

LEVELED BOOK • Z<sup>1</sup>

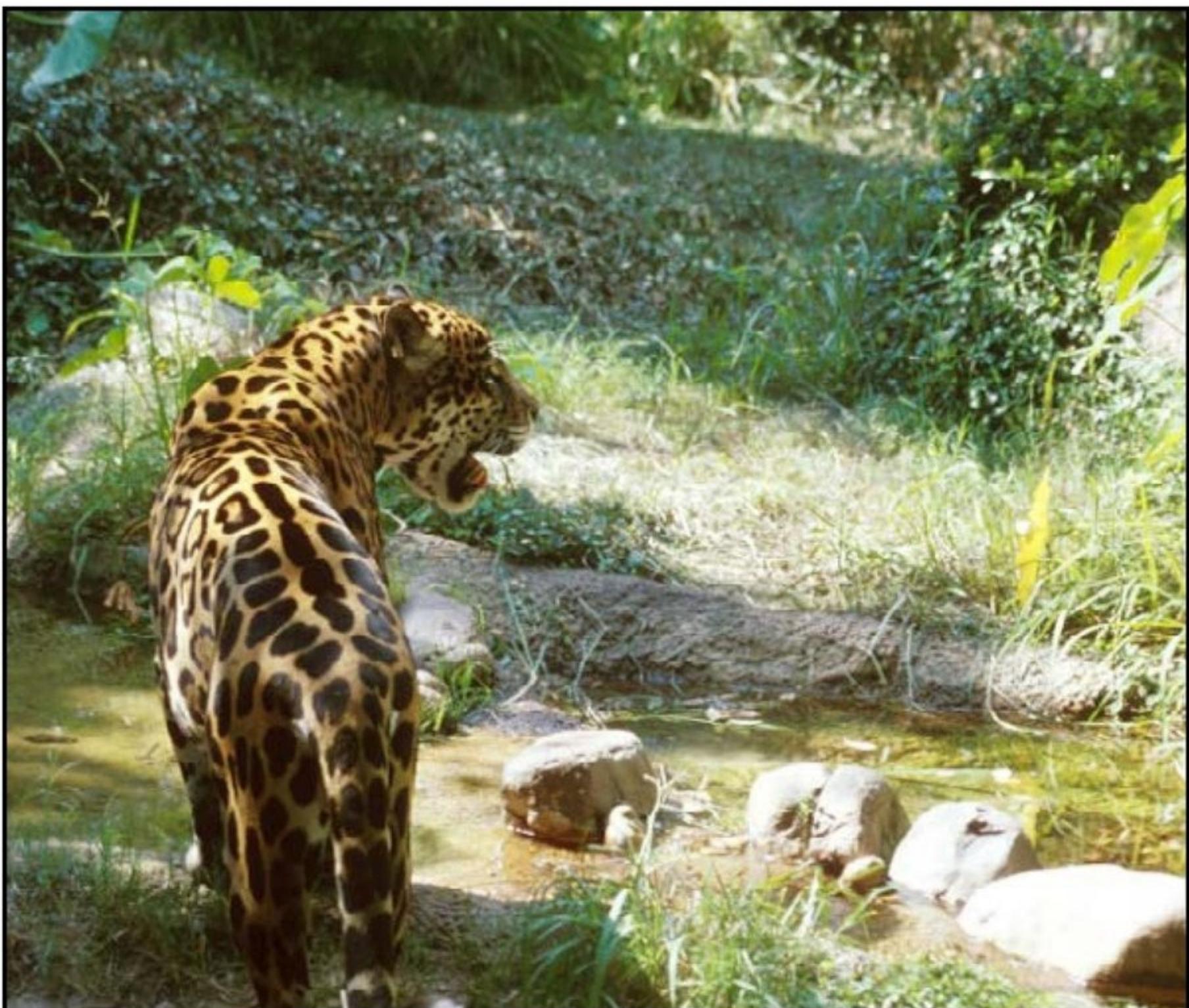
# The Amazing Amazon



MULTI  
LEVEL  
U•X•Z<sup>1</sup>

Written by David Meissner

# *The Amazing Amazon*



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## Focus Question

What makes the Amazon a unique habitat?

## Words to Know

decomposes  
emit  
epiphytes  
foliage  
nocturnal  
peccaries  
pollinators  
prehensile

slithers  
species  
substrate  
tributaries  
trickles  
unsuspecting  
venomous

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Level Z1 Leveled Book  
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### Correlation

LEVEL Z1	
Fountas & Pinnell	W-X
Reading Recovery	N/A
DRA	60

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**NOTE:** Rainforest can be spelled in two ways: *rainforest* or *rain forest*. We will use the one-word spelling. And when this book uses the word *rainforest*, it means tropical rainforest.

