

BIODIVERSITY



Grades K-2

Rainforest

Objective: Students will learn the layers of the rainforest, what plants and animals live there and why rainforests are important.

Vocabulary: Rainforest, Habitat, Forest Floor, Understory Layer, Canopy Layer, Emergent Layer

Materials:

- Poster paper or several sheets of paper
- Markers or colored pencils
- Optional: photos or cut-outs of animals and plants found in rainforests

Lesson:

What is a Rainforest Habitat?

Ask students what they think a rainforest is and what kind of plants and animals live there.

- A rainforest is a dense forest that has at least 79 inches of rain a year.
- There are two types of rainforests:
 - Tropical rainforests are located near the equator and are close to the same temperature year-round. Example: Amazon Rainforest
 - Temperate rainforests are located further north or south of the equator and have bigger temperature differences between seasons. Example: Pacific Temperate Rainforest
- Rainforests cover 6% of our planet, but over half of the animal and plant species on Earth live there.

How many layers does a rainforest have?

There are four distinct layers of the rainforest. Does anyone know a layer of the rainforest?

- Forest Floor - the bottom layer of the forest, with the least amount of sunlight.
 - Few plants are able to grow on the forest floor.
 - There is leaf litter (decayed leaves) covering the forest floor that fell from higher levels.
 - Ants, termites, spiders, tortoises, tapirs, armadillos, and anteaters all live here.
- Understory - the layer between the floor and canopy, which receives some sunlight.
 - Most plants have large leaves to absorb the light.
 - There are lots of woody vines, which animals use to climb on and hide within.
 - Butterflies, lizards, tree boas, and sometimes jaguars and ocelots can live here.
- Canopy - the top layer of trees, made up of a thick leaf layer.
 - The canopy receives a lot of sunlight and provides food and shelter for many animals.
 - Epiphytes, or plants that grow on trees, are found in the canopy.
 - Monkeys, birds, bats, tree frogs, butterflies, and sloths all live here.
- Emergent - the top of the tree line, which receives direct sunlight.
 - Eagles, bats, macaws, toucans and sloths can all be found here.

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Activities:

- Rainforest Layer Drawing or Photo Collage: Students create a drawing or photo collage of the 4 layers of the rainforest - anything from a simple sketch to an elaborate habitat image. Make sure all 4 layers are included.
- Rainforest Layer Diorama: Students incorporate the 4 layers into a 3-D diorama using a cardboard box for the base, models of animals or plants (plastic or wood toys work great), cardboard cutouts, clay or modeled animals and plants, and painted/drawn objects.
- Color a Sloth Craft:
 - https://ansp.org/~media/Files/ans/science-from-home/camp/ASCFH_Week1_SurvivalOfTheSlowest_SlothColoring.ashx?la=en

Additional Questions:

- What does the rainforest provide? (food, shelter, resources)
- What do you think rainforest animals eat?
- What kind of fruits, seeds, and nuts grow in the rainforest?
- What resources come from the rainforest that we use here?

Tools:

- Reading:
 - *The Great Kapok Tree* - Lynne Cherry
 - *Tree of Wonder* - Kate Messner
 - *Nature's Green Umbrella* - Gail Gibbons
 - *We're Roaming in the Rainforest: An Amazon Adventure* - Laurie Krebs and Anne Wilson
- Videos:
 - Layers of the Rainforest Video for Students
 - <https://www.youtube.com/watch?v=wuHuQwA-y5Y>
 - National Geographic Rainforest Video for Educator Resource
 - <https://www.youtube.com/watch?v=3vijLre760w>

PA Academic Standards:

3.1.K.A3, 3.1.1.A2, 3.1.1.C3 3.1.2 A5