Year 4 Geography Overview

Key Concepts	NC PoS Reference	Vocabulary	Knowledge (specific facts or truth components. A knowledge statement will often contain substantive, declarative or explicit knowledge.) Composite Knowledge Specific Knowledge – Component Knowledge	Skills (the use and application of composite knowledge. A skill statement will often contain implicit, procedural and disciplinary knowledge.)
Year 4 Invasion – History focus Key Concepts: **Geographical resources** 1 Programme of study, 1 skills and 2 knowledge statements	Y4 Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.	Geographical change barrier boundary geographical feature map topography	**core knowledge** An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. **specific knowledge** The geography of Britain affected invading groups in many ways. Physical features, such as the sea, high cliffs, marshland and mountains made invasion and travel in Britain difficult and affected which area the invaders landed in and conquered. Physical features, such as roads and bridges could have helped invading forces, but hillforts would have created barriers between the invading forces and the Britons.	Y4 skill 1 Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping.
Year 4 Interconnected World – Geography focus Key Concepts: **Climate and weather** **Fieldwork** **Geographical resources** **Human features & landmarks** **Location** **Maps**	Y4 Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.	**Location** Northern Hemisphere Southern Hemisphere Tropic of Cancer Tropic of Capricorn degrees equator line of latitude mangrove north rainforest south tropics	**core knowledge** The North American continent includes the countries of the USA, Canada and Mexico as well as the Central American countries of Guatemala, Honduras, Nicaragua, Costa Rica and Panama. The South American continent includes the countries of Brazil, Argentina, Chile, Colombia, Peru, Venezuela, Uruguay, Ecuador, Bolivia and Paraguay. **specific knowledge** Political maps show the locations of countries and cities. Physical maps show the locations of physical features.	Y4 skill 4 Locate the countries and major cities of North, Central and South America on a world map, atlas or globe.

Position **Settlements & land use** **Sustainability** **UK** **World** 8 Programmes of study, 11 skills and 25 knowledge statements		**Climate and weather** Mediterranean climate climate zone contrasting climate desert equator polar summer temperate temperature tropical weather winter **Fieldwork** chart conclusion data collection enquiry evidence fieldwork graph hypothesis improve interpret investigation local area present survey table **Sustainability** bioenergy biogas carbon dioxide fossil fuel geothermal energy hydroelectric power non-renewable energy renewable energy solar panel solar power wind farm wind power **UK** Anglesey England Grampian Mountains Lake Windermere	**specific knowledge** Atlases often contain additional data about countries, such as their population and land height. **specific knowledge** Cultural studies of a country include the language, religion and values of the people who originate from, or live in, a particular place.	
	Y4 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.		**core knowledge** Significant rivers of the UK include the Thames, Severn, Trent, Dee, Tyne, Ouse and Lagan. Significant mountains and mountain ranges include Ben Nevis, Snowdon, Helvellyn, Pen y Fan, the Scottish Highlands and the Pennines. **specific knowledge** Significant physical features of the UK include mountains, rivers, islands, lakes and forests.	Y4 **skill** 1 Create a detailed study of geographical features including hills, mountains, coasts and rivers of the UK.
	Y4 Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).		**core knowledge** The Tropic of Cancer is 23 degrees north of the equator and Tropic of Capricorn is 23 degrees south of the equator. **specific knowledge** The tropics is an area of significance between the Tropic of Cancer and the Tropic of Capricorn.	Y4 **skill** 1 Identify the location of the Tropics of Cancer and Capricorn on a world map.
	Y4 Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.		**core knowledge** Climatic variation describes the changes in weather patterns or the average weather conditions of a country or continent. **specific knowledge** Countries nearer the equator are hotter and countries further from the equator are colder. Some countries have contrasting climate zones. **specific knowledge** Physical features, such as mountains and rainforests, can affect the climate.	Y4 **skill** 2 Explain climatic variations of a country or continent.

