

# Rainforests

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A RAINFOREST is a dense area of tall trees, typically found in places with high amounts of rainfall. Although they are incredibly DIVERSE and complex, rainforests are home to more than half of the world's plant and animal SPECIES. They cover only about 6% of EARTH'S surface. Rainforests are Earth's oldest living ECOSYSTEMS, with some remaining in their present form for at least 70 MILLION YEARS. The rich BIODIVERSITY is super important to our well-being as well as our planets. Rainforests help REGULATE (control, manage) our climate and provide us with everyday needs.

Spell: BIODIVERSITY REGULATE SPECIES

A \_\_\_\_\_ is a dense area of tall trees, typically found in places with high amounts of rainfall.

RAINFOREST

Rainforests are Earth's oldest living \_\_\_\_\_. ECOSYSTEMS

Biodiversity is super important to our well-being as well as what? PLANETS

Rainforests are home to more than half of the world's \_\_\_\_\_ and \_\_\_\_\_ species. PLANT, ANIMAL

What is a synonym for regulate? CONTROL, MANAGE

Rainforests are incredibly what? DIVERSE, COMPLEX

About how much of Earth's surface do rainforests cover? 6%

Some rainforests remained in their present form for at least \_\_\_ million years? 70

Name another Ecosystem:



Rainforests THRIVE (flourish) on every continent but ANTARCTICA. The wettest parts of Antarctica experience 200 mm of precipitation each year, which is about a tenth of what is needed to SUSTAIN a rainforest. The LARGEST rainforests on Earth surround the AMAZON RIVER in South AMERICA and the CONGO RIVER in AFRICA. The TROPICAL islands of Southeast ASIA and parts of AUSTRALIA maintain dense rainforest habitats. The amazing evergreen forests of North AMERICA'S Pacific Northwest and northern EUROPE are even types of rainforests.

Spell: TROPICAL SUSTAIN WETTEST

What is the only continent that rainforests don't thrive on? ANTARCTICA

The \_\_\_\_\_ rainforests on Earth surround the Amazon River and the Congo River. LARGEST

Where is the Amazon River located? SOUTH AMERICA

The amazing evergreen forests of \_\_\_\_\_ Pacific Northwest and \_\_\_\_\_  
\_\_\_\_\_ are even types of rainforests. NORTH AMERICA'S, NORTHERN EUROPE

Where is the Congo River located? AFRICA

What synonym did I provide for the word thrive? FLOURISH

Name one of the tropical islands that maintain dense rainforest habitats. SOUTHEAST ASIA, AUSTRALIA

Name another continent:

The wettest parts of Antarctica experience how many mm of precipitation each year? 200

What continent would you like to visit? Explain why.

VAKT: Point to Antarctica on the map.



Most rainforests are arranged in four layers: EMERGENT, CANOPY, UNDERSTORY, and FOREST FLOOR. Each layer has UNIQUE aspects based on differing levels of water, sunlight, and air CIRCULATION. The top layer of the rainforest is the Emergent Layer. Small, waxy leaves help trees in the Emergent Layer retain water during long DROUGHTS or dry seasons. Beneath that is the Canopy Layer which blocks wind, rainfall, and sunlight, creating a humid, still, and dark environment. Located several meters below the Canopy is the Understory, which contains plants such as palms and PHILODENDRONS, which are much shorter and have larger leaves than plants that DOMINATE the canopy. The Forest Floor is the darkest layer, making it very difficult for plants to grow. Leaves that fall to the floor decay quickly.

Spell: UNIQUE DROUGHTS DOMINATE

What layer is at the top of the rainforest? EMERGENT

What layer of the rainforest is the darkest? FOREST FLOOR

Leaves that fall to the forest floor \_\_\_\_\_ quickly. DECAY

Each layer has unique aspects based on differing levels of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_  
 \_\_\_\_\_. WATER, SUNLIGHT, AIR CIRCULATION

Name two things the canopy layer blocks. WIND, RAINFALL, SUNLIGHT

What is one type of plant that the understory contains? PALMS, PHILODENDRONS

How many layers are most rainforests arranged in? 4

What layer do you think would have the most insects? Why would they live there?

VAKT: Point to each layer in the photo above.



Tropical Rainforest

There are two types of rainforests, TROPICAL and TEMPERATE. Tropical rainforests are found closer to the EQUATOR where it is warm. The tropical rainforest is a hot, moist BIOME where it rains all year long. Temperate rainforests are found near the cooler COASTAL areas further north or south of the equator. Both types of rainforests BOAST (POSSESS, own) the presence of EPIPHYTES– plants whose roots (if present) do not touch the ground.

