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| **Year 6** **Why are rainforests important?**Exploring what a rainforest looks like, why they are important and how we can protect them. |
| **Links made with other subjects** | English: Comparative reports / balanced / biased argument. The Explorer / Survivor StoriesScience: Living ThingsComputing: Data Handling (creatures / plant types found in the rainforest habitat) Art: Henri Rousseau |
| **The BIG Question** | Why are rainforests important?  |
| **The BIG Outcome** | Children to demonstrate the knowledge they have learnt during this unit to create a piece of work highlighting why rainforest are important and why we must look after them. Within this, the children will show an awareness of:* The physical features of the rainforest.
* The human features of the rainforest.
* Know changes / threats to the rainforest.
* Express an opinion about changes to the rainforest and make suggestions.

This could be in a variety of different formats including a double page spread or oracy-based presentation. Children could use cross curricular skills to do this such as create a webpage using their computing learning (NB these computing skills must be concrete to ensure assessment is of geographical learning). |
| **Geography objectives****(link to NC)**  | * Locate the world’s countries, North and 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, the Tropics of Cancer and Capricorn.
* describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts and rivers.
* 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.
* use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
* use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps).
* 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
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| **Prior knowledge****What prior knowledge is needed for children to be successful in this unit?**  | *Children already know:*Y2 – Is it raining or is it pouring? (Weather Patterns)Y4 – The Journey to the Sea (Rivers)* Map skills.
* Main European river – The Danube.
* Course of a river.
* Drainage basins.

Y5 – Our Yorkshire (Settlements)* Map skills.
* Topographical features of a landscape.
* Trade links.
* Land Use.

Y5 – Why does time shift? (Time Zones) * Global awareness.
* The physical make-up of our world.
* Lines of latitude, longitude, northern hemisphere, southern hemisphere.
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| **Future learning****Consider the conceptual knowledge within a subject that pupils need for future learning.**  | This unit gives prior knowledge to:Secondary School:* Application of knowledge about physical and human features.
* Awareness of the key points on our globe.
* Understanding of key physical areas on our planet (rainforests)
* Understanding of human impact upon the environment.
* Application of the knowledge of our world to become responsible global citizens.
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| **Geographical strands** | Geographical Skills* Use topographical and climate maps.
* Use keys, OS maps and atlases to identify the features of the landscape.
* Use maps to navigate.
* Use sketches to show an area.
* Use symbols and a key to add detail to my sketch.

Locational Knowledge* Use the 8 points of a compass to describe locations.
* Locate the rainforests of the world.
* Identify key points on our world (equator, northern hemisphere, southern hemisphere, the Tropics of Capricorn and Cancer)

Place Knowledge* Draw links between the location of rainforests and their position on the globe.