	Y4 Describe and understand key aspects of 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.	Lindisfarne Llyn Tegid Loch Ness Lough Neagh Mourne Mountains New Forest Northern Ireland Orkney Islands Pennines Portglenone Forest Rathlin Island River Bann River Tay River Trent River Wye Rothiemurchus Forest Scotland Snowdonia United Kingdom Wales Wentwood Forest forest island lake loch mountain physical feature river **World** Argentina Belize Bolivia Brazil Canada Chile Colombia Costa Rica Ecuado El Salvador French Guiana Greenland Guatemala	core knowledge Human features can be interconnected by function, type and transport links. specific knowledge Principle routes link major towns and cities across the country. Many principal routes terminate in London. Railway stations are sometimes linked to ferry interchanges and airports.	Y4 skill 1 Describe a range of human features and their location and explain how they are interconnected.
		core knowledand uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. specific knowledge The canals in Britain are man-made waterways that were created during the Industrial Revolution to transport raw materials and goods around the country. Locks, tunnels and aqueducts are all features of canals. Canals declined when railways and roads developed but were conserved after the Second World War and are used for recreation and leisure today.	Y4 skill 1 Explain ways that settlements, land use or water systems are used in the UK and other parts of the world.
		core knowledgeThe environment produces natural resources. Humans use some natural resources to make energy. Some natural resources cannot be replaced, like coal or oil. They are non-renewable. Some, like wind or flowing water, are renewable sources of energy. specific knowledgeRenewable energy includes solar power, wind power, hydropower, geothermal energy and bioenergy.	Y4 skill 1 Describe how natural resources can be harnessed to create sustainable energy.
	Y4 Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.	core knowledgeAn atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area.	Y4 skill 1 Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping.

	Y4 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.	Guyana Honduras Mexico Nicaragua North America Panama Paraguay Peru South America Suriname The Caribbean United States of America Uruguay Venezuela city continent country culture language religion values world **Position** cardinal compass point cardinal directions compass compass rose direction east features intercardinal point key map north north-east north-west plotting position south south-east south-west west **Maps** Ordnance Survey map easting four-figure grid reference grid reference grid square	core knowledgeA six-figure grid reference contains six numbers and is more precise than a four-figure grid reference. The first three figures are called the easting and are found along the top and bottom of a map. The second three figures are called the northing and are found up both sides of a map. Six-figure grid references give detailed information about locations on a map. specific knowledgeWhen giving a four-figure grid reference, give the two-digit eastings first followed by the two-digit northings. specific knowledgeA four-figure grid reference locates a square on a map.	Y4 skill 3 Use four or six-figure grid references and keys to describe the location of objects and places on a map.
			core knowledgeThe four cardinal directions are north (N), east (E), south (S) and west (W), which are at 90° angles on the compass rose. The four intercardinal (or ordinal) directions are halfway between the cardinal directions: north-east (NE), south-east (SE), south-west (SW) and north-west (NW). specific knowledgeDirections can be given using cardinal and intercardinal compass points.	Y4 skill 1 Use the eight points of a compass, four and six-figure grid references, symbols and a key to locate and plot geographical places and features on a map.
	Y4 Are competent in the geographical skills needed to: collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes; interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS); communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.		core knowledgeFieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. specific knowledgeA hypothesis is a statement that is then proved or disproved by gathering and interpreting evidence.	Y4 skill 1 Investigate a geographical hypothesis using a range of fieldwork techniques.

		horizontal axis human feature location marker northing physical feature six-figure grid reference vertical axis **Geographical Resources** Atlas Chart Map Physical map Political map **Settlement and land use** aqueduct canal leisure lock recreation towpath transportation tunnel **Human features and landmarks** National Rail network airport city ferry interchange human feature interconnection principal route railway station town train transport link		
Year 4 Mist Mounting Winding River – Geography focus Key Concepts: **Compare and contrast** **Data analysis** **Environment** **Geographical change**	Y4 Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.	**Compare and contrast** V-shaped valley altitude bog delta downstream elevation estuary floodplain flow gully	**core knowledge**Significant mountain ranges include the Himalayas, Urals, Andes, Alps, Atlas, Pyrenees, Apennines, Balkans and Sierra Nevada. Significant rivers include the Mississippi, Nile, Thames, Amazon, Volga, Zambezi, Mekong, Ganges, Danube and Yangtze.	Y4 skill 1 Name, locate and explain the importance of significant mountains or rivers.

