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:
  o Tropical rainforests are located near the equator and are close to the same temperature year-round. Example: Amazon Rainforest
  o 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.
  o Few plants are able to grown on the forest floor.
  o There is leaf litter (decayed leaves) covering the forest floor that fell from higher levels.
  o Ants, termites, spiders, tortoises, tapirs, armadillos, and anteaters all live here.
• Understory – the layer between the floor and canopy, which receives some sunlight.
  o Most plants have large leaves to absorb the light.
  o There are lots of woody vines, which animals use to climb on and hide within.
  o 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.
  o The canopy receives a lot of sunlight and provides food and shelter for many animals.
  o Epiphytes, or plants that grow on trees, are found in the canopy.
  o Monkeys, birds, bats, tree frogs, butterflies, and sloths all live here.
• Emergent – the top of the tree line, which receives direct sunlight.
  o Eagles, bats, macaws, toucans and sloths can all be found here.
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](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](https://www.youtube.com/watch?v=wuHuQwA-y5Y)
  - National Geographic Rainforest Video for Educator Resource
    - [https://www.youtube.com/watch?v=3vijLre760w](https://www.youtube.com/watch?v=3vijLre760w)

PA Academic Standards: