Geography Substantive knowledge at Morley Primary School

	R – Class 1	Year 1 – Class 1	Class 2		Class 2/3	Class 3	
Locational 'place' knowledge	Know their place where they live. Be able to describe immediate features of where they live.	Know their address. Know that their school is located in the village of Morley. Name towns within locality – Derby – Pride Park, Derby Cathedral. Identify key landmarks in Derby and London e.g. Buckingham Palace, Big Ben/Palace of Westminster, London Eye.	Can find where they live on a map. Can name a range towns/cities in the Uk e.g. Derby, Nottingham, Birmingham, London, etc Knows 4-point compass. Know where Derby is in relation to the capitals e.g. Derby is North of London, South of Edinburgh, East of Cardiff, West of Nottingham. Identify key landmarks in places in the UK e.g. Edinburgh Castle, Angel of North. Name islands of UK e.g. *Channel Islands, Isle of Wight.*	Compare and contrast UK to a European and North / South America. Widens identification of place in UK: *North East, North West, Yorkshire and the Humber, West Midlands, East Midlands, East Anglia, (Greater) London, South East, South West, Orkney, Shetland, Hebrides, archipelago.*	Explain the difference between UK and Great Britain and British Isles. Name and locate major counties and cities in the UK (*Derbyshire, Leicestershire, Nottinghamshire, Yorkshire, Staffordshire, Lincolnshire, Lancashire, East Anglia, Essex, Sussex, Kent)* Name and locate major national parks: *Peak district, Lake district, Exmoor, Dartmoor, Yorkshire Dales.*	Use 8-point compass to locate countries and capitals/cities. Can name mountains – *Ben Nevis, Scafell Pike, Snowden, Kinder Scout, Bleaklow, Himalayas – Everest, K2 and volcanoes – Mount Vesuvius, Etna, Eyjafjallajökull.*	Challenge knowledge: use 16-point compass to locate places. Understand global connections — trade, migration, and interdependence. Reflect on our place in the world.
Locational knowledge 'space'		Name 4 countries of UK and name on a map. Knows London is the capital city of England. Name the capital cities of 4 countries of UK and name the seas: *North Sea, English Channel, Irish Sea, Atlantic Ocean inc North and South Atlantic.* Compare and contrast localities inc	Name all oceans of the world and name the continents and can locate on maps. Continents: *Europe, Africa, Asia, North and South America, Antarctica, Australasia,* Compare and contrast locality inc non-European country, including vocabulary such as: *poles, equator, NSEW.*	Name countries in North and South hemispheres *Arctic Circle, Antarctic Circle, tropics/tropical, hemisphere* Can locate the tropics (*Cancer, Capricorn*) on a map and discuss vocabulary which is appropriate e.g. *climate zones, vegetation belts (forest, grassland, tundra, desert, ice sheet), climate, soil, tropical, temperate* Identify countries in Europe and Russia, Eurasia.	Name countries in each hemisphere (NSEW) Identify location countries in the rest of world of *China, Japan, Australia, India, Pakistan, Israel, Egypt, Nigeria, Kenya, South Africa* and identify in relation to NSEW of each other. Name and locate (with their capitals): *Canada, USA*	Use longitude and latitude to locate places. Prime/Greenwich Meridian and time zones (including day and night) inc zero degrees. Make reasonable judgements on where an image has been taken based on physical features. (*level of infrastructure, appearances/clothing*)	Can name and locate global landmarks, 7 wonders of the world. Make reasonable judgements on where an image has been taken based on physical and human features. (*Drive on the left/right, language on signs*) To know the countries through which many refugees journey to get to Derbyshire – *Syria, Afghanistan,*

