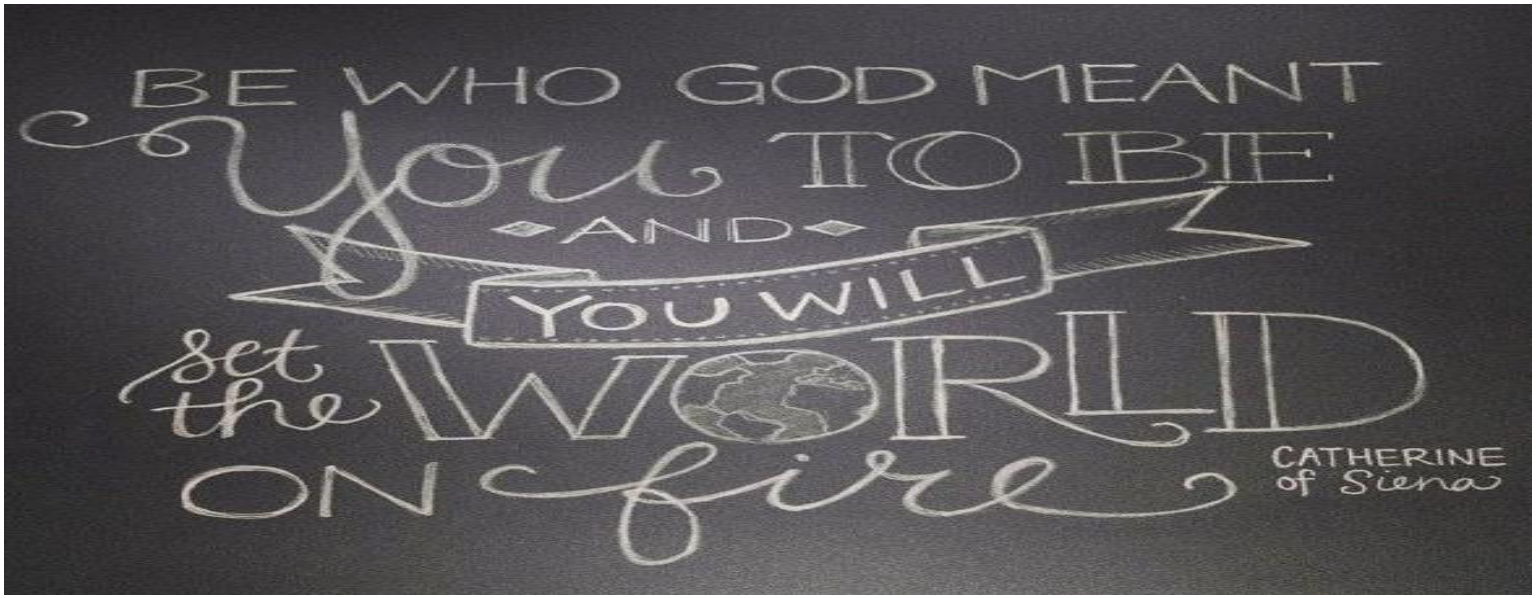
Keyham Barton Catholic Primary



Geography Curriculum 2022

Plymouth CAST

Be who God made you to be and you will set the world on fire.

KEYHAM BARTON Catholic Primary School

Building on the Framework for Excellence, Keyham Barton Catholic Primary Curriculum has four core principles:

Enable *Empower* *Entrust*

Driver	Key Principles	
Wellbeing and Worth	• Managing relationships • Emotional Intelligence • Self-regulation • Sense of Purpose	• Mental Health • Physical health • Keeping Safe • Financial Awareness
Cognition, Passion, Love of Learning	• Keyham Keys (reasoning, knowing, questioning, observing) • Ownership • Mastery • Oracy	• Resilience - strong, not tough • Independence • Curiosity and enquiry • Knowledge and skills
Aspiration, Ambition. Experiential	• Cultural capital • Life-ready/career potential • Rich experiences • Personal Drive	• Social skills • Commitment • Growth mindset • Self-efficacy
Values and Agency	• Agency to effect positive change • Live by Gospel Values • Stewardship /Laudato Si • Virtues	• Ethics • British Values • Responsibility • Respect

EYFS:	

	Knowledge to be explicitly taught	How knowledge will be built upon
Substantive	Our school is Keyham Barton. We live in Keyham. Our city is Plymouth. A bird's eye view shows us our school from a different perspective. A map can show us where to go or where things are. We can observe things around us to make a map of where we are. We can grow vegetables in our garden at school. In Uganda, at Kikandwa, they grow vegetables at their school. China is in Asia. Chinese New Year is celebrated there. Some of us have been abroad. We can find where we travelled to on a World map. Our planet is called Earth. It is a globe.	We live on the Earth. My home, our school and our community is at the local scale. Human settlements can be a city, town, or village, depending on their size. Human features are man-made, physical features are those that would be there without humans Human features in my local area include: Dockyard, train tracks, lighthouse, breakwater, Hoe, Tamar bridge, Burrator reservoir, university. Physical features in my local area include: Moors, Dartmoor, river Tamar, Radford Lake, Sea.
Disciplinary	A map is a drawing of a place from above. Follow a map (treasure map or treasure hunt) to find a place or an item. Observe using senses. Maps in storybooks help us understand journeys (We're going on a bear hunt, Rosie's walk, 3 little pigs). Using map types Identify known places from photographs.	A map is a drawing of a place from above. Draw around objects to make a plan view of them. Look at and identify objects from a plan view. Observe using senses. Interpret and give locations and directions using prepositional language (not left and right). Identify familiar features. Using map types: • Photographs of objects in elevation view • Photographs of objects in a plan view • Picture map • Photographs of places in an oblique view

YEAR A KS1: AUTUMN		Our City - What makes Plymouth unique?	
		The unit uses investigative tasks to introduce children to the idea of looking at their local area. The children will focus on aspects of local features, land use and environment, as well as keeping a weather log. They will describe and observe using simple geographical vocabulary. Fieldwork opportunities include a walk around the local area recognising and taking photos of the main features and landmarks in their locality.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	Our school is Keyham Barton. We live in Keyham. Our city is Plymouth. A bird's eye view shows us our school from a different perspective. A map can show us where to go or where things are. We can observe things around us to make a map of where we are. We can grow vegetables in our garden at school. In Uganda, at Kikandwa, they grow vegetables at their school. China is in Asia. Chinese New Year is celebrated there. Some of us have been abroad. We can find where we travelled to on a World map. Our planet is called earth. It is a globe.	We live on the Earth, which is a planet. The Earth is a sphere that has land and sea covering its surface. (Lesson 1) My home, our school and our community is at the local scale. (Lesson 2) Human settlements can be a city, town, or village, depending on their size. (Lesson 3) Human features are man-made. Physical features are those that would be there without humans. (Lesson 4) Human features in my local area include: Dockyard, train tracks, Smeaton's Tower lighthouse, breakwater, Hoe, Tamar bridge, Burrator reservoir, university. (Lesson 5) Physical features in my local area include: Dartmoor, River Tamar, Radford Lake, Sea. (Lesson 6)	• Mapping our local area • Countries of the UK • Settlements can be hamlets, villages, towns or cities

