











Prior Learning



















Please ensure that you have addressed the required prior learning that will have already taken place during your prior learning launch lesson.

| Autumn - Map Work (Linked to Hull and Proud Topic) | Spring—Climate Zones and Biomes (Linked to Power of Nature Topic) | Summer—Fieldwork skills and Enquiry (Linked to Never Forget Topic) |
|---|---|--|
| <p>Relevant prior learning.</p> <p>The children have used an Ordnance survey map to give 4 figure grid references of specific locations. They will understand the term “bird’s eye view”. They will know how locations differ based on their physical and human features and will have located the Northern and Southern Hemispheres, Equator and Tropics on a globe and world map.</p> | <p>Relevant prior learning</p> <p>The children will have located the Northern and Southern Hemispheres, Equator and Tropics on a globe and world map. In Year 2 they have looked at hot and cold locations and will have compared the climates of different countries in Year 4. They will know the word climate and be clear on different types of physical features</p> | <p>Relevant prior learning</p> <p>The children will know about the 6 main climate zones in the world and will understand the term biome. They will have explored the weather conditions in these biomes and located the position of these on a world map. They will know that the rainforest receives more rainfall than a desert or temperate region. They will have completed field work activities to collect data and will understand the term data.</p> |

Key Concept Key

| Navigation | Fieldwork | Population | Economic Activity | Tectonic Activity | Human Features | Physical Features | Natural Resources | Sustainability | Climate and Landscape |
|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |

Key Concepts Addressed

| Autumn—Map Work | Spring—Biomes and Climate Zones | Summer—Fieldwork skills and Enquiry |
|---|--|---|
| Priority Key Concept | Priority Key Concept | Priority Key Concept |
|    |    |   |
| Through the unit children will also experience | Through the unit children will also experience | Through the unit children will also experience |
|    |      |   |

| Autumn | Spring | Summer |
|---|--|---|
| Map Work (linked to topic Hull and Proud) | Biomes and Climate Zones (linked to The Power of Nature Topic) | Fieldwork skills and Enquiry (Linked to Never Forget Topic) |

Year 6 Cycle 2

| | | | | | |
|---|--|--|--|---|--|
| <p>Geographical skills and field work</p> <p>Human and Physical Geography</p> <p>Locational Knowledge</p> | <p>I can use Ordnance Survey symbols and 6 figure grid references</p> <p>I can read and calculate distances from a scale</p> <p>I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.</p> <p>I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment</p> <p>I can identify the position of the Northern and Southern Hemisphere, the Equator and the Tropic of Cancer and Capricorn</p> | <p>Human and Physical Geography</p> <p>Place Knowledge</p> <p>Sustainability</p> <p>I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment</p> <p>I can identify the position of the Northern and Southern Hemisphere, the Equator and the Tropic of Cancer and Capricorn</p> | <p>I can describe and explain the key physical features of different climate zones, biomes and vegetation belts</p> <p>I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.</p> <p>I know the key features of each of the 6 main climates and landscapes (polar, temperate, arid, tropical, Mediterranean and tundra)</p> <p>I describe how some places are similar and dissimilar in relation to their human and physical features (including North or South America)</p> <p>I understand the concept and impact of deforestation on a local and global scale</p> | <p>Locational Knowledge</p> <p>Geographical skills and field work</p> <p>Sustainability</p> | <p>I know what longitude and latitude means and how they relate to timezones around the world</p> <p>I understand that climate is the usual condition of the weather, rainfall, humidity and wind in a place</p> <p>I collect and accurately measure information (eg: rainfall, temperature, wind speed etc...)</p> <p>I can present my findings from fieldwork using appropriate terminology, graphs and tables and draw conclusions based on evidence</p> <p>I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment</p> |
|---|--|--|--|---|--|

End points

At the end of each unit the children will know and know how to:

| Autumn | Spring | Summer |
|---|---|--|
| <ul style="list-style-type: none">• Give and use 6 digit references on an OS map• Use scales to calculate distances• Recognise and use symbols on OS maps• Identify P and H features on OS map• Consider and present argument over an environmental issue | <ul style="list-style-type: none">• The key features and locations of 6 different biomes• Recognise problems associated with deforestation | <ul style="list-style-type: none">• Collect data relevant to climate and present and draw conclusions to an audience.• How longitude and latitude relate to timezones |

Year 6 Geography - Autumn term Cycle 2 - Map Work - Linked to Hull and Proud Topic

At the end of this unit the children will know and know how to:

- Give and use 6 digit references on an OS map
- Use scales to calculate distances
- Recognise and use symbols on OS maps
- Identify P and H features on OS map
- Consider and present argument over an environmental issue
- The position of Northern and Southern Hemisphere, Equator and Tropics

Relevant Prior Learning

The children have used an Ordnance survey map to give 4 figure grid references of specific locations. They will understand the term "bird's eye view". They will know how locations differ based on their physical and human features and will have located the Northern and Southern Hemispheres, Equator and Tropics on a globe and world map.

