Knowledge and Skills Progression Map

Treales CE Primary School

Geography

Elder Class Cycle A Year 5 and 6			
	Autumn 1	Spring 1	Summer 1
Focus	Why are mountains so important?	How is climate change affecting the world?	How do volcanoes affect the lives of people living on Hiemaey?
National Curriculum	**Locational knowledge** • Name and locate countries 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 **Human and physical geography** • Describe and understand key aspects of: physical geography, including mountains human geography, including types of settlement and land use, economic activity **Geographical skills and fieldwork** • Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied • Uuse the eight points of a compass, four and six-figure grid references,	**Locational knowledge** • 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 **Human and physical geography** • Describe and understand key aspects of: physical geography, including climate zones, biomes and vegetation belts human geography, including types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water **Geographical skills and fieldwork**	**Locational knowledge** • The countries (including the location of Russia), major cities and key physical and human geography of Europe; • 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; **Place knowledge** • Understand geographical similarities and differences through the study of human and physical geography of a region in a European country; **Human and physical geography** • Describe and understand key aspects of: Physical geography including climate zones and volcanoes; Human geography including economic activity and trade links, and the distribution of natural resources including energy **Geographical skills**

	symbols and key (including the use of Ordnance	• Uuse maps, atlases, globes and digital/computer mapping to locate countries and describe features studied • 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	• Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
Concepts	Environment - the particular physical and human features which make places distinctive. Distribution - the arrangement or pattern of where physical and human features are found. Location - the position of something on Earth. Processes - the natural events and human actions that bring about change in an environment. Interdependence - how people and their environments are connected and rely upon each other. Interaction - the links or connections within and between different natural and human processes. Economic Activity - manufacturing a good or providing a service that is bought by people. Settlement - any place where people are living such as a village or city. Land use - how people have decided to use an area for a specific purpose such as farming or building towns and cities.	Climate - the average weather conditions of a place over a long period of time. Environment - the particular physical and human features which make places distinctive. Processes - the natural events and human actions that bring about change in an environment. Interdependence - how people and their environments are connected and rely upon each other. Interaction - the links or connections within and between different natural and human processes. Economic - activity manufacturing a good or providing a service that is bought by people. Settlement - any place where people are living such as a village or city. Land use - how people have decided to use an area for a specific purpose such as farming or building towns and cities. Energy - the power needed to make something work.	Environment - The particular physical and human features which make places distinctive. Distribution - The arrangement or pattern of where physical and human features are located. Location - The position of something on Earth. Processes - The natural events and human actions that bring about change. Scale - The size or extent of an area or place – local, regional, national, international and global. Interaction - The links or connections within and between different natural and human processes. Trade - Buying or selling goods and services between people or countries. Economic activity - Manufacturing a good or providing a service that is bought by people. Transport - Move people and goods from one place to another using a vehicle, aircraft or ship. Tourism - Visiting places that involves staying away from home for one or more nights.