		non-European country: *desert, hot, cold, city, town, village, factory, farm, house, shop, weekend, journey, abroad, capital, country*	Can locate places based on locality to equator and North and South poles. Name and locate significant rivers – *Thames, Trent, Derwent*	Can name and locate significant rivers within the UK & global – *Nile, Amazon, Ganges, Mississippi* Make reasonable judgements on where an image has been taken based on physical features. (*Continents*)	*(also New York, San Francisco, LA) Mexico, Brazil, Argentina, Panama* and identify in relation to NSEW of each other. Make reasonable judgements on where an image has been taken based on physical features. (*Climate zones, temperate, tropical, polar, biomes*)		*Ukraine, Greece, Macedonia, Serbia, Croatia, Slovenia, Austria, Germany, France*
Physical features	Describe current weather conditions – *hot, cold, wet, dry, snowing, raining* To identify key physical features within the local environment – *trees, rivers, lakes, plants*	Describe weather conditions in a given image using accurate vocabulary To identify key physical features within given environments – *soil, vegetation, beach, ocean, forest, hill, sea* Identify seasonal weather patterns in the UK. Know whether poles and the equator are hot or cold areas Know the main things that are found in hot and cold places and what people would wear – *snow, sand, hats, gloves, scarves, shorts, sunglasses*	Use increasingly technical language to describe weather – *fog, drizzle, downpour,* To identify key physical features within contrasting environments (UK, non-European country) Identify seasonal and daily weather patterns around the world, knowing that seasons differ in different parts of the world. Know the location of hot and cold areas of the world in relation to the equator and poles.	Use accurate and relevant technical language to describe the weather – *humidity, temperature, sunshine hours* *Name the stages of a river and the surrounding landscape from source to mouth – Source, upper course, middle course, lower course, mouth, confluence, delta, estuary, tributary* To identify key physical features with increasing accuracy – *loamy soil, clay soil, arable land, pastoral land* To know that water moves in a cycle – *evaporation, condensation, precipitation and condensation.* To understand that precipitation can take multiple forms – *snow, hail, rain, sleet* To know the key physical features on a specific map – *isobars: weather, contours: topography, symbols: ordnance survey*	Describe the regular weather patterns/conditions within climate zones and compare/contrast between them – *humid, temperate, tropical, cyclonic, subtropical.* To know that water moves in a cycle of evaporation, condensation, precipitation and condensation and the physical features that are involved in the processes – *altitude, basin, watershed, temperature change,* *Know the names of features of a river within each stage and the surrounding landscape from source to mouth – V-shaped valley, u-shaped valley, floodplain, levee, bed, channel, meander, oxbow lake* To identify vegetation belts, biomes and climate zones	Use accurate and precise technical language to describe the weather – *high pressure, low pressure, intermittent showers,* Use geographical vocabulary to describe the physical features of a volcano – *Active, Core, Crust, Dormant, Epicentre, Extinct, Fault Line, Fissure, Magma, Mantle, Tectonic Plates, Vent, Volcanologist, Hotspots* Understand how volcanoes are formed using knowledge of tectonic plate boundaries and movement. Know that 75% of active volcanoes are located on the Ring of Fire. Know the stages of a volcanic eruption and the range of dangers these can pose to humans and the landscape surrounding the volcano. To know the physical factors involved in	Use geographical vocabulary to describe the physical features of mountains – *Altitude, contour, crust, erosion, fold mountain, gorge, latitude, longitude, peak, plateau, ridge, summit, terrain, topography* Know the different ways that mountains can be formed and link this to the formation of Derbyshire mountains, as well as famous mountains around the world. Understand what the climate of different mountain peaks is like. Compare the climate of Mount Everest with Derbyshire mountains.