Priority Key Concepts



Other Key Concepts that will be experienced:



Elements of key concepts covered shown in red

- **Navigation:** (interpreting a key, conventions of maps, map symbols, atlases, GIS, google maps, scale factor, reading and calculating from a scale, using compass points, the equator, the tropic lines, the poles, borders, countries and continents)
- **Fieldwork:** (Working collaboratively, planning investigations, collecting data, using instruments/specialist equipment, taking precise measurements, making observations, drawing conclusions)
- **Population:** (Dispersal, settlement patterns, infrastructure, migration)
- **Economic activity:** (Trade, land use, farming, wealth, poverty, imports and exports)
- **Tectonic activity:** (Volcanoes, earthquakes, tectonic plates, structure of the earth)
- **Human features:** (Transports, harbour, shops, towns, villages, community, places of worship)
- **Physical features:** (Water cycle, rainfall, mountains, hills, rivers, seas, oceans, tides, islands, tsunami)
- **Natural resources:** (Energy, minerals, food and water distribution)
- **Sustainability:** (Deforestation, climate change, renewable and non-renewable resources, sea level, food miles, industry, materials, globalisation)
- **Climate and landscape:** (Weather, rainfall, seasons, temperature, desert, polar, temperate, Mediterranean, arid, tropical, biomes, vegetation zones, tundra)
- **Written and oral expression:** (Using geographical terminology, evaluation, description, recall, objectivity, explaining processes, describing and explaining trends, presenting and interpreting data)

Second order concepts

Through this unit of geography, the following second order concepts will be explored:

- **Similarity and difference:** (making comparisons between places, localities, regions etc...)
- **Cause and consequence:** (understanding the effect of humans and nature on landscapes and settlement)
- **Continuity and change:** (how have physical and human features changed over time and why)
- **Significance:** (significant geographical features, places, events)
- **Enquiry:** (observing, collecting and interpreting data, drawing conclusions, explaining and presenting findings)

Teaching sequence may include:

- **Geographical enquiry (GE)**

Pupils ask geographical questions and enquire about their topic of interest based on prior learning and knowledge

- **Skills and fieldwork (S&F)**
- I can use Ordnance Survey symbols and 6 figure grid references
- I can read and calculate distances from a scale
- **Physical and human geography (P&H)**
- I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.
- **Locational skills (LS)**
- I can identify the position of the Northern and Southern Hemisphere, the Equator and the Tropic of Cancer and Capricorn
- **Apply their knowledge to the world around them locally and globally (AK)**
- I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment

Vocabulary NB - Key vocabulary should form the starting point of all lessons and be displayed for children on tasks and within the classroom

Understand, learn and use the key vocabulary associated with their topic of interest and understand the meaning of them in a practical and real life context

Written and oral expression (W&O) Written and Oral Expression will form the basis for a number of lessons within this unit. Communicate what they have learnt in appropriate forms using the correct terminology (eg: presentations, discussion, written reports / explanations, notes, observations and findings from fieldwork, data, tables and conclusions)

| Point in Teaching Sequence | Key Concepts | KPIs covered | Activities |
|--|--|--|---|
| At the start of every lesson check in with knowledge of: the position of the Northern and Southern Hemisphere, the Equator and the Tropic of Cancer and Capricorn | | | |
| GE, LS S + F | <p>Navigation Written and Oral expression</p> <hr/> <p>Second Order Concepts Similarity and difference Significance Enquiry</p> | I can use Ordnance Survey symbols and 6 figure grid references | <p>Question - Why do we have different types of maps?</p> <p>Provide the children with a range of maps of varying scales. Let them examine them and share their observations and thoughts.</p> <p>Create a ideas shower with the children - ideas such as show a bigger or smaller space, different information e.g. physical and political maps, different levels of detail, people using the maps for different purposes</p> <p>Outcome - Children record ideas web in books</p> <p>Provide small groups with an Ordnance survey map of Stonaferry <u>Stonaferry</u>. Do not allow them to open it but to examine the back and the front and to see if they can make any links to the division of the country into smaller areas and that the area they live in has a specific number.</p> <p>Briefly explain what an Ordnance survey is and what is used for</p> <p>Share PPT - Map symbols up to slide 3 (Different types of symbol)</p> <p>Explain that OS maps have a key which is located at the bottom of the map</p> <p>Outcome - Children use OS map key to identify the name of the different symbols they are given (Resource 1)</p> <p>Discuss symbols and what makes a useful symbol - simple, easy to understand, easy to duplicate</p> |

| | | | |
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| | | | <p>Outcome - Children use ideas from OS map symbol work to design 4 symbols for different objects/places (Resource 2)</p> <p>Plenary - discuss why these are not on the key of an OS map Revisit the PPT and see what the children can remember from the symbol slides available (Slides 4-16)</p> <p>S&L - Children explain the symbols they have created and their choices</p> <p>Vocabulary Map, scale, political, physical, feature, key, symbol, Ordnance Survey Map,</p> |
| <p>LS, P&H, S + F</p> | <p>Navigation Physical Features - human Features Population Written and Oral expression</p> <hr/> <p>Second Order Concepts</p> <hr/> <p>Similarity and difference Significance Enquiry</p> | <p>I can use Ordnance Survey symbols</p> | <p>Quick recap on last week - why would this be a good symbol why would this be a bad one for a couple of different possibilities</p> <p>Enquiry Question - What does an Ordnance Survey map show us?</p> <p>Examine as a class slide 19 on Map Symbols - use the map as a class to identify physical and human features</p> <p>Discuss things such as contour lines and what these mean</p> <p>Encourage the children to use the keys on their own maps to identify what they can see on the slide - Class list of what can be found</p> <p>Outcome Given a separate section of map which contrasts with the first, e.g. on a flat area of land, the children complete the same activity independently. Children then describe what they can see in their map in sentences and how it is different from the first section of map.</p> |