Di sci pli	• A map is a drawing of a place from above • Draw around objects to make a plan view of them • Look at and identify objects from a plan view • Observe using senses • Interpret and give locations and directions using prepositional language (not left and right) • Identify familiar features Using map types: • Photographs of objects in elevation view • Photographs of objects in a plan view • Picture map • Photographs of places in an oblique view	A plan view is the view of an object or place from above. Look down on objects to draw a plan view of them. Draw a route on a map and label features in correct order. Interpret and give locations and directions using left and right. Draw a basic field sketch of one area. Observe and name features in the environment. Using map types: • Simple map (Google maps) in a plan view.	• Draw a route on a map to simple scale (using 1 square : 1 pace) • Interpret and give locations using 4 compass points Using map types: • Satellite image (Google Earth) in plan view • Photographs of places in a plan view

YEAR A KS1: SPRING	Our Country - Why is Great Britain great?	
	In this unit, the children learn the four countries and capital cities of the United Kingdom and the surrounding seas. They look at physical and human features of these capital cities and use simple maps to plan a day out in each city at different times of the year. They will begin to express views and opinions about places.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	We live on the Earth • My home, our school and our community is at the local scale • Human settlements can be a city, town or village, depending on their size • Human features are man-made, physical features are those that would be there without humans • Human features in my local area include: Dockyard, train tracks, lighthouse, breakwater, Hoe, Tamar bridge, Burrator reservoir, university • Physical features in my local area include: Moors, Dartmoor, river Tamar, Radford Lake, Sea	My home, our school and our community is at the local scale, UK and countries are at the national scale. (Lesson 1) The UK is made of four countries: England, Scotland, Wales and Northern Ireland. The capital cities of the four countries in the UK are London (England), Edinburgh (Scotland), Cardiff (Wales) and Belfast (Northern Ireland). (Lesson 2) Rural means countryside, urban means towns and cities Features in rural areas include farm, hill, mountain, forest and river. (Lesson 3) Features in urban areas include office, shop, house, factory. (Lesson 4) Coastal areas are areas of land that are near the sea. They can be rural or urban. Features in coastal areas include beach, cliff, harbour and port. (Lesson 5) There are famous landmarks in each of the capital cities. Some of these are physical and some of these are human. People like to visit these landmarks. (Lesson 6)	There are seven continents in the world, six of which people live on. • There are countries within each continent (except Antarctica) • While the school and community are at the local scale, and countries are at the national scale, continents are at the global scale • The equator is an imaginary line across the earth • The North Pole and the South Pole are at the top and bottom of the Earth • Uganda is a country in Africa • There are poorer and wealthier areas in every city • Human and physical features of Kampala and local city in UK • Human and physical features of Kikandwa and local rural area in UK

Di sci pli	Using maps types: • Simple map (Google maps) in a plan view • Photographs of places in an oblique view	Identify land and water on a map. Identify country boundaries on a map. Geographical scale: Our country is at the national scale. Location & place: Countries and capital cities of the UK; some human and physical features of the UK. Interconnections: Humans are affected by physical features everyday (e.g. weather).	• Identify county boundaries on a map
YEAR A KS1: SUMMER		**Uganda - What is it like to live in Uganda compared to Plymouth?**	
		This unit explores Uganda further, building on children's introduction during EYFS, and compares it to Plymouth. The children use photos, maps, plans, globes and other sources of information to find out about a small area of a non-European country (Kikandwa, where our link school is located) and to compare and contrast with Plymouth. Climate and time zones will also be mentioned.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	We live on the Earth • Human features are man-made, physical features are those that would be there without humans • My home, our school and our community is at: the local scale, UK and countries are at the national scale • Rural means countryside; urban means towns and cities • Features in rural areas include farm, hill, mountain, forest and river • Features in urban areas include office, shop, house, factory	There are seven continents in the world, six of which people live on. There are countries within each continent (except Antarctica). (Lesson 1) While the school and community are at the local scale, and countries are at the national scale, continents are at the global scale. (Lesson 2) The equator is an imaginary line across the earth. The North Pole and the South Pole are at the top and bottom of the Earth. (Lesson 3) Uganda is a country in Africa. There are poorer and wealthier areas in every city. (Lesson 4) Human and physical features of Kampala and Plymouth in the UK. (Lesson 5) Human and physical features of Kikandwa and local rural area in UK e.g. Wembury. (Lesson 6)	The are five oceans • Lines of longitude and latitude are imaginary lines that help us locate places on Earth • Lines of longitude run north to south. The main one is called the Prime Meridian • Lines of latitude run east to west. The main ones are called the Equator, Tropics of Cancer and Capricorn, Arctic and Antarctic Circle • The Equator splits the Earth into the Northern and Southern Hemispheres • The Prime Meridian splits the Earth into the Eastern and Western Hemispheres

Di s ci	Identify similarities between my local area and another place • Identify country boundaries on a map • Science: Use a Venn diagram to classify items into two or three sets based on properties Using map types: • Simple map (Google maps) • Photographs of places in an oblique view	Use an atlas to find the right map. A globe is a round map of the Earth. Use and interpret 2 compass points (N and S) Using map types: Infant atlas and a Globe Location & place: Seven continents; Equator, North Pole and South Pole. Location & place: Comparison of areas in the UK with areas in contrasting non-European countries (Uganda). Geographical scale: Continents are at the global scale. Geographical scale: When making comparisons, the two places need to be at the same scale.	• Use and interpret 4 compass points Using map types: • Junior atlas

YEAR B KS1: AUTUMN	Seaside - Are seasides natural or man-made?	
	In this unit, children will learn that seasides are located along the coast, which is where the sea meets the land. They will learn that geographical features can be classified as human or physical. They will be able to name physical and human features found at the seaside. They will be able to explain how Plymouth Hoe is different to Wembury beach.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