Environmental, human and physical geography* Identify topographical and climatic features.
* To compare a rainforest and deciduous rainforest.
* Understand human impact.
* Express and opinion and make suggestions about human impact.
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| **Vocabulary/ Glossary** | Equation, Northern Hemisphere, Southern Hemisphere, Tropic of Cancer, Tropic of Capricorn, climate, vegetation, emergent layer, canopy layer, understory layer, forest floor layer, deforestation |
| **Knowledge** (see italics for knowledge to remember) | The knowledge that children will learn and remember:1. *Climate maps show weather patterns. Different colours show the climates. Children will use maps to identify the climate*. Climate of the Amazon:
* The climate of Amazonia is warm, rainy, and humid. The lengths of day and night are equal on the Equator.
1. Children will find other rainforests on the globe.
* *Tropical rainforests are mainly located between the latitudes of 23.5°N (the Tropic of Cancer) and 23.5°S (the Tropic of Capricorn).*
1. *Biome: Biomes are areas of our planet with similar climates, landscapes, animals and plants.* What lives in each biome depends on: how warm or cold it is; how dry or wet it is; and how fertile the soil is. The animals in a biome depend upon plants for food. The plants in a biome often also depend upon the animals for spreading pollen and seeds so that new plants can grow. So, both plants and animals rely on each other to stay alive.
2. *Amazon rainforest:*
* *Covers most of South America*. (link to Y4 rivers knowledge – Drainage basin)
* Covers 5.5 million square kilometres.
* [*Moist broadleaf*](https://en.wikipedia.org/wiki/Tropical_and_subtropical_moist_broadleaf_forests)[*tropical rainforest*](https://en.wikipedia.org/wiki/Tropical_rainforest)*.*
* *Encompasses Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, Suriname, and French Guian.*
* *On the Equator, between the Tropics of Cancer and Capricorn.*
1. *Amazon River:*
* *The ‘lifeline’ of the Amazon rainforest.*
* *Second largest river in the world (after the River Nile)*
* 6,400 km long.
* *Starts in the Andes.*
* It is one of the main forms of transportation through the rainforest because there are very few roads.
* River boats and ships commonly shuttle citizens, tourists and goods from one area of the Amazon to another.
* There is only one bridge across the river so ferries are the only way to cross them.
1. *Physical characteristics of a rainforest: A rainforest has 4 layers:*
2. *Forest floor layer* – The lowest layer where it is dark, hot, and damp. Only 2% of sunlight gets through the thick canopy trees and understorey plants to reach the forest floor. Large-leafed shrubs and saplings (new trees) grow in the patches of sunlight.
3. *Understory layer* - warm, damp and sheltered layer below the tree canopy. Rain drips through. Only speckled sunlight comes through. Large leafed shrubs that like the warm, shade and moisture.
4. *Canopy layer* – Just below the tallest layer. Gets lots of sunlight, rain and a breeze. Thick branches, large leaves, trees. Make a leafy roof blocking the sunlight from the lower levels.
5. *Emergent layer* – high tree tops; gets the most sun and rain; up to 70m high; home to monkeys, birds and butterflies.
6. *Deciduous Forest: A deciduous forest is a biome dominated by deciduous trees which lose their leaves seasonally*.
7. People and the Amazon:
* *It is home to unique tribes – their habitats are being destroyed*. This stops their way of life.
* *Deforestation* – 27% caused by cattle ranching, mining, timber and farming.
* If the current rate of deforestation continues, there will be no trees by 2030.
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| **SEND expectations** | 1. Amazon rainforest:
* Covers most of South America
1. It can be found on the Equator, between the Tropics of Cancer and Capricorn.
2. Physical characteristics of a rainforest:

A rainforest has 5 layers: emergent layer, canopy layer, understory layer, forest floor layer.1. Deciduous Forest: A deciduous forest is a biome dominated by deciduous trees which lose their leaves seasonally.
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| **Teaching ideas/ resources** | * School trip to Tropical world and Roundhay park – comparison with a deciduous forest.
* <https://consent.youtube.com/m?continue=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DFacv4EmMM40&gl=GB&m=0&pc=yt&uxe=23983172&hl=en&src=1>
* Timelapse of deforestation: <https://earthengine.google.com/timelapse/?location=rondonia>
* <https://consent.youtube.com/m?continue=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DfeLqh4juPqY&gl=GB&m=0&pc=yt&uxe=23983172&hl=en&src=1>
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| **Suggested Teaching Sequence**  | **Session One**Points 1 and 2. Children will know what a climate map is. They will identify rainforests across the globe and note their correlation with the tropics. **Session Two**Points 3 and 7. Children will know what a biome is and examples of different biomes including a deciduous forest. **Session Three** Points 4. Children will know what the Amazon Rainforest is, understand its size and the countries it covers. They will apply rivers knowledge to understand that the rainforest is the drainage basin for the amazon river. **Session Four** Point 5. Children will know key facts about the Amazon River. They will apply Y4 knowledge about the features of a river. **Session Five**Point 6. Children will know the physical characteristics of a rainforest. They will be able to identify the different layers and how each one different in plant and animal species. They will make links to the amount of sunlight in this. **Session Six**Point 8. Children will know about people in the amazon. They will know about unique tribes whose culture can be found nowhere else on earth. They will form an understanding about deforestation. **Session Seven: Assessment**  |