do this as independently as possible. (https://www.youtube.com/watch?v=1KSPYTJqpxl 3:00 to 22:00 mins for guidance on how to do this)

Fieldwork Opportunities

- when learning about economic activities, to investigate local shops (e.g. to find out how far people travel to them and why) or investigate local journeys and routes, including road safety, public transport provision and more sustainable travel choices
- when learning about natural resources, to explore issues of sustainability in everyday life (e.g. energy generation and use, water supply and use)

Fieldwork Techniques

- relating a large-scale plan of the local area or fieldwork site to the environment, identifying features relevant to the enquiry
- recording selected geographical information on a map or large-scale plan, using colour or symbols and a key
- taking digital photos and annotating them with labels or captions
- collecting, analysing and presenting quantitative data in charts and graphs
- designing and using a questionnaire to collect quantitative fieldwork data (e.g. to compare how far people travel to different types of shop)

Expected Fieldtrip

Local area traffic survey

Suggested Sequence of Lessons

Note: this half of the unit links directly with the sustainability unit 'Transport' (page 150 of Sustainability Education: A Classroom Guide).

In this unit children will plan and carry out a road traffic investigation, investigating issues of sustainability in terms of transport use and travel. The traffic survey fieldtrip and subsequent lesson cover the Investigation and Fieldwork element of the sustainability unit on page 152. However, the following activities (p151-152) should be carried out prior to planning the fieldtrip:

- Getting started
- Travel Choices
- Using Less Fuel

Lesson 1

Outline the aims of the unit, explaining the context in terms of transport carbon emissions and their contribution to climate change. E.g. use information from:

- https://www.nationalgeographic.org/media/transportation-and-climate-change/
- https://www.bbc.co.uk/bitesize/articles/z4g3f82#:~:text=Our%20world%20has%2 <u>Obeen%20getting,and%20the%20planet%20at%20risk</u>. (this one has a quiz at the end to see how much children have remembered about climate change and its causes).

With the children use 'Digimaps for Schools' to plan a route around the local area, identifying around 3 locations to visit to monitor road traffic in each e.g. Abbey Street, Uttoxeter road, Dean Street etc. Use the 'Shapes' icon to add markers e.g. triangle, to the location where you will monitor traffic. At this point add a grid references overlay to the Digimap and show the children how to read the grid references for the identified location. (There is an example printable map with shapes on the One Drive, there is also a Digimaps guide to using grid references on page 4 and 5 of the Digimaps grid reference game)

Whole School - Documents > Curriculum Planning > Subject Resources and Planning Support > Geography > LKS2

As a class establish the information you want to find out from your survey – what vehicles might they see? What are different ways that people might be travelling? Which are the most sustainable? Why? How could children find out why people are travelling (e.g. interviews/questionnaires). How long should children monitor traffic in each location?

There is an example traffic survey template at https://www.think.gov.uk/wp-content/uploads/2018/09/2.-THINK-Map-traffic-survey.pdf

Lesson 2 and 3 (this may form an afternoon of work).

- Carry out the traffic survey children should use a tally chart to record how many pedestrians, cyclists, cars, buses, motorbikes etc they see in a set amount of time at each location (e.g. 10 minutes). Provide children with a printed map of the area (from Digimaps) and encourage them to use the maps to navigate their way to each location (relating a large-scale plan of the local area or fieldwork site to the environment, identifying features relevant to the enquiry). It is a good idea to carry out the survey twice, at different times of day (perhaps different groups could go out each time and share their findings).
- Encourage children to look out for any road safety issues e.g. difficult crossing places versus safe crossing places. These should be documented on their maps with relevant symbols e.g. green circle for safe crossing places, red cross for dangerous crossing places. Children should take digital photos to document these issues.
- With an adult present and if possible, safely, ask pupils to briefly interview members of the public (check first that they are willing to help!) about why they are travelling today.

Lesson 4

Maths link - Children to make bar charts using the data collected in their traffic survey tally charts (more able children could make a bar chart for each location or try to make a combined bar chart, which is coloured coded, representing data from all three locations, less able children could just make one bar chart, for one location, working in a group with an adult).

Children should use the information found to answer questions about the data including:

- How do the different streets/locations compare?
- Most/least common forms of transport
- Busiest/Quietest locations and times of day

Lesson 5 - Can children show their findings on a map?

Adding information and images to the Digimap

(help/add-text/). Children should add their findings to the Digimap creating text boxes to summarise data for each location e.g. Abbey Street – 5 cars, 6 pedestrians, 2 buses, 4 cyclists. They should also consider how to show which locations are; busy, average or quiet.

A further challenge for more able pupils is to add the digital images of the safe/unsafe crossing places identified on the fieldtrip to the Digimap.

https://digimap.edina.ac.uk/help/roam/add images/ (teachers will need to upload photographs taken to a class file prior to the lesson).

Children should discuss what environmental problems might arise from traffic in their locality – can they think of any solutions?

Lesson 6 – Pedestrianization Plan (page 152, Sustainability Education)

Conduct a debate around a transport issue – In this scenario the local council has decided to pedestrianize the local high street to reduce pollution an improve conditions for shoppers. (An alternative scenario could be pedestrianizing the area around the school).

Divide the class into small groups giving each one a role; e.g. local business owner, parent of a child who attends the school, lorry driver, older person with accessibility issues, environmental activist, member of the local council. Give children time to form their views and decide if their character is for or against the plan, then debate the proposal. You may want to appoint a pupil to act as chair or fill this role yourself.

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Safe	Traffic	Fieldwork
Unsafe	Symbol	Survey
Car	Location	Bar chart
Bicycle	Pollution	Tally chart
Bus	Sustainable	Grid reference
Motorbike	Transport	Northings
Map	Interview	Eastings
Air		Pedestrian
		Questionnaire
		Climate Change
		Emissions

Golden Nugget

1. Children should be able to identify the 4-figure grid reference for a given location on a map.

Near and Far

Objectives covered: 1a, 2a, 3a, 3b, 3c, 3d, 4a

Contrasting non – European locality

Suggested Sequence of Lessons

Kids Black History video:

https://www.youtube.com/watch?v=qxJ593oDYSg

Lesson 1:

Predator

Objectives covered: 1a, 1b, 2a, 2b, 3a, 3b, 4a, 4c

Unit overview: The main focus of the unit is to understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom (Peak District), a region in a European country (Italian Coast), and a region within North or South America (Amazon)

Hola Mexico

Objectives covered: 1a, 2c, 3a, 3b, 3c, 4a, 4e

Lesson 1

Recap the names of the continents and oceans using a world map – can children name and locate the world's continents and oceans? Does anyone know where Mexico is? Which continent? Show where Mexico is in North America.

Introduce the topic with the following video:

https://www.bbc.co.uk/programmes/p0114nj6 and explain that children will be learning about Kenya, which is a country in Africa.

Explain that Africa is a continent. Ask - which of the 7 continents can you remember? (use a 'continents' song' to help children recall)? Then locate Africa on a world map. Name and locate some of the countries of the continent of Africa and the surrounding seas. Explain that the capital city of Kenya is Nairobi? Do children know which city is the capital of England?

Show child the countries surrounding Kenya on map, ask them if they have ever been to any of these countries, or any other countries in Africa. Using Googlemaps, compare the size of Africa with the UK and Europe, and discuss distance/travelling time between countries known to the children.

Using a globe – show children the equator and ask them if they can remember what it is called? What do we know about the weather in countries which are near the equator? Are they hot or cold? Can children remember from the video – are all areas of Kenya hot? Why not? Rnear the mind them that even near the equator, places with a high altitude (like mountains) will still be cooler. Explain that there is a mountain in Kenya called 'Mount Kenya' – which is higher than any of the mountains in the UK.

Children label a blank world map with the names of the continents, also identifying the location of England, and then using a blank map of Africa find and label Kenya and the countries surrounding it. Children may also choose to find and label any other African countries they know (provide word banks and models to support children who need help with this).

Lesson 2: Houses (this links to the 'Homes Worldwide' activity from 'Sustainability Education: A Classroom Guide – page 161). Following this lesson, children could also explore other types of house worldwide e.g. ice houses, underground houses etc and create a concertina book as suggested.

Country versus City Houses

Show children the following video, 'Life in the Countryside and City in Kenya': https://www.bbc.co.uk/programmes/p011412d. Make a note of the three types of houses they see in the video – large city house, small country house and 'shanty towns'. Is everyone who lives in the city (Nairobi) rich? You could also watch the following video to provide additional details: 'Are towns and houses in Kenya the same as in Britain?' https://www.bbc.co.uk/programmes/p0115c87

Compare to Derby – what different types of house are there in the local area? (could use Googlemaps street view to show examples).

Discuss in pairs and feedback - which house would children prefer to live in? Why? Then discuss, is it fair that not everyone can live in a large house? If everyone had a large house, would there be enough space and building materials to go around?

Explain to the children that some people who live in Kenya are nomadic, which means they move around, and that they live and travel in tribes. One of these tribes is called the Maasai. Show both the following videos: 'The Nomadic Maasai Tribe'

https://www.bbc.co.uk/programmes/p0115hvt 'Life of the Maasai' https://www.bbc.co.uk/programmes/p0113qzh

Talk about the materials the Maasai houses are made from, and explain that they are sustainable (easily replaced by the Earth, plentiful and no carbon emissions to make them). Compare different building materials of the houses seen in Kenya and those in Derby (e.g. unsustainable: brick, concrete, steel and sustainable; wood, mud, straw).

Map Opportunities:

European Overview

Map countries in Europe and compare their key characteristics (with a focus on Italy and the UK).

Natural resources and Amazon

Map regions of the Amazon and the countries within it. Focus on the Amazon as a region, zoom into Manaus, and map impacts of farming on the rainforest.

Vegetation belts and biomes

Investigate and map rainforests around the world and explain why they are where they are. Map imports of foodstuffs from around the world using e.g. Scribble maps and their icons. Link to climate and introduce trade. Compare biomes of the three locations studied.

Fieldwork Opportunities

• when learning about biomes and vegetation belts, to visit a woodland to study the trees, plants and animals, as an ecosystem

Fieldwork Techniques

- taking digital photos and annotating them with labels or captions
- making digital audio recordings for a specific purpose (e.g. traffic noise)
- making models, annotated drawings and field sketches to record observations
- drawing freehand maps of routes (e.g. of a walk to a site in the local area)

Expected Fieldwork Trip:

Peak District walk.

Suggestions include:

https://derbyshire-peakdistrict.co.uk/darleydalewalk.html (5 miles)

https://www.komoot.com/guide/3639351/easy-hikes-around-darley-dale (various length walks, 2-4 miles)

https://derbyshire-peakdistrict.co.uk/birchoverwalk.html (3 miles) https://peakdistrictkids.co.uk/dovedale-circular-walk/ (3.3 miles)

Suggested Lesson Sequence

Lesson 1 – Finding Grid References:

Focus on using 4 figure grid references and compass directions.

- Recap how to read grid references (along the corridor to find the Eastings first, then up the stairs to find the Northings – remind children to record the grid ref of the bottom left corner of the square they are looking at). Use https://www.ordnancesurvey.co.uk/mapzone/map-skills/grid-references/page-one to explain how they work.
- Children should then work in pairs to complete the Digimaps Grid References game (instructions on One Drive file – LKS2 geography folder). https://digimapforschools.edina.ac.uk/learning-resources/resource/finding-grid-references.html).

Note: when children search for the locations they need to find they must use the 'clues' rather than the place names – as place names don't all appear when using the search bar!

Lessons 2-3: Peak District walk.

- Provide all children with a printed copy of the walk map and written directions Just before the visit (or on the coach?) look at the map with the children – what are the human and physical features they expect to see? How do they know? Will the terrain be steep or flat? Explain the contour lines show it will be steep in places.
- During the walk provide children (1 between 2) with compasses which direction are we walking in now? What direction would we need to walk in if we wanted to go to?
- Children should make sketches of leaves of different trees to help them identify the trees when back at school, children should also take digital photographs of different plants, flowers, birds etc
- Children should take audio recordings of bird song, to help them identify the birds heard when back at school.

Lesson 4: Follow up from fieldtrip

Introduce lines of latitude on the world map — explaining that they describe how near or far from the equator a location is. Introduce Tropics of Cancer and Capricorn and explain their significance — the area between them denotes the tropics — tropical, warm and hot areas of the planet. Which line of latitude passes through Mexico? What do they think the climate will be like?

Play video - **An Introduction to Mexico**:

https://www.bbc.co.uk/programmes/p0114db0

What can children tell you about the climate zones of Mexico? Which countries does it border? Which seas and oceans are on its coast line? (you may want to play the video again and ask children to take notes to help them answer these questions).

Children should then label a blank map of North America with names of countries, oceans and seas, and add lines of latitude to show the Tropics of Capricorn and Cancer and the Equator.

Then give children a blank map of Mexico, using an atlas or printed climate map they should draw on and colour the different climate zones of Mexico, and create a key to explain the colours e.g:



https://www.researchgate.net/figure/Main-climatic-regions-in-Mexico-Vidal-Zepeda-2005-Sevicio-Meteorologico-Nacional fig1 305828611

Note: Children should add the localities studied in this unit (Tijuana, Mexico City, Chiapas, Lacandon and Taxco) to their map of Mexico as they learn about each one – this will help to provide contextual information about the climate in each area.

Lesson 2 Settlement recap and Mexico City

Show video to recap types of settlement

(https://www.bbc.co.uk/bitesize/topics/zx72pv4/articles/zrbvjhv) and explain that over the next few lessons you will look at different types of settlement within

Today you will learn about Mexico City, which is the capital city of Mexico (recap, what are capital cities? What are the capital cities of the countries of the UK? Of children's home countries if they were born outside of England?). . Show video 'An Introduction to Mexico City' https://www.bbc.co.uk/programmes/p0113tw4

Explain that although Mexico City is flat, it is very high – it is built on a mountain plateau. Show the animation at https://svs.gsfc.nasa.gov/324 to demonstrate this. Show Mexico City using Digimaps, and add the mountain ranges and volcano overlays. Explain that Mexico City is surrounded by both.

Introduce Google Earth and show children how to search for Mexico City. Show them how to zoom in and out, use 'Street View' and then use the 2D button to return to an aerial view. Children should then use Google maps to search for:

- A museum
- A park
- A stadium

Children to draw and label two types of house in Kenya – one in the countryside and one in the city (higher attaining children could label with the materials used and identify whether the building is sustainable or unsustainable). They should then write whether they would prefer to live in the city or countryside in Kenya, and why

This might be an appropriate place in the teaching sequence to complete the fieldwork activity suggested in Sustainability Education: A Classroom Guide – page 161: Short walk in the local area to look at homes and what they are made of – what ways are people trying to make them environmentally friendly? E.g. double glazing, solar panels, water butts, recycling bins etc

This could be followed by the Sustainability Discussion also on page 161: In what way might homes be made more sustainable in the future?

Lesson 3 – A day in the life of a child in urban Kenya (Nana) and rural Kenya (Evangeline)

Show children the following video (Nana - Urban Kenya): https://www.bbc.co.uk/programmes/p0114bqm

Ask them to talk about what things are the same/different about their daily lives and Nana's daily life? Talk about routines, travel to school, school day, food etc. What human and physical geographical features did they see in the video? (e.g. roads, city, school, forest, garden etc).

