



Reeth Community Primary School and Gunnerside Methodist (VC) Primary School Federation

Geography Unit Plan – Y5&6 – Climate zones, climate change, biomes, vegetation belts, longitude and time zones

	Locational Knowledge	Place Knowledge	Human and Physical Geography	Geographical Skills and Fieldwork
Emergent	<ul style="list-style-type: none"> • Know that we live in England and that our capital city is London. • Identify the continent that we live in and the nearest ocean. • Name and locate 3 of the world's 7 continents and 2 oceans. 	<ul style="list-style-type: none"> • Understand geographical similarities and differences by comparing our locality with a contrasting part of the UK. 	<ul style="list-style-type: none"> • Identify seasonal and daily weather patterns in the UK. • Begin to use basic geographical vocab to refer to: Key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather. Key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop 	<ul style="list-style-type: none"> • Use simple fieldwork and observational skills to study the geography of our school and its grounds and the key human and physical features of its surrounding environment.
Early KS1	<ul style="list-style-type: none"> • Name and locate the world's 7 continents and 5 oceans. • Name, locate and identify characteristics of the 4 countries and capital cities of the UK and its surrounding seas. • Name and locate Yorkshire and nearby market towns. • Identify the equator. 	<ul style="list-style-type: none"> • Understand geographical similarities and differences through studying the human and physical geography of a small area of the UK and of a small area in a contrasting non-European country. 	<ul style="list-style-type: none"> • Record, monitor and identify seasonal and daily weather patterns in the UK. • Identify hot and cold areas of the world in relation to the equator and the North and South Poles. • Use basic geographical vocabulary to refer to: Key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather. Key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop. 	<ul style="list-style-type: none"> • Use world maps, atlases and globes to identify the UK and its countries. • Use the same resources to identify the seven continents and five oceans. • Use simple compass directions (north, south, east and west) and locational and directional language to describe the location of features and routes on a map. • Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. • Devise a simple map and use basic symbols in a key. • Use simple fieldwork, observational skills and an Ordnance Survey map to locate local villages, our schools, the River Swale, Swaledale and other key human and physical features of the local environment.
Middle Lower KS2	<ul style="list-style-type: none"> • Name and locate counties and cities of the UK, 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 have changed over time. • Use maps to locate the countries of Europe (including location of Russia) concentrating on their environmental regions, key physical and human characteristics, countries and major cities. • Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere. 	<ul style="list-style-type: none"> • Understand geographical similarities and differences through the study of human and physical geography of a region of the UK and a region of either a European country or North or South America. 	<p>Describe and understand key aspects of:</p> <ul style="list-style-type: none"> • Physical geography, including: rivers, the water cycle, weather patterns, climate change and coasts • Human geography, including: types of settlement and land use. 	<ul style="list-style-type: none"> • Use maps, atlases, globes and digital / computer mapping to locate countries and describe features studied. • Use the 8 points of a compass, 4 figure grid references, symbols and key (including Ordnance Survey maps) to build knowledge of the UK and the wider world. • 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.
Later Upper KS2	<ul style="list-style-type: none"> • Locate the world's countries, using maps to focus on North and South America, concentrating on their environmental regions, key physical and human characteristics, countries and major cities. • Identify the position and significance of the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night). 	<ul style="list-style-type: none"> • Understand geographical similarities and differences through the study of human and physical geography of a region of the UK, a region of a European country and a region in North or South America. • Understand that National Parks are special places that are protected because of their beautiful countryside, wildlife and cultural heritage. Learn that the management of these areas is complex, involving both human and physical geography → In the context of this study, learn that Antarctica is protected by the Antarctic Treaty. 	<p>Describe and understand key aspects of:</p> <ul style="list-style-type: none"> • Physical geography, including: volcanoes and earthquakes, mountains, caves, climate zones, climate change, biomes, and vegetation belts. • Human geography, including: land use, city layout, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. 	<ul style="list-style-type: none"> • Use maps, atlases, globes and digital / computer mapping to locate countries and describe features studied. • Use the 8 points of a compass, 6 figure grid references, symbols and key (including Ordnance Survey maps) to build knowledge of the UK and the wider world. • 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.
Extended KS3	<ul style="list-style-type: none"> • Extend locational knowledge beyond Europe and the Americas. 	<ul style="list-style-type: none"> • Deepen understanding of geographical similarities and differences through studying the human and physical geography of an additional region in another continent. 	<ul style="list-style-type: none"> • Observe, understand and explain the relationship between physical and human geography, identifying examples in projects studied. 	<ul style="list-style-type: none"> • Interpret Ordnance Survey maps in the classroom and in the field • Use fieldwork in contrasting locations to collect, analyse and draw conclusions from data.

