Name _____

Daily Science
Big Idea 2
WEEK 4

Day 1

Weekly Question

How can so many different plants live in the rainforest?

When you think of a **rainforest**, you might imagine tangles of tall trees and exotic plants showered in rain. This rain is, in fact, what gives rainforests their name. An average rainforest can receive more than 100 inches of rain in a year. By comparison, a desert gets 10 or fewer inches of rain annually.

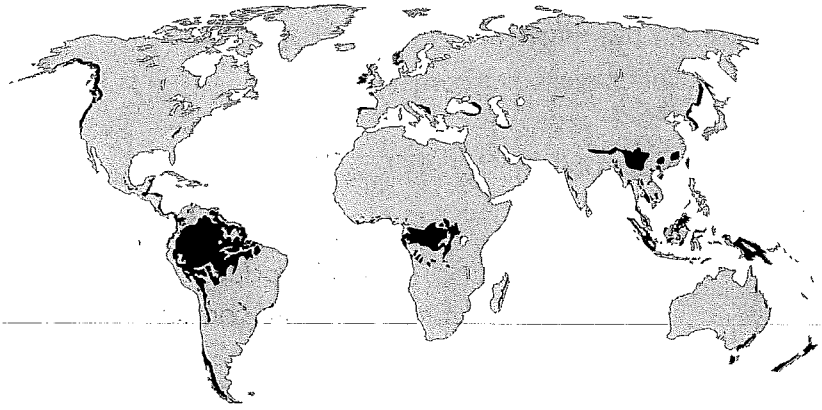
The majority of the world's rainforests are near the equator, so they are always warm and humid. Being near the equator also means that they get about 12 hours of sunlight every day of the year. These tropical conditions of regular sun and rain are ideal for plant growth.

Plants of the rainforest ecosystem, like all plants, are **producers**. They make their own food through the process of photosynthesis. With so much sun and rain available, hundreds of thousands of plant species are able to thrive in the rainforest.

Vocabulary

producer
pro-DOO-sur
an organism that makes its own food

rainforest
RANE-for-ist
a forest with at least 80 inches of rainfall every year



The dark areas on the map show where the world's rainforests are.

A. List three physical characteristics of a tropical rainforest.

1. _____ **3.** _____

2. _____

B. Which of these inhabitants of the rainforest is *not* a producer? Fill in the correct bubble.

Ⓐ fern Ⓑ banana tree Ⓒ monkey Ⓓ passionflower

© Evan-Moor Corp. • EMC 5015 • Daily Science

Name _____

Daily Science
Big Idea 2
WEEK 4

Day 2

Weekly Question

How can so many different plants live in the rainforest?

Although water is readily available in a rainforest, sunlight is harder to find. Plants must compete for sunlight, literally climbing over one another to reach it. Plants that grow the tallest reach the most light, while those that are on the ground receive very little.

The rainforest is divided into four layers of plants that have adapted to different levels of sunlight. At the top, rising more than 200 feet into the air, are the scattered giant trees that make up the forest **overstory**. While the overstory gets direct sun, its trees can also be subjected to hot, drying wind. The next layer is the forest **canopy**. The canopy is a dense ceiling of closely-spaced trees and plants. This layer traps humidity, and it also captures most of the sunlight.

Only 5% of sunlight reaches the third layer, which is called the **understory**. The understory includes shorter trees and shrubs with large leaves that help catch the available light. Below the understory is the forest floor. You would need a flashlight to explore this layer! Yet there are still a few plants that are able to grow here.

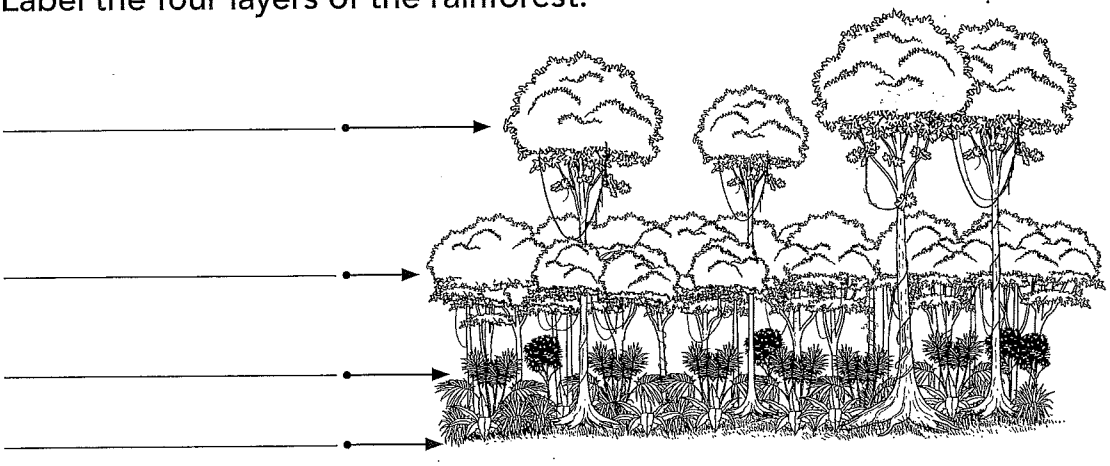
Vocabulary

canopy
KAN-uh-pee
dense upper layer of rainforest foliage

overstory
OH-ver-STOR-ee
tallest layer of rainforest trees

understory
UN-der-STOR-ee
layer of rainforest plants that grow beneath the canopy

A. Label the four layers of the rainforest.



B. Based on the information in the passage, which layer do you think has the largest amount of trees and plants? Explain your answer.