	Relief - the general height and shape of the land. Climate - the average weather conditions of a place over a long period of time. Tourism - visiting places that involves staying away from home for one or more nights. Energy - the power needed to make something work. Sustainability - improving the quality of life of people without having a negative impact on the environment. Region - an area of land that has common features such as a particular climate.	Sustainability - improving the quality of life of people without having a negative impact on the environment. Region - an area of land that has common features such as a particular climate or religion. Carbon footprint - the amount of carbon dioxide released into the atmosphere as a result of the activities of an individual, organisation or community. Scale - the size or extent of an area or place – local, regional, national, international and global.	Climate - The average weather conditions experienced in a place during the course of a year. Transport - Carrying people or goods from one place to another by vehicle, aircraft or ship. Settlement - Any place where people are living such as a village or city. Energy - The power needed to make something work. Natural resources - Things found in nature that are used by people for economic gain.
Key Vocabulary	Landscape - everything that can be seen when looking at a particular Place. Range - a group or line of mountains with a specific name. Tectonic plate - one of the large moving sections of the Earth's crust. Crust - the thin outermost layer of the Earth made of solid rock. Mantle - the very thick layer of rock that lies between the Earth's crust and central core. Core - the very hot centre of the Earth which is solid on the inside and liquid on the outside. Strata - layers of rock. Fossil - the shape of a living thing that has been preserved in rock. Growing season - the number of months in the year when the average temperature is 6'C or more.	Landscape - everything that can be seen when looking at a particular place. Renewable - energy from a source such as wind that is never used up. Conservation - the protection of environments to prevent their loss or destruction. Estuary - the place where a river widens as it enters the sea and fresh and salty water mix. Hazard - something natural or human that is a risk or a danger. Drought - a very long period of time without rainfall. Desertification - the process by which fertile land becomes desert, typically as a result of drought, deforestation, or poor farming. Country - a nation with its own government and territory.	Landscape - everything that can be seen when looking at a particular place. Precipitation - any kind of moisture that falls from the clouds e.g., rain or snow. Adaptation - how living things are particularly suited to the environment in which they live. Volcano - a landform (usually a mountain) from which red hot liquid magma or lava erupts. Evacuate - move from a place of danger to a safer location. Archipelago - a sea or stretch of water which has many islands. Glacier - a slowly moving mass or river of ice. Geothermal - heat generated by liquid rock deep inside the Earth. Fjord - a long, narrow, inlet from the sea between high cliffs.

	Sanitation - having a clean water supply and safe sewage disposal. Reservoir - a large artificial lake created to supply water to towns and cities. Valley - a saucer shaped hollow of land through which a river flows. Hydroelectric - using the force of falling water to generate electricity in a power station. Renewable energy - from a source such as wind that is never used up. Conservation - the protection of environments to prevent their loss or destruction. Agriculture - growing crops and rearing animals on farms. Pasture - land used on farms to grow grass for animals such as such as sheep to feed on.	Ice sheet - a thick layer of ice covering a large area of land or sea. Raw material - things found in nature that are used to make things for people. Heatwave - a long period of unusually hot weather. Mitigation - reducing the serious effects of something. Atmosphere - the layer of gas that surrounds the Earth, often called air. Coast - the area where the land meets the sea or ocean. Emission - the release of something such as a gas.	Growing season - the number of months in the year when the average temperature is 6'C or more. Crust - the thin outermost layer of the Earth made of solid rock. Mantle - the very thick layer of rock that lies between the Earth's crust and central core. Core - the very hot centre of the Earth which is solid on the inside and liquid outside. Tectonic plate - one of the large moving sections of the Earth's crust. Remote - a faraway place situated a long distance from centres of population. Constraint - a factor which limits or restricts the possibility of doing something. Solidify - to cool down and set hard. Processing - carry out a series of actions on something in order to preserve it. Mid-Atlantic Ridge - a mountain range running down the centre of the Atlantic Ocean along which the North American and Eurasian plates are slowly spreading apart.
Prior Knowledge (indicate year group)	**Earlier in Key Stage 1 and Lower Key Stage 2 pupils learned:** How tectonic activity creates volcanoes and earthquakes That volcanoes and earthquakes often occur in mountainous areas How physical processes such as volcanoes and earthquakes impact on people The difference between physical and human processes and features What different land uses are and what economic activity involves	**Earlier in Key Stage 1 and Lower Key Stage 2 pupils learned:** The five elements of the weather How weather affects people's day to day lives The difference between weather and climate The climate of polar, temperate and tropical regions	**Earlier in Key Stage 1 and Lower Key Stage 2 pupils learned:** The distribution and features of polar, temperate and tropical climates How climate determines the environments and landscapes in Tropical Rain Forests and Hot and Cold Deserts The distribution and formation of mountains and earthquakes How environments all around the world, including their own locality, offer advantages and disadvantages to those who live there