Sub	Our school is Keyham Barton. We live in Keyham. Our city is Plymouth. A bird's eye view shows us our school from a different perspective. A map can show us where to go or where things are. We can observe things around us to make a map of where we are. We can grow vegetables in our garden at school. In Uganda, at Kikandwa, they grow vegetables at their school. China is in Asia. Chinese New Year is celebrated there. Some of us have been abroad. We can find where we travelled to on a World map. Our planet is called earth. It is a globe.	The coastline is located where land meets the sea. (Lesson 1) Human features are man-made. Physical features are those that would be there without humans. (Lesson 2) Coastal areas can have man-made and physical features. Identify the physical and human features of Plymouth Hoe. (Lesson 3) Identify the physical and human features of Wembury beach and how these differ to The Hoe. (Lesson 4) Carefully sketch and label key features on a field sketch from one of these locations. (Lesson 5) Create a route map with a scale for one of the locations. (Lesson 6)	• Draw a route on a map to simple scale (using 1 square : 1 pace) • Interpret and give locations using 4 compass points Using map types: • Satellite image (Google Earth) in plan view • Photographs of places in a plan view
Disciplin	• A map is a drawing of a place from above • Draw around objects to make a plan view of them • Look at and identify objects from a plan view • Observe using senses • Interpret and give locations and directions using prepositional language (not left and right) • Identify familiar features Using map types: • Photographs of objects in elevation view • Photographs of objects in a plan view • Picture map • Photographs of places in an oblique view	Interpret and give locations and directions using left and right. Use and interpret 4 compass points (Y2). Draw a basic field sketch of one area. Observe and name features in the environment. Draw routes between locations on the beach on squared paper using scale 1 square : 1 pace. Draw a sketch map of a route with some approximate scale and features in correct order. Using map types: • Simple map (Google maps) in a plan view.	• Draw a route on a map to simple scale (using 1 square : 1 pace) • Interpret and give locations using 4 compass points Using map types: • Satellite image (Google Earth) in plan view • Photographs of places in a plan view

YEAR B KS1: SPRING		Rivers, Seas and Oceans - What's the difference between rivers, lakes, seas and oceans?	
		In this unit, children will learn that rivers, lakes, seas and oceans are all bodies of water. They will learn that rivers flow from a source to the mouth, which is a sea. They will be able to name the seas that surround the Uk and be able to name and locate the five major oceans. They will investigate land use around rivers and coastal areas.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• Human features are man-made, physical features are those that would be there without humans • The UK is made of four countries: England, Scotland, Wales and N Ireland; their capital cities are London, Edinburgh, Cardiff and Belfast • Rural means countryside; urban means towns and cities • Features in rural areas include farm, hill, mountain, forest and river • Features in urban areas include office, shop, house, factory • Coastal areas are areas of land that are near to the sea. They can be rural or urban • Features in coastal areas include beach, cliff, harbour, and port • History: The Thames river flows through London (and people used water to put out the Great Fire)	Rivers, lakes, seas and oceans are all bodies of water. Rivers flow into lakes and seas; seas connect to oceans. (Lesson 1) Rivers travel from highland areas (the source) to lowland areas (the mouth). Physical features around rivers include valleys, mountains, hills and vegetation. (Lesson 2) The seas that surround the UK are the North Sea, the Irish Sea and the English Channel. The seas around the UK flow into the Atlantic Ocean. (Lesson 3) There are five oceans of the world (the Atlantic Ocean; the Pacific Ocean; the Indian Ocean; the Southern Ocean; the Arctic Ocean. These are larger than seas. (Lesson 4) Land use is how land is used by humans. Look at types of land use in land. (Lesson 5) Land use is often different around rivers and coastal areas. (Lesson 6)	The three longest rivers in the UK are the Severn, Thames and Trent • A river has three courses: upper, middle and lower • The three river processes are: erosion, transportation and deposition; these help form waterfalls, meanders and floodplains • Comparing human and physical features around the world rivers Sever, Mississippi and Danube • The water cycle

Di s ci	• A map is a drawing of a place from above • A plan view is the view of an object from above • Use and interpret 4 compass points • Identify familiar features • Science: Use a Venn diagram to classify items into two or three sets based on properties Using map types: • Simple maps (Google maps) in plan view • Photographs of places in oblique view • Globe • Satellite image (Google Earth) in plan view	Using map types: • Photographs of places in a plan view. Location & place: Seas surrounding the UK. Location & place: Five oceans.	Using map types: • OS maps • Physical vs political maps

YEAR B KS1: SUMMER	Weather/ Hot and cold deserts - What is the climate?	
	In this unit, the children will think and learn about geographical features of the climate, both human and physical. Children will learn about the environment; finding out where they are located in the UK. The children will use maps, aerial photographs and beach webcams and develop their geographical vocabulary.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• Science: The weather can change rapidly (e.g. sunny morning and rainy afternoon) within and across days • Human features are man-made, physical features are those that would be there without humans • There are seven continents in the world, six of which people live on • There are countries within each continent except Antarctica • The equator is an imaginary line across the earth • The North Pole and the South Pole are at the top and bottom of the Earth	The weather is short-term and a description of the day-to-day conditions in a particular place. Climate is a long-term summary of the weather conditions. (Lesson 1) Precipitation is the fall of water as rain, sleet, snow or hail. Other examples of weather are: sunny, rainy, windy, warm, cold, cloudy, drizzle, snow, stormy (with thunder and lightning). (Lesson 2) Deserts are places where there is very little precipitation. Hot deserts have a very hot and dry climate. Cold deserts have a very cold and dry climate. (Lesson 3) Hot and cold deserts are found in all continents and vary in size. Hot deserts are usually found near the Equator. Cold deserts are usually found near the North and South Poles. (Lesson 4) There are similar and different physical features in hot and cold deserts. (Lesson 5) There are few human features in hot and cold deserts. (Lesson 6)	Climate zones share long-term weather patterns. There are six main climate zones: polar, temperate, arid, tropical, Mediterranean and mountains • Biomes are areas of the world that, because of similar climates, have similar landscapes, animals and plants • Science: Adaptations of animals and plants in hot and cold deserts: Arctic fox, shrubs, camels and cacti

Di sci pli	• Identify similarities and differences between my local area and one other place • Science: Use a Venn diagram to classify items into two or three sets based on properties Using map types: • Simple map (Google maps) • Photographs of areas in an oblique view • Globe	Identify similarities and differences between two non-local places. Using map types: Satellite image (Google Earth) in a plan view. Location & place: Locating hot and cold deserts across the world. Geographical scale: Some physical features – like rivers or deserts – span local, national and even global scales. Interconnections: Human features are often shaped by physical features.	• Explain similarities and differences, using geographical knowledge