| | | | |
|---------------------|---|--|---|
| | | | <p>S&L - Oral discussion</p> <p>Vocabulary - physical, human, key, identify, locate, contour lines, valley, compare</p> |
| P&H S + F W&O | <p>Navigation Physical Features - human Features Population Written and Oral expression</p> | <p>I can use Ordnance Survey symbols and 6 figure grid references</p> | <p>Enquiry - How do I find my position/location on an OS map?</p> <p>Have the children already noticed the numbers on the OS maps? What might they be used for?</p> <p>Children have completed 4 digit references and touched on 6 digit in Year 5</p> <p>Use Slide 20 and 21 on Map symbols to support teaching</p> <p>Spread out maps on floor in groups. (The hall is a good idea)</p> <p>Collectively work together to give the grid references of 3 features on the map. Ensure all understand</p> <p>Outcome - Children complete work giving the grid references of a number of symbols which they can identify on their map (Resource 4)</p> <p>S&L - as assessing move around asking children to explain their process</p> <p>Vocabulary - reference, feature, key</p> |
| | <p>Second order concepts</p> | | |
| | <p>Significance</p> | | |
| S + F W&O | <p>Navigation Physical Features - human Features Population Written and Oral expression</p> | <p>I can use Ordnance Survey symbols and 6 figure grid references</p> <p>I can read and calculate distances from a scale</p> | <p>Starting activity - children perform the inverse of what they did in previous session - children to be given grid references and they locate in small groups what they can find at that location</p> <p>Examine the maps once again. Explain that for the map to represent such a large area that area must be "shrunk" or "scaled" down to a size that will fit on the page.</p> <p>Explain that on the map the children have 4cm = 1km</p> |
| | <p>Second order concepts</p> | | |
| | <p>Significance</p> | | |

| | | | <p>How far would 12cm represent, 20cm? If a road was 10km long how long would it be on the map?</p> <p>Demonstrate finding the distance between two points (as the crow flies) - Give 2 6 digit references. Children locate and then measure the distance then convert to km</p> <p>Repeat as the first two examples of exercise.</p> <p>Outcome: Children repeat 4 more time independently in a table something like:</p> <table border="1" data-bbox="1088 671 2024 810"> <thead> <tr> <th>Reference 1</th> <th>Reference 2</th> <th>Distance as crow flies on map (cm)</th> <th>Actual distance (km)</th> </tr> </thead> <tbody> <tr> <td>435217</td> <td>836452</td> <td>14cm</td> <td>3.5km</td> </tr> </tbody> </table> <p>Vocabulary - scale, for every, actual, as the crow flies. Explain that to calculate real distances we could use string to measure the distance along paths and roads etc. as this can move round corners, then be straightened out to measure and the same process then repeated.</p> <p>Practice using string on OS map and then converting using the scale</p> <p>S&L - Discussion and explanation of techniques</p> <p>Outcome - more accurate distance calculated</p> | Reference 1 | Reference 2 | Distance as crow flies on map (cm) | Actual distance (km) | 435217 | 836452 | 14cm | 3.5km |
|------------------------------------|--|---|--|-------------|-------------|------------------------------------|----------------------|--------|--------|------|-------|
| Reference 1 | Reference 2 | Distance as crow flies on map (cm) | Actual distance (km) | | | | | | | | |
| 435217 | 836452 | 14cm | 3.5km | | | | | | | | |
| <p>P&H S+F W&O</p> | <p>Navigation Physical Features - human Features Population Written and Oral expression</p> | <p>I can use Ordnance Survey symbols and 6 figure grid references</p> | <p>Set the children the task of planning a route from 1 location to another (give specific grid references from the OS map).</p> <p>Explain that only footpaths, roads, bridleways can be used to travel between the two locations.</p> | | | | | | | | |

| | | I can read and calculate distances from a scale | Demonstrate the required skills for a simpler route | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--|---|---------------------------------|-------------------------------|-----------------|-----------------|------------------------|-----------------------|--------|--------|-----|-------|--------------------|----|--------|--|--|--|--|--|
| | Second order concepts | | | | | | | | | | | | | | | | | | | | |
| | Significance | | <table border="1"> <thead> <tr> <th>Start Point (6 digit reference)</th> <th>End point (6 digit reference)</th> <th>Distance on Map</th> <th>Actual distance</th> <th>Description of terrain</th> <th>Approximate direction</th> </tr> </thead> <tbody> <tr> <td>345274</td> <td>432354</td> <td>6cm</td> <td>1.5km</td> <td>Footpath over hill</td> <td>SW</td> </tr> <tr> <td>432354</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Children break their journey into smaller chunks starting their next section from the last point reached.</p> <p>Outcome: Completed journey table with a cumulative distance calculated. You could even work out an approximate time take based on an average walking speed in km/h.</p> <p>S&L - Children explain the different routes they plan and work as a team to plan the best possible route.</p> <p>Vocabulary - Start and end point, destination, terrain, footpath, bridleway, road.</p> | Start Point (6 digit reference) | End point (6 digit reference) | Distance on Map | Actual distance | Description of terrain | Approximate direction | 345274 | 432354 | 6cm | 1.5km | Footpath over hill | SW | 432354 | | | | | |
| Start Point (6 digit reference) | End point (6 digit reference) | Distance on Map | Actual distance | Description of terrain | Approximate direction | | | | | | | | | | | | | | | | |
| 345274 | 432354 | 6cm | 1.5km | Footpath over hill | SW | | | | | | | | | | | | | | | | |
| 432354 | | | | | | | | | | | | | | | | | | | | | |
| S&F | Navigation Physical Features - human Features Population Written and Oral expression | I can use Ordnance Survey symbols and 6 figure grid references | <p>Children to be given a summary text of a new town. In pairs, they must use the information to create an OS map that will represent the different details. (Resource 4)</p> <p>Outcome: Children to work in pairs but create their own maps to represent the information shared. Ensure children use correct symbols/colours, show hills correctly etc.</p> | | | | | | | | | | | | | | | | | | |
| | Second order concepts | | | | | | | | | | | | | | | | | | | | |
| | Significance | | | | | | | | | | | | | | | | | | | | |

