

Layers of the Rainforest

Primary Levels: Ages 6 – 10



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Standards

- Common Core Standards for English Language Arts/Literacy and Mathematics
- Next Generation Science Standards for Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

Concepts

- Students will explore the layers and habitats of the rainforest and the creatures that call them home.
- How can so many plants and animals share a small space?

Part I: Making Connections

Idea - Tropical rainforest are just one of several biomes on our planet. Biomes are ecosystems that have similar climate conditions, plants and animals. However, rainforest biomes support more biodiversity – more varieties of life than any other. By researching and comparing plants and animals that are found in their own neighborhoods with those in the Amazon, students will gain a greater understanding of nature's abundance in the rainforest.

Materials –

- Access to the internet or to a library for research
- Notecards, pencils and coloring materials

Procedure –

- 1. Have students research different species from insects to large mammals found in the rainforest. Encourage them to look at a wide variety of creatures that inhabit different habitats or layers of the rainforest canopy. These can range from insects to birds to mammals and more.
- 2. Next, have each student pick one creature each to research more thoroughly and share with the class. Each student should choose a different animal and specify where the creature is found, what kind of habitat it likes, the food it eats, whether it's endangered, as well as surprising, fun facts. Try to encourage species that are found across the different layers of the rainforest canopy.
- 3. Ask students to compare their rainforest animals to some of the animals that are found in their own neighborhood areas. How are they similar? How are they different?

Part II: Reading and Discussion

Idea – Students will learn about the location of the Amazon rainforest and understand the relationship among different species.

Materials -

- Book. The Umbrella by Jan Brett
- Map of the Amazon rainforest in South America
- World map

Procedure –

- 1. Read Jan Brett's book, *The Umbrella* together. Ask students to imagine the sights and sounds in the rainforest.
- 2. Discuss with the students how the different animals might depend on the fig tree, and upon one another, to survive.

- 3. Take a few examples from the animals mentioned in the book and get students to list what each animal needs to survive: food, water, shelter, safety, habitat requirements, animals or plants they depend on, part of the rainforest they live in.
- 4. Ask students what would happen if the fig tree died or was chopped down? How important is the fig tree to these different animals? Would they be able to survive?

Part III: Math and Geography

Idea – Students will get an understanding of biodiversity in the rainforest by comparing species richness between rainforest biomes and their own.

Materials

- Access to the internet or library for research
- World map
- Map of the United States and map of Ecuador

Procedure –

- Have students research online how many birds and mammals are found in their own neighborhood or state. How many species are there? Then have students research the number of birds and mammals found in the whole of the United States. How many are there? Finally, have them research how many species of birds and mammals are found in a tropical rainforest country like Ecuador. How many are there?
- 2. Have students examine a world map and compare the area of each country in proportion to the number of species found there. Can they calculate the species per area for each?
- 3. Next, have students look at maps of the United States and Ecuador. Find maps that show geographical features and ask them to compare and contrast the physical and geographic features of each country and consider the different biomes and habitats available in each.
- 4. Finally, ask students to theorize why there are so many more species found in Ecuador even though it is such a smaller area?

Part IV: Create

Idea – Have students understand the different layers and habitats rainforest creatures live in through an arts and craft activity.

Materials –

- Colored paper supplies
- Scissors for each student
- Pencils, markers, coloring materials
- Sticky pads

Procedure –

- As a class have students create a rainforest biome with paper, pencil and craft materials. Focus
 on the different layers of the rainforest canopy the forest floor, understory, canopy and
 emergent layer in that order. Encourage students to have fun and be creative with materials for
 making their rainforest canopy.
- 2. Next have students draw rainforest animal profiles. Be creative.
- 3. Next, as a class fill in where each rainforest species would live in the rainforest layer by taping each animal to the layer it corresponds.
- 4. Discuss with students if they think having so many layers in the rainforest creates more habitats for different species. Do you think this explains one reason why there is such a diversity of creatures able to exist together in one place?

Part V: Present

Idea – Student's display their finished rainforest canopy project around the classroom.