YEAR A LKS2: AUTUMN	Investigating mountains and volcanoes - What are the advantages and disadvantages of living on a mountain?		
	In this unit, pupils will develop an awareness of the Earth's structure. They will explore the main layers of the earth and look at tectonic plates. Pupils will develop their understanding of the different types of tectonic plates. Pupils will learn how volcanoes and mountains are formed due to the effect of tectonic plates. Children will explore the different types of volcanoes. Lastly, LKS2 will explore how living next to a volcano can be both a positive and negative experience.		
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• We live on the Earth • Science: Living things grow, need air and nutrients, react to their surroundings, move, get rid of their waste, reproduce • Science: Substances can exist as solids, liquids and gases • Science: Liquids take the shape of the container they are in. When you move the liquid into a different container the shape will change • Science: The Earth's crust is the outermost layer of our planet. It is made of rocks and minerals • Science: Igneous rock is formed when magma cools down • Science: Soil is a mixture of pieces of rock, dead plants and animals, air and water • Agriculture is the farming of plants (arable) and animals (pastoral) to eat • Science: Plants need air (oxygen and carbon dioxide), water, light, nutrients from the soil, space, and a suitable temperature to grow	The Earth is made of four main layers: the inner core (solid), the outer core (liquid), the mantle (semi-liquid) and the crust (solid) The upper part of the mantle and the crust combine to make the lithosphere. (Lesson 1) The lithosphere is split into tectonic plates. Because the mantle is semi-liquid, these big plates move over each other. Tectonic plates can be oceanic or continental. They meet at a plate boundary. (Lesson 2) Fold mountains are formed when two continental plates move towards each other and collide. Volcanoes are formed when two plates move away from each other, or when an oceanic plate and a continental plate move toward each other. (Lesson 3) There are two main types of volcano: shield volcano (two plates move away) and composite volcano (oceanic and continental plates move together), which each have different features Shield and composite volcanoes can be active, dormant or extinct. (Lesson 4) Products of volcanoes include lava, pyroclastic flows, ash clouds, lahars. (Lesson 5) Volcanoes can also be tourist attractions; provide nutrients in the soil; and the heat can be used to heat water La Soufriere is a volcano in St Vincent that erupted in early 2021, causing much of the Caribbean island to be covered in ash. The eruption has many negative effects. Etna is a volcano on the island of Sicily, in Italy. It is very active but living near it has lots of benefits (Lesson 6)	Tectonic activity causes earthquakes • History: St Vincent is an island in the Caribbean, and was home to the Garifuna people

Disciplinary	• A plan view is the view of an object from above • Identify similarities and differences between two non-local places • Political maps show human boundaries and features; physical maps show physical boundaries and features • Science: Make a prediction based on substantive knowledge Using maps: • Globe • Satellite images (Google Earth) • Photographs of places in oblique view • Photographs of places in plan view	World maps can be drawn from different perspectives, including the Pacific-centred map. • An elevation view is the view of an object or place from the front or side • An oblique view is the view of an object or place from diagonally above • Explain similarities and differences, using geographical knowledge. Location & place: Locating volcanoes across the world; location and effects of eruption at La Soufriere (Saint Vincent) and Etna (Italy). Geographical scale: The effects of physical features – like volcanoes – can be felt at the local, national and even global scale.	The Mercator projection is what is commonly used but distorts continents to make European countries look larger. Peters projection shows continents on a more accurate scale

YEAR A LKS2: SPRING	United Kingdom - How has the UK changed over time?		
	In this unit, children will take a look at the geography of the UK - from the physical features of mountains, rivers and seas to the man-made administrative regions and counties. They will find out how the UK has changed over time.		
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• Human settlements can be a city, town or village, depending on their size • Human features are man-made, physical features would be there without humans • The UK is made of four countries: England, Scotland, Wales and N Ireland; their capital cities are London, Edinburgh, Cardiff and Belfast • Rural means countryside; urban means towns and cities • Features in rural areas include farm, hill, mountain, forest and river • Features in urban areas include office, shop, house, factory • Features in coastal areas include beach, cliff, harbour, and port • Rivers, lakes, seas and oceans are all bodies of water. Rivers flow into lakes and seas; seas connect to oceans • Features around rivers include valleys, mountains, hills and vegetation • The seas that surround the UK are the North Sea, the Irish Sea and the English Channel • Land use is how land is used by humans	The UK is made of four countries: England, Scotland, Wales and N Ireland; Great Britain is made up of England, Scotland and Wales. The British Isles is made up of England, Scotland, Wales, Northern Ireland and Ireland. (Lesson 1) England and the UK are split into regions. Regions in England and the UK are split into counties. (Lesson 2) There are several mountain ranges in the UK, including Grampian Mountains (Scotland), Pennines (England) and Cambrian Mountains (Wales). Children to locate these and other mountain ranges. (Lesson 3) The three longest rivers in the UK are the Severn, Thames and Trent. Children to locate these and other major rivers. (Lesson 4) Settlements can be hamlets, villages, towns and cities, depending on their size. Pupils will explore different human features (settlements) why they are different depending on the size of the village, town and city. (Lesson 5) Land use in the South West has changed over time (green space is filled; towns have become larger. (Lesson 6)	• The Dartmoor is a National Park in England • Plymouth is located on the south coast of England, and there are a variety of human and physical features there • Many people in the Amalfi Coast, the Alps, Plymouth and the Dartmoor rely on tourism, and there are ways that it can be managed responsibly • Comparing human and physical features around the river Plym with rivers Danube and Mississippi

Di sci pli	• Use and interpret 4 compass points • Identify land and water on a map • Identify country boundaries on a map Using map types: • Simple maps (Google maps) • Satellite images (Google Earth) • Photographs of areas in oblique view • Photographs of areas in plan view	Use and interpret 8 compass points. Identify county boundaries on a map. Give and interpret standard OS symbols. Political maps show human boundaries and features; physical maps show physical boundaries and features Using map types: OS maps Physical maps Location & place: Rivers of the UK; UK, Great Britain, British Isles; counties and regions in the UK; land use in the UK.	Using map types: • Thematic maps
YEAR A LKS2: SUMMER		**Rainforests - Why are rainforests important to us?**	
		In this Unit, children take a closer look at tropical rainforests. From the layers of the forest and its animal inhabitants, to the unique climate found in the tropics. Pupils will learn about the benefits of a rainforest and why they are important for humans.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• Science: Trees are a type of plant that have a tall stem made of wood • Science: Habitats are the places that living things live. Animals and plants depend on each other in their habitats • Science: Living things have adapted to their environment. This means they may not be able to survive in other habitats • The weather is short-term. Climate is long-term summary of the weather conditions. Precipitation is the fall of water • Science: Requirements for life vary from plant to plant and they are adapted to their environment • Science: Roots absorb nutrients from the soil and help anchor the plant • Science: Leaves use sunlight, carbon dioxide, and water to make their own food • Lines of latitude run east to west (Equator, Tropics of Cancer and Capricorn, Arctic and Antarctic Circle) • Agriculture is the farming of plants (arable) and animals (pastoral) to eat	Rainforests are forests that are found in places with high temperatures and lots of precipitation. (Lesson 1) They are found between the Tropics of Cancer and Capricorn, in the area known as the Tropics. Rainforests are found in five continents: Oceania (Australasian); Asia (Southeast Asian); Africa (Congo Basin); South America (Amazon) and North America (Central American). (Lesson 2) Rainforests are made of four main layers of different heights: the emergent, the canopy, the understory and the forest floor. Each layer of the rainforest has different types of plants and animals. (Lesson 3) A symbiotic relationship is a long-term relationship between one or more species, in which both species receive benefits. Animals and plants have adapted to life in the rainforest (buttress roots, lianas, spider monkey, toucan, fig wasp and fire ants). (Lesson 4) Rainforests provide the Earth with many benefits, including releasing lots of oxygen, having plants that can be used to make medicine, and they are the only home to lots of species. (Lesson 5) Chopping down trees is called deforestation. Deforestation of the Amazon rainforest in Brazil is making way for agriculture, to improve Brazil's economy. (Lesson 6)	Tropical rainforests are one type of biome; there are several others in the world • Flora and fauna have adapted to hot deserts, tundra, temperate forests and coral reefs • Science: Adaptations can be behavioural, physiological or structural • Science: Adaptations that provide an organism with an advantage are more likely survive and reproduce. This is how species evolve • Deforestation has serious effects: it increases the likelihood of flooding and contributes to global warming