_____

_____

Daily Science • EMC 5015 • © Evan-Moor Corp.

Name _____

Daily Science Big Idea 2 WEEK 4

Day 3

Weekly Question

How can so many different plants live in the rainforest?

The heart of the rainforest community lies far above the ground, in the canopy. This is where the greatest concentration of plant life is, because of the many plants that have evolved adaptations in order to grow closer to the sunlight.

Some plants, called **epiphytes**, grow on the trunks and branches of trees in the canopy. These rootless plants include species of ferns, mosses, and orchids. Instead of reaching down into the soil for nutrients, most epiphytes rely on dead organic matter that falls from above. Other plants called *lianas* (lee-AH-nuhs) have roots on the forest floor. These woody vines grow up the sides of trees in order to reach the sun.

Vocabulary

epiphyte
EH-pih-fite
a plant that grows above the ground, supported by another plant

A. Write *true* or *false*.

1. Orchids get most of their nutrients from the soil. _____
2. Epiphytes are a type of woody vine. _____
3. The canopy of the rainforest contains more plants than the understory does. _____
4. Lianas grow up the sides of trees to get sunlight. _____

B. Describe two ways that plants in the canopy find nutrients.

1. _____
2. _____

© Evan-Moor Corp. • EMC 5015 • Daily Science

Name _____

Daily Science
Big Idea 2
WEEK 4

Day 4

Weekly Question

How can so many different plants live in the rainforest?

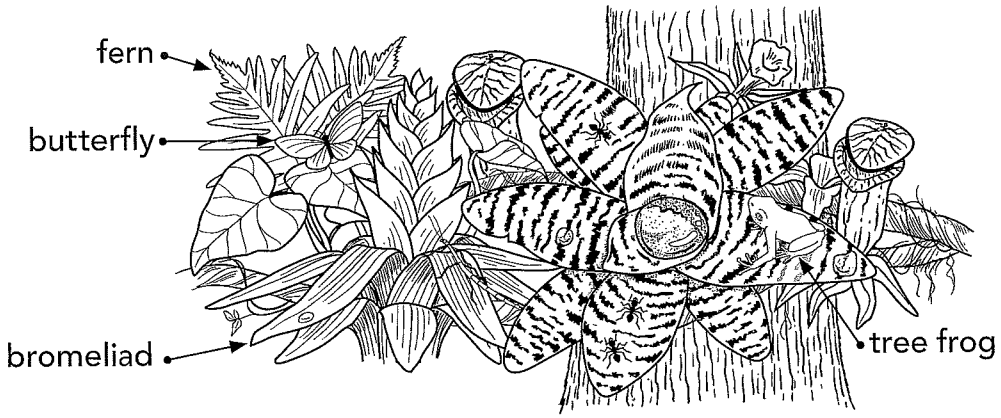
The rainforest is home not only to many thousands of plant species but also to an abundance of animal life, including monkeys, snakes, lizards, birds, and insects. In the rainforest ecosystem, these animals act as consumers, feeding on plants and other animals. But the animals also help the plants survive. They pollinate flowers, help scatter seeds, and provide nutrients to plants when the animals die or produce waste.

Probably no other environment on Earth houses the richness and **diversity** of life as the rainforest does. According to some estimates, the rainforest is home to about 50% of all living things on Earth! Yet we are only beginning to explore this amazingly complex ecosystem. In fact, some scientists believe that there could be millions of species in the rainforest that we have yet to discover.

Vocabulary

diversity
dy-VER-sih-tee
variety

A. Write a caption to go with the picture below. Use the word *diversity*.



_____

_____

B. List three ways that the animals of the rainforest help plants survive.

1. _____

2. _____

3. _____

Daily Science • EMC 5015 • © Evan-Moor Corp.

Name _____

Daily Science
Big Idea 2
WEEK 4

Day 5

Weekly Question

How can so many different plants live in the rainforest?

A. Use the words in the box to complete the paragraph.

epiphytes	**producers**	**understory**	**canopy**
rainforest	**diversity**	**overstory**	

With so much sunlight and rain, the _____ ecosystem supports a wide _____ of life. Plants play the role of _____ within the rainforest. Since it is too hot and dry in the _____, and too dark in the _____, most of the rainforest plant species live in the _____. Here, plants called _____ reach sunlight by growing on the branches and trunks of trees.

B. Use the picture of the rainforest to answer the questions.

1. In which layer do the decomposers live?

   _____

2. In which layer are most of the epiphytes?

   _____

3. Which layer gets the most direct sunlight?

   _____