Geographical resources **Maps** **Natural & man-made materials** **Physical features** **Physical processes** **Settlements & land use** **Significant places** **UK** 9 Programmes of study, 14 skills and 24 knowledge statements	Y4 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.	interlocking spur lake meander mountain mouth oxbow lake physical feature rill river riverbed source spring stream tributary waterfall **Human features and landmarks** Human feature **Settlement and land use** crops energy farming floodplain food freshwater goods habitat hydroelectric power irrigate leisure natural resource renewable river settlement transport **Geographical change** delta deposition erosion floodplain flow landscape meander rock sediment soil transportation	**core knowledge**Significant rivers of the UK include the Thames, Severn, Trent, Dee, Tyne, Ouse and Lagan. Significant mountains and mountain ranges include Ben Nevis, Snowdon, Helvellyn, Pen y Fan, the Scottish Highlands and the Pennines. **specific knowledge**There are four mountain ranges in the UK that are home to each country's highest mountain: Ben Nevis, in the Grampian Mountains, Scotland; Scafell Pike, in the Cumbrian Mountains, England; Snowdon, in the Snowdonia Mountains, Wales; and Slieve Donard, in the Mourne Mountains, Northern Ireland. **core knowledge**Topography is the arrangement of the natural and artificial physical features of an area. **specific knowledge**A contour line is a line on a map that joins areas of equal height and shows the elevation of features in the landscape.	Y4 **skill** 1 Create a detailed study of geographical features including hills, mountains, coasts and rivers of the UK. Y4 **skill** 2 Identify the topography of an area of the UK using contour lines on a map.
	Y4 Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America.		**core knowledge**A physical feature is one that forms naturally and can change over time due to physical processes, such as erosion and weathering. Physical features include rivers, forests, hills, mountains and cliffs. An aspect of a physical feature might be the type of mountain, such as dome or volcanic, or the type of forest, such as coniferous or broad-leaved. **specific knowledge**A river is a body of water that flows downhill, usually to the sea. The place where a river starts is called the source. Tributaries are small rivers or streams that flow into larger rivers or lakes. Meanders are bends in rivers. The place where a river flows into the sea is called the mouth. **specific knowledge**A mountain is a natural elevation of the Earth's surface, rising to a summit. Mountains have an elevation greater than that of a hill, usually greater than 610m.	Y4 **skill** 2 Describe and compare aspects of physical features.
	Y4 Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and		**core knowledge**Rivers transport materials in four ways. Solution is when minerals are dissolved and carried in the water. Suspension is when fine, light material is carried. Saltation is when small pebbles and stones are	Y4 **skill** 1 Describe and explain the transportation of materials by rivers. Y4 **skill** 1 Describe the properties of different types of soil.

	earthquakes, and the water cycle.	water waterfall wind **Geographical resources** Ordnance Survey map atlas map sample sampling satellite map topography **Data analysis** cause compare effect human identify map measure physical record report research **Natural and man-made resources** clay deposition erosion loam rock sand sediment silt soil transportation **Environment** altitude altitudinal zone climate forest glacier habitat landscape oxygen rainforest tundra **Physical features** anticline	carried along the riverbed. Traction is when large boulders and rocks are rolled along the riverbed. **core knowledge** Different types of soil include clay, sandy, silty and loamy. **specific knowledge** A layer of soil covers much of the land on Earth. It is made of rock particles, air, water and humus, which is decayed plant and animal material. The properties of soil include texture, structure, porosity, chemistry and colour. Loam is a soil type with roughly equal amounts of sand, silt and clay particles. Loam is good for plant growth. **core knowledge** Altitudinal zonation describes the different climates and types of wildlife at different altitudes on mountains. Examples include forests that grow at low altitudes and support a wide variety of plants and animals, tundra that is found at higher altitudes and supports plants and animals that are adapted to harsher environments, and the summits of mountains, which are usually covered in ice and snow and don't support any life. **core knowledge** Mountains form over millions of years. They are made when the Earth's tectonic plates push together or move apart. Mountains are also formed when magma underneath the Earth's crust pushes large areas of land upwards. There are five types of mountain: fold, fault-block, volcanic, dome and plateau. **core knowledge** Water cannot be made. It is constantly recycled through a process called the water cycle. The four stages of the water cycle are evaporation, condensation, precipitation and collection. During the water cycle, water changes state due to heating and cooling.	Y4 **skill** 1 Describe altitudinal zonation on mountains. Y4 **skill** 1 Identify, describe and explain the formation of different mountain types. Y4 **skill** 1 Use specific geographical vocabulary and diagrams to explain the water cycle.
	Y4 Describe and understand key aspects of 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.		**core knowledge** Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. **specific knowledge** Rivers are used for leisure, farming, generating energy, transportation and settlements.	Y4 **skill** 2 Explain ways that settlements, land use or water systems are used in the UK and other parts of the world.