Di s ci	• A plan view is the view of an object from above • Identify similarities and differences between two non-local places • Political maps show human boundaries and features; physical maps show physical boundaries and features • Science: Make a prediction based on substantive knowledge Using maps: • Globe • Satellite images (Google Earth) • Photographs of places in oblique view • Photographs of places in plan view	World maps can be drawn from different perspectives, including the Pacific-centred map Explain similarities and differences, using geographical knowledge Draw an object to scale. Recognise that people have differing opinions about environmental issues. Location & place: Locating key tropical rainforests and understanding that these lie along the equator between the tropics. Interconnections: Human activity can affect physical features (e.g. deforestation of Amazon)	• The Mercator projection is what is commonly use but distorts continents to make European countries look larger. Peters projection shows continents on a more accurate scale

YEAR B LKS2: AUTUMN	Europe - How does tourism impact Europe?	
	In this unit, LKS2 are building on prior knowledge from KS1. They will link their learning about continents and will look deeper at the continent Europe. They will look at different locations in Europe and learn about the physical and human features in both. Pupils will develop an understanding of what tourism is and be able to identify positive and negative effects.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

S u b	• Coastal areas are areas of land that are near to the sea. They can be rural or urban • Features in coastal areas include beach, cliff, harbour, and port • The weather is short-term. Climate is long-term summary of the weather conditions • Land use is how land is used by humans, and could include homes, shops, roads and open spaces • Physical features of the South West (or other region) include mountains, hills, forests, cliff, beach, river and valley • Human features of the South West (or other region) include national parks, hamlets, villages, town and cities, factories and offices	Europe is made up of 50 countries; Russia is split across Asia and Europe. (Lesson 1) The Alps stretch across France, Italy, Switzerland, Austria and other countries. The Amalfi Coast is located in Italy and there are a variety of human and physical features along the Amalfi Coast. (Lesson 2 and Lesson 3 looking first at physical features and then at human features) Plymouth is located on the south coast of England, and there are a variety of human and physical features there. (Lesson 4) We can categorise effects into social, economic and environmental. Tourism is the business of supporting and encouraging people to visit a place for fun. (lesson 5) Different European locations experience positive impacts (social and economic) and negative (environmental and social) from tourism. Many people in the four locations rely on tourism, and there are ways that it can be managed responsibly. (Lesson 6).	Comparing human and physical features around a local river in the UK, and world rivers. • Categorising effects of earthquakes into social, economic and environmental

Di sci pli	• Science: Use a Carroll diagram to classify items based on their properties • Identify country boundaries on a map • Interpretation: Use an atlas to find the right map • Identify similarities and differences between two non-local places • Political maps show human boundaries and features; physical maps show physical boundaries and features Using map types: • Satellite images (Google Earth) • Photographs of places in oblique and plan view • OS maps	Say whether a map is at the local, national or global scale. Spatially match locations on maps of different scales. Identify a range of political and physical boundaries. Using map types: Junior atlas Location & place: Locating countries (including Russia) in Europe; Human and physical features of the Amalfi Coast and The Alps. Interconnections: There are similarities and differences between places, even if they have similar physical/human features. Geographical scale: Recognise maps at the local, national and global level and select the most appropriate ones.	Using map types: • Thematic maps

YEAR B LKS2: SPRING	Earthquakes and Human settlements - Why and where do earthquakes occur?
	As part of this unit, pupils will look at world maps and globes to identify and locate the main tectonic plates. They will then use different sources to research how and where earthquakes occur before investigating why most earthquakes occur along plate boundaries. The children will learn about the effects of earthquakes on HIC and LIC, and explore ways to minimise these effects.

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon
SUB	• The Earth is made of four main layers: the inner core (solid), the outer core (liquid), the mantle (semiliquid) and the crust (solid) • The upper part of the mantle and the crust combine to make the lithosphere • The lithosphere is split into pieces called tectonic plates. Because the mantle is semi-liquid, these big plates move around each other • Tectonic plates can be oceanic or continental • Tectonic plates meet at a plate boundary • We can categorise effects into social, economic and environmental	An earthquake is the sudden shaking of the Earth's surface. They are caused by movements of the tectonic plates. Minor earthquakes can occur anywhere; major earthquakes usually occur at plate boundaries. (Lesson 1) Earthquakes usually occur at boundaries where the plates are sliding past each other, or where an oceanic plate is being forced under the continental plate (where some volcanoes are formed). (Lesson 2) The focus is the point inside the lithosphere where the earthquake came from; the epicentre is the point on the Earth's surface above. The size of an earthquake is measured on the Richter scale, which goes from 1-10. Those measuring 7 or higher cause major damage. (Lesson 3) Primary effects are those that happen immediately that are the direct result; secondary effects are a result of primary effects. (Lesson 4) Countries in the world can be classified as low-, medium- or high- income countries (LIC, HICs). They appear in all continents. Haiti is a LIC in North America that experienced an earthquake in 2010. Tohoku is in Japan, a HIC in Asia, and it experienced an earthquake and tsunami in 2011. (Lesson 5) Humans can minimise the effects of earthquakes with earthquake- proof buildings, evacuations and having earthquake survival kits. (Lesson 6)	• Forced migration occurs when people can no longer live safely in their home

