

The H.O.T. Spot

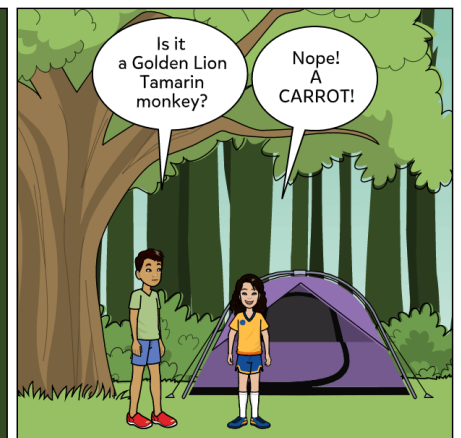
By Jason S. McIntosh, Ph.D.

A WEEKLY PUBLICATION FOR CURIOUS KIDS

Issue #11 (September 9, 2020)

CAUTION: Participation may lead to a lack of boredom and a tired brain!

FEATURED TOPIC THIS WEEK:
Tropical Rainforests





Tropical Rainforests

Did You Know?

Rainforests get their name from the fact they receive 100 or more inches of rain every year. The largest rainforest is the Amazon in South America, but there are rainforests all along the Earth's equator. Rainforests cover only 3% of the Earth's surface, but they are home to over half of the world's species of land animals and plants. Six million square miles of the Earth used to be covered by rainforest. Sadly, humans have reduced that number to three million because of logging, mining, farming, fires, etc.

Help Wanted

Rainforests are some of the most diverse places on the globe. Due to this fact, scientists from all over the world come to study them. **Botanists** (scientists who study plants) are often found there. Here is what it takes to become a botanist:

Requirements

1. A bachelor's or master's degree in botany
2. Research experience preferred

Necessary Skills

1. Analytical and critical thinking skills
2. Strong in mathematics
3. Planning and coordinating projects

Daily Tasks

1. Review literature and research
2. Conduct fieldwork to collect plant samples
3. Record plant growth under different conditions
4. Apply for grant funding

Virtual Field Trip

Take a Tour of the Amazon Rainforest

www.youtube.com/watch?v=JEsV5rqbVNO

Would You Rather

Explore the Amazon Rainforest in South America
OR the Congo Rainforest in Africa?

Bio-Profile



Sarah Sax is an environmental journalist who has written about the indigenous Amazon 'women warriors' who are leading initiatives to patrol and protect the forests in which they live. You can listen to her explain what she learned from interviewing these women here. [LINK](#)

Mystery Picture of the Week

The big roots on this rainforest tree have a special name. What do scientists call them? After doing your research, turn your paper upside down to find the answer.



Scientists call these roots buttress roots. They are called this because they keep the tree from falling over as a result of the poor soil in the rainforest.



What do you think the featured topic should be next week? Email your teacher with your thoughts.

Project-Based Bonanza

Choose one or more of the projects below to complete this week.

CHOICE A

Click on the link below to download, print, and assemble your very own tropical rainforest flipbook originally created by Nickelodeon.

[LINK](#)



CHOICE B

The Amazon Rainforest is often referred to as the lungs of the planet. That is because plants breathe in carbon dioxide and release oxygen. But, have you ever SEEN a leaf breathing? Here is how to do it! Fill a bowl with lukewarm water. Find a leaf from a tree and submerge it under the water with a small stone. Wait for an hour and then look closely at the leaf. What do you see?

CHOICE C

Watch the video called “Rainforest Song” linked below.

[LINK](#)

Pay attention to the many plants and animals it contains. When you are finished, choose one rainforest plant or animal and make up your own song or poem about it. Share it with your classmates and family!

Cliff Hangers

(*I've started a story! You finish it!*)

Dear Journal,

I am so excited to begin day two of my journey into the Amazon. I know there are many dangers and unknowns ahead, but I trust my guides. They really helped me calm down last night. I was having trouble falling asleep, because...WOW...it sure is loud in here. Who knew frogs and insects could make so much noise! I also kept imagining what might slither into my sleeping bag while I slept and jumped at every breaking twig or rustling leaf. It was when the guides told me the story of *The Golden Sloth and his Chameleon Friend* that I began to relax. The story begins like this...

Brain Teaser of the Week

Can you figure out what this picture is saying?



Digging Into Depth and Complexity

In past issues, we have learned about the Kaplan Depth and Complexity Model icons *unanswered questions, ethics, change over time, rules, trends, multiple perspectives, patterns, and details*. Another important icon is **language of the disciplines**.



This icon stands for the specialized vocabulary, terms, and acronyms people use when talking about or studying a particular field. For example, a botanist studying plants in the rainforest might use words like emergent layer, fungi, photosynthesis, epiphytes, lianas, bromeliads, and carnivorous plants.

Click on the word ‘link’ below to visit a website that defines each term and shows pictures of each. Which do you find the most fascinating? Which would you choose to study if you were a botanist in the rainforest? [LINK](#)