		base dome face fault-block fold hill lava magma mountain peak plate boundary plateau range ridge slope snow line summit syncline tectonic plate tree line valley volcanic **Physical processes** change of state cloud collection condensation condense cool evaporate evaporation hail heat precipitation rain sleet snow temperature water cycle **Significant places** energy farming goods leisure mountain natural resource range river		
	Y4 Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.		**core knowledge** An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. **specific knowledge** Rivers, and the landscape that surrounds them, have different characteristics. The upper course of a river is typically steep, narrow and rocky. The water is fast-flowing and turbulent. The middle course of a river is wider, deeper and curves in meanders. The water flows more slowly. The lower course of a river is flat and wide. The water runs into estuaries or creates deltas.	Y4 skill 2 Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping.
	Y4 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.		**core knowledge** A six-figure grid reference contains six numbers and is more precise than a four-figure grid reference. The first three figures are called the easting and are found along the top and bottom of a map. The second three figures are called the northing and are found up both sides of a map. Six-figure grid references give detailed information about locations on a map. **specific knowledge** The River Trent is the third longest river in the UK. The river has a range of physical and human features along its course.	Y4 skill 2 Use four or six-figure grid references and keys to describe the location of objects and places on a map.
	Y4 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.		**core knowledge** Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. **specific knowledge** Flooding can happen for a wide variety of natural and human reasons including excessive rainfall, lack of river dredging, land use and the topography of the land. Flooding can cause a wide range of problems including damaging property and equipment, contaminating farmland and cutting people off from vital services and supplies of food and water.	Y4 skill 1 Collect and analyse primary and secondary data, identifying and analysing patterns and suggesting reasons for them.
	Y4 Understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they		**core knowledge** Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation. **specific knowledge** Erosion involves the wearing down of rock and soil found along the riverbed and banks. Erosion also involves the breaking down of the rock	Y4 skill 2 Explain how the physical processes of a river, sea or ocean have changed a landscape over time.

	bring about spatial variation and change over time.	settlement transport **Maps** easting four-figure grid reference grid reference location northing six-figure grid reference **Position** cardinal point compass east grid reference intercardinal point location north north-east north-west south south-east south-west west **World** Africa Asia Australia (Oceania) Europe North America South America continent country **UK** climate contour line grid reference landscape leisure mountain peak range river settlement topography tourism wildlife	particles being carried downstream by the river. Transportation is the movement of materials in rivers as they flow downstream. Deposition occurs when a river loses energy and material being carried is dropped or deposited.	

Year 4 Electrical Circuits and Conductors - Science focus Key Concepts: **Sustainability** 1 Programme of study, 1 skills and 2 knowledge statements	Y4 Describe and understand key aspects of 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.	**Sustainability** bioenergy climate change conserve geothermal power hydroelectric power natural resource pollution renewable renewable energy source save solar power sustainable wind power	**core knowledge**The environment produces natural resources. Humans use some natural resources to make energy. Some natural resources cannot be replaced, like coal or oil. They are non-renewable. Some, like wind or flowing water, are renewable sources of energy. **specific knowledge**The modern world would not function without electricity. Most electricity is produced in power stations by burning fossil fuels. Sustainable, renewable sources of electricity are solar power, wind power, hydroelectric power, geothermal energy and bioenergy	Y4 skill 1 Describe how natural resources can be harnessed to create sustainable energy.