Disciplinary	• Mathematics: Numbers written as decimals correct to one decimal place • Mathematics: Coordinates in the first quadrant • Identify similarities and differences between two non-local places • Explain similarities and differences, using geographical knowledge Using maps: • Simple maps (Google maps) • Photographs of places in oblique and plan views • Globe	Locate places and features using letter and number coordinates on a map. Location & place: Location and effects of earthquakes in Haiti/Japan. Geographical scale: While physical effects are felt most at the local or national scale, the response can be at the global scale. Interconnections: Humans adapt to living in earthquake-prone areas. Interconnections: There are similarities and differences between LICs, MICs and HICs.	Interpret and locate places and features using 4-figure grid reference
YEAR B LKS2: SUMMER		**Dartmoor - What can we ensure that our use of our local National Park is sustainable?**	
		During this unit the children will have opportunities to find out more about their local area. Using different sources and fieldwork skills, the children will look at settlements and land use. The children will express views and opinions about current issues affecting their locality.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	• The weather is short-term. Climate is long-term summary of the weather conditions • Land use is how land is used by humans, and could include homes, shops, roads and open spaces • Physical features of the South West include mountains, hills, forests, cliffs, beaches, rivers and valleys • Human features of the South West include • national parks, hamlets, villages, town and cities, factories and offices • Science: Sedimentary rocks are formed from pre-existing rocks or pieces of once-living organisms. • Science: Igneous rocks (from the Latin word for fire) form when hot, molten rock crystallises and solidifies. • Tourism is the business of supporting and encouraging people to visit a place for fun • These locations experience positive impacts (social and economic) and negative (environmental and social) from tourism Many people in the locations rely on tourism, and there are ways that it can be managed responsibly.	What is a National Park? National Parks attract millions of visitors a year. Know where National Parks are and why they are important. National parks are areas of great natural beauty that give the opportunity for recreation. (Lesson 1) Where is Dartmoor? Dartmoor is an upland area in southern Devon, England. The moorland and surrounding land has been protected by National Park status since 1951. (Lesson 2) What is Dartmoor like to live in? Dartmoor has a temperate climate which is generally wetter and milder than locations at similar height in the rest of England. Dartmoor has a resident population of about 33,000, which grows considerably during holiday periods with incoming tourists. (Lesson 3) How was Dartmoor formed? The history of Dartmoor stretches back over millions of years. This idyllic landscape was created by violent volcanoes, tropical climates and ice ages. (Lesson 4) A National Park is an area of the countryside that is protected by law. The laws are in place to: make sure the history, land and wildlife of the area are protected; improve the area and give people the chance to enjoy and appreciate it. (Lesson 5) Use of National Parks by residents and members of the public needs to be sustainable. (Lesson 6)	• Comparing human and physical features in around a local river in the UK, the Danube in Europe, Mississippi in North America and the Amazon river in South America. • Categorising effects of earthquakes into social, economic and environmental. • Sustainable cities limit damage to their environment

Di s ci	• Political maps show human boundaries and features; physical maps show physical boundaries and features • Use and interpret 8 compass points • Identify county boundaries on a map • Give and interpret standard OS symbols Using map types: • Satellite images (Google Earth) • Photographs of places in oblique and plan view • OS maps	Build on prior knowledge of UK countries and counties by using maps. Relate to 4 point compass directions. Label counties, towns and National Parks. Use maps to locate specific National Parks. Identify local features on a map and begin to experiment with four figure grid references, using them to locate and describe local features. Undertake surveys. Conduct investigations. Classify buildings. Use recognised symbols to mark out local areas of interest on own maps. Choose effective recording and presentation methods e.g. tables to collect data. Draw conclusions from the data.	Interpret and locate places and features using 4-figure grid reference Using map types: • Thematic maps

YEAR A UKS2: AUTUMN	Improving the environment - How can I live out the message of Laudato Si?	
	During this unit, children will explore why some locations are better than others for using renewable sources of energy. They will learn about the harmful impact of plastics on our environment, including learning about The Great Pacific Garbage patch, as well as how this can be reduced. They will learn about sustainable cities around the World and look at how we can adopt some of these strategies to make Plymouth more sustainable.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

S u b	• There are five oceans in the world. These are different to seas • Science: Fossil fuels, batteries and the Sun are all examples of chemical energy stores • Science: A non-renewable energy source is one where we have a fixed amount of the source, and where it would take too long for more to be formed. Burning fossil fuels to transfer electrical energy is an example of a non-renewable energy source • Science: Renewable energy sources quickly refill/replenish themselves, meaning that we can use them again and again. Wind, solar, geothermal and hydrological power are all examples of renewable energy sources • Science: Power stations can use both renewable and nonrenewable sources of energy	Some locations are better suited to some renewable energy sources than others, based on their physical and climate features. (Lesson 1) Plastics take hundreds of years to break down. They can kill organisms directly or indirectly by destroying habitats. Plastic waste is created across the world, and often ends up in oceans. (Lesson 2) The Great Pacific Garbage Patch is an area of plastic waste in the Pacific Ocean, three times the size of Spain and Portugal combined. (Lesson 3) Plastic pollution can be reduced by using less single-use plastic (e.g. plastic bags, straws) and recycling more plastic. (Lesson 4) Sustainable cities limit damage to their environment. Sustainable cities are found across the world including: Beddington (UK, Europe); Curitiba (Brazil, South America); Dongtan City (China; Asia); Melbourne (Australia, Oceania); Vancouver (Canada, North America); and Cape Town (South Africa, Africa). (Lesson 5) Case Study of what makes one of these cities sustainable and what Plymouth could learn from this city in order to live out the message of Laudato Si. (Lesson 6)	Carrying out fieldwork • The Earth's changing climate from the Ice Age to now

Di sci pli	• Mathematics: Coordinates in the first quadrant • Location: Locate places and features using 4-figure grid references • Express opinions about environmental issues with reasons Using maps: • Simple (Google maps) map; satellite image (Google Earth); junior atlas; globe; photographs of places in plan and oblique view; OS maps; thematic maps	Locate places on a world map using longitude and latitude. Evaluate responses to environmental issues.	Use Geographical Information Systems (GIS) to view, analyse and interpret places and data

YEAR A UKS2: SPRING	**Climate across the world - How does the climate differ across the World?**	
	During this unit, pupils learn about the main climate zones in the world. Pupils will learn what a biome is and explore the animals (fauna) and plants (flora) that live there. Pupils will build on their knowledge of climate change and what they can do to stop this.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