	About trade and how countries import and export goods and services What leisure and tourism involves for people About renewable and non-renewable sources of energy	The difference between physical and human features and processes About greenhouse gases and the causes of global warning Some of the effects of global warming in the Arctic and Antarctic How living more sustainably could reduce greenhouse gas emissions What the UK government is doing to reduce CO2 emissions Fossil fuels and renewable sources of energy	The difference between physical and human processes and features What natural resources are and what economic activity involves About trade and how countries import and export goods and services
Key Knowledge (Substantive)	What a mountain is and the names and location of the main ranges of fold mountains in the world How ranges of fold mountains formed The different layers of the Earth The three main types of rock Why there is so much mystery surrounding the attempt by Mallory and Irvine to climb Everest in 1924 Why Edmund Hillary and Tenzing Norgay found fossils of sea creatures on the summit of Everest in 1953 About the different types of fossils and how each formed The names and location of the main ranges of mountains in the United Kingdom How ranges of mountains in the United Kingdom are different from fold mountains The physical and human features of the Cambrian mountains in Wales	The difference between weather and climate The climate of polar, temperate and tropical regions The greenhouse effect and global warming How climate change is different from global warming Some of the changes being caused by climate change in Gambia and their impact on people Some of the changes being caused by climate change in the state of Victoria in Australia and their impact on people Some of the changes being caused by climate change in coastal areas of the United Kingdom and their impact on people	The countries, major cities, rivers and mountains of Europe The population of the countries of Europe How to draw and interpret located proportional bars on an outline political map The five main lines of latitude of the world The location of the North Pole, South Pole, Northern Hemisphere and Southern Hemisphere The cities and main physical features of Iceland The climate of Iceland and how it compares with where they live How to draw and interpret a climate graph How the climate and physical processes have shaped the landscape of Iceland The physical and human features of the island of Hiemaey in the Westman Islands of Iceland Why Hiemaey has an active volcano How volcanoes are formed

	The type of climate experienced in the Cambrian Mountains and how this compares with their local area The reasons why the mountains of the UK are generally wetter and colder than most other areas What a tourist is, the activities they enjoy and why the Cambrian mountains is an important destination for tourists What a reservoir is and why many reservoirs have been built in the mountains of central Wales How reservoirs can have a positive and negative impact on the environment and people of the locations where they are built What a renewable or sustainable source of energy is How electricity is generated from the force of falling water in hydroelectric power stations That there are costs and benefits associated with building more HEP stations even if they are considered sustainable	Some of the changes being caused by climate change in Greenland and their impact on people Countries around the world where weather patterns have been affected by climate change How countries around the world are acting to reduce global warming How individuals, families and communities like schools are taking action to reduce global warming What the UK government is doing on a national level to reduce carbon emissions	The structure of a typical composite volcano The benefits and costs or disadvantages of living in close proximity to an active volcano Why fishing, trade and tourism are very important economic activities for people in Iceland How cod is caught and processed in Iceland and exported all around the world
Key Skills (Disciplinary)	Synthesise - Bring together a range of ideas and facts from different sources to develop an argument or explanation for something. Explain - Demonstrate understanding and comprehension of how or why something is the way it is as a result of synthesising information. Empathise - The capacity to place oneself impartially in another's position to better understand their	Synthesise - Bring together a range of ideas and facts from different sources to develop an argument or explanation for something. Explain - Demonstrate understanding and comprehension of how or why something is the way it is as a result of synthesising information. Empathise - The capacity to place oneself impartially in another's position to better understand their motives,	Synthesise - Bring together a range of ideas and facts from different sources to develop an argument or explanation for something. Explain - Demonstrate understanding and comprehension of how or why something is the way it is as a result of synthesising information. Empathise - The capacity to place oneself impartially in another's position to better understand their motives, decisions and

