



## What's in the Rainforest

### **Objective:**

Students will be able to identify plants and animals in the Amazon Rainforest environment and understand their relationship to one another.

### **Performance Objectives:**

SS K: Strand 4, Concept 3 – PO1, 2, 3  
Strand 6, Concept 3 – PO 1

NGSS K-LS 1.C; K-ESS 2  
CCSS K.W. 1; K.W. 8

### **Background Information:**

When you look at a map of the world, you can see many areas on Earth that have a rainforest. Areas located near the middle of the Earth, around the equator, are places where the weather conditions are perfect for the unique type of forest called a rainforest. So, what exactly is a rainforest? A rainforest is a lush forest of trees and plants that live in warm, humid weather. These forests get a large amount of rain each year. Rainforests have about 160 inches of rain each year, which is why the forest stays so humid or damp. The average temperature in the Amazon Rainforest is about 75 to 80 degrees. Because the rainforest has so many types of trees, there will be a great deal of shade for the plants and animals that live in the rainforest. The animals living in the rainforest are very different from animals living in other types of forests around the world. For example, this tiny little frog is one of the most colorful and unique animals in the Amazon, and it only lives in the rainforest.

**Grades: Pre K – K**

### **Key Vocabulary:**

- **Rainforest**
- **Humid**
- **Traits**
- **Adapted**

### **Related Literature:**

*A Rainforest Habitat*

Molly Aloian

*Over the Jungle: A*

*Rainforest Rhyme*

Marianne Berkes &

Jeanette Canyon

*The Amazon Rainforest*

KC Adams



The Amazon Rainforest has many different types of plants and trees. Some of the trees grow very high into the sky. They are called the Emergent layer of trees. The trees in the emergent layer grow as tall as 200 feet and have limbs that reach out great distances making shade over the top of the trees below. Large birds fly

around the tree tops and monkeys swing from limb to limb in the emergent layer of the Amazon Rainforest.



The next layer of the rainforest is the Canopy. This layer is made up of so many branches and leaves it acts like an umbrella over the forest below. Animals like the Spider Monkey and Scarlet Macaw enjoy life in the canopy layer of the rainforest. If you look closely, you may even see a twisting of

vines and plants that hug the trunks of the trees as they reach for the light above. The canopy is so thick with leaves that it shields some of the rain from reaching the forest floor.

The Understory layer is made of smaller tree tops and other plants that live in the shade and high humidity. The understory contains a large number of insects, vine snakes, poison dart frogs, butterflies and even the three-toed sloth. The air in the understory is hot and heavy with moisture.

The forest floor is like a carpet of dead leaves and plant material that covers the ground. Insects love this area because it is damp, shady and filled with various sources of food for the animals and insects. The forest floor only gets about 1 to 2 % of the sunlight, but the top soil is rich with nutrients. The forest floor is home to beetles, lizards, termites, conga ants, snakes, funnel-web spiders, leaf cutter ants, and even jaguars. Moss, fungi and herbs grow in some of the decaying leaf matter that fills the forest floor.



(Tree frog, emergent layer and vine snake photos by Keri Granado)

There are many different types of animals living in the rainforest. Many of the unusual animals are also considered rare and endangered. For example, the three-toed sloth, living in the Amazon Rainforest, is an animal that is in danger because when trees are removed, the sloth has no place to build a home. A sloth lives almost its entire life in the trees. The sloth's body is built for hanging from trees and not for standing or walking. Because of the loss of habitat, there are not many of these unique animals left in the entire world.



(Public domain photo)

This interesting creature is known as the slowest mammal in the world. The greenish color on the sloth is the algae that grow on the sloth's hair. Algae grow because of the sloth's slow movement and life in the humid, shady rainforest. The three-toed sloth gets its name from the three long toenails used to grip the trees so the sloth can climb. The sloth spends most of its time in the treetops and hanging from branches. Caterpillars also like to crawl on the hair of the sloth. The caterpillars eat the moss that collects and grows on the sloth. The relationship between the sloth, the caterpillars and the moss is necessary for each to survive.