Sub			
	Science: Daytime happens when we are facing the sun; nighttime happens we are facing away from the sun • The North Pole and the South Pole are at the top and bottom of the Earth • Science: Animals and plants have adapted to life in a hot desert: camels and cacti • Science: Animals and plants have adapted to life in a cold desert: Arctic fox and shrubs • The weather is short-term. Climate is long-term summary of the weather conditions • Hot deserts have a very hot and dry climate; cold deserts have a very cold and dry climate • Lines of longitude and latitude are imaginary lines that help us locate places on Earth: Equator, Tropics of Cancer and Capricorn, Arctic and Antarctic Circle; Prime Meridian; Northern and Southern and Eastern and Western Hemispheres • A symbiotic relationship is a long-term relationship between one or more species, in which both species receive benefits • Rainforests provide the Earth with many benefits, including releasing lots of oxygen, having plants that can be used to make medicine, and they are the only home to lots of species. • Chopping down trees is called deforestation	Climate zones share long-term weather patterns. Six main ones: polar, temperate, arid, tropical, Mediterranean and mountains. (Lesson 1) Climate zones are usually found in more than one continent; and continents of Europe, North America and South America have several climate zones Some climate zones (e.g. temperate) usually have a much higher population density than others. (Lesson 2) Biomes are areas of the world that, because of similar climates, have similar landscapes, animals (fauna) and plants (flora or vegetation belt): tundra, tropical rainforests, coral reefs, temperate forests and hot deserts. Flora and fauna that have adapted to life in the tundra (Arctic hare, polar bear) hot desert (cactus, camel, Saharan silver ant, cape ground squirrel) temperate forest (deciduous and coniferous trees with thick bark, red squirrels, hedgehogs, brown long eared bats southern wood ants) coral reefs (soft coral, pistol shrimp & goby fish, reef shark. (Lesson 3) Vertical lines called meridians split the Earth into 24 different time zones. Each time zone is a number of hours ahead or behind London, at the Prime Meridian. Some countries are too large for one zone and operate in multiple time zones. (Lesson 4) Global warming relates to an increase in Earth's temperature only; it causes climate change which relates to a broader set of changes. Global warming and climate change both happen naturally, but both have been accelerated by human activity. (Lesson 5) Global warming is caused by too many greenhouse gases in the atmosphere from burning fossil fuels, agriculture and deforestation. We can prevent further climate change by using less electricity, reforestation	• In addition to global warming, plastic waste and pollution are damaging habitats across the world • Science: Adaptations can be behavioural, physiological or structural • Science: Adaptations that provide an organism with an advantage are more likely survive and reproduce. This is how species evolve • Science: The Earth's tilt creates seasons, and different day lengths and different times of the year

Enable Empower Entrust

Disciplinary	Mathematics: Number of mins in an hour; hours in a day Interpret and construct bar graphs and line graphs • World maps can be drawn from different perspectives, including the Pacific-centred map • Use an atlas to find the right map • Explain similarities and differences, using geographical knowledge • Express opinions about environmental issues with reasons Using maps: • Satellite images (Google Earth); range of photographs • Junior atlas • Globe	The Mercator projection is what is commonly used but distorts continents to make European countries look larger. Peters projection shows continents on a more accurate scale. Interpret and construct climate graphs. Using maps: Thematic maps (showing climate zones and population density).	Using a wider range of thematic maps • Recognise other map projections

YEAR A UKS2: SUMMER

Rivers and the water cycle - How do rivers determine land use in different countries?

During this unit, pupils learn that the amount of water on Earth is constant. Pupils will explore the water cycle and the idea that the majority of Earth's water is saltwater. Pupils will learn about the three river processes: erosion, transportation, deposition and that a river has three courses: upper, middle and lower.

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon

SUB	• Key human and physical features • Rivers, lakes, seas and oceans are all bodies of water. Rivers flow into lakes and seas; seas connect to oceans. Rivers travel from highland areas (the source) to lowland areas (the mouth) • Land use is how land is used by humans, and could include homes, shops, roads and open spaces • The three longest rivers in the UK are the Severn, Thames and Trent • Russia is split across Asia and Europe • Tourism is the business of supporting and encouraging people to visit a place for fun • Science: The water cycle relies on evaporation and condensation. Water is collected in the oceans from rivers and seas; it evaporates and then condenses to form clouds; it then precipitates and the cycle begins again • Science: When a solute dissolves in a solvent, a solution is formed. A solution is a mixture	The amount of water on Earth is constant. The Water cycle: Evaporation from the air, and transpiration from trees means that water vapour rises into the air. It condenses to form clouds and precipitation occurs when the clouds get heavy. Surface runoff is where water collects in lakes or rivers and is taken back to sea. (Lesson 1) Saltwater is a solution of salt dissolved in water. Freshwater has little or no salt dissolved in it. The majority of Earth's water is saltwater. Of the remaining freshwater, almost 70% is frozen in ice caps or glaciers near the North and South Poles. The distribution of freshwater is uneven across Earth, and some continents receive more precipitation than others. (Lesson 2) A river has three courses: upper, middle and lower. The structure of a river during upper, middle and lower. (Lesson 3) Three river processes : erosion, transportation, deposition. Waterfalls in the upper course, when the water erodes soft rock. Meanders form in the middle course, by erosion and deposition. Floodplains form in the lower course, by deposition. (Lesson 4) Land use includes agriculture (including fishing), recreational (including tourism), residential, industry, defence and transport. (Lesson 5) There are similar and different land uses along different stretches of the rivers Mississippi, Danube and Severn (including poor/wealthy, rural/urban areas). (Lesson 6)	• Carrying out fieldwork around a river • Formation of other river features

Disci	• Mathematics: Read scales/ number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts; Convert between units of measure, including m to km; Recognise % and know it means parts per 100 • Explain similarities and differences, using geographical knowledge Using maps: • Satellite images (Google Earth) • Photographs of places in oblique /plan views • OS maps • Junior atlas	Calculate distances on a map using scale (1 unit : 1, 2, 4, 5 or 10 units). Location & place: Human and physical features around a local river and Danube, Mississippi and Severn rivers. Location & place: Distribution of the world's water.	Draw a basic map using scale of 1 unit : 1, 2, 4, 5 or 10 units

