



Forests



This month is all about forests! Forests are extremely important to human life. The U.S. Forest Service has some pretty amazing facts about the trees that make up forests.

- For every 100 trees in the forest they remove 53 tons of carbon dioxide
- 100 trees can also filter out 430 pounds of other air pollutants per year.
- Trees can also collect 139,000 gallons of water in that same year.
- Trees can also keep houses cool in the summer and protect them from wind in the winter.

These facts are just for a small number of trees. think about the number of trees in a forest! Forests are not just valuable because of how they benefit us either.

- Forests are also home to 80% of Earth's plants, animals, bacteria, fungi, etc. that live on land.
- Rainforests hold the most diverse numbers of species of all the forests.
- Over half of the worlds animals alone live in the rainforests. Animals such as tigers, jaguars, sloths, orangutans, toucans, anacondas, poison dart frogs, boa constrictors, vipers, and many more!

With this many animals living in one place, where do they all sleep? Where do they all spend their days? The rainforest is broken into four layers with different animals adapted to living in the different layers.

Indoor Activity: Rainforest Diorama

For the indoor activity this month we will be making a diorama of the rainforest layers and some of the animals that live in those layers. Below are the 4 layers and one bonus habitat of the rainforest!

Emergent Layer- The emergent layer is the very tippy tops of the trees that is exposed to the sunlight. This layer can be as high as 200 feet tall! because of how high it is most of the animals that live here can fly or glide.

Some animals that live here are:

- Harpy Eagles
- Fruit Bats or "Flying Foxes"
- Pygmy Gliders
- Scarlet Macaws



Canopy Layer- The canopy layer is the thick layer of leaves and branches just under the emergent layer. The canopy layer is about 20 feet thick of dense leaves and branches that block out most of the sunlight for the lower layers. Some animals that live here are:

- Sloths
- Howler Monkeys
- Toucans
- Flying Snakes



Understory Layer- The understory layer is the area below the canopy where the tall tree trunks and shorter trees live. This area is very humid because the canopy traps much of the moisture and has nowhere to go.

Some animals that live here are:

- Jaguars
- Chamelions
- Tree boas
- Tree Frogs



Forest Floor- The forest floor is the lowest level of the rainforest. It has the smaller shrubs, fallen leaves and soil that the trees are rooted in.

Some of the animals that live here are:

- leopards
- anteaters
- armadillos
- Peccary or wild pigs

Bonus



Rivers and Streams- A part of the rainforest that many people overlook are rivers and streams. Rivers and streams of the rainforest are home to many really cool animals as well.

Some of the animals that live here are:

- Caiman
- Piranhas
- Electric Eels
- Green Anacondas



The supplies needed for this activity are:

- Shoe box or Small box
- Green and or Brown Tissue Paper
- Construction paper

Brown

Green

Blue

Yellow

- Scissors
- Glue Stick
- Animal Picture Sheet
- Rainforest Layer Labels
- Pencil
- Colored Pencil



Instructions:

Step 1: Gather all of the supplies listed above

Step 2: Next, carefully cut the box to a similar shape as the picture below



Step 3: Line the inside of the box with green construction paper on the back and the brown on the bottom. Cut the paper to size and use the glue stick to glue it to the box

Note: You can also use this time to draw and cut out your river from the blue construction paper and glue it to the brown construction paper.



Step 4: Next, draw your tree outlines on the brown construction paper and cut them out as shown below. Get creative with your trees! Once they are cut out, glue them to the green construction paper on the back of the box.



Step 5: Next, we will be making the vines! Take either your green or brown TISSUE paper and cut a rectangle roughly 3 inches longer than desired as the length shrinks during twisting. Take your rectangle and hold it by one end and start twisting the tissue paper into a strand as seen below.



Step 6: Once you have the vines formed, glue them to the trees however you like! You can use the picture below for reference.



Step 7: Once you have the vines glued on, we will be making the leaves for the canopy! Take your green tissue paper and cut or tear it into squares about 5-6 inches. You will then crumple the squares up and glue them randomly at the tops of the trees .

Step 8: Next, we will be making the forest floor shrubbery. In the same way you made the canopy leaves use your green and brown tissue paper to make the forest floor texture and shrubbery.



Step 9: Taking the animal photos and forest layer labels, cut them out. You can cut a square picture as a whole or outline the animal itself. Use as little or as many of the animals as you would like!

Step 10: Once you have the animals and labels cutout, glue them on the appropriate layer. You can glue them flat or make a little stand by bending a small strip of construction paper and gluing it to the animal to make it stand up. Your finished diorama could look very similar or completely different than the picture to the left. Make it your own, have fun, and enjoy!



Outdoor Activity: Local Forest Hike

For the outdoor activity, research what type of forest or trees grow in your region. Next, find out what the layers are called for that type of forests. For example, deciduous forests have 5 layers instead of 4 like the rainforest.

Grab a journal and some hiking shoes and take a short hike through a local forest. See if you can identify the different layers from your research and write down what animals you see living in those layers!



What Can You Do?:

Due to declining numbers of trees from deforestation, unsustainable logging, forest fires, etc. Forest habitats are declining greatly. To help slow this and even reverse some of the effects, here are some things you can do to help.

- Plant More Trees- planting more native trees is one of the best things you can do to help reverse deforestation.
- Buy lumber from sustainable lumber producers.
- Follow fire regulations to prevent forest fires



Animal Picture Sheet

Emergent Layer



Canopy Layer



Understory Layer



Understory Continued



Forest Floor Layer



Rivers and Streams



Layers of the Rainforest

Emergent Layer
Canopy Layer
Understory
Forest Floor
Rivers