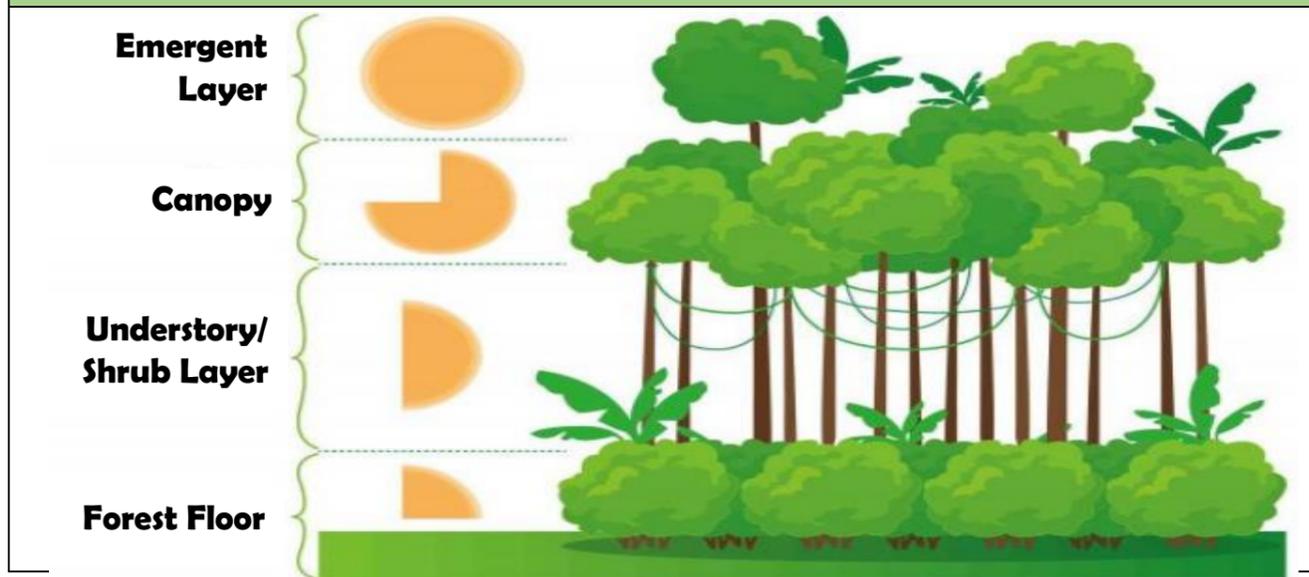




THE RAINFOREST KNOWLEDGE ORGANISER



Diagram – Layers of the Rainforest



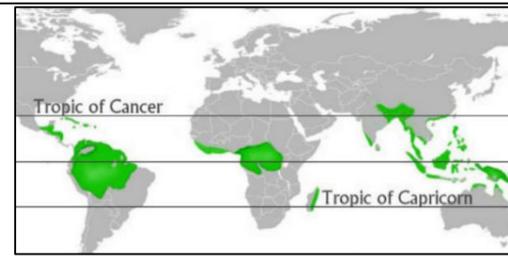
Layers of the Rainforest

 <p>Emergent Layer</p> <p>The emergent layer is the name given to the very tops of trees that grow above the canopy level. There is lots of sunshine and rainfall here, and only the strongest and tallest plants grow to this height. Anything above 45 metres (150 feet) are emergent, however some trees can grow to a massive 70 metres (230 feet)! Only some birds, bats, butterflies and small monkeys live here.</p>	 <p>Canopy</p> <p>The canopy is a dense layer of vegetation at around 30-45 metres (100-150 feet). It is sometimes called the 'ceiling' of the rainforest, as it blocks a great deal of sunlight with its thick, overlapping leaves. As a result, the layers below the canopy level are often quite shaded. Lots of animals: e.g. insects, bats, birds and monkeys can be found in the canopy layer.</p>
 <p>Understory/ Shrub Layer</p> <p>The understory level is a muddle of intertwining shrubs, young trees, vines, saplings, and palms. It is very hot and damp here, and the air very still. Compared to the canopy, plants here receive little sunlight. This lack of light limits the growth of plants, and so they must have special adaptations in order to survive here. For example, leaves on plants here tend to be much broader. Snakes, lizards and sloths are examples of animals living here.</p>	 <p>Forest Floor</p> <p>The forest floor is exceptionally hot and humid, due to the constant shade from the levels above. Despite this, the forest floor remains an important part of the rainforest's eco-system. The forest floor is where decomposition takes place – dead plants and animals are broken down and their nutrients recycled. Most of the largest animals of the rainforest live here, for example elephants, tigers, the tapir and the jaguar.</p>

Where are the Rainforests?

Rainforests are usually found between the Tropic of Cancer and the Tropic of Capricorn (the tropics), where it is close to the Equator. It is very warm and there is lots of rainfall.