Then watch: https://www.bbc.co.uk/programmes/p0114s06 (Evangeline a day in life of a child rural Kenya). How is Evangeline's day different to Nana's? to theirs? What human and physical features does Nana see around her house and on the way to school? (e.g. farms, fields, foothills, mountains, stream, shops, hotels etc).

Discuss difference in the availability of water for Evangeline and Nana – did it look like Evangeline had a bathroom or kitchen like Nana? Do children think everyone around the world has access to clean running water? Is this fair? What parts of the children's daily lives would be more difficult without clean, running water?

Children could complete one of the following tasks:

- Same/different grid comparing their daily life with Evangeline, Nana or both
- Diary entries from the point of view of Nana or Evangeline and one from their own point of view.
- A letter to Nana or Evangeline explaining about their own daily life and comparing it to theirs.

Lesson 4: Food and Crops

Note: If possible bring in some banana, mango and avocado for children to taste in this lesson.

Re-watch: https://www.bbc.co.uk/programmes/p0114s06 (Evangeline - a day in life of a child rural Kenya and 'Are towns and houses in Kenya the same as in Britain?' https://www.bbc.co.uk/programmes/p0115c87

What food crops grow in Kenya? (they will see avocados, mangos and bananas growing in Nana's garden, and hear about cabbages, tomatoes, potatoes, onions maize and beans growing on Evangeline's farm). Which of these do children think will grow in England? Do any children have any food crops growing in their gardens? Explain that plants, including fruit and vegetable crops will only grow if the climate is right for them. Some foods, like tomatoes, onions, potatoes, cabbages will grow in England at certain times of the year (when they are in season – often when it is warm), other fruits like mangoes, bananas and avocados will not grow in England because the climate here is not warm enough. They tend to

Children to complete in their books (could be carried out as a carousel, 20 mins at each activity):

- Draw a simple sketch map of the route taken
- Identify and record trees and plants (including moss, fungi and lichen) seen e.g.
 using identification tables and comparing to sketches made/photographs taken
 during visit



 Listen to any audio recordings made of bird song – can they identify the birds found? https://www.rspb.org.uk/birds-and-wildlife/bird-songs/what-bird-is-that/

Lesson 5 (Biomes of UK, Italian Coast and Amazon)

Introduce the term 'biome' with the following BBC Bitesize video https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zvsp92p

Show Digimaps view of UK and select Overlays – World Physical Geography – WWF World Biomes (other iome wordl maps are available to print if preferred). Show children how to use the key to work out what biome the UK is in (and the biome of the Peak District). Ask them to describe the UK biome – what is it like in summer? In winter? Explain that the UK is, overall, a woodland biome these are habitats where the main plants found are trees, but mosses, ferns and lichen can also be found. The climate is warm and mild, with more rain falling in the winter than the summer.



Now zoom out to show the whole of Europe on the screen – can anyone show you where Italy is? Point out the shape of the country is a boot! What is the biome here? Explain and make notes on working wall to describe features of a Mediterranean biome.

Then zoom out further and adjust the screen so that South America can also be seen. Ask the children if anyone can tell you where Brazil is? Focus on the Amazonas region of South America- what is the biome here? Digimaps will call it 'Tropical Moist Forest', explain that this is a Tropical Rainforest biome and explain its features.

Children should then take part in a carousel of activities about each location/biome, collecting information about each (this could be done in the form of a 'passport' as used in KS1 – see Land Ahoy). Information collected should include:

- Name of area (Peak District, UK; Naples, Italy; Amazon Rainforest)
- Continent
- Biome
- Weather (in winter and summer if different)
- 3 or 4 animals that can be found in this biome
- 3 or 4 food plants that can be grown in this biome (e.g. lemons and oranges in Italy, strawberries and blackberries in UK, cacao and passion fruit from the Amazon)

Lesson 6: Focus on impact of human activity (deforestation to create farm land) on the Amazon Rainforest and World trade - exports and imports.

An airport

Children should the use a range of resources (e.g. Digimaps, books, atlases, Google Earth, Google image search etc) to complete a fact file on Mexico city including the following:

- Terrain
- Major rivers
- Climate zone/weather
- Parks
- Airports
- Human landmarks e.g. monuments

Lesson 3 and 4 – Town and Village life in Mexico

Recap settlements – what can children remember from the video last lesson? If needed remind them about cities, towns and villages using BBC Bitesize video clip. https://www.bbc.co.uk/bitesize/topics/zx72pv4/articles/zrbvjhv)

Today children will learn how life in Mexican villages and towns is different from that in the main cities.

Show BBC video clips:

- Town and Village Life in Mexico: https://www.bbc.co.uk/programmes/p0115hm6
- Mayan Population of the Lacandon Rainforest https://www.bbc.co.uk/programmes/p0113y2b

Give children time to explore Lacandon, Chiapas and Taxco (mentioned in the BBC clips) using Google Earth. Discuss as a class- how are these areas the same/different from each other? From Mexico City? Talk about human and physical aspects of geography. Ensure children understand the phrase 'subsitence farming' and briefly discuss why this way of life has less impact on the environment.

Children should have 5 mins to role play in pairs- with one child imagining they live in Chiapas or the Lacandon Forest and the other imagining they live in Taxco. They should ask each other about their daily life, transport, food, jobs, schooling etc.

Children should then complete one of the following activities to show what they have learned:

- Diary entry day in the life of a Lacadonys child or day in the life of a child living in Taxco
- Create an advert to sell a house in Chiapas or Taxco, listing the benefits of living in that area, and why it is better that living elsewhere

Lesson 5 - Natural resources

Introduce/recap phrase 'natural resources' using video https://www.bbc.co.uk/bitesize/topics/zshp34j/articles/z62qy9q. Can children remember the three types of natural resources? Agricultural, geological and renewable. Ask children to work in pairs or small groups to make a mind map of any natural resources they can think of that come under these three headings. Explain that the children are going to learn about the natural resources of Mexico today – the children will watch some videos about Mexico and they should make a note of any natural resources that are found in Mexico. They should try to make a note of them under the headings agricultural or geological.

Show class the following videos:

- Town and Village Life in Mexico:
- https://www.bbc.co.uk/programmes/p0115hm6
- Impact of Coffee Bean Farming on Mexican Rainforest https://www.bbc.co.uk/programmes/p01157t2
- The Key Industries in Mexico
 https://www.bbc.co.uk/programmes/p0113ngs

grow in warm countries nearer the equator. Explain that when foods are 'out of season' in England we 'import' these foods from other countries so that we can eat them all year round. Explain that this means transporting them a long way using boats, airplanes and trucks which is bad for the environment (you could use the following website and input Kenya into the 'where has your food come from' box to see the number of food miles and carbon emissions by method of transport).

If there is time you could also visit a local supermarket to look at food packaging to see which foods have been imported from Kenya.

Alternatively bring in some food packaging so children can see where the country of origin is labelled.

Explain to the children that if there is not enough rainfall in Kenya, there is not always enough food for everyone to eat because farmers can't grow crops without enough water. When there is less food it becomes more expensive to buy – not everyone can afford enough to eat.

Children complete a Venn diagram: Foods that grow in Kenya (e.g. banana, mango, orange, avocado, passion fruit), foods that grow in UK (e.g. beetroot, parsnips, Brussel sprouts), foods that grow in UK and Kenya (e.g. pears, plums, tomatoes, potatoes, apples, strawberries). This can be adapted for lower attainers by providing pictures of the foods to sort. Higher attainers can write food names and draw pictures.

Lesson 5 - Weather and climate

Ask children if they can name the four seasons that we have in the UK? Go through the 4 seasons with the children, establishing what the weather is like in each season. For older children, you could talk about the average temperature in each season in the UK. Use a calendar to show which months fall into which season.

Explain that in Kenya there are only two different seasons, wet and dry, but that each of these happens twice a year. The rainy seasons are from March to May and then from November to December, and it is dry for the rest of the year. The amount of rainfall is greatest in the highlands of Kenya. The lowland deserts of the north receive the least amount of rain. Occasionally the rains fail or there is less rain than usual, leading to drought. Explain that drought is made more likely by climate change, and that it affects both people and wildlife.

 $\frac{\text{https://kids.britannica.com/students/article/Kenya/275253\#:}^{\text{::text=Kenya/275253\#:}^{\text{$

Children could complete one of the following activities:

- Contrasting picture calendars with images for each season and matched to months. Create one for the UK (showing 4 seasons) and one for Kenya (showing 2 x wet and 2 x dry seasons).
- Create two contrasting weather forecasts with maps and weather/ temperature symbols showing typical weather for this time of year in different areas of the UK and in Kenya (include highland and lowland areas). Children could support this learning by recording the current temperature in the playground and looking at local/national forecasts online. This website will allow children to search for weather by town/city across the world. Be sure to explain that we measure temperature in Celsius and not Fahrenheit! https://kidsweatherreport.com/report/derby/c

Lesson 6 - Kenyan Safari

Show children the world map at https://www.globalforestwatch.org/map/. Explain that this is a story map as it shows information over time – it tells a story about what is happening. Press the play icon to visually show deforestation of the Amazon Rainforest per year since 2001. Ask children why they think people are cutting down the trees (misconceptions might include using wood to make paper, or as fuel to burn). Explain that farming is the main reason (https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation). Particularly farming cows, and growing soy to feed cows. Explain that it is not only people who live in South America who eat this beef or use this animal feed -explain that much of it is exported across the world (explain terms import and export).

Show a map demonstrating where Brazilian beef is exported to – which countries import it e.g. https://chinadialogue.net/en/food/11657-rising-beef-demand-linked-to-amazon-deforestation-2/.



Model using a ruler to add arrows on a blank world map showing which countries import Brazilian beef (could use Scribble maps for this https://www.scribblemaps.com/create - if using this resource it would be good to point out the different views of the world map, and how close Russia is to Canada even though on traditional world maps they look far apart). Model creating a key to show what the lines mean (note arrows should point in the direction the produce is travelling ie towards the counties importing it). Children should create their own maps showing the same. Children should then add further lines in different colours (add to key) to show which countries import produce from the UK and Italy e.g. olive oil from Italy goes to UK, USA, Germany, France, Spain, Canada and Japan and cheese from the UK goes to Republic of Ireland, Netherlands, Germany, Denmark and France.



Key Vocabulary:

Tier 1	Tier 2	Tier 3
Weather	Identify	Atlas
Hot	Features	Globe
Cold	Produce	Human
Wet	Temperature	Physical
Dry		Country
Rain		Continent
Sun		Countryside
Forest		Equator
Trees		Vegetation
Moss		Biome
Flowers		Rainforest
Plants		Import
		Export
		Vegetation
		Sketch map
		Story map
		Deforestation

Ask children to feedback what they have learned and make a note of natural resources found in Mexico for the working wall. Discuss the impact of coffee bean farming on the environment and makes links to the learning about Fairtrade produce in A Child's War.

Children then create their own picture map with key (could make a Powerpoint presentation) to show what they have learned e.g.



Lesson 6 – Sustainable Cities

Note – this lesson links directly to the Scoffham sustainability lesson 'Sustainable Cities' (on page 178 of Sustainability Education: A Classroom Guide) but has been adapted to incorporate an additional focus on sustainable city designs in Mexico to make it more relevant to the unit.

Comparing sustainable city design: Children learn about different examples of sustainable city design; Alcaldia de Medellin in Colombia, Copenhagen in Denmark, plans for a 'Smart Forest City' in Cancun in Mexico and vertical planting in Mexico city.

- Cancun, Mexico: https://www.ubm-development.com/magazin/en/the-greenest-city-in-the-world/
- Mexico City https://www.youtube.com/watch?v=eEL-YgJCumY
- Copenhagen: https://www.youtube.com/watch?v=pUbHGI-kHsU
- Alcaldia de Medellin: https://ashden.org/awards/winners/alcaldia-de-medellin/

Children should discuss and make notes on what they have seen. Which of these cities would they most like to live in and why? What strategies are being used to make the cities more sustainable? Which of these strategies would they most like to see in Derby?

Children then complete one of the following tasks:

- Complete a table with the headings 'Issues' and 'Solutions'. What are the environmental impacts of big cities, and what solutions are being used to address these?
- Children could make a list of everything their ideal 'green' city would include and why.
- Children could write a persuasive letter to the local planning department or local MP encouraging them to make Derby greener and giving examples of how this could be done.

Lesson 7 (this lesson is optional and can be left out if there is not enough time for it): Focus on Industries and Tijuana

Introduce lesson by recapping primary, secondary and tertiary industries and linking to employment (a simple Powerpoint could be made using the information at https://www.geographyinthenews.org.uk/issues/issue-10/changing-employment/ks2/).

Show children the BBC video clip Maquiladora Industries of Tijuana: https://www.bbc.co.uk/programmes/p01150cl

Discuss with the class and make a class table to show pros and cons of living and working in Tijuana. How would the children feel about living there compared to some of the other area of Mexico they have studied? Consider climate (e.g.

Explain to the children that they are going to learn about the animals of Kenya – what animals do they think might live in the wild in Kenya?

(Show children the video:

https://www.youtube.com/watch?v=JzxogyxL58g — which animals might they see on safari in Africa? (explain what safari means). Animals they will see in the video include; leopard, lion, impala, monkeys, hyenas, elephants, rhino, warthogs, gazelles, giraffes, buffalo, and hippos.

Would they see any of these animals if they went for a walk in the countryside around Derby? What animals would they see in the wild near Derby (e.g. fox, badger, owl, mouse, squirrel etc).

Explain that tourism is important for Kenya and brings lots of money to the country and that years ago people would pay to come and hunt the 'big 5' game animals (leopards, lions, buffalo, elephants and rhino) and that this meant these animals started to become endangered. Now hunting is banned and instead people pay to come and see them on 'nature reserves', which are areas of land where the animals, plants or both are protected (you could compare this to the Attenborough nature reserve which some children may have visited).

Use Google Images to search for pictures of the Attenborough nature reserve in the Midlands, UK, and the Masai Mara National Reserve in Kenya

(you could tell the children that the Maasai tribe used to graze their large herds of cattle on this land, but this damaged the landscape and made it harder for wildlife to survive there. Now the Maasai have smaller herds, which they keep in particular areas, and they let the nature reserve use their land to protect animals – money from tourism helps them to do this and means they do not need such large herds of cattle).

Ask children to compare the two sites, encouraging them to describe the physical features they can see e.g. plains, mountains, hills, grasses, lake, forest, marsh etc. What is different about the climates? Which gets the most rainfall? How do they know?

Children should create a brochure or poster to advertise the Masai Mara mountain reserve. They should try to include the types of landscape, plants (e.g. baobab trees), birds and animals that can be found here, and consider what they have learned about the weather and climate in Kenya e.g. what is the best time of year to visit? More information can be found here: https://www.masaimara.com/index.php#homepage-services
You may also wish to tell older children about the great migration — where millions of animals follow the rains to the Masai Mara from the Serengeti. The website above provides more information about the timings of this which they could include in their brochure. There are a number of videos on You Tube of the Great Migration e.g. https://www.youtube.com/watch?v=oTw4XnLnSmU.

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Same	Temperature	Atlas
Different	Urban	Globe
Hot	Rural	Human
Cold	Cultural	Physical
River	Coast	Country
Building	Grassland	Continent
Road	Crop	Town
Hill	Endangered	Village
Mountain	Hunt	City

	Woodland
	Temperate
	Mediterranean

Golden Nuggets:

- 1. Children should be able to locate the Amazon, Italy and the UK on a World map
- 2. They should be able to name the biome of each of these places
- 3. They should be able to identify some plants and animals that live in each of these places.