| | | | |
|--|---|--|--|
| | Enquiry: (observing, collecting and interpreting data, drawing conclusions) | | |
| P&H Taught through Science and English W&O | <p>Navigation Physical Features - human Features Population</p> <p>Second order concepts</p> <p>Significance and comparison Continuity and change</p> | <ul style="list-style-type: none"> I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features. | <p>Use digital mapping tool to locate the same area between two different periods of time</p> <p>Examine what the children can see regarding the reduction of physical features and the emergence of human features.</p> <p>Discuss the physical and human features that can be seen on each image</p> <p>Repeat independently for another area. This could be linked to somewhere in the Northern and Southern Hemisphere to allow opportunities for revision of these terms</p> <p>Outcome - under each map children describe what they can see in the map/image</p> <p>S&L - group discussion regarding what impact humans. Is this a positive thing? What would be the knock on effect of deforestation for example?</p> <p>Vocabulary - impact, effect, human, physical, deforestation, urbanisation</p> |
| AK PK W&O | <p>Sustainability Climate and landscape industry</p> <p>Second order concepts</p> <p>Responsibility: (how humans affect the earth positively and negatively)</p> | <ul style="list-style-type: none"> I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment | <p>Show the OS map of the local area. Show a blank area of farmland near to Hull. Some images showing open land will help create the scene. Explain that this land is only 2 miles from Hull.</p> <p>Explain that there are plans to build a new Megastore on this land:</p> <p>S&L - Debate the pros and cons for building the store</p> <p>Outcome - Children write a letter to the local council explaining whether they believe the megastore should be built or not.</p> |

Year 6 Geography - Spring term Cycle 2 - Biomes and Climate Zones - Linked to the Topic - The Power of Nature

By the end of this unit of work the children will know and know how to:

- The key features and locations of 6 different biomes
- Recognise problems associated with deforestation

Relevant Prior Learning

The children will have located the Northern and Southern Hemispheres, Equator and Tropics on a globe and world map. In Year 2 they have looked at hot and cold locations and will have compared the climates of different countries in Year 4. They will know the word climate and be clear on different types of physical features

Priority Key Concepts



Other Key Concepts that will be experienced:



Elements of key concepts covered shown in red

- **Navigation:** (interpreting a key, conventions of maps, map symbols, atlases, GIS, google maps, scale factor, reading and calculating from a scale, using compass points, the equator, the tropic lines, the poles, borders, countries and continents)
- **Fieldwork:** (Working collaboratively, planning investigations, collecting data, using instruments/specialist equipment, taking precise measurements, making observations, drawing conclusions)
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- **Natural resources:** (Energy, minerals, food and water distribution)
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- **Climate and landscape:** (Weather, rainfall, seasons, temperature, desert, polar, temperate, Mediterranean, arid, tropical, biomes, vegetation zones, tundra)
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Second order concepts

Through this unit of geography, the following second order concepts will be explored:

- **Similarity and difference:** (making comparisons between places, localities, regions etc...)
- **Cause and consequence:** (understanding the effect of humans and nature on landscapes and settlement)
- **Continuity and change:** (how have physical and human features changed over time and why)
- **Significance:** (significant geographical features, places, events)

- **Enquiry:** (observing, *collecting* and *interpreting data, drawing conclusions*, explaining and presenting findings)

Teaching sequence may include

- **Geographical enquiry (GE)**

Pupils ask geographical questions and enquire about their topic of interest based on prior learning and knowledge

- **Skills and fieldwork (S&F)**

- I can use Ordnance Survey symbols and 6 figure grid references

- I can read and calculate distances from a scale

- **Physical and human geography (P&H)**

- I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.

- **Locational skills (LS)**

- I can identify the position of the Northern and Southern Hemisphere, the Equator and the Tropic of Cancer and Capricorn


- **Apply their knowledge to the world around them locally and globally (AK)**

- I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment

Vocabulary NB - Key vocabulary should form the starting point of all lessons and be displayed for children on tasks and within the classroom

Understand, learn and use the key vocabulary associated with their topic of interest and understand the meaning of them in a practical and real life context

Written and oral expression (W&O) Written and Oral Expression will form the basis for a number of lessons within this unit. Communicate what they have learnt in appropriate forms using the correct terminology (eg: presentations, discussion, written reports / explanations, notes, observations and findings from fieldwork, data, tables and conclusions).