Spell: BIOME EQUATOR COASTAL

What rainforests are found closer to the equator where it's warm? TROPICAL

What rainforests are found further north or south of the equator? TEMPERATE

What are plants whose roots (if present) do not touch the ground called? EPIPHYTES

What is a synonym used for the word boast? POSSESS, OWN

Provide an adjective that was used to describe a tropical rainforest.. HOT, MOIST

Name a type of epiphyte: MOSS, ORCHID

How many types of rainforests are there? 2

Which type of rainforest would you prefer to visit? Why?



Rainforests produce about 20% of our OXYGEN and store a huge amount of CARBON DIOXIDE. Large amounts of solar RADIATION are absorbed, which helps regulate temperatures around the globe. Rainforests also help maintain the world's water cycle. More than 50% of precipitation hitting a rainforest is returned to the atmosphere by EVAPOTRANSPIRATION (when water moves from the land surface to the ATMOSPHERE via evaporation and transpiration), helping regulate healthy rainfall around the planet. Rainforests PROVIDE humans with products that are used every day. These products include tropical woods, fibers, spices, fruits, and even MEDICINAL products.

Spell: PROVIDE RADIATION ATMOSPHERE

What word describes when water moves from the land surface to the atmosphere via evaporation and transpiration? EVAPOTRANSPIRATION

Rainforests help maintain the world's \_\_\_\_\_ cycle. WATER

Rainforests provide \_\_\_\_\_ with products that are used every day. HUMANS

Rainforests produce \_\_\_\_\_ and store a huge amount of \_\_\_\_\_. OXYGEN, CARBON DIOXIDE

Name a product that rainforests provide humans with that are used every day. TROPICAL WOODS, FIBERS, SPICES, FRUITS, MEDICINAL PRODUCTS

Name another product we use that could come from the rainforest. COFFEE, TEA, VANILLA, SUGAR

Rainforests produce about how much of our oxygen? 20%

More than \_\_\_\_% of precipitation hitting a rainforest is returned to the atmosphere by evapotranspiration. 50

Show video: "Why are Rainforests Important?" - Youtube

(<https://www.youtube.com/watch?v=zV2druTpnaA>)



Deforestation in the Brazilian Amazon

Rainforests are DISAPPEARING at an alarmingly fast pace, mainly due to human development over the past few CENTURIES. Many BIOLOGISTS expect rainforests will lose 5-10% of their species each decade. RAMPANT (something unwelcome or unpleasant) DEFORESTATION could cause many important

rainforest habitats to disappear completely within the next hundred years. The main cause for habitat loss is due to the fact that 100 acres of rainforest are cleared every minute for AGRICULTURAL and INDUSTRIAL development. Many individuals, communities, governments, organizations, and conservation groups are taking creative APPROACHES to protect THREATENED (risked, endangered) rainforest habitats.

Spell: APPROACHES CENTURIES THREATENED

Rainforests are \_\_\_\_\_ at an alarmingly fast pace. DISAPPEARING

\_\_\_\_\_ could cause many important rainforest habitats to disappear completely. RAPID DEFORESTATION

Who expects rainforests will lose 5-10% of their species each decade? BIOLOGISTS

100 acres of rainforest are cleared every minute for \_\_\_\_\_ and \_\_\_\_\_ development.

AGRICULTURAL, INDUSTRIAL

What is a synonym used for threatened? RISKED, ENDANGERED

Who is taking creative approaches to protect threatened rainforest habitats? Pick two. INDIVIDUALS, COMMUNITIES, GOVERNMENTS, ORGANIZATIONS, CONSERVATION GROUPS

How many acres of rainforest are cleared every minute? 100

Come up with a plan on how to save the rainforests.

Creative writing: Write a story about your imaginary trip to a rainforest (or maybe a real one!!!). What did you see? How was the weather?

Resources:

<https://education.nationalgeographic.org/resource/rain-forest>

<https://homework.study.com/explanation/why-is-there-no-rainforest-in-antarctica.html>

[https://en.wikipedia.org/wiki/Temperate\\_rainforest](https://en.wikipedia.org/wiki/Temperate_rainforest)

<https://www.theguardian.com/environment/2021/aug/20/brazil-amazon-deforestation-report-bolsonaro-climate>