Plants and animals that live in the rainforest share some common traits. Living things in the rainforest must be able to survive in a warm, humid climate that has a large amount of rain. Living in the rainforest means that many animals, like the

squirrel monkey, must climb trees and live in shady areas. Reptiles like iguanas and green tree python have scales that protect their skin while they climb trees for food and shelter. These are animals who have **adapted** to life in the trees. Plants and animals in the rainforest do not like the cold weather or very hot weather like in the Arizona desert. They do not live in dry climates and must live in a humid area with lots of rain. Rainforest animals live among the many species of plants and millions of fallen leaves and vegetation that covers the forest floor. Rainforest animals and insects must crawl or walk around the deep vegetation to find food, water and shelter.

### How's The Weather Outside?

When we talk about the weather, we usually talk about the wind, storms, clouds, rain, sunshine and even how hot or cold it is outside. Weather changes with the seasons: fall, winter, spring and summer. Weather also has an impact on the plants, animals and humans living on the Earth. So, what is the weather like in the Amazon Rainforest?

The tropical rainforest of the Amazon is a warm and humid place that receives between 80 to 400 inches of rain each year. The rain is very important to the climate of the rainforest because it creates habitats for unique plants and animals living in the area. Because of the daily rain, the rainforest never gets too hot and stays at temperatures from 70 and 85 degrees. The humidity, which is the water vapor in the air, is high and generally around 88%. The weather forecast for the Amazon Rainforest would be warm and humid with filtered sunlight in places.

The plants living in the warm, humid rainforest are very important to the Earth. As plants grow and process the air around them, they create a large amount of the Earth's oxygen and provide many resources for the local environment. The rainforest plants become the homes for insects, reptiles, birds, amphibians and mammals. Some of the plants in the rainforest have been used for making medicines to cure diseases and as food for humans. For example, bananas and mangos are a favorite rainforest food for many people around the world.

If you visit the rainforest, put up the umbrella because the weather outside is rainy!

Poems about Rain:

The Rain

Pitter-patter, raindrops,  
Falling from the sky;  
Here is my umbrella  
To keep me safe and dry!  
When the rain is over,  
And the sun begins to glow,  
Little flowers start to bud,  
And grow and grow and grow!

(Anon)

RAIN

Rain on the green grass,  
And rain on the sea,  
Rain on the house-tops,  
But not a drop on me!

(Anon)

The rain is raining all around,  
It falls on field and tree,  
It rains on the umbrellas here,  
And on the ships at sea.

(Robert Louis Stevenson)

Sources: World Wildlife Federation; NOVA; Wikipedia; Discovery Kids; Geography 4Kids; Physical Anthropologist Keri Granado

## **Procedures and Pre-Activities:**

1. State the learning objective.
2. Review the vocabulary.
3. Read the related literature about the rainforest and show pictures.
4. Show the location of the Amazon Rainforest on a world map and show the students where they live in comparison to the rainforest.
5. Conduct an open discussion about animals in the rainforest and compare them to animals in the local area. Students should be able to identify one or two differences between these types of animals. (The same may be done with plants such as cactus and orchids.)
6. Present the background information and refer to pictures to enhance learning. Teach the poems to students.
7. Discuss the details of weather. Ask students to describe rain storms, clouds, sunlight, shade (what is shade?) and humidity.
8. **Activity:** Print the picture, **Growing a Plant**. Students color the picture and, with teacher assistance, describe what is taking place in the picture.
9. Prepare students to visit **Butterfly Wonderland**. Explain that the environment in the atrium is similar to the rainforest. Students will notice many different types of plants, a water pond, warm temperature and a very humid environment. The butterflies in the atrium must live in the rainforest-like environment and use the flowering plants for food.
10. **Activity: The Taste of the Rainforest**  
Students love to taste samples of different foods that originate in the rainforest. (Be sure to check for food allergies prior to this activity.) Arrange 10 large paper plates on a table. Arrange bite-size samples of the foods and spices on plates and have students take a sample. (Students have small paper plates for their samples.)

### Suggested Items:

Dried fruits (mango, pineapple, etc.)

Nuts: Brazil nuts, cashews and macadamia nuts

Chocolate (kisses)

Sweet potato (chips)

Cinnamon, cloves, ginger, allspice, cardamom

Discuss the samples tasted and have student select the one they like best.