				Identify the key physical features within Morley using a given map (OS/topographical/satellite) and accurately describe land use using present clues.	To know the key physical features on a map and that different maps have different purposes – *topographic, weather, scale, ordnance survey* Identify the key physical features within a given place, using a OS, topographical or satellite imagery and accurately describe land use using present clues.	people becoming refugees – *climate, extreme weather, cyclones, flooding, earthquakes, tsunami*	
Human features	To identify human features within the local environment – *buildings, roads, towns, cities* To know of land uses within the immediate locality – *farming, schools, shops.*	To identify differences between physical and human features in their present environment and within images of places in a global context. To know of the types of settlement within the UK, and examples – *village; Morley, Breadsall. Town; Ilkeston, Heanor. City; Derby, Nottingham, Chesterfield.* To know of large local trading establishments and inventions – *Supermarkets, Rolls Royce, Action Man* To know different energy sources that are used for human activity – *fuel (coal, petrol, oil, gas, wood)*	To identify key human features in the environment using images, and maps – *cities, towns, roads, farms, schools, tourist information* To know of the types of settlement found throughout the world, including – *Megacities; Tokyo, Los Angeles, New York, London, Delhi* Know that countries trade with each other to ensure people around the world have what they need. To know that humans use renewable and non-renewable energy sources.	To identify key human features in the environment using images, and maps – *reservoirs (Ladybower, Derwent, Carsington)* Know the different types of environmental pressures on the local area – *biodiversity loss, air pollution, water pollution, light pollution, leaching* Explain environmental issues relevant within their locality and suggest a realistic way to improve – *littering, air pollution, water pollution, light pollution* Know local traders that import and export and export based on supply and demand, and that this changes within seasons. – *import; supermarkets, export; Rolls Royce* *To know of the renewable energy sources found throughout the UK – solar panels, wind turbines, tidal power, hydroelectric*	Explain environmental issues relevant to a contrasting locality in a more global context and suggest a realistic way to improve – *drought, irrigation, flood, flood management* Know that different areas in the world have different trade centres based on natural resources (including energy, food, minerals and water)	Why people might choose to live in close proximity to an active volcano and the precautionary measures they can put in place. Know the life cycle of plastic production and decomposition and its impact on the environment – *decomposition, bio-degradable* Identify landfill and waste reclamation sites in Derbyshire with given mapping software/imaging. To know the political factors involved in people becoming refugees – *dictatorship, civil war, conflict.* Understand that, within 'non-renewable' energy, there are cleaner or more sustainable alternatives	To know the social and political factors involved in people becoming refugees – *persecution, religious refugees, sexuality, gender-based discrimination, trade and food production (caused by physical factors), dictatorship, civil war, conflict.* To know the difference between refugees, IDPs (Internally Displaced Person), asylum seekers and migrants.

						– *(e,g nuclear compared to coal)*	

Substantive Concepts

	Substantive concept
Location	Knowing where places are and having spatial awareness of different countries using maps of the world and other sources leading to a detailed understanding of their environmental regions, physical and human characteristics, countries and cities.
Place and space	Understanding the geographical similarities, differences and links between places and region. Understand that places can be represented differently and how they are represented can affect our perceptions e.g. 'inner city'.
Physical world	Understanding the processes that give rise to key physical features of the world, how they are interdependent and how they bring about spatial variation and change over time.
Human environment	Understanding the processes that give rise to key human features of the world, how they are interdependent and how they bring about spatial variation and change over time.
Interdependence and sustainability	The significant links between places, features, events and people. It examines the importance and impact of maintaining, modifying or breaking connections and the impact this has upon the long-term health of our planet, its people and environments.
Cultural difference	Understanding the differences between themselves and people from other countries or other backgrounds, especially differences in attitudes and values.
Scale	This key concept provides the lens to look at the world from a small site, to local, regional, national, continental, oceanic areas to the whole world. Investigating at different scales enables many relationships, patterns and connections to be identified and supports pupils in making predictions.

These substantive concepts run throughout the wider curriculum and are present in everyday conversations, and particularly in lessons such as PSHE, RE, Science, History and within school assemblies. Particularly in History/Science driven topics, these underlying concepts will provide a geographical presence throughout the school year, even when other subjects' knowledge may be a more prominent focus.

