Crofton Junior School - Geography Knowledge Organiser – Tropical Rainforest Biome (Year 5)

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| **Unit of Work** | Geography – Tropical Rainforest Biome |
| **Text Driver the Unit of Work Links to** | The Great Kapok Tree |
| **Geographical Location** | **Tropic of Cancer**  **Equator**  **Tropic of Capricorn**  **Guyana**  **Venezuela**  **Colombia**  **Ecuador**  **Peru**  **Brazil**  **Uruguay**  **Argentina**  **Chile**  **Bolivia**  **England**  **Italy**  **Egypt**  **Crofton (Wakefield)**  **Blackpool**  **Suriname**  **French Guiana**  **Flamborough**  **Paraguay** |
| **Overview of the Unit of Work** | Pupils will identify the following features on a map of the world: lines of Latitude and Longitude, Northern Hemisphere, Southern Hemisphere, Equator and Tropics of Cancer and Capricorn. They will identify the location of different climate zones (equatorial, tropical, desert, temperate and polar) in relation to the mapped features. Pupils will learn about the similarities, differences and key geographical features of the following biomes:  equatorial rainforest, hot desert, tundra, tropical savanna and temperate deciduous forest. They will develop their knowledge further by learning, in depth, about the tropical rainforest biome with a particular focus on the Amazon Rainforest. They will discover physical features of the rainforest, including how the rainforest can be split into specific layers: forest floor, understory, canopy and emergent. Furthermore, the children will have the opportunity to explore the causes and impact of deforestation; they will learn about the impact on different stakeholders, including plants, animals and people both in the locality and wider world. They will explore a range of viewpoints including those that support and oppose deforestation to enable them to debate, from their own point of view, if deforestation is positive or negative. |
| **Prior Learning** | Children will draw on their knowledge from their study of South America (Year 5), to be able to differentiate between human and physical geography and to locate the Amazon Rainforest. |
| **Sticky Knowledge** | Pupils will learn:  1. The location of lines of Latitude and Longitude, the Equator, the Northern and Southern Hemispheres, the Tropics of Cancer and Capricorn, the Prime Meridian and time zones.  2. That climate zones are areas around the world with specific patterns of weather. They will learn about the location of the following different climate zones: equatorial, tropical, hot desert, temperate and polar.  3. That biomes are areas of the planet that are large scale ecosystems. They are defined by varying factors such as climates, soils, landscapes, plants/vegetation and animals  4. The key features of the following biomes:  a. Tropical savanna = A savanna is a rolling grassland scattered with shrubs and isolated trees, which can be found between a tropical rainforest and desert biome. Not enough rain falls on a savanna to support forests. Savannas are also known as tropical grasslands. Savannas have warm temperatures all year round. There are two very different seasons in a savanna; a very long dry season (winter), and a very wet season (summer).  b. Hot desert = Deserts cover about one fifth of the Earth's land surface. Most hot deserts are near the Tropic of Cancer or the Tropic of Capricorn. Hot deserts usually have very little rainfall and/or concentrated rainfall in short periods between long rainless periods; therefore, vegetation is sparse and minimal animals live there.  c. Tundra = The tundra is a vast and treeless land which covers about 20% of the Earth's surface, circumnavigating the North Pole - almost all tundras are located in the Northern Hemisphere. It is usually very cold, and the land is permanently frozen so that trees can't grow there. The bare and sometimes rocky ground can only support low growing plants like mosses, heaths, and lichen. In the winter it is cold and dark and, in the summer, when the snow and the top layer of permafrost melt, it is very soggy and the tundra is covered with marshes, lakes, bogs and streams that breed thousands of insects and attract many migrating birds. d. Temperate deciduous forest = In deciduous forests there are five different zones. The deciduous forest has four distinct seasons, spring, summer, autumn, and winter. In the autumn the leaves change colour. During the winter months the trees lose their leaves. The animals adapt to the climate by hibernating in the winter and living off the land in the other three seasons. e. Equatorial rainforest = The rainforest biome has four main characteristics: very high annual rainfall, high average temperatures, nutrient-poor soil and high levels of biodiversity (species richness). Rainforests now cover less than 6% of Earth's land surface. Scientists estimate that more than half of all the world's plant and animal species live in tropical rain forests. Tropical rainforests produce 40% of Earth's oxygen. 5.There are four distinct layers of trees in a rainforest: forest floor, understory, canopy and emergent; they will learn details about each of these layers. 6. About the Amazon rainforest as a case study; they will learn about its location and how it is home to a variety of plants, animals and some indigenous people. 7.The affect of deforestation and how it impacts on different stakeholders, including plants, animals and people- both local and in the wider world. |
| **End of Unit Outcome** | By the end of the unit of work, the children will apply their knowledge of the rainforest biome and the impacts of deforestation in the Amazon Rainforest to debate the positive and negative features of deforestation on different stakeholders with a focus on nature, science, health, inhabitants and resources. |
| **Key Vocabulary** | **Tier 2:**  **compare**: note the similarity or dissimilarity between  **contrast**: difference  **similarities**: a similar feature or aspect  **differences**: ways in which people or things are dissimilar  **Tier 3:**  **Lines of Latitude:** invisible horizontal lines that form a grid over the Earth (the Equator, Tropics of Cancer/ Capricorn, Arctic and Antarctic Circle)  **Lines of Longitude:** invisible vertical lines that form a grid over the Earth  **Northern Hemisphere:** anywhere north of the Equator  **Southern Hemisphere:** anywhere south of the Equator  **climate:** the average expected weather in a place  **biome:** a large-scale ecosystem  **equatorial:** at the equator  **sub-equatorial:** close to the equator  **precipitation:** rain, snow, sleet or hail  **emergent layer:** tall trees growing above the canopy  **canopy layer:** the thick layer of leaves covering a rainforest  **understory layer:** trees just below the canopy  **forest floor:** the bottom layer of the forest  **deforestation:** cutting down large areas of trees  **stakeholders:** a person/people with an interest or concern in something |
| **Post Learning** | Pupils will draw upon their knowledge of current issues from their study of deforestation and they will extend this in Year 6 to study the impact of the Covid 19 pandemic on tourism in Greece and the causes and impact of pollution and congestion due to transportation. |