Tijuana has a desert climate, whereas Lacandon is Rainforest), topography, access to natural resources like water, availability of work, cost of living etc.

Why do the children think foreign companies want to have their factories in Mexico? (information for teachers can be found at https://www.cargroup.org/the-move-to-assemble-vehicles-in-mexico-is-about-more-than-low-wages/)

Children should then choose from a variety of examples of industry maps of Mexico and use them to help create their own industry map e.g.



https://www.reddit.com/r/MapPorn/comments/behwjo/car manufacturing plant s in mexico/



 $\underline{\text{https://www.co-production.net/mexico-manufacturing-news/production-plant-location-strategy.html}}$

They could add information to a blank map of Mexico, or use Digimaps to add symbols, images and text.

Tier 1	Tier 2	Tier 3
Мар	Global	Fairtrade
Atlas	Local	Import
Globe	Trade	Export
Make	Producer	Natural resource
Grow	Produce	Climate
Money	Goods	Primary
Job	Technology	Secondary
Work	Transport	Tertiary
Weather	Communication	Raw materials
Hot	Manufactured	Industry
Cold	Wages	Desert
Wet	Conditions	Rainforest
Dry	Employment	Plateau
Mountain	Climate	Services
Water	Crop	Maquiladora
Food	Waste	Equator
City	Environment	Tropic of Capricorn
Town	Developed	Tropic of Cancer
Village	Developing	Vegetation
		Agricultural

Forest	Transport	Countryside
House		Equator
Farm		Vegetation
School		Import
Hotel		Seasonal
Shop		Safari
Food		Marsh
Fruit		Plains
Vegetable		Nature Reserve
Water		Drought
Stream		Climate
Lake		Season
Grow		Lowland
Animal		Desert
Walking		
Car		
Bus		
Rain		
Dry		
Weather		

Golden Nuggets:

- 1. Children know that Kenya is a country in Africa and can locate it on a world map/globe.
- 2. They know that, unlike the UK, Kenya has two seasons wet and dry and that these each occur twice a year.
- 3. Children can identify a variety of human and physical geographical features which can be found in Kenya.
- 4. Children can identify a number of plants, crops and animals that can be found in Kenya.

Street Detective

Objectives covered: 2b, 4b, 4c, 4d

A local scale study of 'our place'

Fieldwork Opportunities

- explore the local area of the school to investigate the range of buildings, roads, green spaces and other local features
- visit a park or local green space to observe its physical and human features and investigate how people use and enjoy it
- investigate environmental issues (e.g. lack of play facilities, where litter collects, road safety issues) in the school grounds or local area

Fieldwork Techniques

- adding details to a teacher-prepared drawing (e.g. doors, windows and other features to the outline of a house)
- making annotated drawings to show variations (e.g. in a row of houses in a local street)
- drawing a freehand map (e.g. of the school grounds, local street or park)
- relating a large-scale plan (e.g. of the school grounds or a local street) to the environment, identifying known features
- marking information on a large-scale plan (e.g. of the school grounds or a local street) using colour or symbols to record observations
- using a simple compass and cardinal compass directions (north, south, west, east)
- collecting quantitative data (e.g. to create a pictogram of favourite places to play or how pupils travel to school)
- using a questionnaire (e.g. to find out the most popular options for improving playtimes)
- taking digital photos (e.g. of buildings in the locality, things seen on a bus journey)

Suggested Sequence of Lessons

	Geological
	Renewable

Golden Nuggets:

- 1. Children should be able to locate Mexico on a world map and name its capital city.
- 2. Children should know that Mexico has a number of climate zones including desert areas and rainforest areas.
- 3. Children should be able to name some of the natural resources of Mexico including silver, oil, coffee beans, corn and cocoa

Frozen Kingdom

Objectives covered: 1a, 1c, 2c, 3a, 4a, 4b

Exploring Shakleton's Antarctica

All lesson plans and resources for this unit (lessons 1-6) can be found on the One Drive:

Curriculum Planning > Subject Resources and Planning Support > Geography > UKS2 > Frozen Kingdom and also at the Royal Geographical Society website at:

https://www.rgs.org/schools/teaching-resources/exploring-

shackleton%E2%80%99s-antarctica/

Lesson 1:

- Locational Knowledge: Antarctica's place on the Earth and on a map, position and significance of latitude
- Place Knowledge: Polar Regions, Antarctica's size, makeup and surrounding oceans
- Physical Geography: Antarctica as a polar region, seasonal/geographical variations in time, Different forms of land and terrain

Lesson 2:

- Place Knowledge: Of Antarctic ice types and fauna
- Geographical Skills and fieldwork: Longitude and Latitude and visual understanding of Polar Landscapes via photographic analysis
- Physical Geography: Visual Identification of features of Antarctic geomorphology

Lesson 3:

- Physical geography: hot and cold climate zones and the influence of the earth's orbit on climate zones
- Geographical skills and fieldwork: Using different secondary data sources for geographical investigation
- Place Knowledge: Antarctica and its specific physical geography

Lesson 4

- Physical Geography: Antarctica's mountainous terrain, oceans and their effects and influences upon the expedition
- Geographical Skills and Fieldwork: Mapping, graphing and data presentation, four and six figure grid references

Lessons 1-3 Our Playground Investigation

- Children create their own maps of the playground, adding in symbols
 to show location of key features e.g. climbing wall, reading shed,
 gates, doors to school buildings. Younger/less able children may
 start with an outline map and add key features. Year 2 should add a
 Key.
- Children should practice following compass directions, using a compass (Year 2) or left/right/forwards/backwards directions (Year 1) to locate clues or hidden objects around the playground.
- Children should create a simple survey to find out what the most and least popular areas of the playground are (e.g. asking their peers and completing a pictogram/tally chart). Year 2 could create a questionnaire – including how should the playground be improved?

Prior to lessons 4-6 this might be an appropriate point in the teaching sequence to complete the 'Getting Started', 'Does it Rot?' and 'Ocean Garbage' activities from Sustainability Education: A Classroom Guide (page 197).

Lessons 4-6 Our Area Litter Investigation

Note: this fieldtrip links directly to the Investigation/Fieldwork activity from the Sustainability Education: A Classroom Guide unit, 'Pollution and Resources: Waste and Litter' (page 197): Walk in the local area to look for waste a litter..

- Children should use Digimaps with the teacher and plan a route around the local area and to a local park for a fieldtrip. What human and physical features do they think they will see? Do they recognise any features from the map? Can they see where the nearby parks are?
- Children should follow the route to the local park where does litter collect? They should take digital photographs of key features (e.g. street signs, bus stops, local shops, bins and also litter hotspots.)
- While at the park they should record how do people use the space?
 What are the key human and physical features? Is the park cared for? How could it be improved?
- When back in school children should work in groups to add their photographs to a large-scale plan of the route. This should be linked to learning in DT – where will the best places be to put our street signs to stop people from littering/leaving dog mess?
- Children could write a simple recount to record what they have found out in their local area investigation.

Lesson 7: Sustainability Discussion – What could we do to reduce waste and litter pollution? (page 198, Sustainability Education: A Classroom Guide).

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Map	Symbol	Key
Up	Record	North
Down	Route	South
Near	Features	East
Far	Location	West
	Litter	Left
	Pollution	Right
	Traffic	Human
		Physical
		Pictogram
		Tally Chart
		Compass

Golden Nuggets:

1. Year 1 should be able to use up, down, left, right to describe position. Year 2 should be able to use North, South, East, West

 Locational Knowledge: Understanding of route taking by Endurance Expedition

Lesson 5:

- Geographical skills and Fieldwork: Mapping skills combined with grid references
- Physical Geography: Interactions between physical geography and everyday life, Physical features of Earth's orbit and its effects upon the weather and expedition

Lesson 6

- Human Geography: Trade links, settlements and distribution of natural resources
- Place knowledge: London, Buenos Aires, South Georgia and Elephant
 Island

Lesson 7

This lesson incorporates several of the activities from the Sustainability Education: A Classroom Guide unit, Weather and Climate: Climate Change (page 130).

Getting started: Ask children to share what they know about climate change. what do they think it is? Explain that, although learning about climate change can be worrying, it is a concern felt by many across the world and there are lots of things we can do, working together, to help address it.

Use this video, or similar, to explain how climate change is affecting the Antarctic, and how this affects temperatures around the world. https://www.bbc.co.uk/teach/class-clips-video/articles/zmrtscw

Convection Currents: Explain that convection currents underpin our scientific understanding of how climate change affects weather across the world. Use this video to model a convection current experiment:

https://www.youtube.com/watch?v=0mUU69ParFM . Children could repeat this in small groups, or the teacher could do a demonstration at the front of the class. A simpler version of the experiment is to provide pupils with frozen ice cubes of coloured water. Place the ice cubes into a clear cup or container of warm water and watch what happens as the ice melts. Now, think about where warm and cool air meet on the Earth. Explain that convection currents interconnect – if air or water rises in one place, it leaves a space that has to be filled and this creates a cycle. Global weather systems are stable because of the way they interact, but if even one of these is disrupted, this affects weather across the whole planet.

Climate Engineering: Ask children to briefly research different climate engineering options that have been proposed (see https://www.rgs.org/schools/resources-for-schools/engineering-our-climate for examples). In groups children should discuss one of the options; how does it work, scientifically? What are the pros, cons and how practical or feasible is it? One child from each group should then feedback to the class.

Sustainability Discussion: What role might technology play in addressing climate change?

(This activity could feed into a discussion text in English, where children set out the pros and cons of a) focusing on the use of technology to mitigate the effects of climate change or b) instead choosing to change our way of living to reduce carbon emissions and not relying on technology to address the effects).

ney vocabalary.			
Tier 1	Tier 2	Tier 3	
Ocean	Landscape	Continent	
Hot	Terrain	Landmass	
Cold	Seasonal	Ice sheet	
Mountain	Route	North Pole	
Volcano	Expedition	South Pole	
Weather	Climate	Antarctica	
Day	Zone	Polar	

to describe position 2. Children should be able to name some key physical features in the local area e.g. shop, road, school, church etc	Night Map Latitu Map Time: Glac Pack Antarcti Grid ref. Tour	tude zone cier c ice c Circle erence rist
	 Golden Nuggets: 4. Children should be able to locate the Antarctic on a w 5. They should be able to describe the climate zone and of the Arctic 6. Children should be able to identify and name lines of longitude. 	physical geography

Land Ahoy

Objectives covered: 1a, 1b, 3a, 3c, 4a

Globes and atlases: continents and oceans, familiarising through games and quick activities. North and South Poles, continents and oceans. Suggested Sequence of Lessons

Lesson 1: Seas of the United Kingdom

Use this wordwall activity as a pre-unit task to see if children know the location of any of the seas of the UK, or if they can work it out? https://wordwall.net/resource/206737/geography/seas-around-the-uk Reveal the correct answers, children the write the names of the seas on a map of the UK in their books (provide word banks if needed). As a class or in groups play 'pin the sea on the map'. Names of the seas should be written on slips of paper. Children take it in turns to try, blindfolded, to put the name of each sea in the correct place – their classmates can call out directions to help (Year 1 use: up, down, left, right and Year 2 use: north, south, east and west). Return to pre-unit task – can children accurately name and locate the

Lessons 2-4: Continents Focus

seas of the UK?

This links directly to 'The Continents' activity in the Sustainability Education: A classroom guide unit, 'Earth in Space: Air, Land and Sea' (page 89)

- Show video: https://www.youtube.com/watch?v=Wg-pFtvsvmo which explains continents, oceans, north/south pole and equator. Link to prior learning in Near and Far about the equator. What continent is Kenya in? Is it near any oceans?
- Show Continents video/song
 https://www.youtube.com/watch?v=K6DSMZ8b3LE
 (others are available!). Reiterate that Oceania is sometimes called Australasia. Australia is in fact one of the countries in Australasia. Start each lesson in this group of lessons with your chosen continents song to support retention.
- Provide children with a blank 'passport' to complete with information about each continent as they take part in carousel activities about each continent. E.g. Continents passport on One Drive
 - Firs Estate Primary > Whole School Documents > Curriculum Planning > Subject Resources and Planning Support
- Plan 7 carousel activities to help children learn about each of the continents over the three lessons (with children completing either 2 or 3 activities per lesson). (ideas can be found at http://www.coreknowledge.org.uk/resources/Year%201-%20Geography-%20The%20Seven%20Continents.pdf)
- Learning stations should include atlases, world maps or globes which show where the continent is, information about the weather, some countries in the continent and some facts about the continent.
- Year 1 Travel Agents Role play could be adapted to include continents information/posters etc and could form one of the carousel stations. Alternatively, the Travel Agent could feature holidays to a different continent each week.

Lessons 5 and 6: Oceans of the World – To include mapping the routes of Christopher Columbus and other explorers

This links directly to the Seas and Oceans Quiz activity in the Sustainability Education: A classroom guide unit, 'Earth in Space: Air, Land and Sea' (page 89)

- Play BBC Teach video again
 (https://www.youtube.com/watch?app=desktop&v=Wg-pFtvsvmo)
 to recap ocean names. Show where each ocean is on a globe and also on a world map.
- Play Oceans of the World song
 https://www.youtube.com/watch?v=X6BE4VcYngQ. Ask children
 quiz questions about each ocean which is deepest? Warmest?
 Largest? Shallowest? Which ocean has the Bermuda Triangle? etc
- Children to add names of oceans to world map and then plot the

Darwin's Delights

Objectives covered: 1b, 2b, 2c, 3a, 3b, 3c, 4a, 4b, 4c

This unit builds on the children's learning about rivers in LKS2 and provides the opportunity to study river systems in more depth.

Fieldwork Opportunities

 when learning about rivers, to visit a local stream or river to investigate its physical features (e.g. meanders, sites of erosion and deposition) and its use by people now and in the past

Fieldwork Techniques

- recording selected geographical data on a map or large-scale plan, using colour or symbols and a key
- using standard field sampling techniques appropriately (e.g. taking water samples from a stream)
- collecting, analysing and presenting quantitative data in charts and graphs

Suggested Fieldwork Trip:

River Derwent walk e.g. http://www.derbyshire-

<u>peakdistrict.co.uk/derbydewentriverwalkroute1.htm</u> OR Pond dipping at Markeaton Park, and following course of the stream through the park from Markeaton Lane, through the lake, and then following it back towards school along the Britania Mill route and to its end near Agard Street:

All lesson plans and resources for this module can be found on the One Drive.

Lesson 1: Journey of a River

In this lesson, pupils will understand how rivers are formed. In outlining a model of a river system, pupils will understand that the features of a river and the surrounding landscape change from source to mouth. Using photographs and interactives, pupils will learn that the upper course of a river is characterised by steep land, turbulent water and V shaped river valleys. In the middle course, land is flatter and rivers widen and begin to meander. Looking in more depth at key physical processes, pupils will gain an understanding of erosion, transportation and deposition and the role these processes play in shaping the river. The formation of oxbow lakes will also be discussed. Finally, pupils will learn that, in the lower course, rivers are often at their widest and have the potential to form deltas.

