KNOWLEDGE OVERVIEW GRID

	Subject: Geography				Year Group: Year 4	
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	History unit	**History unit**	**Biomes including Rainforests**	**Amazon Basin – Regional study**	**History unit**	**What is mapping?**
NC Objectives Covered **(Taken directly from the National Curriculum)** **Red= substantive knowledge** **Blue= disciplinary knowledge**			Locational knowledge Locate the world's countries, using maps to focus on Europe and North and South America, concentrating on their environmental regions and key physical characteristics. Identify the position and significance of latitude and longitude and the Northern and Southern Hemisphere. **Human and physical geography** Describe and understand key features of: physical geography, including: climate zones, biomes and vegetation belts. **Place knowledge** 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	**Locational knowledge** Locate the world's countries, using maps to focus on South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night) **Place knowledge** Understand geographical similarities and differences between a region of the UK and a region of South America **Human and physical geography** Describe, understand and explain key aspects of: -physical geography, including: climate zones, biomes and vegetation belts, rivers, -human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water **Geographical skills and fieldwork** -use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied		**Locational knowledge:** Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time **Geographical skills and fieldwork:** Use the 8 points of a compass and four figure grid references and symbols/key on an OS map to describe places in the UK and wider world. Use fieldwork to observe and record the human and physical features of Bramhope including plans, graphs and digital technologies to answer questions about the locality.
Previous Knowledge **-What have children learnt previously that will support this next step?**			**Nursery – beginning to explore the natural world around them** **Reception – learning about different habitats e.g. rainforest, desert, polar regions.** **Year 1- learn about the continents of the world** **Year 2 – learn about different weather patterns** **Year 3 – learn about rivers and the water cycle**	**Children have learnt about the continents of the world in KS1 so should be able to locate the continent of South America.** **Children in year 5/6 have learnt about the world's natural resources, the need for renewable energy sources and climate change.** **Children in Year 5 have previously learnt about the region of Yorkshire.**		Reception - aware of school grounds and where they feel happy – classroom, lunch hall, playground, field, park. Year 2 - children have looked at fieldwork in the school grounds Year 3 – children have begun to use 8 points on a compass and 4 figure grid references

Misconceptions **-What are the common misconceptions in knowledge for this unit?**			**A simplistic understanding of different biomes and need to challenge basic assumptions of what rainforests and deserts are like.** **Assumptions that deserts are always hot.**	**Children think that the Amazon is either just the river, or just the rainforest and not a region.** **Children think that the Amazon Basin is just situated in Brazil.** **The Amazon Basin is just the river and rainforest – there are no cities.**		
Learning Sequence **-Detail the learning sequence using key questions in an ordered sequence.** **-The questions should have a sequential build up to answer the overall learning challenge.**			1. What is the difference between weather and climate? (Include introduction to climate zones) 2. What are the world's biomes? *(longitude and latitude and Northern and Southern Hemisphere)* 3. Where are the world's rainforests? What are the features of a rainforest? 4. Are all forests rainforests? *Include temperate deciduous boreal etc. Can compare with Sherwood.* 5. What is the Savananah biome? 6. Where are the world's deserts?	1. Where is the Amazon Basin and what is the climate like? 2. How is the Equatorial rainforest structured? 3. How significant is the River Amazon? 4. Who are the Yanomami people? 5. What are the threats to the rainforest? 6. Can I compare the Amazon Basin to Yorkshire?		1. What is Digimap and how can it be used to find out more about Bramhope? 2. How can Google Earth help us to find out more about the world and its continents? 3. What are ordinance survey maps and what do the symbols stand for? 4. How can I use four-figure grid references? 5. What are the eight points on a compass? 6. How can I use maps to find my way around Bramhope?
Knowledge Showcase **-What will children know and be able to do by the end of the unit?** **-What will the children produce to demonstrate this knowledge?**				**Comparison task** Children to use their previous knowledge of Yorkshire and their new knowledge of the Amazon Basin to compare the two regions. Options: write a page on the similarities and differences, create a poster, present the similarities and differences to the class. Think about: human and physical features, topography, land use, people who live there.		**Create a map** Create a map of Bramhope for a friend to follow. Can you use symbols and grid references?

