



THE WONDERFUL WONDERS OF THE RAINFORESTS!

Link to our exhibit: "In the World: At the edge of the Rainforest"

GENERAL INFO

The rainforest is safe haven for an incredible number of plant and animal species. In the Amazon, you can find up to 60,000 different species of plants; 2,000 fish species; 1,000 bird species; 300 mammal species; 270 reptile species; and millions of insect species. They are found in an area around the equator, in an area between the Tropic of Cancer and the Tropic of Capricorn, across South and Central America, Africa, Southeast Asia, and Australia. The climate there is almost always rainy, especially in the tropical rainforest. In the temperate rainforest, there is a succession of wet and dry seasons. The temperature mainly varies between 75 and 80 degrees F.

A tropical rainforest consists of four layers of life:

- The emergent: composed of giant trees, much higher than average, this area is mainly inhabited by insects and birds.
- The canopy: equivalent to the treetops, up to 160 to 220 feet tall, it makes up the rainforest's green ceiling and host most of the rainforest animals (e.g., monkeys, birds, tree frogs, snakes).
- The understory: composed of young trees, ferns, and shrubs that never grow to large size because of limited sunlight.
- The forest floor: except for rotting vegetation that nourishes the thin tropical soil, the forest floor is bare and mainly inhabited by large mammals (e.g. jaguars and gorillas).

SOME UNIQUE CHARACTERISTICS OF THE RAINFOREST

- Adaptation: Plants and animals have evolved over millions of years to become adapted to the life in this unusual environment. For instance, some trees have bark that is always peeling off to prevent climbing vines from covering them; other plants develop poisons to kill the insects that feed on them.
- Mimic strategy: For instance, there are large spiders that look like biting ants and are therefore left alone by predators; there are caterpillars that look like bird droppings so birds won't notice and eat them.
- Partnerships: Symbiosis occurs when animals and plants live together and are associated in a way that one or both species benefit and neither is harmed. For instance, there are hundreds of fig trees in the rainforest, and each of them is pollinated by a different species of fig wasp. When you destroy one member of the symbiotic team, you harm the other.

WHY IS THE RAINFOREST VANISHING?

- Each year, part of the forest is cut and burned to create land for agriculture. Unfortunately, the soil is very poor because the rainforest has a shallow, dense mat of roots that quickly absorbs nutrients from decaying organic matter. Very few nutrients are allowed to seep into the soil and it becomes useless in about five years. Therefore, farmers move from one area to another to find richer soil, damaging increasing amount of land.
- Big companies destroy the forest when cutting the nicest trees to build furniture, and they waste many more trees during logging and transport.

WHAT ARE THE CONSEQUENCES OF THIS DISAPPEARANCE?






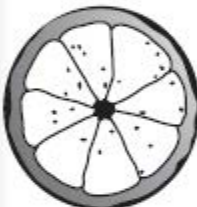














- Many rare plants that are treasures for medicine and alimentation are destroyed. For instance, tetrodotoxin is an anaesthetic 160,000 times more powerful than most common anaesthetics. It is used in medicine as a painkiller, a local anaesthetic and a muscle relaxant. It is derived from Zombie Frogs of the Central American rainforest.
- Native Indian Tribes lose their land and food, and catch diseases brought by foreigners.
- The climate is changed. Forested areas absorb solar energy, helping to drive the circulation of the atmosphere. This phenomenon affects wind and rainfall patterns worldwide. Also, trees use the CO₂ as a food source. By cutting trees, the CO₂ that was consumed by trees is accumulated in the atmosphere, increasing the "greenhouse effect".
- Thousands of species face extinction because of the loss of their habitat.
- The largest gene pool on Earth is being lost before scientists have the chance to study it.
- The soil faces increased erosion, as roots are destroyed and no longer block sediments.
- The rainforest recycles and cleans water; when forests are destroyed, pollution increases.





GAME 1: IT'S A JUNGLE IN HERE...

How many of these products are originally native from the rainforest?
Circle the product(s) that are derived from the rainforest.

 Apple	 Bamboo	 Grapefruit	 Potatoes	 Banana
 Orange	 Passion fruit	 Wheat	 Papaya	 Black pepper
 Chocolate	 Salad	 Cinnamon	 Cloves	 Vanilla
 Coconut	 Coffee	 Tomatoes	 Begonia	 Rubber





GAME 2: QUESTIONS ON THE RAINFOREST. Circle whether the questions are True or False.



QUESTIONS

The rainforest is located in an area around the poles



Most of the animals living in the rainforest are large animals



Many poisonous animals in the rainforest have bright colors to warn their predators



The soil of the rainforest is extremely rich in nutrients



The temperature in the rainforest never becomes extreme



Animals in the rainforest use a "mimic" strategy to protect themselves



No humans can survive in the rainforest



Very few animals have adapted to the life in the rainforest



Insects are the most common animals in the rainforest



Most of the large mammals of the rainforest live in the emergent layer



Cutting trees in the rainforest helps control the "Greenhouse effect"