	motives, decisions and actions (even if they are not shared values). Informed conclusion - A knowledgeable summing up of the main points or issues about something. Reasoned judgement - A personal view or opinion about something supported by factual evidence. Justify - Give reasons to show or prove what you feel to be right or reasonable. Apply - The transfer of knowledge and/or skills learned in one context to help make sense of a different situation. Evaluate - Weigh up and judge the relative importance of something in relation to counter ideas and arguments. Critique - Review and examine something critically particularly to gain an awareness of its limitations and reliability as evidence. Hypothesise - Come up with an idea, question or theory that can be investigated to see whether it has any validity or truth.	decisions and actions (even if they are not shared values). Informed conclusion - A knowledgeable summing up of the main points or issues about something. Reasoned judgement - A personal view or opinion about something supported by factual evidence. Justify - Give reasons to show or prove what you feel to be right or reasonable. Apply - The transfer of knowledge and/or skills learned in one context to help make sense of a different situation. Evaluate - Weigh up and judge the relative importance of something in relation to counter ideas and arguments. Critique - Review and examine something critically particularly to gain an awareness of its limitations and reliability as evidence. Hypothesise - Come up with an idea, question or theory that can be investigated to see whether it has any validity or truth.	actions (even if they are not shared values). Informed conclusion - A knowledgeable summing up of the main points or issues about something. Reasoned judgement - A personal view or opinion about something supported by factual evidence. Justify - Give reasons to show or prove what you feel to be right or reasonable. Apply - The transfer of knowledge and/or skills learned in one context to help make sense of a different situation. Evaluate - Weigh up and judge the relative importance of something in relation to counter ideas and arguments. Critique - Review and examine something critically particularly to gain an awareness of its limitations and reliability as evidence. Hypothesise - Come up with an idea, question or theory that can be investigated to see whether it has any validity or truth.
Geographical techniques	**Statistical representation** - Drawing and interpreting: line graphs, multiple line graphs, bar graphs and climate graphs. **Mapwork** - Interpreting OS 1:25,000 Explorer maps using the key, eight points of the compass, four and six figure grid references, measuring direct and actual distances using the scale line and contour	**Statistical representation** - Drawing and interpreting: line graphs, multiple line graphs, bar graphs and climate graphs **Mapwork** - Interpreting OS 1:50,000 Landranger maps using the key, eight points of the compass and four and six figure grid references	**Statistical representation** - Drawing and interpreting: climate graphs, located proportional bars and tabular data **Mapwork** - Political, relief, population structure, density, distribution and migration; climate regions and world time zone maps **Imagery** - Terrestrial, aerial and satellite photographs and GIS Google Earth Pro

	patterns and spot heights **Imagery** - Terrestrial, aerial and satellite photographs (orientating with OS map locations) and GIS Google Earth Pro	Interpreting a range of atlas thematic maps e.g., changing weather patterns, ice sheet distribution and thickness, global temperature differences and countries most impacted by evidence of climate change **Imagery** - Terrestrial, aerial and satellite photographs (orientating with OS maps and GIS Google Earth Pro	
Possible-sequence of lessons – enquiry questions?	Why are the three mountains of Olympus, Mauna Kea and Everest so famous? How were the world's greatest mountain ranges formed? Why is the legend of Mallory and Irvine the greatest unsolved mystery of mountaineering? Why did Edmund Hillary and Tenzing Norgay find fossils of sea animals on the summit of Everest? How are the Cambrian Mountains different from the Himalaya Mountains? Why is the climate such a challenge for Derek? Why do tourists visit the Cambrian Mountains? Why were the 'treasures of untold value' to be found in the Cambrian Mountains so precious to the people of Birmingham? How else is the precious resource of water used in the Cambrian Mountains?	Why is Elhaji cleaning shoes on the streets of Banjul? Why can't Olivia afford to insure her home? Why are people living in Starcross making flood plans? Why do Lars and Sofie disagree about how nice the weather is? Why are people all over the world noticing that the weather they are used to is changing? What have the countries of the world agreed to do about global warming?	Where does Saethor take his dog Tiry for a walk every day? Where do Saethor and Tiry live? How do geographers describe the Westman Islands? How does the physical and human geography of Hiemaey compare with the area in which I live? Why are there so few trees on Hiemaey? Why are there volcanoes on Hiemaey? How were the people of Hiemaey affected when Eldfell erupted? Why do the people of Hiemaey go on living next to an active volcano?