| Point in Teaching Sequence | Key Concepts | KPI's covered | Activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--------------|-------------------------|-------------------------|-----------|-------|--|--|--|--------------------|--|--|--|-----------|--|--|--|---------------|--|--|--|-------------|--|--|--|----------|--|--|--|
| <p>Prior learning – Have the children retained a knowledge of: North and South Hemisphere, Equator, Poles. Reminders to this geographical knowledge is required throughout the unit of work. Do they know what a physical feature and climate is.</p> <p>At the start of every lesson check in with knowledge of previous session through <u>Stoneferry Starter</u></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GE, LS, P&H | <p>Navigation Climate and Landscape Written and Oral expression</p> | <p>Children will distinguish between a climate zone and a biome.</p> | <ul style="list-style-type: none"> Question – What is a climate zone? Note down what the children say. <p>Watch and discuss. Watch again stopping at relevant points to complete sections of the table below (S&L)</p> <p>Climate zones - KS2 Geography - BBC Bitesize</p> <p>Outcome 1</p> <p>Complete following table:</p> <table border="1"> <thead> <tr> <th>Climate zone</th> <th>Location</th> <th>Weather/ Temperature</th> <th>Countries</th> </tr> </thead> <tbody> <tr> <td>Polar</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sub polar (Tundra)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Temperate</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mediterranean</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Desert/Arid</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tropical</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>On a <u>predrawn</u>, already divided and coloured world map label these climate zones</p>  <p>– video does not fully explain the difference between polar(no months above 0) and tundra(at least 1 month with temp above 0)</p> <p>Watch</p> <p>Biomes - BBC Bitesize → Define and write down what a biome is.</p> <p>Key Biomes to be looked at: Rainforest, desert, savannah, grassland, woodland and tundra (write these down)</p> <p>On the world map already used, can the children label where each of the different biomes could be located? Outcome – Discuss and then label neatly</p> | Climate zone | Location | Weather/ Temperature | Countries | Polar | | | | Sub polar (Tundra) | | | | Temperate | | | | Mediterranean | | | | Desert/Arid | | | | Tropical | | | |
| | Climate zone | | | Location | Weather/ Temperature | Countries | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub polar (Tundra) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediterranean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desert/Arid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tropical | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Second Order Concepts</p> <p>Similarity and difference Significance Enquiry</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | <p>S&L – Children can articulate the difference between a climate zone and a biome and describe some of the key features of different climate zones.</p> <p>Vocabulary: biome, climate zone, zone</p> | | | | | | | | | | | | | | |
|-------------------------------------|--|---|---|--------------|---------|----------|--|------|--|---------------|--|-----------|--|----------|--|-------|--|
| LS, P&H, S + F | <p>Navigation Physical Features Written and Oral expression</p> | <p>I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.</p> | <p>Stoneferry Starter – images of different climate zones – children to label using a wordbank</p> <p>In this lesson, the children will investigate 2 of the biomes they learnt about in the last lesson: woodland and savannah.</p> <p>This will be done by considering 2 key areas: flora and fauna – these need defining in books</p> <p>Examine a series of images in pairs putting them in 2 piles.</p> <p>Observe – what do they notice about the vegetation and animals that they see in the images. Separate the images then as a group discuss and make notes about the difference in flora and fauna</p> <p>Using a world map identify with the children where these 2 different biomes can be found based on discussions around climate zones.</p> <p>Outcome Children stick in an image of each type of biome. They write a paragraph using the information they have learnt and gathered during the session.</p> <p>S&L –</p> <p>Vocabulary – flora and fauna</p> | | | | | | | | | | | | | | |
| | <p>Second Order Concepts</p> | <p>I know the key features of each of the 6 main climates and landscapes (polar, temperate, arid, tropical, Mediterranean and tundra)</p> | | | | | | | | | | | | | | | |
| | <p>Similarity and difference Significance Enquiry</p> | | | | | | | | | | | | | | | | |
| P&H S + F W&O | <p>Navigation Physical Features – human Features Population Written and Oral expression</p> | <p>I know the key features of each of the 6 main climates and landscapes (polar, temperate, arid, tropical, Mediterranean and tundra)</p> | <p>Stoneferry Starter – Complete the table and quickly discuss</p> <table border="1" data-bbox="1086 1018 2022 1204"> <thead> <tr> <th>Climate Zone</th> <th>Biome/s</th> </tr> </thead> <tbody> <tr> <td>Tropical</td> <td></td> </tr> <tr> <td>Arid</td> <td></td> </tr> <tr> <td>Mediterranean</td> <td></td> </tr> <tr> <td>Temperate</td> <td></td> </tr> <tr> <td>Subpolar</td> <td></td> </tr> <tr> <td>Polar</td> <td></td> </tr> </tbody> </table> <p>In this table, which climate zones would a woodland and tundra biome be found?</p> <p>Lesson focus is on Rainforests Use digimaps to demonstrate where the world's Rainforests are located. Use maps in Geography books to show where these are located too.</p> | Climate Zone | Biome/s | Tropical | | Arid | | Mediterranean | | Temperate | | Subpolar | | Polar | |
| | Climate Zone | Biome/s | | | | | | | | | | | | | | | |
| | Tropical | | | | | | | | | | | | | | | | |
| Arid | | | | | | | | | | | | | | | | | |
| Mediterranean | | | | | | | | | | | | | | | | | |
| Temperate | | | | | | | | | | | | | | | | | |
| Subpolar | | | | | | | | | | | | | | | | | |
| Polar | | | | | | | | | | | | | | | | | |
| <p>Second order concepts</p> | <p>I can describe and explain the key physical features of different climate zones, biomes and vegetation belts</p> | | | | | | | | | | | | | | | | |
| <p>Significance</p> | <p>I describe how some places are similar and dissimilar in relation to their human and physical features (including North or</p> | | | | | | | | | | | | | | | | |