The biggest rainforest in the world is the Amazon rainforest in South America. These are the locations of the 10 largest rainforests in the world (not in order): Mexico, Venezuela, Bolivia, Brazil, Colombia, Suriname, Peru, Congo DRC, Indonesia, Papua New Guinea.



Animals of the Rainforest – including description, location, and key facts!

<p>Harpy Eagle</p> 	<p>Harpy eagles are the largest and most powerful raptors found in the rainforest. Harpy eagles perch on emergent trees scanning the canopy for prey, for example sloths and monkeys. They are occasionally eaten by snakes and jaguars.</p>	<p>South/Central America Emergent</p>	<p>Length: approx. 1m Weight: approx. 6kg</p>
<p>Morpho Butterfly</p> 	<p>Morpho butterflies are several species that are known for their bright colours and large size. They live for about 115 days. Their low weight and ability to fly means that the emergent layer is perfectly safe for them.</p>	<p>South/Central America Emergent</p>	<p>Length: approx. 6cm Weight: approx. 1.5g</p>
<p>Howler Monkey</p> 	<p>Howler monkeys are among the largest of the Central/South American monkeys. They are known for their exceptionally loud call, which can be heard 3 miles away! They mainly eat canopy leaves and fruits.</p>	<p>South/Central America Canopy</p>	<p>Length: approx. 1m (half of this is tail!) Weight: approx. 6kg</p>
<p>Flying Fox Bat</p> 	<p>Flying fox bats are the largest bats in the world. They feed mainly on nectar, blossoms, pollen, and fruit. Unlike other bats, they don't have echolocation. Instead, their sense of smell and eyesight are well-developed.</p>	<p>Asia/Australia/Africa Canopy</p>	<p>Length: approx. 40cm Weight: approx. 0.6kg</p>
<p>Red-Eyed Tree Frog</p> 	<p>The red-eyed tree frog lives in areas of rainforest near inland water, e.g. rivers and ponds. When threatened, it opens its eyes, in an attempt to startle predators before it escapes.</p>	<p>South/Central America Canopy</p>	<p>Length: approx. 6cm Weight: approx. 10g</p>
<p>Sloth</p> 	<p>Sloths are known for their exceptionally slow movement and for hanging upside down in trees. Their slow speed has evolved as a result of their low energy diet.</p>	<p>South/Central America Canopy</p>	<p>Length: approx. 70cm Weight: approx. 6kg</p>
<p>Reticulated Python</p> 	<p>The reticulated python is the world's longest snake and in the top 3 heaviest. They stalk the understory, looking both below and above for prey, such as small mammals and birds.</p>	<p>Asia Understory Layer</p>	<p>Length: approx. 4m Weight: approx. 50kg</p>
<p>Bullet Ant</p> 	<p>These ants are known for their exceptionally painful sting. They live in colonies of a few hundred, and spend their days foraging in the undergrowth for nectar.</p>	<p>South/ Central America Understory Layer</p>	<p>Length: approx. 20mm Weight: approx. 3mg</p>
<p>Tapir</p> 	<p>Tapirs are large herbivores that are similar in shape to a pig, with a short nose trunk. Their diet consists of fruit, berries and leaves.</p>	<p>South/ Central America/Asia Forest Floor</p>	<p>Length: approx. 2m Weight: approx. 200kg</p>
<p>Gorilla</p> 	<p>Gorillas are herbivores that dwell in the forests of central Africa. They mostly eat the leaves, stems, and shoots of the forest. The DNA of gorillas is around 97% identical to humans.</p>	<p>Africa Forest Floor</p>	<p>Length: approx. 1.6m Weight: approx. 160kg</p>
<p>Jaguar</p> 	<p>The jaguar is the largest carnivorous animal in South America. The jaguar enjoys swimming and is at the top of its food chain. They regularly eat deer, tapirs and small caiman.</p>	<p>South/Central America Forest Floor</p>	<p>Length: approx. 1.5m Weight: approx. 80kg</p>
<p>Bengal Tiger</p> 	<p>The Bengal Tiger is one of the biggest tiger subspecies (tigers are the biggest cats in the world). It is a top carnivore, eating mainly chital, sambur and domestic livestock. There are approximately 2,500 left in the wild.</p>	<p>Asia Forest Floor</p>	<p>Length: approx. 2.7m Weight: approx. 300kg</p>

Amazon Rainforest Timeline

Before 1500– Deforestation is a feature of Amazonian life long before Europeans arrive around 1500. Indigenous peoples maintained extensive areas of agriculture, and cleared areas for living.

1880– The invention of the rubber tyre starts the 'Amazon Rubber Boom.'

1900 – Rapid clearing in begins in Brazil. Whole state of Parana cleared in 30 years.

1970 – Huge clearing for the Transamazon Highway.

Early 2000s– Amazon loses 4.3 million hectares per year.

Present Day – 289,000 sq. miles of Amazon lost. 100 years predicted no rainforest left.