Bold text = objectives that closely align with school curriculum vision

Red text = modified or additional learning objectives beyond those detailed in the National Curriculum

Geography Unit Plan – Y5&6 – Climate zones, climate change, biomes, vegetation belts, longitude and time zones

Suggested teaching sequence and ideas

1	2	3	4	5	6
Introduction to climate	Understanding climate zones	What do seasons look like around the world?	Longitude and time zones	Understanding climate change	What can we do about climate change?
<p>Objectives:</p> <ul style="list-style-type: none"> Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere Identify the position and significance of the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle Locate the world's countries, using maps to focus on North and South America Extend locational knowledge beyond Europe and the Americas (KS3) <p>Possible activities:</p> <ul style="list-style-type: none"> Explore the difference between weather and climate Record average annual temperatures for different countries on a world map. Choosing a range of countries, including those from a low to a high latitude should give an indication of temperatures around the world. Try to reach conclusions based on this information (e.g. it is warmer at the equator than at the poles) Locate the Tropics of Cancer and Capricorn, and the Arctic and Antarctic Circles Introduce climate zones, exploring how these reflect the climate of a region 	<p>Objectives:</p> <ul style="list-style-type: none"> Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere Identify the position and significance of the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle Locate the world's countries, using maps to focus on North and South America Extend locational knowledge beyond Europe and the Americas (KS3) Describe and understand key aspects of physical geography, including climate zones, biomes, and vegetation belts <p>Possible activities:</p> <ul style="list-style-type: none"> Explore and discuss climate zones, biomes and vegetation belts (these can seem quite similar but are distinct terms) Pupils investigate and explore the climate and vegetation in the key regions (e.g. temperate, arid, tropical), documenting this information and sharing their findings with the rest of the class. 	<p>Objectives:</p> <ul style="list-style-type: none"> Describe and understand key aspects of physical geography, including climate zones, biomes, and vegetation belts <p>Possible activities:</p> <ul style="list-style-type: none"> Learn about the climate of the UK during the four seasons of the year Why is the UK climate mild when it is quite far north? Does the climate vary within the UK? Learn about seasons at the poles Learn about seasons at the equator Record learning, making links to scientific understanding about the tilt of the earth's axis 	<p>Objectives:</p> <ul style="list-style-type: none"> Identify the position and significance of the Prime/Greenwich Meridian and time zones (including day and night). Describe and understand key aspects of physical geography, including climate zones, biomes, and vegetation belts Use maps, atlases, globes and digital / computer mapping to locate countries <p>Possible activities:</p> <ul style="list-style-type: none"> Learn about longitude. Explore how some countries at the same latitude have very different climates. The temperature range map (below) could be useful here. For example, pupils could compare the UK with Canada and Russia Learn about time zones Pupils calculate time differences as they plan journeys to different parts of the world 	<p>Objectives:</p> <ul style="list-style-type: none"> Describe and understand key aspects of physical geography, including climate change <p>Possible activities:</p> <ul style="list-style-type: none"> Learn about climate change, developing scientific understanding of this issue Analyse graphs of average annual temperature Analyse photographic evidence of glacial retreat Explore the impact of climate change on climate zones (the web article <i>Redrawing the Map</i> does this really well) Document why climate change is taking place, including diagrams to show how energy is trapped inside the earth's atmosphere, analysis of graphs and analysis of photographs 	<p>Objectives:</p> <ul style="list-style-type: none"> Describe and understand key aspects of physical geography, including climate change <p>Possible activities:</p> <ul style="list-style-type: none"> Learn about ways that we can reduce climate change Pupils could record key strategies that we can all use to reduce global warming Pupils could prepare a whole school assembly on climate change, explaining ways that we can make a difference

Useful websites

Met Office – Climate

<https://www.metoffice.gov.uk/weather/climate/>

Met Office – Climate Zones

<https://www.metoffice.gov.uk/weather/climate/climate-zones>

ARCGIS – Climate Zones World Map

<https://www.arcgis.com/apps/MapSeries/index.html?appid=58be6abce1914428889aad28c52e3eb1>

BBC Bitesize – Climate Zones

<https://www.bbc.co.uk/bitesize/clips/zr7hyrd>

Redrawing the Map: How the World's Climate Zones Are Shifting

<https://e360.yale.edu/features/redrawing-the-map-how-the-worlds-climate-zones-are-shifting>