## **Chapter 1: There Is a Place**

There is a place where monkeys swing and howl, jaguars leap from tree to tree, and insects create huge colonies underground. In this place, bananas, pineapples, coconuts, and chocolate grow in abundance. In this place, tiny frogs live in flowers and climb trees, and pink-colored dolphins swim in the river. Storms come often to this place, and the air is sweet.

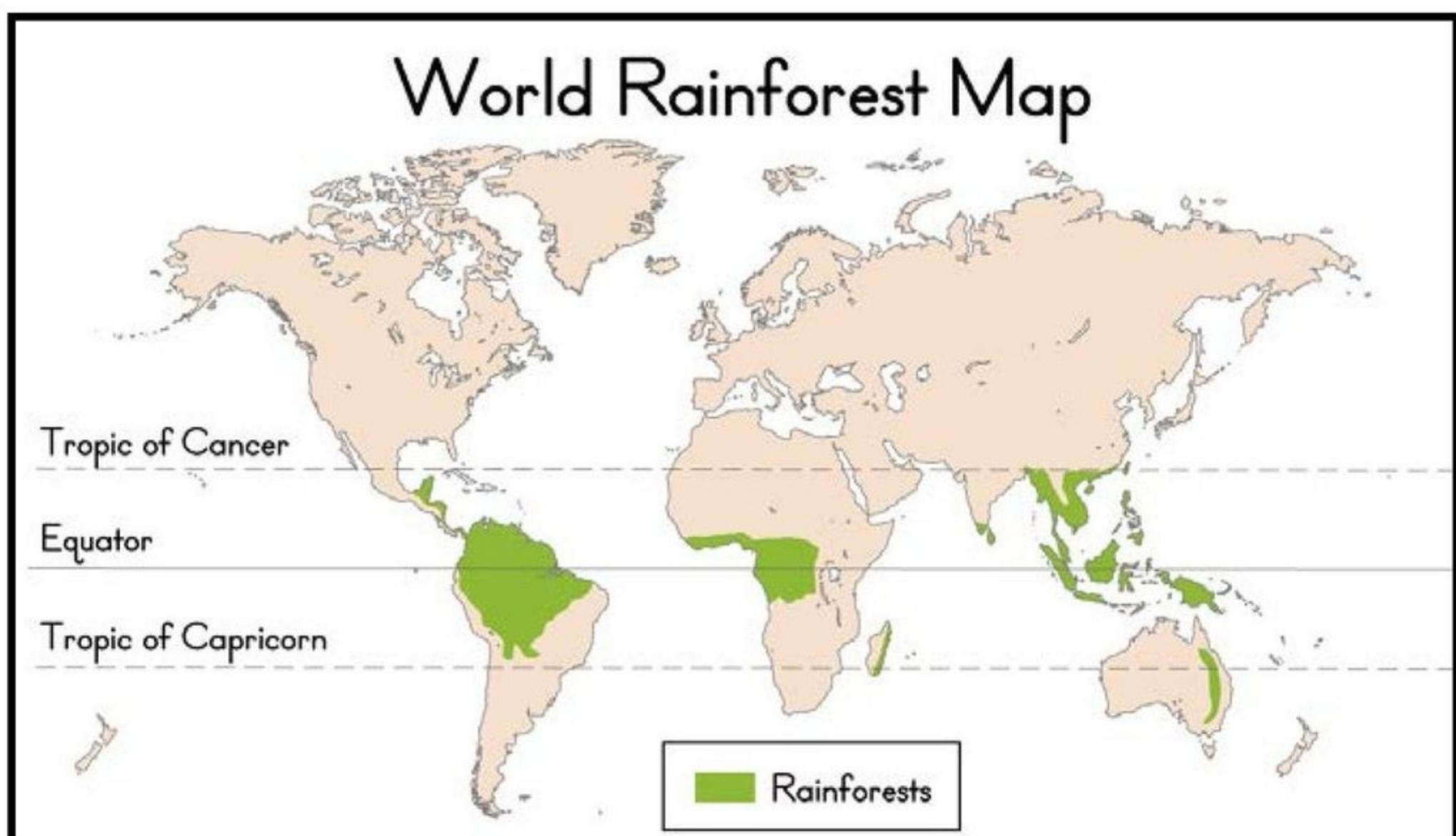
Some sunlight filters through the vines and leaves of the tall trees, but it is mostly dark here on the ground. It is hot, humid, and surprisingly still. Rainwater **trickles** down through the **foliage** from leaf to leaf. You hear a slow sound: *drip, drip, drip.*

Your skin is sweaty, an insect lands on your neck, and an ant quietly walks across your sandal. Suddenly a little brown monkey swings to a nearby branch, a bright yellow eyelash viper **slithers** up a tree, and a bright green Amazon parrot flutters past. Welcome to the Amazon basin, a tropical rainforest.