YEAR B UKS2: AUTUMN	The Americas - World Trade - Where does our food and other natural resources come from?	
	In this unit, the children find out the countries that make up North and South America and how these have varied climate zones allowing for the production of varied natural resources. They will learn about how goods and services are traded around the world. They will explore the UK's trade links, finding out about goods imported and exported and the methods of transport used. The children will learn about the benefits of trading internationally, as well as the risks to this area.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB	While the school and community are at the local scale, and countries are at the national scale, continents are at the global scale • The weather is short-term. Climate is long-term summary of the weather conditions • Science: A fossil is physical evidence of an ancient plant or animal • Agriculture is the farming of plants (arable) and animals (pastoral) to eat • Countries in the world can be classified as low, medium or high-income countries (LIC, MIC, HIC)	North America is made up of 23 countries, across Northern America, Central America and the Caribbean. It is surrounded by the Arctic, Atlantic; Pacific. There are five regions of North America: Mountainous West, Great Plain, Canadian Shield, Eastern Region and Caribbean. South America is made up of 12 countries and two territories. (Lesson 1) North and South America have a variety of climates, from the dry, bitter cold of the Arctic and Antarctic to the steamy heat of the tropics. (Lesson 2) Trade is the process of buying and selling goods. Imports are goods that are brought into the country. Exports are goods that are traded out of the country. (Lesson 3) The UK imports food from across the world. There have been changes in what is grown where, how it is farmed, how it is transported and how it is sold. Fair trade is a way of making sure that farmers are paid a fair price for the food they grow. (Lesson 4) Natural resources are substances that occur naturally in the environment, like wood, food, water and fossil fuels. Fossil fuels are materials made from fossils over millions of years, like coal and oil. Humans use these to run cars and electrical items. (Lesson 5) Natural resources are unevenly distributed across the world, and can be renewable or nonrenewable. (Lesson 6)	Burning fossil fuels is contributing to global warming and climate change • Distribution of the world's water • Science: fossil fuels are a nonrenewable energy store

Disciplinary	• Mathematics: Coordinates in the first quadrant • Science: Design a table to collect data with the appropriate number of rows and columns and correct headings • Recognise simple hazards and plan steps we can take to reduce them • Give and interpret standard OS symbols • Locate places and features using letter and number coordinates on a map Using maps: • Simple maps (Google maps); Satellite images (Google Earth); OS maps	Locate places using 4-figure grid references. Express opinions about environmental issues with reasons. Location & place: Locating countries in North and South America. Geographical scale: Trade takes place at the local, national and global scale; over time, trade has tended to become more and more global. Interconnections: Many places at the local, national and global scale rely on trading with other places across the world.	• Locate places using 6-figure grid references • Locate places using longitude and latitude coordinates

YEAR B UKS2: SPRING	On the Move - Why do people migrate from one location to another?	
	In this unit, pupils will learn what migration is and the difference between immigration and emigration. They will explore push and pull factors for migration and they will learn that forced migration leads to asylum seekers. They will learn how asylum seekers form only a small percentage of UK immigrants and that immigration has a positive impact on the UK, making links to the messages of Fratelli Tutti.	
Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

S u b	• There are poorer and wealthier areas in every county and city • We can categorise effects into social, economic and environmental • Countries in the world can be classified as low-, middle- or high-income countries. HICs, MICs and LICs appear in all continents (• North America is made up of 23 countries, across Northern America, Central America and the Caribbean • North America is surrounded by the Arctic, Atlantic and Pacific Ocean	Maslow's hierarchy of needs show what humans need to survive and thrive. Migration is the process of moving from one place to another. It does not have to be between countries, but where it is it is called immigration (in) or emigration (out). (Lesson 1) People migrate because of push and pull factors. Push factors force people out of where they live currently. Pull factors attract them to where they are migrating to. (Lesson 2) Case study: El Salvador, Guatemala, Honduras (Northern Triangle) to USA. Push factors encouraging people to emigrate from the Northern Triangle include violent crime and poverty. Pull factors encouraging people to migrate to the USA include lower rates of violent crime, prospect of higher-paid jobs and family reunification. 'The American Dream' does not come true for a lot of immigrants. (Lesson 3) Forced migration occurs when people can no longer live safely in their country. When people are forced to leave their country, they seek asylum in another country. (Lesson 4) Asylum seekers make up a very small proportion of immigrants to the UK. This number can be misrepresented by the media. (Lesson 5) The UK has benefited from immigration in many ways (economic, social and cultural). (Lesson 6)	• Further case studies of migration, exploring push and pull factors in more depth

Disciplinary	• Identify country boundaries on a map • Identify similarities and differences between two non-local places • Explain similarities and differences, using geographical knowledge • Interpretation: Express opinions about environmental issues with reasons Using maps: • Simple (Google maps) map; satellite image (Google Earth); junior atlas; globe; photographs of places in plan and oblique view; OS maps; thematic maps	Express opinions about environmental issues with reasons. Location & place: Locating Northern Triangle in relation to the USA. Geographical scale: Migration takes place at the local, national and global scale; over time, migration has tended to become more and more global. Interconnections: Migration is usually the result of a related set of push and pull factors.	
YEAR B UKS2: SUMMER		**I am a geographer - What can I do to make our school and local community more eco-friendly?** In this unit, the children will work together to create questionnaires and surveys in order to identify an aspect of our school or community that they feel they can make more eco-friendly. They will apply their previous knowledge from across the curriculum and previous geography units to create, carry out and review an initiative that will have a positive impact on our school/community, living out the teachings of Laudato Si and helping the school to achieve gold eco award status.	
	Required prior knowledge	**Knowledge to be explicitly taught**	**How knowledge will be built upon**

SUB		No new substantive content to be delivered.	

Di s ci	• Recognise simple hazards and plan steps we can take to reduce them • Draw a basic field sketch of what can be seen • Draw an object to scale • Use and interpret 8 compass points • Locate places and features using 4-figure grid references • Locate places on a world map using longitude and latitude • Give and interpret standard OS symbols Science: • There are four main stages of enquiry: Planning; Measuring & Observing; Recording & Presenting; Analysing & Evaluating • Scientists look for patterns in data to try to identify correlations • Set a hypothesis to test • Select most appropriate equipment to measure (the variables) that will give you the best chance of an accurate result • A dependent variable is what you measure; an independent variable is what you change; controlled variables are things that stay the same • Scientists must work out if the factor is the cause of the outcome in a correlation • Write an appropriate method • Draw diagram of the investigation •Anomalous results should be discarded and re recorded • Data is repeatable if the same person repeats the investigation and gets the same results; data is reproducible if the investigation is repeated by a different person and the results are the same • Taking multiple readings allows you to see if your data is repeatable, helps identify outliers and allows a mean to be calculated • Design a table to collect data with the appropriate number of rows and columns and correct headings • Record numerical or descriptive observations in a table • Decide which graph is most appropriate for the enquiry • Draw conclusions (e.g. 'the greater the… , the greater the…')	Draw a basic map to scale (1 unit : 1, 2, 4, 5 or 10 units). Create questionnaires and surveys. Locate places and features using 6-figure grid references. Produce a detailed risk assessment.	Plan and undertake complete investigations undertaken in contrasting locations • Carry out fieldwork independently from the teacher • Calculate distances on a map using a range of scales • Recognise and select the most appropriate projection • Draw accurate maps using a range of scales • Use Geographical Information Systems (GIS) to view, analyse and interpret places and data • Interpret contours as a representation of height

Plymouth CAST

Be who God made you to be and you will set the world on fire.

KEYHAM BARTON
Catholic Primary
School

Enable *Empower* *Entrust*