Lesson 2: Flooding

This lesson links directly to the investigation suggested in Sustainability Education: A Classroom Guide (Weather and Climate: The Water Cycle, investigation on page 128)

In lesson two, pupils will understand the theory of flooding; why and how rivers succumb to overbank flow. Rivers flood for many reasons: in response to heavy or prolonged rainfall, due to the topography of the landscape, and morphology of rocks and soils. Human activity also plays its part; with growing urbanisation often comes an increased likelihood of flooding. By examining a case study of flood events in the UK, the 2007 floods in Gloucestershire in which the River Severn and River Avon burst their banks, pupils will also recognise that flooding has both an immediate impact on the physical environment, but also significantly impacts the surrounding community.

Lesson 3: The River Thames

This lesson links directly to the investigation suggested in Sustainability Education: A Classroom Guide (Weather and Climate: The Water Cycle, investigation on page 128)

Pupils will begin by locating the UK's major rivers before studying, in detail, the River Thames, which is the UK's second longest river. From its source on the outskirts of the village of Kemble at Thames Head in Gloucestershire, the River Thames flows through 346 km of South East England, before joining the North Sea, at its mouth at the Thames Estuary in Essex. This lesson will investigate the characteristics of the river and its surrounding landscape. It will also highlight the changing nature of human interaction with the river. Pupils will also understand why the River Thames is liable to flooding and the measures put in place to advert a major incident.

routes taken by different explorers onto the map e.g. https://www.twinkl.co.uk/resource/t-g-234-differentiated-mapping-our-oceans-activity-sheet



- Children could use the 'Pirate Bunnies BBC Bitesize game to consolidate and practice what they have learned about the continents and oceans in this topic:
 https://www.bbc.co.uk/games/embed/education-ivor-pirate-rabbits?exitGameUrl=https%3A%2F%2Fbbc.co.uk%2Fbitesize%2Farticles%2Fz6vyf4j
- Older and more able readers could research each ocean, and create
 a fact file for each one, or work in groups to create a group fact file
 to show facts about the life found in different seas and oceans.
 Children could also create their own quizzes (see Seas and Oceans
 quiz activity page 89). Information can be found at https://www.kids-world-travel-guide.com/ocean-facts-for-kids.html.

Key Vocabulary:

Tier 1	Tier 2	Tier	· 3
Мар	Route	North	North
Up	Location	South	America
Down		East	South
Land		West	America
Water		Left	Asia
		Right	Europe
		Compass	Oceania/
		Sea	Australasia
		Ocean	Antarctica
		Continent	Africa
		Globe	Pacific
		Atlas	Atlantic
			Indian
			Southern
			Arctic
			English
			Channel
			Irish Sea
			North Sea
			Celtic Sea

Golden Nuggets:

- 1. Children should know the names of the worlds continents and be able to locate them on an atlas or world map.
- Children should know the names of the worlds oceans and be able to locate them on a map
- 3. Children should know the names of the UK's seas and be able to locate them on a map of the UK.

Link to English: Pupils could at this point write a newspaper article as if they are reporting on a major flood in the UK (e.g. the 2007 floods in Gloucestershire studied, or more recent flooding in the locality e.g. flooding of Derby City Centre after Strom Babet https://www.bbc.co.uk/news/articles/cx29rv6lwqlo). They should describe what happened, draw a map of the affected area, and say what could be done to prevent future flooding in the area. They could also include an imaginary interview with a local.

Lesson 4: Mapping the River Thames

In the fourth lesson, the River Thames will again be the focus of geographical enquiry. Pupils will use three Ordnance Survey map extracts to investigate the features of the river and surrounding landscape; both rural and urban. They will gain an understanding of how topography is shown on a map. In a mapping task, pupils will learn the significance of keys, contour lines, four figure and six figure grid references, grid squares, distance, scale and direction as they answer questions and interrogate evidence.

Lesson 5: Beaver Engineers (Sustainability Education: A Classroom Guide, page 114), also see resources produced by the Beaver Trust, saved on One Drive:

Geography > Resources for Lessons > UKS2 > Darwin's Delights > Lesson 5

Children learn about beavers and their role as 'eco-system engineers'. They learn about programmes to protect and restore beaver populations, and how they offer a sustainable solution to the problems presented by flooding in some areas as a result of human activity. The resource saved on the One Drive (see lessons 3-5 in this document), provides background information and suggests a variety of activities teachers can choose from:

- Writing activities from lesson 3 in Beaver Trust pack; newspaper article, blog post, persuasive letter or poem (see Beaver Trust Writing Lesson Pack on One Drive).
- From lesson 4 in Beaver Trust pack: On a map of the UK, locate the following beaver populations (you might want to use a digital mapping platform to help you e.g. Digimaps).

Wild	Enclosed
Scottish Beaver Trial in Knapdale, Scotland River Otter Beaver Trial, on the River Otter in East Devon, England.	Cumbria Beaver Project at the Lowther Estate in the Lake District, England. Cornwall Beaver Project, at Woodland Valley Farm in Cornwall, England The Cheshire Beaver Project, at Hatchmere Nature Reserve, Cheshire, England Sussex Beaver Trial, on the Knepp Estate, Sussex, England. Nottinghamshire Beaver Project, Idle Valley Nature Reserve, Nottinghamshire.

From Lesson 5 in the pack: Beavers are coming to a river near you, but not
everyone in the local area is happy about it. They are worried about trees
being coppiced by beavers and the farmland surrounding the river flooding.
You need to make a poster to go up around your local area, which outlines
the key benefits of restoring beaver populations! It needs to be informative,
persuasive and eye-catching.

Lesson 6: Fieldtrip

This fieldtrip links with the 'Fresh Water Habitats' activity from Sustainability Education: A Classroom Guide (page 114). During the fieldtrip, pupils can make notes of the flora and fauna they find. Once back in the classroom their notes can be compared with research into the types of flora and fauna that are found in different fresh water habitats either around the world or around the country. Prior to the fieldtrip, teachers should print a map of the route/area from Digimaps so that pupils can take their own copies in order to mark relevant information on their maps as they go. E.g.

River fieldtrip activities and health and safety guidance can be found in the River Studies Fieldwork booklet saved in the unit One Drive folder: $Curriculum\ Planning\ \rightarrow\ Subject\ Resources\ and\ Planning\ Support\ \rightarrow\ Geography\ \rightarrow\ UKS2\ \rightarrow\ Darwin's\ Delights\ \rightarrow\ River\ Fieldtrip$ Teachers should choose at least one of the following activities from the booklet to carry out with pupils: What Lives in the River? What Does the River Look Like? How Wide is the River? How Deep is the River? How Fast is the River Flowing? How does the Sediment Size Change From Side to Side? How Clear is the River Water? **Key Vocabulary:** Tier 3 Tier 1 Tier 2 River Flood Source Waterfall Flow Mouth **Upper Course** Deep Steep Shallow Middle Course Valley Lower Course Flat Turbulent Rainfall Bank (river) Erosion Overflow Rock Transportation Deposition Soil Landscape Distance Rural Meander Map Urban Oxbow lake Delta Topography Morphology Contour lines Grid references **Ordnance Survey** Scale Hydroelectric Tourism **Golden Nuggets:** 1. Children should be able to describe the characteristics of the upper, middle and lower course of a river 2. They should be able to explain the meaning of erosion, transportation and deposition 3. They should be able to explain some of the reasons for flooding, including rainfall, topography of the landscape and morphology of rocks and soil. Cycle B Cycle B Cycle B **Bright Lights, Big City Traiders and Raiders** Stargazers Objectives covered: 1b, 2c, 3a, 3b, 4a, 4b, 4d Objectives covered: 1c, 3b, 3c, 4a Objectives covered: 1b, 4a, 4c Lesson 1: Compass Directions – 8 points **Lesson 1: Mapping Regions and Map Projections** Mapping the countries of the UK and major features and cities. https://digimapforschools.edina.ac.uk/learning-resources/resource/6-discovering-where-Activity detail in Digimaps resource saved in unit folder on One Drive. atlases-age-8-11.html Using a blank map to research and map places and features using an $Whole \, School \, - \, Documents \, \, \rightarrow \, \, Curriculum \, Planning \, \, \rightarrow \, \, Subject \, Resources \, and \, Planning \, Support \, \, \rightarrow \, \, Geography \, \, \rightarrow \, \, UKS2 \, \, \rightarrow \, \, Stargazers \, \, Curriculum \, Planning \, \, \rightarrow \, Curriculum \, Planning \, \, Curriculum \, Planning \, \, \rightarrow \, Curriculum \, Planning \, \, Curriculum \, Planning \, \, \rightarrow \, Curriculum \,$ atlas. Pupils name and then map different regions around the world e.g. hemispheres, Follow Digimaps activity planning to: biomes, political regions etc Lesson 1: 1. Introduce 8 points of compass 2. Challenge children to create their own mnemonic to remember the order of the

Introduce unit using the following song

(https://www.youtube.com/watch?v=RvDIZoQLgIE) and video https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-the-united-kingdom/zhtgrj6. These can be replayed throughout the unit to support retention of information.

Children should be given or helped to make a blank 'passport' to help them record their learning about each of the countries in the UK over the unit.

Lesson 2-5

Over four lessons children should learn about different aspects of each of the four countries of the UK. Teachers may choose to focus on one country per lesson, or on one aspect per lesson. Information to be covered should include:

- Location of each country on a map of the UK (make reference to which seas/oceans each country is surrounded by)
- Name and location of the capital city of each country
- Name and location of key landmarks in each country (both human and physical e.g. Tower of London, Snowdonia, Lock Ness etc)
- The flag of each country

Children should have the opportunity to add images of key features and text to a map of the UK.

(You may also wish to briefly include some of the following cultural explorations of each of the countries, or similar activities such as reading traditional folk tales from each country during English lessons/story time to provide additional context for the geographical learning):

- Tasting/baking foods from each country e.g. Welsh Bara Brith,
 Welsh Cakes, Cornish Pasties, Cheddar Cheese, Scottish porridge,
 Irish Soda bread etc)
- Traditional dances e.g. Scottish Highland dancing
 <u>https://www.youtube.com/watch?v=mCibA4BD20s</u>, Irish
 dancing (<u>https://www.youtube.com/watch?v=HgGAzBDE454</u>),
 Welsh dancing
- (https://www.youtube.com/watch?v=5 jMCsiYHTE), Morris dancing (https://www.youtube.com/watch?v=sArAC2 ow2k)
- Learning some Welsh words or a Welsh nursery rhyme
 https://www.youtube.com/
 watch?v=ug0jgtXsMQM&list=PLk0uiLcY3vYPrFpk6QFSK0vxCOIgpXnC4,
- Irish folk songs
 (https://www.youtube.com/watch?v=6DV2naWmD9U), Scottish songs for children (https://www.youtube.com/watch?v=3hejk5KVQTk&list=PLPc5YAwOntC3uq8CjY832ROSBqElbR036) etc

Lesson 6

Children should create a fact file, poster, leaflet or image and caption linked to one of the four countries of the UK. If possible these should be displayed around a map of the UK in the classroom (or on a Geography display) with arrows showing where each country and capital city is and linked to the relevant pupil work.

Key Vocabulary:

key vocabulary.		
Tier 1	Tier 2	Tier 3
Mountain	Features	United Kingdom
Lake	Language	England
	Culture	Northern Ireland
	Flag	Scotland
		Wales
		Cardiff
		London
		Edinburgh
		Belfast
		Capital City

compass points going in a clockwise direction e.g. Naughty Elephants Spray Water

3. Children independently (or in pairs) complete the online map challenge (link above) using compass directions on Digimaps.

Lesson 2

Introduce types of settlement (city, town. village, hamlet) using the 'Settlements' video on the webpage below:

https://www.bbc.co.uk/bitesize/topics/zx72pv4/articles/zrbvjhv.

Recap with children – which is the smallest type of settlement? Largest? Which type of settlements have a cathedral? Which type of settlement would have more traffic? Pollution? Litter? Why?

In their books children should make a list under 4 headings (city, town. village, hamlet) of the facilities that **might** be found in each type of settlement e.g. primary school, secondary school, university, village hall, shops, library, museum, stadium, gym, pub etc.

Provide children with a list of cities, towns, villages and hamlets in the East Midlands – they should use Google maps to locate them, and then work out, from what they can see (zoom in, use street maps, look for facilities in the area etc), what type of settlement each is. The names should be recorded in a table in their books, along with a short description to show how they know what type of settlement each is.

Suggested locations to search for:

Hamlets	Villages	Towns	Cities
Rowarth	Eyam	Bakewell	Nottingham
Unthank	Edale	Buxton	Leicester
	Tissington	Towcester	Lincoln
		Belper	Northampton

Discuss briefly – why might someone from a rural settlement e.g. hamlet or village want to move to a larger settlement e.g. town or city? Why might someone from a city want to move to a village?

Lesson 3

Recap types of settlement.

Watch second video, 'Exploring Cities' at

https://www.bbc.co.uk/bitesize/topics/zx72pv4/articles/zrbvjhv. Discuss, what are the pros/cons of living in a city? Which type of settlement would you prefer to live in - why?

Split children into 4 groups, each group will represent one type of settlement (hamlet, village, town, city). Each group must work together to create a list of reasons as to why their settlement type is the best to live in (teacher could provide prompts to facilitate discussion e.g. list of prompt vocabulary including; traffic, education, transport, entertainment, noise, pollution, jobs, nature etc.

(Teachers could create a purpose for this e.g. alien has just landed on Earth and needs help deciding where to live!).

Each group should then nominate a spokesperson to take part in a debate – chosen 4 children then debate the issue in front of the class.

Finally, in their books, children should write down an explanation of which type of settlement they would prefer to live in and why. They may include whether or not they have changed their mind having listened to the debate.

esson 4

This lesson builds on cross curricular links with the History unit and looks at the way early settlers e.g. Vikings, would have chosen their settlements.

This lesson also links to the activities from the Sustainability Education: A Classroom Guide unit Pollution and Resources: Natural Resources. It might be helpful to begin this lesson with the 'Getting Started' activity on page 202 – listing all the resources they can think of.

They then learn about different world map projections and the reasons behind the different views, comparing satellite images of Earth with 2D world map representations.

Finally, they work together to create their own thematic maps.

Lesson 2: Latitude, Longitude and Timezones

Recap latitude and longitude with this video clip:

https://www.bbc.co.uk/bitesize/topics/zvsfr82/articles/zd4rmfr

Introduce timezones with this video:

https://www.bbc.co.uk/bitesize/topics/zvsfr82/articles/zjk46v4

Carry out Timezones Digimaps activity:

https://digimapforschools.edina.ac.uk/learning-resources/resource/9-exploring-time-zones.html - also saved on One Drive:

 $Whole \ School - Documents \ \rightarrow \ Curriculum \ Planning \ \rightarrow \ Subject \ Resources \ and \ Planning \ Support \ \rightarrow \ Geography \ \rightarrow \ UKS2 \ \rightarrow \ Stargazers$

Lesson 3: Light Pollution

Follow 'Seeing Stars' lesson plan (on One Drive):

Curriculum Planning > Subject Resources and Planning Support > Geography > Resources for Lessons > UKS2 > Stargazers > Lesson 3

Carry out introduction, main and plenary on page 1-2.

Make sure children understand the impact of light pollution on wildlife https://www.darksky.org/light-pollution/wildlife/

Lesson 4 and 5: Energy use

These lessons make cross curricular links to science/electricity.