Disciplinary Skills

Graphicacy skills: mapping

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Keys and symbols:	**Keys and symbols:**	**Keys and symbols:**	**Keys and symbols:**	**Keys and symbols:**	**Keys and symbols:**
Use basic symbols in a key	**Use basic symbols in a key. Use and construct basic symbols in a key**	**Use keys to build knowledge/re-search**	**Use complex keys to build knowledge** e.g. making quantitative estimates based on size of symbol	**Start to create complex keys using mathematical concepts** e.g. size of symbol for quantity	**Create complex keys**
		Start to understand complex keys e.g. size of symbol for quantity	Understand contour lines		
	Recognise and identify basic OS symbols	Start to understand contour lines			
Read maps:	**Read maps:**	**Read maps:**	**Read maps:**	**Read maps:**	**Read maps:**
Follow a simple map (e.g. buildings, roads, fields, or use one for a treasure hunt in the school grounds)		**Use maps [atlases, and globes] to locate and to start to describe features**	**Use the contents and index of an atlas**	**Use maps and atlases, globes and digital/computer mapping to locate and describe features**	Explain how types of map give different perspectives / show prejudice (e.g. the Peters Projection)
			Use oblique and aerial views.	**Use 6 figure grid references to build knowledge**	
	Use simple grid references to locate squares on a map (e.g. A1, D7)	**Use 4 figure grid references to build knowledge** (i.e. research)	**Start to use 6 figure grid references**	Relate differently-scaled maps to each other	
		Work out simple distances from a map (e.g. aerial distance, or along a straight road)	Use a scale to reasonably estimate distances (e.g. along roads/waterways)	Explain ideas using a thematic map for reference	
			Start to explain ideas using a themat-ic map for reference	Scale by simple fractions (from Maths National Curriculum)	Confidently use distribution/ thematic maps to illustrate an idea or discussion
Draw maps / plans:	**Draw maps / plans:**	**Draw maps / plans:**	**Draw maps / plans:**	**Draw maps / plans:**	**Draw maps / plans:**
Trace around simple map shapes to reproduce symbols	**Devise a simple map** (e.g. sketch map of places in stories, school grounds)	**Create a sketch map** - e.g. of a short route, or a building plan with simple symbol.	Draw a map or plan from a description	Start to draw thematic maps	Design and draw distribution/ thematic maps
		Start to draw to scale (positive integer scaling and simple correspondence - from Maths National Curriculum)	Create a scale-bar	Create a map from Fieldwork meas-urements	
			Draw cross-sections (harder integer correspondence, from Maths National Curriculum)		
Digital maps:	**Digital maps:**	**Digital maps:**	**Digital maps:**	**Digital maps:**	**Digital maps:**
With support, do a simple location or post-code search online	**Use digital technologies:** zoom in/ out on a map	Start measuring distance on Digimaps	Accurately measure distance, including non-linear distances	Use linear and area measuring tools	Use linear and area measuring tools accurately
	Begin to highlight and annotate digital maps	'Zoom' for a purpose and explain the scale	Annotate digital maps with markers, text, photographs, hyperlinks, etc	Start to use digital maps (and selections from them) at different scales, to illus-trate a point	Use careful selections from digital maps to illustrate points verbally (e.g. with .ppt) or in written form (e.g. .pub, .doc)
		Annotate digital maps with text			

Fieldwork & Practical Skills

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Use a compass:	**Use a compass:**	**Use a compass:**	**Use a compass:**	**Use a compass:**	**Use a compass:**
Use North, South, East, West for simple navigation e.g. in a rectilinear maze in the playground	Use North, South, East, West to describe locations and routes on a map	Start to use eight points of a compass - and link to magnets and poles (Science)	Confidently use the eight points of a compass	Convert between eight compass points and azimuth bearings	Show awareness of the 16-point compass rose, and compass quadrant bearings
Describe position, direction and movement (from Maths National Curriculum)	Connect idea of turns to right angles (from Maths National Curriculum)	Start to use idea of degrees to measure turns (from Maths National Curriculum)	Use concepts of acute/obtuse angles, i.e. increasingly understanding turns (from Maths National Curriculum)	Draw angles up to 360° (from Maths National Curriculum)	
Observe/measure:	**Observe/measure:**	**Observe/measure:**	**Observe/measure:**	**Observe/measure:**	**Observe/measure:**
Begin to use first-hand observation using senses (e.g. qualitative comments, or measure in non-standard units	Use first-hand observations (e.g. qualitative comments and starting to measure in standard uni	Start to evaluate own observations, and compare them with others'	Evaluate own observations and compare them with others'		
		Start to estimate length and distance.	Make reasonable estimations of length and distance; start to estimate mass, capacity and angle	Estimate length, distance, mass, capacity, angle; start to estimate temperature and area	Make reasonable estimations of length, distance, mass, capacity, angle, area and temperature
Measure to nearest 10cm, e.g. with metre stick painted in 5cm blocks	Measure to nearest cm and gram. Use litres for volume and °C for temperature	Measure to nearest mm, nearest 10ml, and 45° for angle. Convert between units, e.g. m to cm (from Maths National Curriculum).	Start to understand inches and miles, stone and pounds, Fahrenheit	Measure angle to the nearest degree Use approximate equivalences between metric and imperial (from Maths National Curriculum)	Fluency with converting units, including between metric and imperial (from Maths National Curriculum).
		Start to understand the concept of area (from Maths National Curriculum).	Understand the concept of area (from Maths National Curriculum)	Calculate area, start to understand volume (from Maths National Curriculum)	Calculate area, start to understand volume (from Maths National Curriculum)
	Scales in divisions of ones, twos, fives, tens where the numbers are given (from Maths National Curriculum).	Use scales in ones, twos, fives and tens where numbers may be missing. (from Maths National Curriculum).	Use more complex scales where some numbers may be missing (from Maths National Curriculum)		
Locate:	**Locate:**	**Locate:**	**Locate:**	**Locate:**	**Locate:**
Use simple locational language to describe (e.g. near far, NSEW).	Use simple locational language (e.g. secure use of left/right from own perspective).	Secure use of left and right from any perspective (e.g. with an upside-down map).	n/a	n/a	n/a
Record:	**Record:**	**Record:**	**Record:**	**Record:**	**Record:**
Make simple recordings e.g. lists, tallies and simple tables where the template is given	Make more sophisticated recordings e.g. frequency tables	Take simple notes i.e. using abbreviations, deliberate misuse of grammar, etc	Take quantitative and qualitative notes about observations	Start to group observations and collected data while in the field, into complex tables, diagrams and flow charts	Group and redraft observations in the field into useful formats like tables, diagrams, flow charts, sketches, jotted graphs
Tallies and simple tables		Use sketch maps, tables, jotted diagrams, subdivided lists, etc	Start to include continuous data. Make simple calculations while in the field		Make calculations in the field e.g. mean averages