### **Rainforests**

Rainforests are located all over the planet. Tropical rainforests are close to the equator, between 23.5° N latitude and 23.5° S latitude

in a band around the planet. Subtropical rainforests occur outside the tropics. Both types of rainforests share characteristics, but subtropical rainforests have fewer **species** of trees, plants, and animals than tropical rainforests.



Rainforests live up to their name: they are forests where it rains almost every day. In fact, a typical tropical rainforest receives between 150 and 400 centimeters (59–157 in) of rain each year. They are also warm. Their temperature averages between 25° and 35° Celsius (77°F–95°F). Rainforests are green year-round. The humidity is between 77 and 88 percent. Their rainy, hot, and humid climate is perfect for tall trees, vines, ferns, and other plants. The really thick parts of rainforests are what we call *jungles*.

Tropical rainforests cover a small part (about 6 percent) of Earth's surface. But more than half (50 percent) of the world's plant and animal species are found in them—that's close to thirty million species of plants and animals! Most of the world's rainforests are in Africa, Southeast Asia, and South America.

## The Amazon

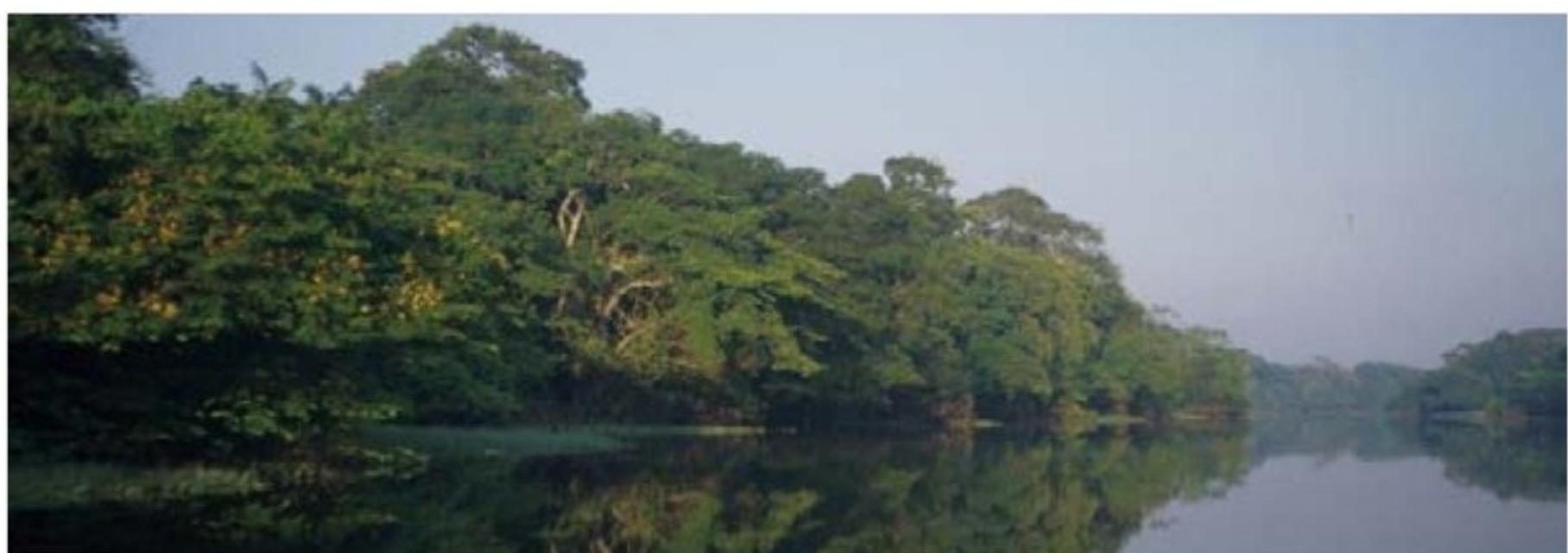
The Amazon rainforest lies in South America. Most of its 5.5 million square kilometers (1.4 billion acres) are in Brazil, but parts of the rainforest are also in Peru, Venezuela, Ecuador, Colombia, Guyana, Bolivia, Suriname, and French Guiana. It is the largest tropical rainforest in the world, with more different types of insects, plants, and animals than any other place on Earth. Scientists discover new species of insects and plants there every year.