End of unit goals Suggested assessment task?	**Explain** how a mountain is defined and **identify, name and locate** the main ranges of fold mountains in the world **Explain** how ranges of fold mountains formed **Identify and describe** the different layers of the Earth and the three main types of rock **Explain** why there is so much mystery surrounding the attempt by Mallory and Irvine to climb Everest in 1924 and **reach and justify a judgement** as to their likely fate **Explain** why Edmund Hillary and Tenzing Norgay found fossils of sea creatures on the summit of Everest in 1953 **Describe** the different types of fossils and **explain** how fossils formed **Name and locate** the main ranges of mountains in the United Kingdom **Explain** how ranges of mountains in the United Kingdom are different from fold mountains **Identify, observe, describe and suggest reasons** for the main physical and human features of the Cambrian mountains in Wales **Describe** the climate experienced in the Cambrian Mountains and how this compares with their local area **Explain** why the mountains of the UK are generally wetter and colder than most other areas **Explain** what a tourist is, the activities they enjoy and why the Cambrian	**Describe and explain** the difference between weather and climate **Describe and explain** the climate of polar, temperate and tropical regions **Explain** what the greenhouse effect is and its link to global warming **Understand** how climate change is different from global warming **Explain** some of the impacts of climate change in Gambia and **evaluate and reach a judgement** about their impact on people **Explain** some of the changes being caused by climate change in the state of Victoria in Australia and **reach an informed conclusion** about their impact on people **Understand** some of the changes being caused by climate change in coastal areas of the United Kingdom and **reach a judgement** about what people are doing locally to mitigate its effects **Explain** some of the changes being caused by climate change in Greenland and **evaluate and critique** the opposing views that people have about them **Identify, observe and locate** those countries around the world where changes in weather patterns caused by climate change are creating hazards **Explain, evaluate and reach a judgement** about how countries around the world are acting to reduce global warming	**Identify, name and locate** the countries, major cities, rivers and mountains of Europe **Identify, select and describe** the population of the countries of Europe **Construct and explain** located proportional bars to show population totals on an outline map of Europe **Locate and identify** the five main lines of latitude of the world together with the location of the North Pole, South Pole, Northern Hemisphere and Southern Hemisphere **Identify and describe** the cities and main physical features of Iceland **Describe** and **explain** the climate of Iceland and how it **compares** with the UK **Construct and explain** a climate graph for Iceland **Explain and reach a judgement** about how the climate and physical processes have shaped the landscape of Iceland **Describe** and **explain** the key physical and human features of the island of Hiemaey in the Westman Islands of Iceland **Explain** why Hiemaey has an active volcano and how volcanoes are formed **Describe and explain** the structure of a typical composite volcano **Evaluate and reach a judgement** regarding the benefits and costs or disadvantages of living in close proximity to an active volcano on Hiemaey **Explain and conclude** why fishing, trade and tourism are very important economic activities for people on Hiemaey

	mountains is an attractive destination for them **Explain** what a reservoir is and why many reservoirs have been built in the mountains of central Wales **Evaluate** the advantages and disadvantages of building reservoirs and **reach a judgement** regarding whether more should be built in Wales to meet increased demand for water **Explain** what a renewable or sustainable source of energy is **Explain** how electricity is generated from the force of falling water in a hydroelectric power station **Understand** that there are costs and benefits associated with building more HEP stations even if it is considered sustainable and **evaluate** both sides of the argument	**Explain** and justify the actions individuals, families and communities like schools are taking to reduce global warming **Explain, evaluate and reach a judgement** about what the UK government is doing on a national level to reduce carbon emissions	**Explain** how cod is caught and processed on Hiemaey and exported all around the world
Suggestions for the development of greater depth	**Understand** why the Cairngorm Mountains of Scotland have become Britain's most important skiing and snowboarding centre **Evaluate** the costs and benefits of these developments from an economic and environmental perspective	**Understand** what the concept of a 'carbon footprint' is and evaluate the most effective measures individuals, organisations and communities might consider taking to reducing their carbon footprint	**Understand** why the distribution of earthquakes, mountains and volcanoes around the world is very similar
Enrichment opportunities			