Knowledge Sentences **-Using the end points, what are the key statements children need to remember by the end of the unit?** **(I know that…)** **(To share with children when it is taught during the unit)**			1. I know that weather can be defined as how the atmosphere behaves and affects human activities on a short term basis. 1. I know that climate is the average of weather conditions in a location over a 30-year period. 1. I know that areas of the world with similar climates can be grouped into climate zones. 2. I know that biomes are large regions of the world with places that share a similar climate, vegetation and animals. 3. I know that tropical rainforest is a hot, moist biome where it rains all year long and has dense canopies of trees. 4. I know that there are different types of forests: tropical rainforest, temperate deciduous forests and boreal forests. 5. I know that savannash are found in the tropical climate zone and are characterised by tall grasses and scattered trees and shrubs. 6. I know that deserts are found in hot desert climate zones and arctic and polar climate zones.	1. I know that the Amazon basin is in South America and covers 8 countries. 1. I know that the climate is warm, wet and humid. 2. I know that equatorial rainforests have a wide variety of plants and animals. 2. I know that equatorial rainforests are made up from a layered structure including the forest floor, understory, canopy and emergent layer. 3. I know that the Amazon River represents around 20% of all the water discharged into the world's ocean by rivers all over the world. 3. I know that the river is home to many fish, reptiles and mammals. 4. I know that indigenous peoples, like the Yanomamo, have traditionally used the rainforests to meet their needs for food and shelter. 5. I know that a growing threat in Brazil is forest clearance for the development of oil palm plantations. 5. I know that road building and tourism has locally changed the nature of the forest ecosystems. 5. I know many of the species are under threat from overfishing.		1. I know that Digimap is an online mapping tool that can help me find out more about Bramhope. 2. I know that Google Earth is an online mapping toll that can help me find out more about the Earth's continents. 3. I know that an ordnance survey map is a detailed map with symbols and grid references. 4. I know that four-figure grid references identifies a single kilometre square on an OS map. (Challenge: can they find Nell Bank on the map? What does the contour lines tell us about our walk up Ilkley Moor?) 5. I know that the eight points on the compass are: north, north-east, east, south-east, south, south-west, west and north-west. 6. I know that I can use Digimaps, Google Earth, OS maps, symbols, grid-references and compass directions to find my way around Bramhope.
Key Vocabulary **(To share with children and add to working walls/knowledge mats)**			Weather Climate Climate zone Biome Rainforests Temperate deciduous boreal Savannah Desert Longitude Latitude Southern Hemisphere	Amazon basin Climate Region Equatorial rainforest Forest floor, understory, canopy, emergent layer Eco-system Settlement Indigenous people Yanomami Deforestation		Ordnance survey Grid reference Aerial photograph Map symbol Cartography Compass
What does this look like at Bramhope?	**Enrichment Activities (trips, residentials, speakers, SMSC)**			Amazon Basin workshop – zoom based.		Trip to Ilkley Nell Bank - Link into map work e.g. what do the contour lines tell us about the area we will be visiting?
	Physical Resources (artefacts)		Maps Atlases Globe Digimaps Images	Maps Atlases Globe Digimaps Images		Maps Atlases Globe Digimaps Images

							Compass
	Cross Curricular learning (Include opportunities for writing and quality texts)				Journey to the River Sea (English text) Guided reading non-fiction		
	Local Learning including outdoor learning						Going out into the locality for fieldwork. Field trip to Ilkley Nell Bank.
	Opportunities for cultural Diversity			Understanding life in different environments and the pressure that can put on resources and how it can shape cultures.	Learning about indigenous people and understanding different ways of life.		
Additional topic information					**Locational knowledge** The Amazon Basin is a large region in the continent of South America drained by the Amazon River and its tributaries. The Amazon Basin covers an area of about 7,500,000 km2 (2,900,000 sq mi), or roughly 40 percent of the South American continent. The basin includes parts of Bolivia, Brazil, Venezuela, Peru, Colombia, Ecuador and Guyana. Rainforests cover less than 6% of the Earth's surface. True equatorial rainforest is found close to the equator all around the globe. **Human and physical geography** **Equatorial Rainforest in The Amazon Basin** Equatorial rainforests are characterised by diversity of vegetation (trees, epiphytes, fungi and lianas) which provide an abundance of ecological niches for a vast range of animals from bacteria to large vertebrates such as monkeys. Within the equatorial rainforest there is a high degree of organisation which is often masked by the complexity and exuberance of the forest growth. Equatorial rainforest vegetation show a layered structure. **The River Amazon and the water cycle**		

				The Amazon rises in the Andes mountains in Peru and flows some 6,518 kms (estimates vary – this is about the distance from London to Delhi) to enter the Atlantic Ocean through a delta on the north east coast of Brazil. Large tributaries join the main river at confluences such as the Rio Negro and Rio Solimoes (Upper Amazon). The Caboclos, river dwellers in the Brazilian Amazonia, are descended from the offspring of European and Amerindian mixed marriages. **Settlement of the Amazon Basin** The forest is impenetrable so Caboclos have established isolated settlements and hamlets on the river banks and spend their lives farming small river bank clearings and fishing. The waterways are the lifeline for the Caboclo people, they are the means of keeping in touch with each other and marketing their produce. Some have moved to find paid employment in cities, and have jobs like taxi drivers, boat makers and domestic staff, but they still help their families maintain their farms.Caboclo agriculture is based on a traditional African model, a variety of shifting cultivation with manioc as the staple crop, supplemented by a mixed farm of vegetables, fruit trees, coffee, chickens, sheep and pigs. Indigenous peoples, like the Yanomamo, have traditionally used the rainforests sustainably to meet their needs for food and shelter. There have been increasing threats to the rainforest, as a result of the exploitation of the valuable rainforest resources. These include timber, latex (rubber), clearance for farming especially large scale cattle ranching, and mining of minerals. In some regions oil extraction causes forest degradation. There is a huge demand for fuel wood, in areas where electrical and gas supply is limited. A new but growing threat in Brazil is forest clearance for the development of oil palm plantations. Road building and tourism (accommodation, transport and activities) has locally changed the nature of the forest ecosystems. There are plans to develop hydro-electric dams on the Amazon and its tributaries, but the reservoirs would flood some forest.		