Use NASA Earth's visible light map to discuss energy use around the world. https://earth.google.com/web/@27.44405656,-

https://earth.google.com/web/@27.44405656,-84.76931014,9.85193068a,8916357d,35y,0h,0t,0r/data=CjlSMBIgMGY3ZTJkYzdlO

GExMTFINjk5MGQ2ZjgxOGQ2OWE2ZTciDHNwbGFzaHNjcmVlbg
Which countries/continents appear to be using the most energy? Can they locate

London by looking at the light map over the UK?
What is the impact of this on the environment? Ask children to consider where

What is the impact of this on the environment? Ask children to consider where the energy comes from to power all these lights?

Introduce types of energy using video at (NtE/WTS):

https://www.bbc.co.uk/bitesize/topics/zttbcmn/articles/zktyvwx

Alternatively, WTS/ARE classes could use 'Lesson 1' presentation from: https://www.stem.org.uk/resources/elibrary/resource/501161/renewable-and-non-renewable-energy-resources (also on One Drive).

Use provided resources/lesson outlines on One

Drive/https://www.stem.org.uk/resources/elibrary/resource/501161/renewable-and-non-renewable-energy-resources (these can all be edited to make more accessible for NtE/SEND, including the 'energy top trumps', and 'energy information posters') to investigate the pros and cons of different energy sources. Children should complete the 'Renewables Student Record Sheet' to record their findings.

Lesson 6 (possibly extending into a 7th lesson if more time required)

Teachers may wish to use this lesson to inform an extended piece of non-fiction writing in English e.g. discussion text or persuasive text – letter to MP etc):

Hold a debate about renewable energy – resources and lesson plans available at https://energysparks.uk/activity_types/129 (also on One Drive – two versions, one aimed at LKS2, one aimed at UKS2 to support differentiation). Debate role cards are not editable so NtE teachers may wish to create their own simpler version.

Should the planning committee allow a new wind farm to be built near the school/park etc?

	Landmark
	Human
	Physical

Golden Nuggets:

- Children should be able to name and locate the four countries of the UK.
- 2. Children should be able to name the capital cities of each of the four countries of the UK.

Children learn about the pros and cons of aspects of physical geography for early settlers. They will learn about natural resources which early settlers looked for when deciding on a site to settle in.

Powerpoint lesson outline and activity on the One Drive: Curriculum Planning – Geography – LKS2 – Traiders and Raiders Settlement Activity.

Children should finish the lesson by creating their own fictional map (including key and compass points) to represent an ideal location for an early settlement – which shows the aspects of physical geography that early settlers would have looked for (as shown in Powerpoint).

Lesson 5

This lesson builds on cross curricular links with the History unit and looks at the modern-day names of Viking and Anglo-Saxon settlements in the midlands.

See 'Lesson 5' Powerpoint on One Drive for full lesson details:

Whole School - Documents > Curriculum Planning > Subject Resources and Planning Support > Geography > Resources for Lessons > LKS2

Lesson 6: Patterns of land use

This activity develops observational and interpretative skills as pupils have to actively identify different kinds of land use on the maps. This helps children to think about why features are located where they are and how places have developed over time. When different places are compared at the same scale it highlights some of the similarities and differences between them.

Use the 'Patterns of Land Use' Presentation

(https://digimapforschools.edina.ac.uk/learning-resources/resource/patterns-land-use.html) to give examples of maps that show land use comparisons in four different coastal places: Newquay, Ceredigion on the west Wales coast; Weymouth, Dorset, on the south coast on England; Fraserburgh, Aberdeenshire on the east coast of Scotland, and Ullapool in the Highlands, on the west coast of Scotland.

Model how to use one colour from the Drawing tools to highlight just one type of land use for example, built areas. Then progress to include other land use types such as woods and farm land from an agreed colour key using the options on Digimap for Schools (it's helpful to select Aerial from the Map Selector tool for this activity). Instructions for this can be found in the 'Patterns of Land Use' booklet saved on the One Drive:

Curriculum Planning > Subject Resources and Planning Support > Geography > Resources for Lessons > LKS2

Now show children the 'Five Boroughs of Danelaw' map below:

https://www.historic-uk.com/HistoryUK/HistoryofEngland/The-Five-Boroughs-Of-Danelaw/Briefly explain the key and point out the locations of the Anglo-Saxons, Britons and Danelaw (Viking ruled land). Invite children to search for some of the main towns shown in the Danelaw area e.g. Whitby, York, Colchester and Stamford using Digimaps. Children should work in pairs to choose a 'Danelaw town/city', and then use the drawing tools to highlight different land use patterns. They should then use the map selector to move from Aerial view to 1890s, then to 1950s, then to Ordnance survey (modern). How has their chosen location changes over time? Are woods/parks still there? How have the built-up areas changed?

Maps with highlighted land use areas/key should be printed for individual books. Maps which show changes over time should be printed for whole class topic book and annotated with children's comments about how the land use has changed over time.



Tier 1	Tier 2	Tier 3
Map	Region	Time Zone
Atlas	Renewable	Hemisphere
Energy	Non-renewable	Latitude
Coal	On shore	Longitude
Gas	Off shore	Prime/ Greenwich
Nature	Natural	Meridian
Electricity	Stakeholders	Projection
Plants	Technology	Wind farm
Sun	Debate	Carbon dioxide
Light	Pollution	Hydro-power
Water	Wildlife	Solar-power
Wind	Advantages	Emissions
Wave	Disadvantages	
Cost	Risk	
Jobs	Reliability	
Money	Output	

Golden Nuggets:

- 1. Children should understand that the Prime Meridian runs through Greenwich in London and splits the word into Eastern and Western hemispheres; that time in countries to the **east** of the Prime Meridian is always in front of that in the UK and time in countries to the **west** of the Prime Meridian is always behind that of the UK.
- 2. Children should be able to identify whether a type of energy is renewable or non-renewable.
- 3. They should be able to identify advantages and disadvantages of different types of energy, including identifying those that emit greenhouse gases.



Lesson 7

This lesson incorporates activities from Sustainability Education: A Classroom Guide: Pollution and Resources: Natural Resources (Whales Activity page 203 and Sustainability Discussion on page 204), but has been slightly adapted to link to the history topic on Vikings:

You can use the Powerpoint 'Whales' saved in the One Drive:

Subject Resources and Planning Support > Geography > Resources for Lessons > LKS2

Use the Powerpoint to teach children about whaling and how it changed from early Viking times to becoming a commercial industry in the 19th and 20th centuries, looking at the impact this had on whale populations. Explore some of the international agreements that have been brought in to protect whale populations, and some of the organisations that are dedicate to whale conservation (children may wish to explore the websites of some of the organisations listed).

Discuss – Remind children of the definition of sustainable activities, and then ask how was whaling more sustainable in early Viking times (9th century) than it became later on, when it was commercialised? What was the difference (e.g. technology meant that more could be caught, now days less parts of the whale are used purposefully - in Norway whale meat often get used as pet food).

Carry out the sustainability discussion (page 204). You could use a diamond 12 approach to support the discussion, and help reinforce what natural resources are. There are picture cards on the final page of the Powerpoint which can be used to support pupils with EAL. Children could work in small groups or pairs to arrange the 12 cards in a 1,3,4,3,1 diamond shape to show what they think are the most to least valuable natural resources. Groups should then feedback to the class, comparing different views and discussing reasons for differing opinions.

Tier 1	Tier 2	Tier 3
Direction	Facilities	North
Up	Construction	South
Down	Habitats	East
Left	Congestion	West
Right	Pollution	Compass
City	Rural	Hamlet
Village	Flood	Suburbs
Town	Bog	Public transport
Cathedral		Population
Traffic		Settlement
Litter		Natural resources
Noise		Physical geography

Hill	Land-use patteri	1
Wood	Sustainable	
Forest	Unsustainable	
River	Endangered	
Stream		
Farm		
Port		

Golden Nuggets:

- 1. Children should be able to describe different types of settlements (city, town, village and hamlet), using key vocabulary (e.g. rural) and referring to population and possible facilities likely to be found in each.
- 2. Children should be able to use 8-point compass directions to describe the relative positions of given locations on a map.
- 3. Children should be able to identify land use patterns from an aerial view and from an Ordnance Survey map.

Paws, Claws and Whiskers

Objectives covered: 3a, 3c, 3d, 4a, 4c

Hot and Cold places

Locate Poles, Polar Regions, Equator. Use a globe to locate hot and cold places, and 'zoom' in to introduce other local factors such as altitude – eg Kilimanjaro, a cold summit near the Equator. Map and describe place examples and link vocabulary and spatial knowledge to places studied eg Kenya is on the Equator.

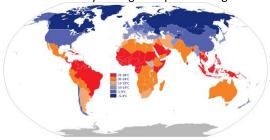
Lesson 1:

Introduce unit using the following video:

https://www.youtube.com/watch?v=Wg-pFtvsvmo (also used in Cycle A). Explain that we will be learning about hot and cold places in the world. Reiterate that the hottest parts of the world are near the equator (nearer the sun), and the coldest regions are at the North and South poles — this is because they are furthest from the sun. Explain that some place near the equator can still be cold, if they are high — introduce the word 'altitude'. Demonstrate this by showing Mount Kilamanjaro on Googlemaps — Zoom out to show that it is in Africa, which we know is a hot continent, and show that it is near the equator. Then zoom in, to reveal the snow on the peaks of the mountain.

Year 2s may recall learning about continents from Year 1. Introduce or recap continents using the continents video/song:

https://www.youtube.com/watch?v=K6DSMZ8b3LE Children should be reminded that Australasia is also sometimes known as Australia or Oceania. Show a world map, ask children to tell you the names of each continent (if they can!) and label it. Which continents do they think will be hottest? Coldest? Why? How do they know? Reveal a world map that is colour coded by average temperature e.g.



Children should then colour their own world maps to represent how hot/cold each part is. Year 2 should add their own Key.

Lesson 2:

Blue Abyss

This less

Objectives covered: 1b, 2b, 2c, 3b, 3c, 4a, 4b, 4c

The water cycle

Maps

Locate and map major rivers in the UK. Zoom in to places and features studied e.g. a local river or reservoir.

Create a Digimap story map to show findings of fieldtrip, recording images and text descriptions of human and physical features found.

https://digimapforschools.edina.ac.uk/help/add-photos/

Fieldwork Opportunities

- when learning about the water cycle, weather and climate, to investigate and record different weather phenomena through observation and by using standard measurement devices (e.g. thermometers, rain gauges and anemometers)
- take fieldtrips to more distant places (e.g. farm, <u>water treatment plant</u>, botanical gardens) to investigate their physical and human geography, as appropriate to the curriculum plan

Fieldwork Techniques

- relating a large-scale plan of the local area or fieldwork site to the environment, identifying features relevant to the enquiry
- recording selected geographical information on a map or large-scale plan, using colour or symbols and a key
- taking digital photos and annotating them with labels or captions
- using a simplified Likert Scale to record their judgements of environmental quality (e.g. in streets near the school)
- developing a simple method of recording their feelings about a place or site
- collecting, analysing and presenting quantitative data in charts and graphs

Suggested Fieldwork Trip:

Foremark Reservoir https://www.stwater.co.uk/our-visitor-sites/foremark-reservoir/ or Carsington Reservoir https://www.stwater.co.uk/our-visitor-sites/foremark-reservoir/ or Carsington Reservoir https://www.stwater.co.uk/our-visitor-sites/carsington-water/

Ongoing 'mini lessons' throughout unit: In this unit children will monitor the weather daily, throughout the half term, gathering data from a school electronic weather station (e.g. https://www.amazon.co.uk/Youshiko-Official-Professional-direction-Temperature). One child from each class could be chosen each data to retrieve the data, children should then add this information to a chart/graph in their books, which is built up over time e.g. a line graph to show daily rainfall, one to show daily windspeed, one to show temperature. NtE classes could add data onto a class chart displayed on the wall, and couple this with a visual daily weather chart to support vocabulary development.

Lesson 1-2: The Water Cycle (Links to science – lesson should be labelled geography and science)

Alchemy Island

Objectives covered: 1b, 3a, 3b, 4a, 4b, 4d

Lesson 1

Recap maps and grid references using

 $\frac{\text{https://www.youtube.com/watch?v=FvLPNmSNums}}{\text{https://www.ordnancesurvey.co.uk/mapzone/map-skills/grid-references/pageone}}$

Then play Digimaps Grid References Game (on One Drive):

Subject Resources and Planning Support > Geography > Resources for Lessons > UKS2 > Alchemy Island

Children should work in pairs to complete the Digimaps Grid References game (instructions within the game doc.)

<u>Note</u>: when children search for the locations they need to find they must use the 'clues' rather than the place names – as place names don't all appear when using the search bar!

<u>Note</u>: LKS2 will also have used this game in Cycle A – Urban Pioneers. Progression is ensured as LKS2 will search for 4 figure grid refs, while UKS2 will search for 10 figure grid refs using a grid reference marker. Children new to the school in UKS2 may start by looking for 4 figure grid refs to support differentiation.

Lesson 2

Further Map Skills

Recap grid references, and 8 points of the compass.

Then in pairs or individually children complete the Digimaps Treasure Hunt Game: https://digimapforschools.edina.ac.uk/learning-resources/resource/treasure-hunt.html (also on One Drive).

Subject Resources and Planning Support > Geography > Resources for Lessons > UKS2 > Alchemy Island

esson 3

Human and Physical Geography of Scotland/Map skills

Show children a blank map of the UK. Can they tell you where England, Wales, Scotland and Northern Ireland are? Recap, what are the capital cities of each of these countries (London, Cardiff, Edinburgh and Belfast)? What are the seas/oceans surrounding the UK? For the working wall ensure that there is an annotated map of the UK showing the borders of the four countries, location of capital cities and labelled with North Atlantic Ocean, North Sea, Irish Sea and English Channel. Show children where Derby is on the map.

This lesson can be linked to both the 'Getting Started' and 'Toy Display' activities from the Sustainability Education: A Classroom Guide unit Life on Land: Animals (pages 98 and 99). This unit is aimed at 3-7 year olds and some of the activities may be more suitable for younger children, so Year 2 may wish to adapt these to make them more age appropriate. Instead of focusing on Big Cats, Year 1 teachers could adapt this activity to creating a world map with the children to show where on earth 'their' animals come from.

Videos suggestions for use with 'Getting Started Activity':

<u>https://www.youtube.com/watch?v=cuf1SXQ9sCM</u> – Big cats around the world

 $\underline{\text{https://www.youtube.com/watch?v=W5xWdiXj4-4}} - \text{animals around the world}$

Explain that map can be used to show lots of different information about the world and show an example of a 'big cats around the world map' e.g.



https://www.tvshowpatrol.com/previews/big-cat-week-2017-schedulenat-geo-wild/

Show where the equator is on your map (e.g. use a drawing tool to draw over the map on the IWB). Which of these big cats live in hot places? Cold places? Explain that over the next few weeks you will be learning about the different places in the world where big cats live, learning about their human and physical features.

Provide children with some time to explore atlases and world maps that show a range of information e.g. temperature, rainfall, population, habitats, produce etc. Adults should circulate asking key questions e.g. can you find a country that gets a lot of rain? Show me a place in the world where I you ots of people live? Which continent has the least people living there? Etc. Older children and more able readers could answer a set of prepared questions in their books.