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| | | South America) | <p>Watch- Tropical rainforests - Video - GCSE Geography - BBC Bitesize – discuss the content, discuss the physical features that were seen.</p> <p>There is excellent information regarding the different layers of the rainforest at School Learning Zone - Rainforests (school-learningzone.co.uk)</p> <p>Children use this information to complete outcome.</p> <p>Outcome – Children will write a detailed labelled diagram of the different layers in the rainforest</p> <p>S&L – What fauna would the children expect to find in a rainforest and why? Compare the 3 different biomes explored so far what are the similarities and differences between these?</p> <p>Vocabulary – rainforest, fauna, flora, diagram</p> |
| S + F W&O | <p>Navigation Physical Features – human Features Population Written and Oral expression</p> | <p>I know the key features of each of the 6 main climates and landscapes (polar, temperate, arid, tropical, Mediterranean and tundra)</p> | <p>Stoneferry – name and label the different layers of the rainforest. Wordbank - Give 2 words which are not required too.</p> <p>S&L and Reading – for the 3 remaining biomes (tundra, desert, grassland), provide the children with short paragraphs of information outlining the key information regarding climate, flora and fauna.</p> <p>Using images, children read information and then link to these.</p> <p>This can be stuck into books – ensure that the children have gone back and identified again where these biomes are located on a world map</p> <p>Enquiry – how has the flora and fauna adapted to suit the biome?</p> <p>Image of polar bear, scorpion, cow Adaptations of Sahara Desert Scorpions Animals.mom.com</p> <p>How Is The Polar Bear Adapted To Its Environment? - WorldAtlas</p> <p>Nb -Cows have not really had to adapt due to the weather, abundance of food and lack of predators – their teeth have adapted though.</p> <p>Outcome: Children explain how the scorpion and polar bears have adapted to suit the physical features and climatic conditions of the biomes they live within by producing detailed labelled images of each</p> |
| | <p>Second order concepts Significance</p> | <p>I can use maps, atlases, globes and digital/computer mapping to locate countries and describe physical and human features.</p> <p>I describe how some places are similar and dissimilar in relation to their human and physical features (including North or South America)</p> | |

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| | | | <p>Outcome: Repeat a similar task for fauna from grassland and tundra</p> <p>Vocabulary – tundra, desert, grassland</p> <p>S&L – Children present their work to the class explaining their learning</p> |
| P&H S+F W&O | <p>Navigation Physical Features Population Written and Oral expression</p> | <p>I know the key features of each of the 6 main climates and landscapes (polar, temperate, arid, tropical, Mediterranean and tundra)</p> | <p>Stoneferry Starter – Which of these 2 creatures would be best suited to live in a woodland biome. (pick 2 creatures which wouldn't live there to stimulate discussion)</p> <p>Which biome would be the hardest to live in?</p> <p>Give the children a table of information for the 6 biomes</p> <ul style="list-style-type: none"> - Average temperature - Average rainfall - Fauna - <p>Activity – children work in pairs to discuss the information provided and then decide which biome they feel is the hardest to live in.</p> <p>At the same time briefly discuss which would be the easiest and link this quickly to the population density of the world.</p> <p>Chair discussion/debate with the children regarding which location the children feel is the hardest. Ensure that the discussion is linked to physical features, climate, flora and fauna</p> <p>Outcome: Children will write a “the toughest place on Earth” text paragraph explaining which of the biomes would be the hardest to live in, basing this on climate, fauna and flora.</p> <p>S&L – children debate and support arguments with geographical evidence</p> <p>Vocabulary – biome, climate, location</p> |
| | <p>Second order concepts</p> | <p>I can describe and explain the key physical features of different climate zones, biomes and vegetation belts</p> | |
| | <p>Significance Similarity and difference</p> | <p>I describe how some places are similar and dissimilar in relation to their human and physical features (including North or South America)</p> | |
| AK PK W&O | <p>Sustainability Climate and landscape industry</p> | <p>I understand the concept and impact of deforestation on a local and global scale</p> | <p>Stoneferry Starter – children to be given 6 fact cards about the different biomes – children read facts and decide which biome it is.</p> <p>Present the fact that 125 square miles of rainforest are being cut down every day.</p> <p>Using ICT – children explore the reasons for deforestation, the consequences and why it should stop. Children will then write letters to the president of Brazil – presenting the reasons why this practice needs to end.</p> <p>Outcome – Letter with 3 clear points for a cessation of deforestation</p> <p>As a plenary look at some of the reasons why the Brazilian locals allow it to happen.</p> |
| | <p>Second order concepts</p> | | |
| | <p>Responsibility: (how humans affect the earth positively and negatively Cause and consequence</p> | | |

- Final assessment task

| Climate Zone | Average temperature | Biome/s within climate zone | Flora | Fauna | Country in this climate zone |
|---------------|---------------------|-----------------------------|-------|------------|------------------------------|
| Tropical | | | | | Brazil |
| Arid | Up to 50°C | | | | |
| Mediterranean | | | | | Spain |
| Temperate | | Woodland, grassland | | | |
| Subpolar | | | moss | | |
| Polar | | | | Polar bear | |

Year 6 Geography - Summer term Cycle 2 - Linked to the Topic - Never Forget

By the end of this unit of work the children will know and know how to:

- ▣ · Collect data relevant to climate and present and draw conclusions to an audience.