National Geographic – All About Climate

<https://www.nationalgeographic.org/article/all-about-climate/>

National Geographic - Köppen Climate Classification System

<https://www.nationalgeographic.org/encyclopedia/koppen-climate-classification-system/>

National Geographic – Biome

<https://www.nationalgeographic.org/encyclopedia/biome/>

GOV.UK – Climate Change Explained

<https://www.gov.uk/guidance/climate-change-explained>

BBC News – What is climate change? A really simple guide

<https://www.bbc.co.uk/news/science-environment-24021772>

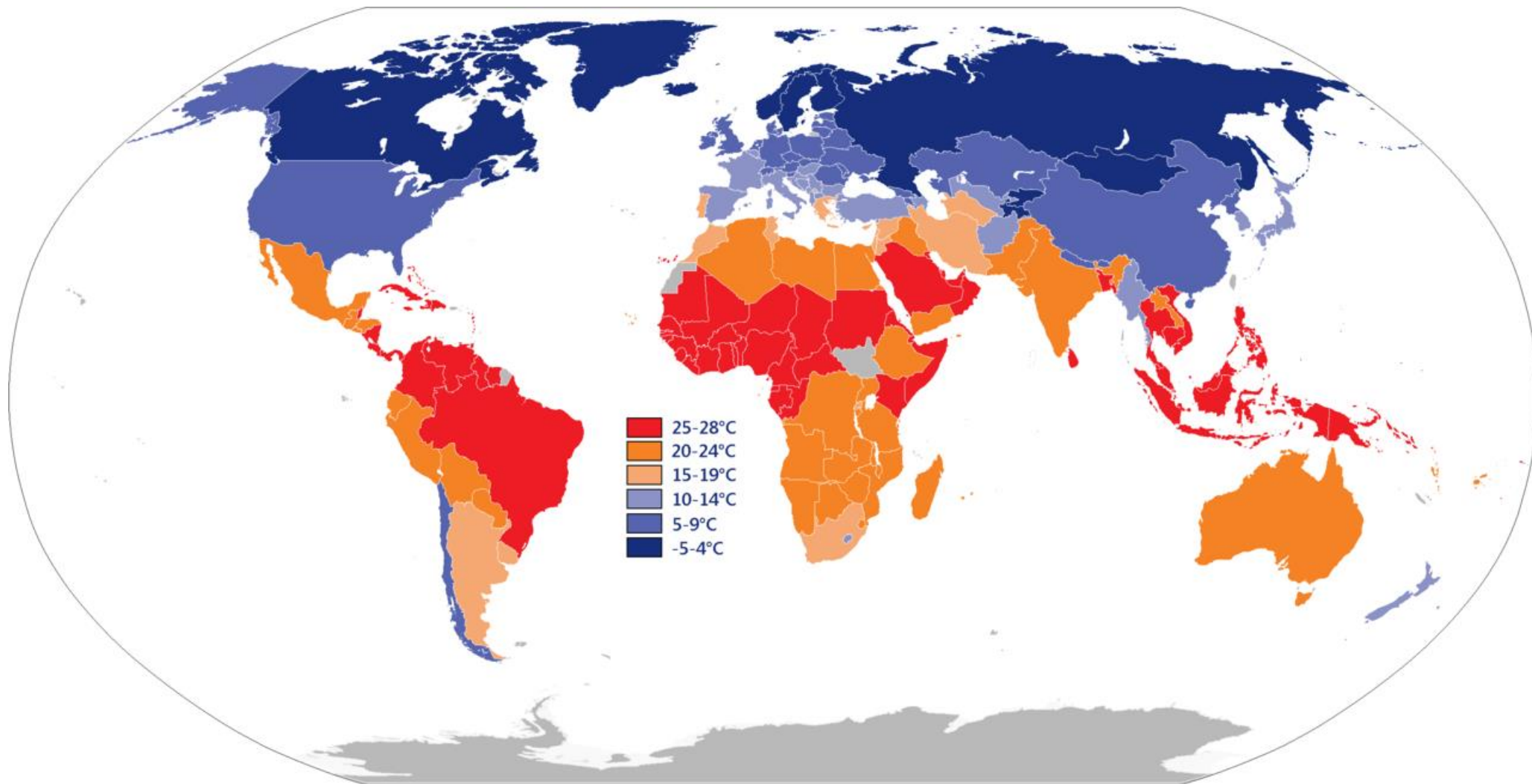