Lesson 3-5:

Each lesson should focus on a different country which is home to big cats (e.g. Bengal Tiger in India, Snow Leopards in Russia or Mongolia, Lions in Tanzania, Lynx in Sweden). Teachers should choose countries with a range of physical features, e.g. from different climate zones, with different habitats etc. Children should research the following information:

- Name of country and location on a map. Which continent is it in?
- Physical features: What is the climate like? How much rainfall? Is it hot or cold?
- Physical features: What is the altitude is it mostly flat or very mountainous?
- Which big cats (or other animals) live in the country studied?
- Link to learning in science what is the habitat of the big cat/anima being studied?
- Human features: Are humans having an impact on the habitats of the big cats? How? Why? E.g. expanding cities damaging habitats etc.
 This could replace the 'Somewhere Safe' activity from Sustainability Education: A Classroom Guide, particularly for Year 2 classes.

Provide children with a 'passport' for the unit to record key information in.

Lesson 6:

This lesson also links to the 'Getting Started' activity on page 127, and the 'Breaking the Cycle' and Sustainability Discussion activities on page 128 from Sustainability Education: A Classroom Guide (Weather and Climate: The Water Cycle unit)

Getting Started:

Use Google Earth/atlas or globe to remind the children that most of the Earth's surface is covered in water. Ask children where they think the water comes from and then show one of the videos below.

- https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-the-water-cycle/zbcmxyc#:~:text=When%20the%20water%20vapour%20cools,and%20the%20cycle%20starts%20again.
- https://www.youtube.com/watch?v=ncORPosDrjl

Now, ask the children – what do they think might happen if the world's seas and oceans become warmer? Address any misconceptions and explain that warmer water in the seas speeds up the water cycle, and can lead to more rainfall, storms and flooding in some areas, but drought in others (https://scied.ucar.edu/learning-zone/climate-change-impacts/water-cycle-climate-change).

Carry out water cycle investigation specified in Science Progression and Coverage document Children then draw and label water cycle diagram in their books. NTE could use templates and word banks, more able children to draw their own diagrams and label.

Now – complete Breaking the Cycle activity (page 128):

Ask children to identify, using atlas or globe, rainforest regions around the world. Explain that in these areas much of the water needed to create rain evaporates from plants and trees. If too many trees are cut down less water evaporates so there is less rain – this causes more trees to die back, reducing evaporation even further. Get children to now draw a second diagram, this time showing an 'disrupted' water cycle. On this diagram pupils should show the impacts these changes might have on people's lives and the implications in terms of sustainability. This video gives some examples of the effects of a disrupted water cycle: https://www.youtube.com/watch?v=IODWbRBYwuc.

Sustainability Discussion: In what ways is water essential to our lives?

Lesson 3: Mapping major rivers in the UK

Show children video about rivers: https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-rivers/z6qsf4j. Make notes of key vocabulary including: lake, spring, source, mouth, estuary, meander, flood. With the children create a glossary for the working wall.

Children use Digimaps to investigate a major river in the UK e.g. Thames (search for Thames Link), Severn (search for River Severn) etc. Where does it start (source)? Where does it end (mouth)? What points does it pass through (e.g. Thames goes through many towns called X upon Thames!)? How long is it? Etc (see Digimaps lesson plan link below for outline guidance – River Journey and River Glossary).

https://digimapforschools.edina.ac.uk/learning-resources/resource/focus-rivers.html. Children should use the image search feature to search for images of the rivers they are researching. What wildlife do they see? Human features? Habitats etc. They may want to switch between Aerial view and OS Maps views to make tracing the route of the river easier (use Map Selector).

Children should draw the path of their chosen river on a blank map of the UK, labelling the source and the mouth, and estuary if relevant, creating symbols and a key for these features. Children should print thumbnail images from Digimaps (they can be printed once downloaded) to go in their books alongside their maps. Children should make notes on the human and physical features they see.

Lesson 4 (short lesson): Fieldtrip planning

Show children the BBC clip about lakes, reservoirs and the water cycle to recap https://www.bbc.co.uk/teach/class-clips-video/ks2-geography-lakes-lochs-and-reservoirs/zp4pp4j

Use Google Earth to look at Scotland. What do they notice about the landscape of Northern Scotland? E.g. mountains, lots of water (lochs), very green. Use street view to show children a close up view of the mountainous regions (e.g. around Ben Nevis) and lochs. Now look at some of the islands of the Hebrides including the Isle of Arran. Use 'street view' to explore some of the mountainous areas, but also the coastal areas of the island. Recap the word 'topography' and make a list of the topographical features they can see for the working wall.

Open Digimaps view of the UK and use the population density overlay. What do children notice about the population density in Scotland compared to England? Point out that most of the population in Scotland is concentrated in a few large cities; Edinburgh, Glasgow, Inverness, Dundee and Aberdeen. Now add mountain ranges overlay over the top of the population overlay. How has the physical geography of Scotland affected its human geography?

Remove these overlays and then add GB overlay – British National Grid. Look at various areas in Scotland and discuss the map symbols the children can see. Can they work out what different symbols mean? List of OS map symbols is available here: https://www.ordnancesurvey.co.uk/mapzone/map-skills/map-symbols/page-two.

Look at mountainous/hilly areas and discuss the contour lines. Do children know what these show? Use https://www.ordnancesurvey.co.uk/mapzone/map-skills/relief-and-contours to explain how contour lines are used to show the height of land.

Children should then complete 'Lesson 2 Grid Ref search' activity (they search for given grid references using Digimaps, and then identify the feature found, the symbol, and whether it is a human or physical feature.).

Lesson 4 and 5

Isle of Arran/Map Symbols/Compass Directions/Grid Refs.

Recap map symbols, including contours. Children use Digimaps to investigate the Isle of Arran in pairs.

They should record in their books the map symbols they can see that show different human and physical features e.g. museum, castle, picnic site etc. They should make a record in their books of which each symbol they find represents (referring to printed key – on One Drive 'Explorer 25k Legend' PDF if needed). Note: Many symbols will only be visible when zoomed in at a 2km scale.

Children should then create their own 'treasure hunt' activity (like that completed in lesson 2) based on locations in the Isle of Arran.

Lesson 6

Maps and Symbols

Children create their own map for a fictional island (on squared paper to represent grid lines). They should include map symbols to show physical and human features, including contours and a key. They can make up their own symbols, or use those from Ordnance Survey maps. They can add names for rivers, forests, farms, villages etc. Shading/details in coloured pencil. Their maps should also include compass directions and a scale.

Alternatively children could complete Digimaps Dream Island activity (https://digimapforschools.edina.ac.uk/learning-resources/resource/my-dream-island.html and on One Drive), and create their island using Digimaps.

Tier 1	Tier 2	Tier 3
Island	Distance	Contours
River	Steep	Scale
Hill	Slope	Grid lines
Mountain	Population	Grid references
Lake	Density	Eastings

Children should finish the unit by making their own story maps to show what they have learned, adding information and pictures to a world map (and adding colour coding or a key for Year 2s who are able to). End with the Sustainability Discussion from page 99 of Sustainability Education: A Classroom Guide.

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Hot	Temperature	North America
Cold	Features	South America
Low	Location	Asia
High		Europe
Flat		Oceania/
Mountain		Australasia
Weather		Antarctica
Rain		Equator
Forest		Climate
Snow		Habitat
Sun		Rainfall
Desert		Population
		Human
		Physical
		Country
		Continent

Golden Nugget

- 1. Children should know that parts of the world near the equator are hottest and that the coldest parts of the world are the north and south poles.
- 2. Children should be able to name some hot countries and some cold countries.

Use Digimaps to search for either Carsington Water or Foremark Reservoir (children could do this on their own computers or could be done on IWB for whole class). Zoom in to 500 m scale. Discuss – what are the human and physical features they notice in the area? E.g. ask children – what do think the green diamond symbols represent (Foremark)? Use the key to show these show a recreational route (what does recreation mean?). If looking at Carsington – what do the orange circles mean? (cycle path) Look at the 'Tourism and Leisure' symbols on the key – can they see any of these on the map? Discuss – is the landscape flat/hilly? How do they know? What symbols can they see? What sort of trees are in the area? Use 'Landscape and Landcover' key. Look closely at the outline of the reservoir – can children see where the water comes from? E.g Foremark is filled from the North side, and if you follow the river you find that the source is a spring. What sort of activities do they think they will see people doing, from looking at the information on the map?

Children record Key Symbols (relevant to the fieldtrip location) in their books with an explanation of their meaning). NtE could match images of symbols with words.

Lesson 5 and 6: Fieldtrip to Foremark Reservoir

Children should stay in pairs and have a site map of the visit location (printed from Digimaps) and compass for each pair. Complete a walk around the chosen site (information on routes available on the websites). Children should have the opportunity to take photos of the different features they pass, matching them to the symbols on their map e.g. photos of picnic areas, woods, steep slopes, car parks, heath land etc. Teacher should prompt children to check their compasses — which direction are we walking in? Check your map, which direction do we need to go in now etc.

Children should make notes of different human activities they see (e.g. sailing, kayaking, walking, cycling, picnicking, fishing etc) while on the visit in a simple table (e.g. as per BBC video clip about lakes). They should also make notes and simple sketches of any wildlife they see e.g. leaf shapes, flowers, birds, ducks etc.

At the end of the visit they should complete a simple Likert scale (e.g. numbers 1-5, or smiley – sad faces scale to record how they felt about different locations on their walk e.g. the woodland area, the bank of the reservoir, the play park etc)

Lesson 7: Documenting the fieldtrip

Children add their digital images taken on the fieldtrip to a Digimap of the fieldtrip area — see guidance at https://digimapforschools.edina.ac.uk/help/add-photos/. Maps can then be printed and added to individual or whole class topic books. E.g. adding a photo of a picnic area or woodland and linking it with a symbol to the matching location on the map. Children could also upload images of their sketches e.g. of wildlife/vegetation. Likert scales can also be added to books.

Key Vocabulary:

Tier 1	Tier 2	Tier 3
River	Meander	Water cycle
Lake	Flood	Precipitation
Мар	Features	Source
Wood	Record	Mouth
Tree	Habitat	Reservoir
Water	Wildlife	Estuary
Weather	Activities	Spring
Cloud	Leisure	Symbol
Rain	Recreation	Key
Wind	Route	Human
Sun	Temperature	Physical
Warm	Bank (of river)	Compass
Hot		Evaporation
Cold		Condensation
		Degrees Celsius
Tree Water Weather Cloud Rain Wind Sun Warm Hot	Habitat Wildlife Activities Leisure Recreation Route Temperature	Reservoir Estuary Spring Symbol Key Human Physical Compass Evaporation Condensation

Stream	Northings
Forest	Key
Wood	Ordnance Survey
Farm	Compass
Port	North, South, East,
Harbour	West
Village	Topography
Town	Human features
City	Physical features
Hamlet	Loch
Мар	
High	
Low	

Golden Nuggets:

- 1. Children should be able to identify the 6-figure grid reference for a given location.
- 2. Children should be able to use a 6-figure grid reference to find a given location on a map.
- 3. Children should be able to use map symbols and contour lines to identify the human and physical features of a location on an OS map.

Golden Nuggets:

1. Children should be able to label features of a river including source, mouth, meander and estuary.

Children should be able to label the stages of the water cycle.

Scented Garden

Objectives covered: 1b, 2b, 3a, 3c, 4c, 4d

Weather

- Recording weather in one or more places in the school grounds and mapping location(s) on a topographical plan of the grounds.
- Mapping weather data on a map of the UK and adding simple symbols.

Fieldwork Opportunities

- investigate different weather conditions through observation and by making and using simple measurement devices (e.g. to record wind direction, to measure rainfall).
- observe and record seasonal changes (e.g. to flowering plants and deciduous trees) in the school grounds and local area
- collecting and sorting natural objects (e.g. leaves, twigs, stones) to investigate their properties

Fieldwork techniques

• marking information on a large-scale plan (e.g. of the school grounds or a local street) using colour or symbols to record observations

(Note: Further resources and activities to support teaching on the weather for KS1 can be found at: https://www.rgs.org/schools/teaching-resources/weather-and-climate-resources-key-stage-one/)

Lesson 1:

This lesson can be linked directly with the 'Getting Started' and 'Weather Conditions' activities from the Sustainability Education: A Classroom Guide unit 'Weather and Climate: Weather Patterns' (page 124 and 125).

Introduce the unit with this BBC clip https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-the-seasons/zk8thbk. With the children, write a list of all the weather words that they can think of. Which seasons do we associate each type of weather with? Which season are we in now? How do you know?

Now, repeat the exercise just focusing on all the words they can think of to do with the wind e.g. blustery, breezy etc. Teach the children about the Beaufort Scale and wind (e.g. using this clip:

 $\underline{\text{https://www.bbc.co.uk/programmes/p0113zqf}}\text{), and how temperature is measured}$

(https://www.bbc.co.uk/bitesize/topics/zbb97ty/watch/z99ncdm).

Children should make their own versions of a) wind and b) temperature scales, adding pictures to match the descriptions e.g. wind scale - calm = smoke rising directly from a chimney, breezy = smoke blowing horizontal, hurricane = trees blowing over & temperature scale – freezing = snowman, cold = coat and hat, warm = t-shirt, hot = ice cream melting and sunglasses etc. Talk about the impacts of extreme weather on people, plants and animals.

Lessons 2:

Discuss the seasons – can children recall the seasons from the video watched in the previous lesson (if not, show the video again https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-th

 $\frac{https://www.bbc.co.uk/teach/class-clips-video/geography-ks1--ks2-the-seasons/zk8thbk)}{}$

Children create and then label seasons pictures, separating their page into 4 sections and drawing images to represent each season.

During the independent drawing activity - create weather station equipment with small groups of children (1 group at a time) (instructions at https://sciencing.com/easy-homemade-weather-instruments-kids-

Tremors

Objectives covered: 1a, 3a, 4a, 4b

This module will focus on mountains, volcanoes and earthquakes. Lesson plans and resources for each lesson can be found on the Royal Geographical Society website. https://www.rgs.org/schools/resources-for-schools/mountains-volcanoes-and-earthquakes

Lesson 1

This lesson starts with the iconic photograph of Tenzing Norgay at the summit of Mount Everest, taken by Sir Edmund Hillary on 29th May 1953, marking the first successful ascent of the mountain. As a starter activity, and with no contextualisation from the class teacher, pupils are asked to identify questions (and surmise answers): who, what, where, when, why, how. The development of geographical enquiry, asking questions of evidence and examining what it might tell us, will start pupils on the road to thinking 'like geographers'. Then, through a series of maps and photographs, both modern and archive, pupils will then learn about the physical geography of the mountain- its landscape, topography and weather. They will come to understand that Mount Everest can be a hostile and dangerous environment. Finally, pupils will hear how these dangers were faced by Hillary and Tenzing in their successful ascent of the summit.

Lesson 2

In lesson two, pupils will begin by addressing the fundamental question, 'What is a mountain?' They will then establish the location of the main continental mountain ranges. Significant, and interesting, mountain ranges will be highlighted. The highest peaks in the UK will be identified before looking, in depth, at a case study of Snowdon. Pupils will use the Ordnance Survey map of Snowdon and will gain an understanding of how topography is shown on a map. In a mapping task, pupils will learn the significance of keys, contour lines, four figure and six figure grid references, grid squares, distance, scale and direction as they answer questions and plan routes.

Lesson 3

In lesson three, the key question to be investigated is how mountains are formed. The role of plate tectonics, the movement of the Earth's crust, in this formation will be explained. Pupils will gain an understanding of the structure of the Earth and come to know that mountains can be formed in different ways, depending on how the Earth's crust moves. Three formations will be examined in detail: Fold Mountains, Fault Block Mountains and Dome Mountains. In addition to the formation models, mountains exemplifying each formation will also be named and located with particular reference to North and South America and Europe. Finally, pupils will understand that mountain landscapes change over time through erosion.