Relevant Prior Learning

The children will know about the 6 main climate zones in the world and will understand the term biome. They will have explored the weather conditions in these biomes and located the position of these on a world map. They will know that the rainforest receives more rainfall than a desert or temperate region.

They will have completed field work activities to collect data and will understand the term data.

Priority Key Concepts



Other Key Concepts that will be experienced:



Elements of key concepts covered shown in red

- **Navigation:** (interpreting a key, conventions of maps, map symbols, atlases, GIS, google maps, scale factor, reading and calculating from a scale, using compass points, the equator, the tropic lines, the poles, borders, countries and continents)
- **Fieldwork:** (Working collaboratively, planning investigations, collecting data, using instruments/specialist equipment, taking precise measurements, making observations, drawing conclusions)
- **Population:** (Dispersal, settlement patterns, infrastructure, migration)
- **Economic activity:** (Trade, land use, farming, wealth, poverty, imports and exports)
- **Tectonic activity:** (Volcanoes, earthquakes, tectonic plates, structure of the earth)
- **Human features:** (Transports, harbour, shops, towns, villages, community, places of worship)
- **Physical features:** (Water cycle, rainfall, mountains, hills, rivers, seas, oceans, tides, islands, tsunami)
- **Natural resources:** (Energy, minerals, food and water distribution)
- **Sustainability:** (Deforestation, climate change, **renewable and non-renewable resources**, sea level, food miles, industry, materials, globalisation)
- **Climate and landscape:** (Weather, rainfall, seasons, **temperature**, desert, polar, temperate, Mediterranean, arid, tropical, biomes, vegetation zones, tundra)
- **Written and oral expression:** (Using geographical terminology, evaluation, description, recall, objectivity, explaining processes, describing and explaining trends, presenting and interpreting data)

Second order concepts

Through this unit of geography, the following second order concepts will be explored:

- **Similarity and difference:** (making comparisons between places, localities, regions etc...)
- **Cause and consequence:** (understanding the effect of humans and nature on landscapes and settlement)
- **Continuity and change:** (how have physical and human features changed over time and why)
- **Significance:** (significant geographical features, places, events)
- **Enquiry:** (observing, collecting and interpreting data, drawing conclusions, explaining and presenting findings)

Teaching sequence may include

- **Geographical enquiry (GE)**

Pupils ask geographical questions and enquire about their topic of interest based on prior learning and knowledge

- **Skills and fieldwork (S&F)**

- I can use Ordnance Survey symbols and 6 figure grid references
- I can read and calculate distances from a scale

- **Locational skills (LS)**

- I know what longitude and latitude means and how they relate to timezones around the world

- **Apply their knowledge to the world around them locally and globally (AK)**

- I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment

Vocabulary NB - Key vocabulary should form the starting point of all lessons and be displayed for children on tasks and within the classroom

Understand, learn and use the key vocabulary associated with their topic of interest and understand the meaning of them in a practical and real life context

Written and oral expression (W&O) Written and Oral Expression will form the basis for a number of lessons within this unit. Communicate what they have learnt in appropriate forms using the correct terminology (eg: presentations, discussion, written reports / explanations, notes, observations and findings from fieldwork, data, tables and conclusions)

| Point in Teaching Sequence | Key Concepts | KPI's covered | Activities |
|---|---|---|---|
| PRIR LEARNING SESSION | <p>The children will know about the 6 main climate zones in the world and will understand the term biome. They will have explored the weather conditions in these biomes and located the position of these on a world map. They will know that the rainforest receives more rainfall than a desert or temperate region. They will have completed field work activities to collect data and will understand the term data.</p> | | |
| <p>At the start of every lesson check in with knowledge of previous session through Stoneferry Starter</p> | | | |
| GE, LS, P&H | <p>Navigation Climate and Second Order Concepts</p> <p>Similarity and difference Significance Enquiry</p> | <p>I know what <u>longitude</u> and latitude means and how they relate to <u>timezones</u> around the world</p> | <ul style="list-style-type: none"> • <u>Stoneferry Starter</u> • Show children a map of climate zones. Can the children remember which are which? <p>Enquire - has anyone ever been on an aeroplane to another country? What changes when you do this? Weather, culture and TIME</p> <p>Use PPT to teach the children about latitude and longitude. Slides explain the difference and how this is measured</p> <p>Using atlases, complete some guided examples finding the L&L of locations and also finding what is at a given L&L</p> <p>Outcome - Children work in pairs using atlases and the given L&L's from activity for session 1 resource to give the location found at specific L&L's</p> <p>S&L - Paired discussion and collaborative work</p> <p>S&L once completed - pose the questions -</p> |