## **Reflection and Assessment:**

After visiting **Butterfly Wonderland**, discuss the experience in the atrium and how the atmosphere relates to the Amazon Rainforest. The final assessment will be completion of the activities and participation in the discussions.

### **Activity: Where do I live?**

The objective of this activity is to have students demonstrate their understanding of what animal or plant lives in a particular habitat. The picture sheet contains animals native to the desert and animals native to the rainforest. Students study the animals and plants and discuss their specific characteristics and what habitat is home to them.

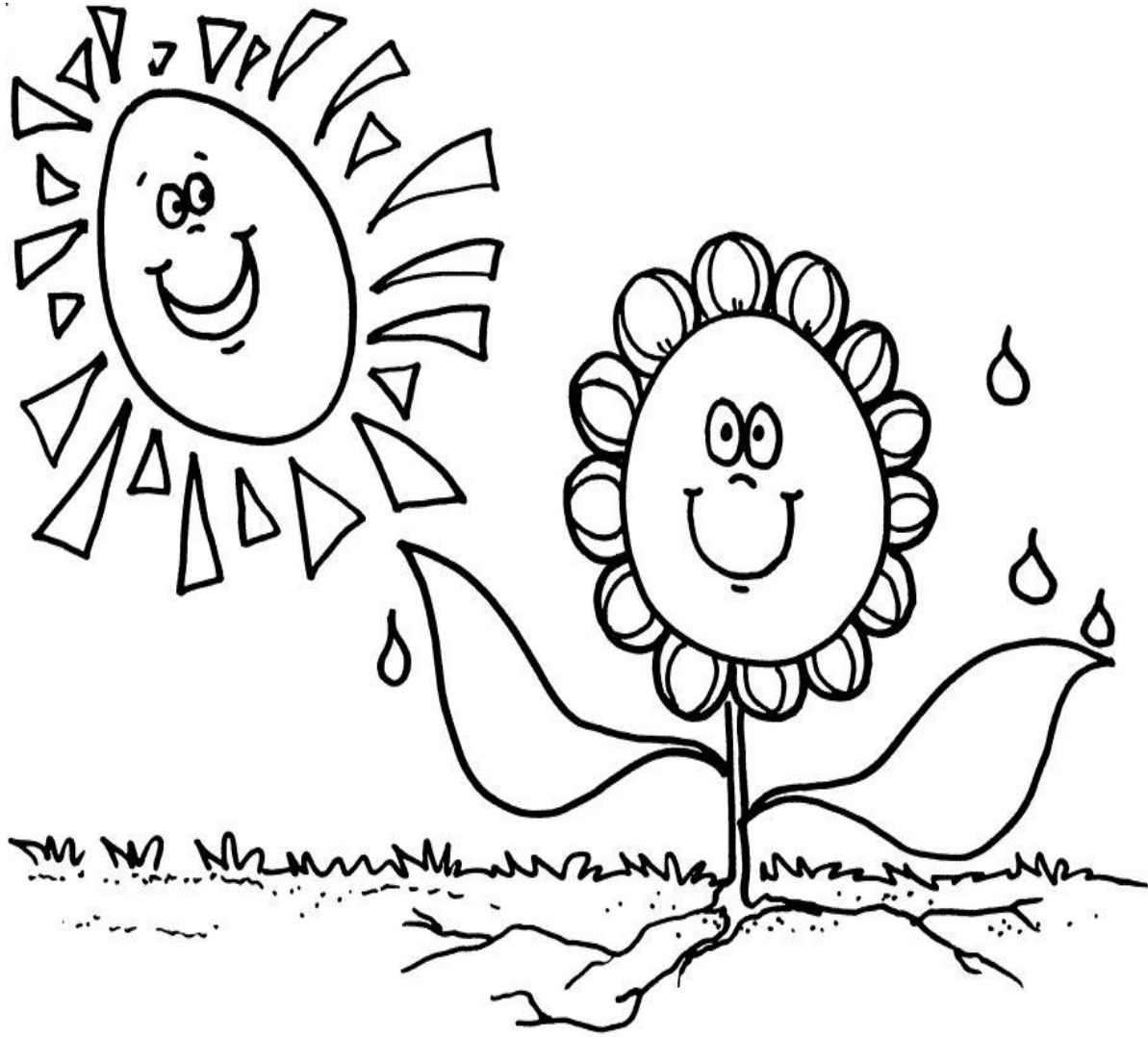
This activity can be done individually or in small groups. Students cut out the pictures and assemble them on the table. Each student has a worksheet, “Where Do I Live?” with a box for desert life and a box for rainforest life.