Lesson 4

Pupils will learn that volcanoes come in many shapes and sizes, but are primarily located at the boundaries between tectonic plates. Why and how an eruption happens, and the type of volcano created are key issues that will be explored. Pupils will also become familiar with the structure of volcanoes and be able to name the key features in a cross section. Examples of different volcanoes from North and South America and Europe (including the UK), active, dormant and extinct, will be featured as case studies.

Lesson 5

With an average of 25 eruptions per year and approximately 600 million people living on or in the vicinity of volcanoes, we ask the question, 'Why do people live near volcanoes?' In the lesson pupils will understand how people interact with this specific mountain environment, the different types of land use and how it can be beneficial, from geothermal energy to mineral extraction. They will also understand the inherent dangers of living in the foothills of a volcano, from lava, ash, gas to lahars (mud flows).

Lesson (

In the final lesson of the module, the spotlight turns to earthquakes. Every thirty seconds there is an earthquake somewhere in the world; each year there are approximately 100 earthquakes that cause serious damage. Where earthquakes are located, why they happen, how they happen and their aftermath- on both the landscape and the people most affected-

Pharaohs

Objectives covered: 2c, 3a, 3b, 3c, 4a

Lesson 1 and 2

Recap continents asking children to name and locate each continent on a world map. Ask children if they know which continent Egypt is in? Show Africa on a world map – does anyone come from a country in Africa or have family that come from a country in Africa?

Locate Egypt on Google Earth and zoom in to 2000km scale, which then shows all of Africa and the names of countries in it.

Which countries share a border with Egypt? Which other countries are nearby? Children should fill in the blank map of Africa (on One Drive), adding labels with arrows pointing to Egypt, its surrounding countries and any others they can identify (referring to Google Earth image still on main whiteboard). They should also locate and label the seas and oceans surrounding Africa, including; Mediterranean, Red Sea, Atlantic Ocean and Indian Ocean (they should use atlases to support this part of the task).

What do children notice about the landscape of Africa? What is different about the north and south of Africa? Why do they think the north is drier? (discuss location of equator, referring to lines of latitude, tropics of Capricorn and Cancer, and the location of these over Africa etc). What sort of biomes do they think they can see?

Introduce biomes with Biome Powerpoint (saved on One Drive)

Curriculum Planning > Subject Resources and Planning Support > Geography > Resources for Lessons > UKS2 > Pharaohs

Children should then use coloured pencils to *lightly* shade their map of Africa to show where the 4 main biomes in Africa are (copy from slide 5 on Powerpoint). They should add their own key labelled with biomes shown.

Children then research the 4 different biomes (Rainforest, Desert, Savanna, Mediterranean) completing a fact file about each one to include the following headings:

- African countries with this biome
- Climate
- Vegetation
- Animals
- Other facts

The following websites could be used to support children's research:

- https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zvsp92p#:~:t ext=Biomes%20are%20areas%20of%20the%20planet%20with%20a% 20similar%20climate,is%20a%20type%20of%20tundra.
- https://www.ducksters.com/science/ecosystems/desert_biome.php
- https://kids.britannica.com/kids/article/biome/403913

Lesson 3

Use Google Earth to look at Egypt. What is the main biome of Egypt? Zoom in to about 200km – 100km scale – city/settlement names should appear. What do children notice about the location of the main cities in Egypt? They should

<u>7974126.html</u>) Each group to create one of the following; thermometer, rain gauge, barometer, wind vain or anemometer.

At the end of the lesson, bring all children together and choose one child from each group to introduce and explain the piece of weather station equipment they have made.

Explain that you will set up your own weather station in the school grounds and will record the weather over the half term. (note – there will be 4 classes setting up their own weather stations, so each class should choose a different location around the school grounds e.g. EYFS garden, KS1 playground by the storage sheds, KS1 playground in the planted are, in the KS2 playground. Only rain gauges should be left outside!).

Lessons 3-4: Follow up sessions (these do not need to be full lessons – it would be better to have shorter sessions more frequently to allow a bank of data to be collected):

Children should use the weather equipment they have made to monitor the weather each day for at least a week if possible (if the weather shows little change in this time, teachers may wish to extend the period over which the weather is monitored, to give children the opportunity to describe different observations). Equipment other than the rain gauge should be carried out each time (this will stop it from becoming damaged on the playground in between sessions!).

Children should collect information on:

- cm of rain fall
- wind direction
- wind speed (number of rotations of the anemometer in a minute)
- temperature
- air pressure (low, medium or high)

The location the measurements are taken should be recorded on a simple sketch map – Year 2 should add symbols and a key to show which equipment was used where on the playground each time.

Lesson 5: Weather Forecasts

Show some example weather forecasts and explain their purpose – discuss, why might it be important to know what the weather will be like? Which jobs would this be important for?

Provide children simple maps of the UK which show major cities (refer to topic Bright Lights, Big City and recap — can children recall the 4 countries of the UK and their capital cities? Provide simple written summaries of weather forecasts (e.g. those included in the following resource: https://www.metoffice forecastingandprediction firstexplorations 22-explorations/metoffice forecastingandprediction firstexplorations 22-o4 creating-your-own-weather-forecast.pdf). Discuss weather differences between the different regions e.g. Scotland tends to be colder, the west of the UK tends to be windier and wetter than the East, the south coast and London tend to be warmer. Children should add weather symbols to the appropriate places on each map (this could be limited to one map/forecast for younger/less able pupils.

NtE pupils could work in a group learning, performing and recording spoken weather forecasts, adding large symbols to a large-scale map of the UK.

Lesson 6: Fieldwork visit to local park

Children should record, either by drawings or by taking digital photos, any seasonal changes they notice on route or at the park (e.g. to flowering

will be examined. The San Andreas Fault, western USA, will be highlighted as a case study. Additional material will also be provided on the Japanese earthquake and tsunami of 2011.

Key Vocabulary:

Tier 1	Tier 2	Tier 3	
Mountain	Landscape	Earthquake	
Smoke	Boundary	Volcano	
Gas	Eruption	Tectonic plates	
Weather	Ash	Lava flow	
Direction	Peak	Tsunami	
Rock	Ascent	Lahars (mud flows)	
	Formation	Active	
	Symbols	Dormant	
	Distance	Extinct	
	Route	Topography	
	Molten	Contour lines	
	Viscous	Fold mountains	
	Converge	Fault block mountains	
		Dome mountains	
		Erosion	
		Grid references	
		Key	
		Scale	
		Magma	
		Plate/Plate tectonics	
		Convection current	
		Shield volcano	
		Composite volcano	
		Core	
		Mantle	
		Crust	

Golden Nuggets:

- 1. Children should be able to identify and name different types of mountain.
- Children will be able to explain the term dormant, active and extinct in relations to volcanoes.
- 3. Children will be able to name the key features in a cross section of a volcano.

realise that they are almost all near the river – why? Does anyone know the name of this river? Explain it is the river Nile. Use Digimaps population density overlay (in World Human Geography menu) to show that the majority of people in Egypt live near the Nile.

Zoom in further on Google Earth to look more closely at the settlements that are not near the Nile e.g. Siwa Oasis, Farafra, Kharga. How are people able to live here? Explain the term Oasis (the following video gives an explanation with reference to Siwa Oasis

https://www.youtube.com/watch?v=nuJ6QTZdvxM).

Discuss – why is it so important for people to live near water? What do we use it for?

Watch BBC Geography video on water:

https://www.youtube.com/watch?v=e0rzalgDhJY

Discuss – how can we save water? Why do we need to? Make notes for working wall.

Children should create a poster persuading people to conserve water and explain ways that this can be done.

Lesson 4 and 5

See Powerpoint 'The Ethiopia Dam and River Nile' (on One Drive) for full lesson outline.

This lesson links directly to the 'Mapping Water Features' activity from Sustainability Education and Classroom Guide (page 113).

Children will use a map*/Atlas to plot the course of the Nile through Africa — they should then draw and label the river Nile on to their blank map of Africa (from lesson 1), ensuring that each country it runs through is labelled (including; Ethiopia, Sudan, South Sudan, Rwanda, Burundi and Uganda). They should draw and label the main tributaries (Blue Nile and White Nile), and Lake Victoria. Label the source and mouth of the river (source being the rivers that flow into Lake Victoria, and sources of the White Nile and Blue Nile, and mouth (where it meets Mediterranean Sea).

*e.g. https://kids.britannica.com/kids/article/Nile-River/346183 and https://en.wikipedia.org/wiki/Nile#/media/File:River Nile map.svg

Extension - children could also add in the location of key cities along the Nile including Cairo, Luxor, Aswan, Khartoum, Juba and Jinja.

Discuss – can children work out which direction the Nile flows in? Confirm that it flows North, and that Egypt is 'downstream' from the other countries the Nile flows through – this means that what happens to the river in these other countries could affect Egypt's main source of water. Children should also consider the landscape features they notice along the path of the river – where are there areas of plentiful water and where might water be scarce?

Children then learn about the Grand Ethiopian Renaissance Dam (Gerd) that is being built, it's advantages and disadvantages and impact on Egypt. They take part in a debate, taking on the role of one of four stakeholders; environmentalist, Egyptian farmer, Ethiopian Politician or Sudanese father.

This could be used as the basis for non-fiction writing in English – discussion text.

Note: this might be an appropriate point in the teaching sequence to have the Sustainability Discussion from Sustainability Education: A Classroom Guide (A Watery Planet: Fresh Water Stories (page 115).

plants and deciduous trees). Natural objects that show the season should be collected for a seasonal display back at school e.g. brown/orange/red leaves in Autumn, blossom, flower and seed heads in Spring, green leaves and flowers in summer etc.

Lesson 7: Sustainability Discussion – Why should we care about the weather? (page 125, Sustainability Education: A Classroom Guide)

Key Vocabulary:

Tier 1	Tier 2	Tier 3
Hot	Temperature	Season
Cold	Direction	Precipitation
Sun	Mild	Air pressure
Rain	Forecast	Beaufort Scale
Wind	Symbol	
Snow	Record	
Speed		
Weather		
Spring		
Summer		
Autumn		
Winter		
Fast		
Slow		

Golden Nuggets:

- 1. Children should be able to name the seasons, and match seasons to their associated weather patterns.
- 2. Children should be able to describe seasonal changes other than weather e.g. blossom, flowering, loss of leaves, browning leaves etc

The Whanganui River on North Island in New Zealand (show children where on Atlas or World Map) became the first river in the world to be recognised as a legal person in 2017 and is now known as Te Awa Tupua. The local indigenous peoples of Whanganui believe this change in status, which recognises the river as a living being, will protect the river and its surrounding area. Consider alternative perspectives (e.g. link to learning about the GERD). How might things be different if we think of water as a resource, a gift or a living being?

Lesson 6

What is an economy?

Use video and information pages at:

 $\frac{https://www.bbc.co.uk/bitesize/topics/zx72pv4/articles/z7jdnrd\#:^:text=Quiz \%20\%E2\%80\%93\%20The\%20economy-$

<u>,What%20is%20the%20economy%3F,makes%20is%20called%20economic%20activity</u> to introduce the term 'economy'.

Children should then research the main industries in Egypt – what items are produced by manufacturing, energy production and agriculture? What are the main service industries (e.g. tourism)?

Children could use the following websites for their research:

https://primaryleap.co.uk/activity/egypt/level-2 (easier text) https://kids.nationalgeographic.com/geography/countries/article/egypt (easier text)

https://www.worldatlas.com/articles/the-biggest-industries-in-egypt.html (more detailed text)

https://www.researchgate.net/figure/Urban-Development-Map-of-Egypt fig6 305778522 (map showing location of different industrial areas)

Ask children to feedback on their findings and make notes for the working wall. Children should make a record in their books of the main produce/industries of Egypt, and group them according to whether they are agricultural, service, manufacturing or energy industries. Which of these industries relies on the Nile and availability of water?

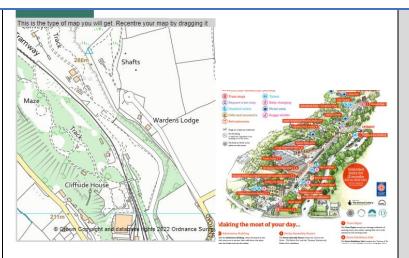
Key Vocabulary:

Tier 1	Tier 2	Tier 3	
Hot	Economy	Biome	
Cold	Resources	Desert	
Warm	Natural	Savanna	
Dry	Manufacturing	Rainforest	
Rain	Stakeholder	Mediterranean	
Water	Industry	Hydro – electricity	
Power	Temperature	Dam	
Energy		Reservoir	
Flood		Tourism	
Farm		Agriculture	
Farmer		Oasis	
River		Source	
Lake		Mouth	
Animals		Population	
		Settlement	
		Climate	
		Vegetation	

Golden Nuggets:

- 1. Children should be able to name four main biomes of Africa, describing climate and some of the vegetation and animals found in each.
- 2. Children should know that Egypt is in Africa and be able to locate it, and some of its surrounding countries, on a map.
- 3. Children should be able to explain the importance of the Nile to

	Egypt.
Super Heroes	
Objectives covered: 2b, 3b, 3c, 3d, 4b, 4c	
Maps	
Create a Digimap Story map as a class to document the field trip	
(https://www.youtube.com/watch?v=1KSPYTJqpxl 3:00 to 22:00 mins for	
guidance on how to do this.	
Create a map of a fictional place linked to a story.	
Fieldwork Opportunities	
• take a short journey by bus, tram or train to investigate a slightly more	
distant site that contrasts with the immediate local area e.g. Tram	
journey at Crich Tramway museum.	
Fieldwork Techniques	
• drawing a freehand map (e.g. of the school grounds, local street or	
park)	
using a simple compass and cardinal compass directions (north, south,	
west, east)	
• taking digital photos (e.g. of buildings in the locality, things seen on a	
bus journey)	
• collecting and sorting natural objects (e.g. leaves, twigs, stones) to	
investigate their properties	
 using a simple recording technique (e.g. smiley/sad faces worksheet) to 	
express their feelings about a specific place and explaining why they	
like/dislike some of its features	
Suggested Fieldtrip: Crich Tramway Museum visit (alternative trip: Royal	
Airforce Museum)	
Lesson 1	
Year 1 Should use the Crich Tramway museum site map (or simplified	
teacher version), and Year 2 should use a Digimaps for schools map of	
Crich Tramway Village to prepare for the fieldtrip.	
https://www.tramway.co.uk/wp-content/uploads/2016/01/Crich-	
Tramway-Village-Map-2016 .pdf	
Year 2 Guidance on using Digimaps to plan and document a walk:	
(https://www.youtube.com/watch?v=1KSPYTJqpxl 3:00 to 22:00 mins for	
guidance on how to do this)	
Explore site map/Digimaps map of Crich Tramway Museum (or	
alternative transport museum location for fieldtrip) with the class.	
Discuss - what human and physical features do they think they will see?	
What do they notice? How do they think the area will be different from	
where the school is? From where they live? Discuss landmarks the	
children might look out for (e.g. Maze). Discuss the Key – what do the	
symbols mean. Can children use the key to identify locations of different	
features and landmarks?).	
As a class plot a route on the map that you will follow on your visit? What	
are the human and physical features they can see on the map? Children	
should create lists of human and physical features that they will see, and	
photograph on their fieldtrip.	