Academic Skills

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ask questions:	**Ask questions:**	**Ask questions:**	**Ask questions:**	**Ask questions:**	**Ask questions:**
Ask and answer simple questions about what they have seen or heard	Show curiosity by voluntarily asking questions about what they have seen, heard or read	Start to frame questions and answers in geographically valid ways (e.g. about change/difference).	Ask and answer geographically valid questions (e.g. about cause and effect, reliability, change and difference).	Ask and answer geographically valid questions (e.g. about significance, relevance, reliability, perspective).	Regularly ask and answer perceptive questions in geographically valid ways
Discern relevance	**Discern relevance**	**Discern relevance**	**Discern relevance**	**Discern relevance**	**Discern relevance**
n/a	Start to make selections, e.g. from or within sources of information	Select information according to relevance (i.e. spot the 'main' landmarks)	Note connections, contrasts and trends and use these to order by relevance	Explain the usefulness, reliability and relevance of information	Thoughtfully organise information by relevance, and politely critique others
Use sources (from History National Curriculum)	**Use sources (from History National Curriculum)**	**Use sources (from History National Curriculum)**	**Use sources (from History National Curriculum)**	**Use sources (from History National Curriculum)**	**Use sources (from History National Curriculum)**
Explain the difference between fiction and non-fiction (from History National Curriculum).	Identify ways that geography is presented and represented (e.g. fiction, images, maps) (from History National Curriculum).	Explain the difference between primary and secondary data (from History National Curriculum).	Recognise that geographical 'facts' can vary depending on the source, and begin to suggest reasons for this.	Begin to explain how Geographical 'facts' are often interpreted to support opinions (from History National Curriculum).	Start to understand the idea of 'tertiary' sources data.
Show some understanding of the ways we can find out about the world (e.g. books, museums, atlases, photographs (from History National Curriculum).		Start to show awareness that there are different ways to represent geographical information, and that these might inform opinions and beliefs (from History National Curriculum).			Explain and critique the way geographical 'facts' are used and interpreted to support opinions.
Present information:	**Present information:**	**Present information:**	**Present information:**	**Present information:**	**Present information:**
Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work.	Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work	Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work	Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work	Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work	Use age-related vocabulary in their speech and writing, spelling it accurately where appropriate Create age-related data tables, graphs and charts, maps and plans, drawings and perspectives, posters, diagrams and digital presentations: • for isolated datasets • in longer and coherently-structured pieces of work