Met Office – Causes of Climate Change

<https://www.metoffice.gov.uk/weather/climate-change/causes-of-climate-change>

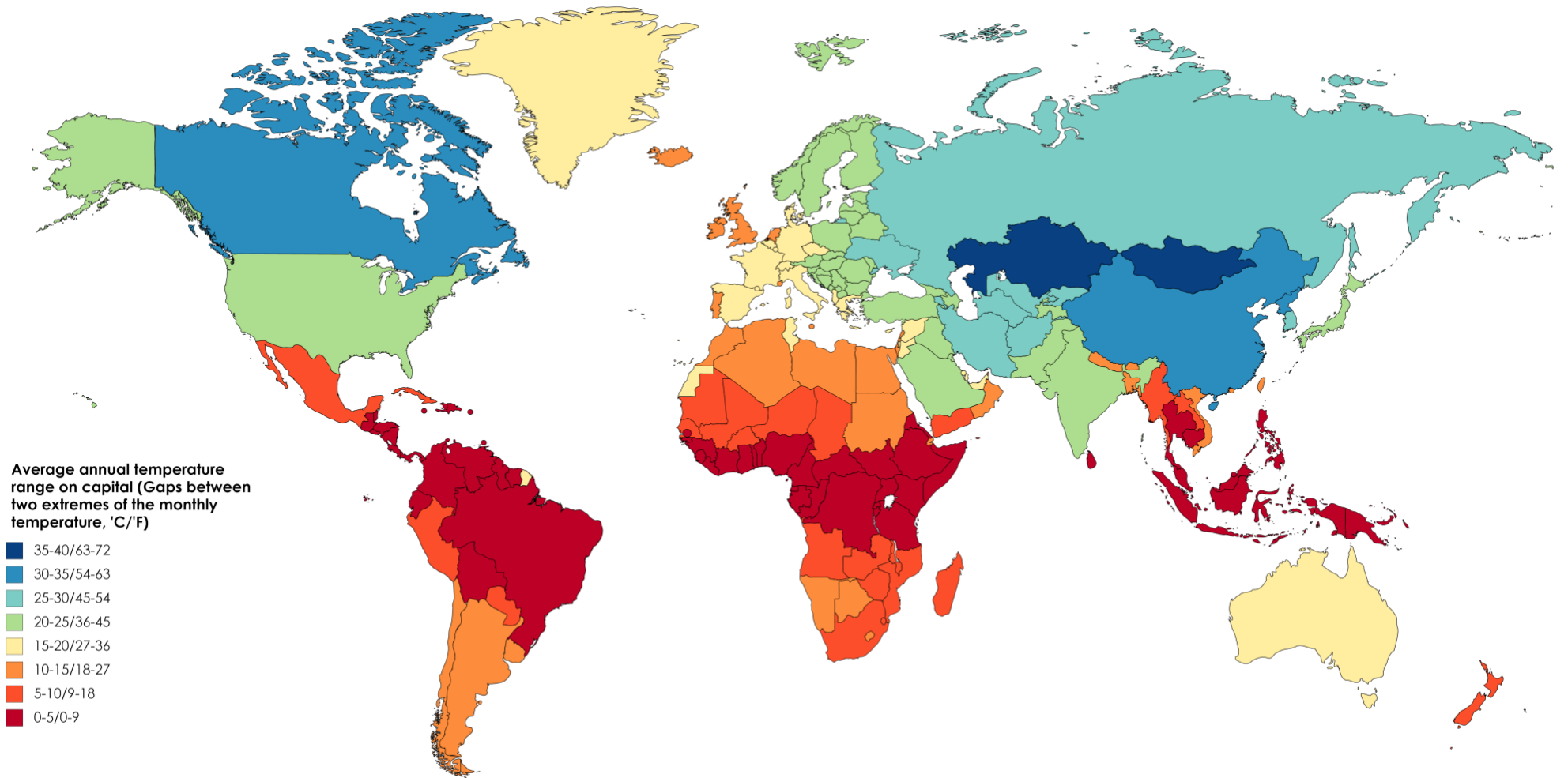
Geographical Association – Climate, soils, biomes and vegetation belts

<https://www.geography.org.uk/climate-biomes-soils-at-key-stage-3>

Average Annual Temperature in Countries Around the World



Average Annual Temperature Range



Average annual temperature range on capital (Gaps between two extremes of the monthly temperature, 'C/'F)

- 35-40/63-72
- 30-35/54-63
- 25-30/45-54
- 20-25/36-45
- 15-20/27-36
- 10-15/18-27
- 5-10/9-18
- 0-5/0-9