Lesson 2 and 3: Crich Tramway Museum visit:

Activities should include:

- Taking digital photographs to use back in school to document the trip, year 2 should note the location of key features on their maps as they go.
- Discussing human and physical features seen.
- Exploring the Maze Year 1 give directions for children to follow (forwards, left, right, backwards etc) and Year 2 to create a list of directions to get through the maze using north, south, east and west. Year 2 should use compasses at this point to support the activity.
- Year 2 should have compasses throughout the visit, and should be asked to comment on the relative location of different features e.g. is the maze north or south from the forest? What direction does the tramline run in?

Lesson 4:

Documenting the visit: Year 2 - see Digimaps instructional video for adding digital images and text to a Digimap $\frac{1}{2} \frac{1}{2} \frac{1$

https://www.youtube.com/watch?v=1KSPYTJqpxl.

Year 1 to add photos of key human and physical features seen at Crich to a large-scale site map – this could be done in small groups, or individually with thumbnail sized photos

Children could work in small groups with a teacher or TA to do this while the rest of the class write recount of the visit. Alternatively, adding images could be done as class, and used to support planning for a recount of the trip.

Lesson 5 and 6:

Children to create their own maps using symbols (Year 2 should also create a key and add a compass). Maps could be based on a 'Key Text' read in class, and include key features from the story, or could link to learning in history.

key vocabulary:					
Tier 1	Tier 2	Tier 3			
Мар	Symbol	Key			
Up	Record	North			
Down	Route	South			
Near	Features	East			
Far	Location	West			
Forest		Left			
Soil		Right			
Farm		Human			
Hill		Physical			
Shop		Landmark			
Tram/Tramline		Vegetation			

Golden Nuggets:

- 1. Year 1 should be able to use up, down, left, right to describe position. Year 2 should be able to use North, South, East, West to describe position.
- 2. Year 1 and 2 should be able to sort human from physical features e.g. soil, vegetation, hill, forest/shop, road, path, maze,

Maps Progression Guidance						
EYFS	KS1		LKS2		UKS2	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Using maps	<u>Using maps</u>	Using maps	<u>Using maps</u>	<u>Using maps</u>	<u>Using maps</u>	<u>Using maps</u>
Use directional language	Use a simple picture map to move	Follow a route on a map	Follow a route on a map with some accuracy	Follow a route on a large-scale	Compare maps with aerial	Follow a short route on an OS map
such as near and far, up	around the school	Use simple compass	Locate places using a range of maps including OS &	map	photographs	Describe the features shown on an OS
and down, and behind and in front	Use relative vocabulary such as	directions (North, South,	digital	Locate places on a range of maps	Select a map for a specific purpose	map
and in none	bigger, smaller, like, dislike	East, West)	Begin to match boundaries	(variety of scales)	Begin to use atlases to find out other	Use atlases to find out data about
Map knowledge	Use directional language such as near	Use aerial photographs and	(e.g. find same boundary of a country on	Identify features on an aerial	information (e.g. temperature)	other places
	and far, up and down, left and right,	plan perspectives to	different scale maps)	photograph, digital or computer map	Find and recognise places on maps of	Use 8 figure compass and 6 figure grid
Use a simple hand drawn	forwards and backwards	recognise landmarks and	Use 4 figure compasses, and letter/number	Begin to use 8 figure compass and	different scales	reference accurately
map to locate features	Map knowledge	basic human and physical	co-ordinates to identify	four figure grid references to identify	Use 8 figure compasses, begin to	Use lines of longitude and latitude on
around the classroom/playground.	Use world maps to identify the UK in	features	features on a map	features on a map	use 6 figure grid references.	maps
, p, 8	its position in the world.	Map knowledge	Map knowledge	Map knowledge	Map knowledge	Map knowledge
Making maps	Use maps to locate the four countries	Locate and name on a world	Locate the UK on a variety of different scale	Locate Europe on a large-scale map		

Contribute to group 'story maps' based on a class text e.g. Bear Hunt, drawing symbols to represent key locations in the story.

Use maps to locate the four countrie: and capital cities of UK and its surrounding seas Making maps

Draw basic maps, including appropriate symbols and pictures to represent places or features

Use photographs and maps to identify features

map and globe the seven continents and five oceans. Locate on a globe and world map the hot and cold areas

of the world including the Equator and the North and South Poles Making maps

Draw or make a map of real or imaginary places (e.g. add detail to a sketch map from aerial photograph) Use and construct basic symbols in a key

Locate the UK on a variety of different scale Name & locate the counties and cities of the UK Try to make a map of a short route experiences, with features in current order Create a simple scale drawing Use standard symbols, and understand the

importance of a key

or globe,

Name and locate countries in Europe (including Russia) and their capitals cities

Making maps

Recognise and use OS map symbols, including completion of a key and understanding why it is important

Draw a sketch map from a high viewpoint

Locate the world's countries, focus on North & South America

Identify the position and significance of lines of longitude & latitude

Making maps

Draw a variety of thematic maps based on their own data

Draw a sketch map using symbols and a key,

Use and recognise OS map symbols regularly

Locate the world's countries on a variety of maps, including the areas studied throughout the Key Stages

Making maps

Draw plans of increasing complexity

Begin to use and recognise atlas symbols

Fieldwork Progression Guidance

EYFS

EYFS pupils should have plentiful opportunities to freely explore their EYFS setting and outdoor area, and to make visits to places in the immediate vicinity of the school (e.g. local streets, park, shop, church or mosque). They can become familiar with these places through first-hand sensory exploration, observation and talk. They should have

KS1

Pupils in key stage 1 should have a wide range of fieldwork experiences, from free exploration and imaginative engagement with outdoor environments to more structured enquiries, which involve the use of simple techniques to record field data to answer geographical questions. The school grounds and the local area within walking distance of the school provide many opportunities for pupils to plan and conduct simple geographical enquiries that involve fieldwork. Where feasible, pupils should have opportunities to visit a place that is different from the local area. As with younger pupils, key stage 1 fieldwork should involve opportunities for firsthand sensory exploration, observation and discussion with peers and adults. Fieldwork investigations in key stage 1 should be linked to the themes and topics in the Key Stage Curriculum Plan. Fieldwork opportunities should be planned to enhance and enrich

LKS2

Pupils in lower key stage 2 should continue to have a wide range of fieldwork experiences, including free exploration and imaginative engagement. They should also undertake structured enquiries that involve the use of specific fieldwork techniques to record data to answer geographical questions. The school grounds and the local area will provide many opportunities for pupils to plan and conduct geographical enquiries that involve fieldwork. In lower key stage 2, pupils should have more opportunities to visit unfamiliar places to extend their knowledge and understanding of the wider world, and to develop and apply their fieldwork skills. As with younger pupils, key stage 2 fieldwork should continue to involve opportunities for first-hand sensory exploration, observation and discussion with peers and adults. Fieldwork investigations in lower key stage 2 should link to the themes and topics in the Key Stage Curriculum Plan. Fieldwork opportunities should enhance and enrich pupils' knowledge and understanding of places, and of physical, human and environmental geography.

UKS2

Pupils in upper key stage 2 should continue to have a wide range of fieldwork experiences, including free exploration and imaginative engagement as well as more structured enquiries that involve the use of more specific fieldwork techniques to record field data to answer geographical questions. The school grounds and the local area provide many opportunities for pupils to plan and conduct geographical enquiries that involve fieldwork. Upper key stage 2 pupils should have more opportunities to visit unfamiliar places, including (wherever possible) a residential visit. As with younger pupils, fieldwork should continue to involve opportunities for first-hand sensory exploration, observation, and discussion with peers and adults. Fieldwork investigations in upper key stage 2 should link to the themes and topics in the Key Stage Curriculum Plan. Fieldwork opportunities should be planned to enhance and enrich pupils' knowledge and understanding of places, and of physical, human and environmental geography.

opportunities to ask questions and follow their own interests. These early experiences will provide opportunities for language development as pupils name and describe what they see in discussion with peers and adults. Young pupils should be provided with opportunities to:

- explore their setting's outdoor area, noticing and naming its features (e.g. play equipment, different areas and surfaces, flower beds)
- experience different weather conditions and their impact on the environment
- examine and discuss natural objects (e.g. leaves, twigs, stones)
- explore the immediate local area through walks and visits to selected sites During and after their explorations, pupils should have opportunities to record what they observe and notice by:
- using small world play or the role play area to represent a visited place
- making drawings (e.g. of their favourite place in the outdoor area, what they saw at the park)
- taking digital photos (e.g. of a collection of natural objects, buildings in the locality)
- sequencing photos to recall features seen on a visit or short walk
- drawing a map (e.g. of the outdoor area)
- counting (e.g. cars parked at the start/end of the day)
- expressing their feelings about places they visit, saying which features they like/dislike

pupils' knowledge and understanding of places and of physical, human and environmental geography.

Fieldwork Opportunities Pupils in key stage 1 should be provided with opportunities to:

• investigate the physical and human features of the school and school grounds: naming and describing what they see (e.g. different areas including playground, car park, field, wildlife area) and how these areas are used; routes around the school site, people's jobs, places that have been/could be

• investigate different weather conditions through observation and by making and using simple measurement devices (e.g. to record wind direction, to measure rainfall)

improved, and so on

- observe and record seasonal changes (e.g. to flowering plants and deciduous trees) in the school grounds and local
- explore the local area of the school to investigate the range of buildings, roads, green spaces and other local features
- visit some local facilities (e.g. shops, a library, a health centre) and talk about what happens there and investigate why people go there
- take a short journey by bus, tram or train to investigate a slightly more distant site that contrasts with the immediate local area
- visit a park or local green space to observe its physical and human features and investigate how people use and enjoy it
- investigate environmental issues (e.g. lack of play facilities, where litter colllects, road safety

Pupils should have opportunities to plan and conduct geographical investigations that include fieldwork, and to develop skills in using a range of simple techniques for collecting, analysing and presenting what

they learn through fieldwork,

including:

Fieldwork Techniques

- using small world play, model making, or the classroom role-play area to represent a visited place (e.g. a shop, the library or Health Centre)
- adding details to a teacherprepared drawing (e.g. doors, windows and other features to the outline of a house)
- making annotated drawings to show variations (e.g. in a row of houses in a local street)
 drawing a freehand map (e.g. of the school grounds,
- local street or park)
 relating a large-scale plan
 (e.g. of the school grounds or
 a local street) to the
 environment, identifying
 known features
- marking information on a large-scale plan (e.g. of the school grounds or a local street) using colour or symbols to record observations
- using a simple compass and cardinal compass directions (north, south, west, east)
- taking digital photos (e.g. of buildings in the locality, things seen on a bus journey)
- making digital audio recordings when interviewing someone (e.g. shop worker, librarian, nurse) about their job
- collecting quantitative data (e.g. to create a pictogram of favourite places to play or how pupils travel to school)
- using a questionnaire (e.g. to find out the most popular options for improving playtimes)
- collecting and sorting natural objects (e.g. leaves, twigs, stones) to investigate their properties
- using a simple recording technique (e.g. smiley/sad faces worksheet) to express

Fieldwork Opportunities
Pupils in lower key stage 2 should be provided with

• to use the school and its grounds as a site for studying aspects of physical and human geography by investigating questions such as 'Where does the water go when it rains?', 'How do we travel to school' and 'Where does the food for school dinners come from?'

opportunities:

- when learning about the water cycle, weather and climate, to investigate and record different weather phenomena through observation and by using standard measurement devices (e.g. thermometers, rain gauges and anemometers)
- when learning about biomes and vegetation belts, to visit a woodland to study the trees, plants and animals, as an ecosystem
- when learning about land use, to investigate local buildings, land use, and local facilities and explore issues of environmental quality and value (e.g. by investigating which spaces or places are valued by the local community)
- when learning about economic activities, to investigate local shops (e.g. to find out how far people travel to them and why) or investigate local journeys and routes, including road safety, public transport provision and more sustainable travel choices
- when learning about natural resources, to explore issues of sustainability in everyday life (e.g. energy generation and use, water supply and use)
- take fieldtrips to more distant places (e.g. farm, water treatment plant, botanical gardens) to investigate their physical and human geography, as appropriate to the curriculum plan

Pupils should have opportunities to plan and conduct geographical provinvestigations that necessitate fieldwork, and to develop skills in a to

Fieldwork Techniques

- fieldwork, and to develop skills in a range of standard techniques for collecting, analysing and presenting what they learn through fieldwork, including:
- making models, annotated drawings and field sketches to record observations
- drawing freehand maps of routes (e.g. of a walk to a site in the local area)
- relating a large-scale plan of the local area or fieldwork site to the environment, identifying features relevant to the enquiry
- recording selected geographical information on a map or large-scale plan, using colour or symbols and a key
- taking digital photos and annotating them with labels or captions
- making digital audio recordings for a specific purpose (e.g. traffic noise)
- collecting, analysing and presenting quantitative data in charts and graphs
- designing and using a questionnaire to collect quantitative fieldwork data (e.g. to compare how far people travel to different types of shop)
- designing and conducting interviews (e.g. to investigate which spaces/places local people value)
- using simple sampling techniques appropriately (e.g. time sampling when conducting a traffic survey)
- using a simplified Likert Scale to record their judgements of environmental quality (e.g. in streets near the school)
- developing a simple method of recording their feelings about a place or site

Pupils in upper key stage 2 should be provided with opportunities:

Fieldwork Opportunities

- to use the school and its grounds as a site for studying aspects of physical and human geography by investigating questions such as 'How can our school reduce its plastic waste?' and 'How can we make our school grounds more bee friendly?'
- when learning about rivers, to visit a local stream or river to investigate its physical features (e.g. meanders, sites of erosion and deposition) and its use by people now and in the past
- when learning about settlements, to investigate how buildings, land use and local facilities have changed over time; and investigate local development plans through visits to derelict sites, empty shops or buildings or places where developments (e.g. road, housing, industrial, retail or leisure schemes) are proposed
- when learning about economic activities, to investigate the range and location of primary, secondary and tertiary businesses in the local area
- when learning about natural resources and trade, to explore issues of sustainability in everyday life, including how everyday goods (e.g. food or clothing) are produced and traded, as well as consumption, waste and recycling
- take fieldtrips to unfamiliar environments to investigate the physical and human geography of those areas (e.g. mountains, rural areas, beaches) as appropriate to the curriculum plan

Pupils should have opportunities to plan and conduct geographical investigations that necessitate fieldwork, and to develop skills in a range of standard techniques for collecting, analysing and presenting what they learn through fieldwork, including:

Fieldwork Techniques

- making models, annotated drawings and field sketches to record observations
- drawing freehand maps (e.g. of a site they have visited)
- relating large-scale plans to the fieldwork site, identifying relevant features
- recording selected geographical data on a map or large-scale plan, using colour or symbols and a key
 taking digital photos and annotating
- them with labels or captionsmaking digital audio recordings (e.g. to create soundscapes)
- collecting, analysing and presenting quantitative data in charts and graphs
- designing and using a questionnaire to collect qualitative data (e.g. to find out and compare pupils' views on plastic waste)
- designing and conducting fieldwork interviews (e.g. to establish the range of views local people hold about a proposed development)
- using standard field sampling techniques appropriately (e.g. taking water samples from a stream)
- designing and using a tool to record their feelings about the advantages and disadvantages of a proposed development, for instance
- conducting a transect to observe changes in buildings and land use

	their feelings about a specific		
	place and explaining why they		
	like/dislike some of its		
	features		