Depending on teacher instructions, the students paste one or two of the pre-cut pictures in the appropriate box. Students then share their choices with the class (or group) and tell why the animal or plant belongs in the habitat.

\*Note: Teachers may choose to use construction paper for this activity to allow students to paste more pictures of plants and animals in each category.

Materials: Scissors, printed animal pictures, worksheet

Color the picture. Write a story about how the sun, rain and plants work together.



Write your story here.



**Who Am I, and where do I live? Pictures**





(Public domain photos)

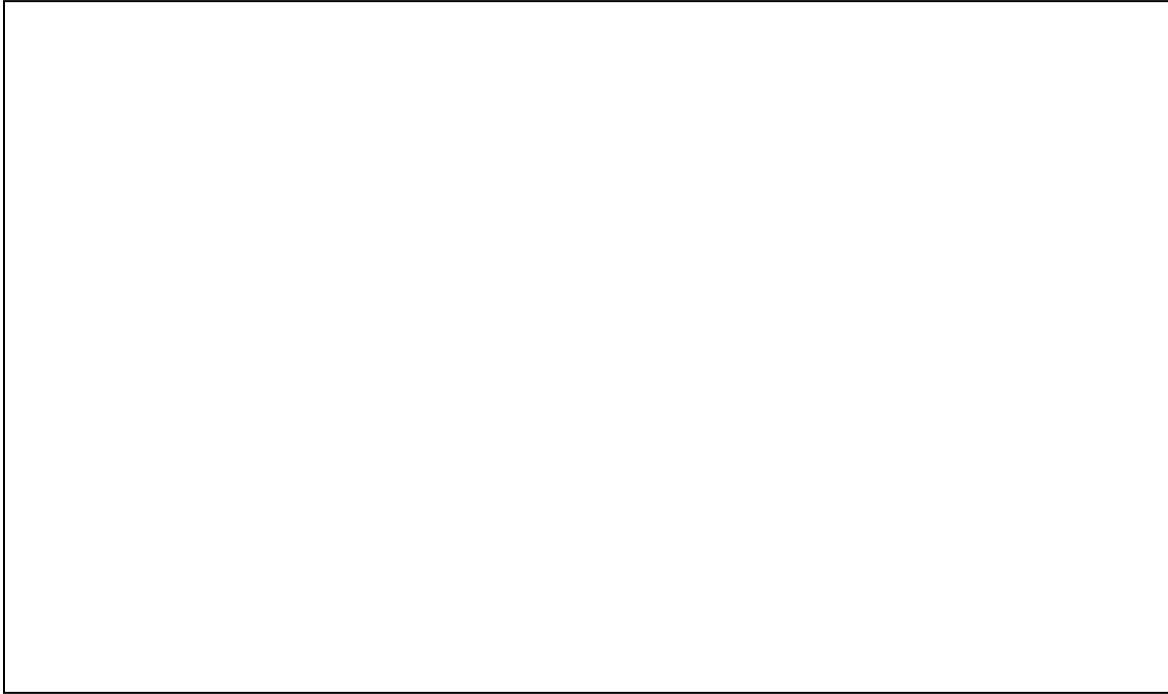
Who am I, and where do I live ?

Name of pictures from top left to right:

- Desert scorpion
- Desert tortoise
- Desert coyote
- Desert mountain lion
- Rainforest anaconda snake
- Desert cactus
- Rainforest plants
- Rainforest poison dart frog
- Rainforest macaw
- Rainforest squirrel monkey
- Desert horned toad
- Rainforest white Uakari monkey

# WHERE DO I LIVE?

DESERT HABITAT



RAINFOREST HABITAT