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| | | | <p>If 2 places have the same Latitude will this mean their climate will be similar?</p> <p>If 2 places have the same Longitude will this mean their climate will be similar?</p> <p>Vocabulary: biome, climate zone, zone, latitude, longitude</p> |
| Session 2 | <p>Navigation Physical Features Written and Oral expression</p> <p>Second Order Concepts</p> <p>Similarity and difference Significance Enquiry</p> | <p>I understand that climate is the usual condition of the weather, rainfall, humidity and wind in a place</p> <p>I can collect and accurately measure information (eg: rainfall, temperature, wind speed etc...)</p> | <p>Stoneferry Starter - What is climate? Quick written response</p> <p>How is the climate in Hull different to that of Manaus (Brazil) in May?</p> <p>Question How could the children investigate this?</p> <ul style="list-style-type: none"> Measuring the temperature outside hourly over a period of days to find an average and then comparing Measuring the rainfall collected over a month/fortnight Measuring windspeeds? <p>Ask the children why these things should be done over a period of time and not just one day.</p> <p>What would this prove?</p> <p>Outcome - Children write a short but concise explanation of the investigation they are going to complete, what data they are going to measure and how and for how long</p> <p>Explain that this data will be compared with Manaus</p> |

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| | | | <p>Activity - Children find the average monthly rainfall in Manaus in May, they also find the average temperature for May too and record these.</p> <p>S&L - How do the children, based on their understanding of climate zones and biomes from previous term expect the data to be different?</p> <p>Vocabulary - investigate, enquire, <u>temperature</u>, <u>rainfall</u>, <u>compare</u>, <u>average</u></p> <p>NB USING THE WEATHER GAUGES IN SCHOOL, THE CLASS MUST NOW COLLATE DATA AT REGULAR INTERVALS EACH DAY OR DAILY TO BE ABLE TO DRAW COMPARISONS AND CONCLUSIONS> CHILDREN WILL NEED TO RECORD RESULTS NEATLY.</p> |
| Session 3 | <p>Sustainability Written and Oral expression</p> <hr/> <p>Second order concepts</p> <hr/> <p>Cause and consequence</p> | <p>I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment</p> | <p><u>Stoneferry</u> Starter - present image of Tundra/polar biome/climate zone</p> <p><u>Qn</u> - what are the dangers to this biome in the future and right now?</p> <p>What do we need energy for?</p> <p>S&L - Discuss the impact of using non-renewable resources on the environment and of the burning of fossil fuels for energy and what the further consequences of continuing in the same manner will be in the future</p> <p>Show images of coal fired power stations, cities illuminated at night, congested cities <u>etc</u>. All of these are being caused by the</p> |

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| | | | <p>burning of non-renewable energy.</p> <p>S&L - Explore the renewable energy sources that the children know about. Solar, wind, tidal, hydro-electric (PPT provided - adapt as required) Why are they good? What potential problems do they have?</p> <p>Explain that non-renewable fossil fuels are "reliable" and meet demand. Children should consider this regarding the different renewable sources explored</p> <p>Outcome - Children will understand the positive and negative aspects of each of the renewable energy sources. Under a picture of each design children write a pro and a con</p> <p>Then a summative paragraph, linking to the <u>impact</u> of climate change on whether people should be forced to stop using non-renewable energy sources</p> <p>Plenary - children to be very clear that something needs to change quickly.</p> <p>Vocabulary - renewable, non-renewable, hydro-electric, biomass, solar, wind, wave, power, turbine</p> |
| Session 4 | <p>Fieldwork Written and Oral expression</p> <p>Second order concepts</p> | <p>I can present my findings from fieldwork using appropriate terminology, graphs and tables and draw</p> | <p><u>Stoneferry</u> - Odd one out picture - one non-renewable and 3 renewable. S&L thoughts and ideas</p> <p>Recap - What data have the children collected over the last 2 <u>weeks</u>.</p> |

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| | <p>Similarity and difference</p> | <p>conclusions based on evidence</p> | <p>Children are going to use this lesson to plot graphs, create charts which represent their data.</p> <p>They may need to be shown how to find an average, and may need calculators to do this.</p> <p>Once all data has been used they will compare it with that which was found in session 2 for Manaus.</p> <p>S&L Working in pairs, the children should then draw conclusions based on the evidence they have to answer the question.</p> <p>"How is the climate in Hull different to that in Manaus in May?"</p> <p>Outcome: Children will have graphs, charts and conclusions based on their findings.</p> <p>Vocabulary -climate, rainfall, temperature, compare</p> <p>S&L - Can the children be sure that their evidence is accurate? How could the investigation be improved? e.g. repeat over 3 years</p> |
| <p>Session 5</p> | <p>Physical Features Population Written and Oral expression</p> <hr/> <p>Second order concepts</p> | <p>I understand a range of strategies that can be used to reduce the negative impact that humans can have on the environment</p> | <p><u>Stoneferry</u> Starter - Show a world map with a dot on Malaga. Also show image of blue skies, the coastline, the hills surrounding.</p> <p>Explain that the children are to imagine that they are the mayor of Malaga, and that the goal is to develop a city which is powered by renewable energy.</p> |

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| | Significance Similarity and Difference | | <p><u>Outcome:</u> Give children a schematic map of Malaga. The children are then to decide on the positioning of wind farms, tidal barriers, solar farms, hydro electric dams, biomass plants and explain the reasoning for positioning these where they have.</p> <p>To make it more interesting - you could supply some approximate costs to make them consider this too.</p> <p>S&L - Children present their maps to the class justifying their decision making.</p> <p>Vocabulary - climate</p> |
| <p>Visit - A visit to <u>Seimens</u> would supplement the learning in this unit</p> | | | |