The Amazon River flows through the heart of this rainforest. Flowing at a rate of up to 7 kilometers per hour (4.3 mph), the water is brown from all the silt it carries. It is like a huge sea of fresh water. It has more than one thousand **tributaries**. Catfish, piranhas, and dolphins all live in the Amazon River.

This book will take you on a tour of the Amazon rainforest, traveling from the tallest trees to the rainforest floor. Along the way, you will meet an eagle, monkey, jaguar, and ant. You will even hear what these Amazon natives would say—if they could talk.

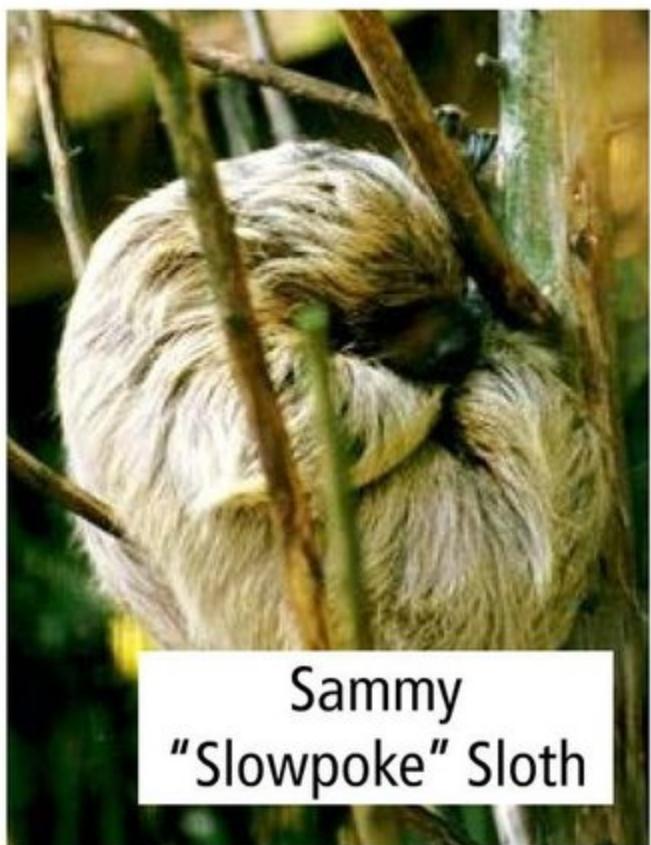
## **So just how big is the Amazon River?**

- The Amazon River can be more than 48 kilometers (30 mi) across at its widest point during the rainy season.
- It flows almost 6,437 kilometers (4,000 mi) to the Atlantic Ocean.
- Within its mouth is an island the size of Switzerland.
- It is home to more than forty thousand plant species.
- The river's arapaima fish can grow to be 3 meters (10 ft) long and weigh 180 kilograms (400 lb)!
- Its volume is greater than the next eight largest rivers combined!



The Amazon is the world's widest and largest river.

## From the Amazon Yearbook



Sammy  
"Slowpoke" Sloth

Sloths are slow-moving animals. They seem to just hang out (upside down!) in the trees. Sloths sleep up to twenty hours a day. When they're awake, they hardly move, which allows algae to grow on their fur. But, hey, it helps them blend into the forest.

Sammy was voted: *Most Likely to Survive, but Least Likely to Succeed*



Tamara the Tapir

The tapir is a large, hoofed animal that is related to the horse and the rhinoceros. Tapirs often weigh well over 136 kilograms (300 lb), and they like to swim in the river, bathe in the mud, and they are **nocturnal**, preferring to look for food when it is dark.

Tamara was voted: *Best Personality*



Katie Capybara

At approximately 1.2 meters (4 ft) long and standing 60 centimeters (2 ft) at the shoulder, the capybara is the world's largest rodent. (But Katie doesn't like to be

called a big rat.) Capybaras' slightly webbed feet help them swim.

Katie was voted: *Most Likely to Win a Rat Race*

The poison arrow frog has super-bright colors and designs. This ostentatious patterning warns other animals that its skin is poisonous. Some native people in the Amazon rainforest have used the frog's poison for centuries when they go hunting.



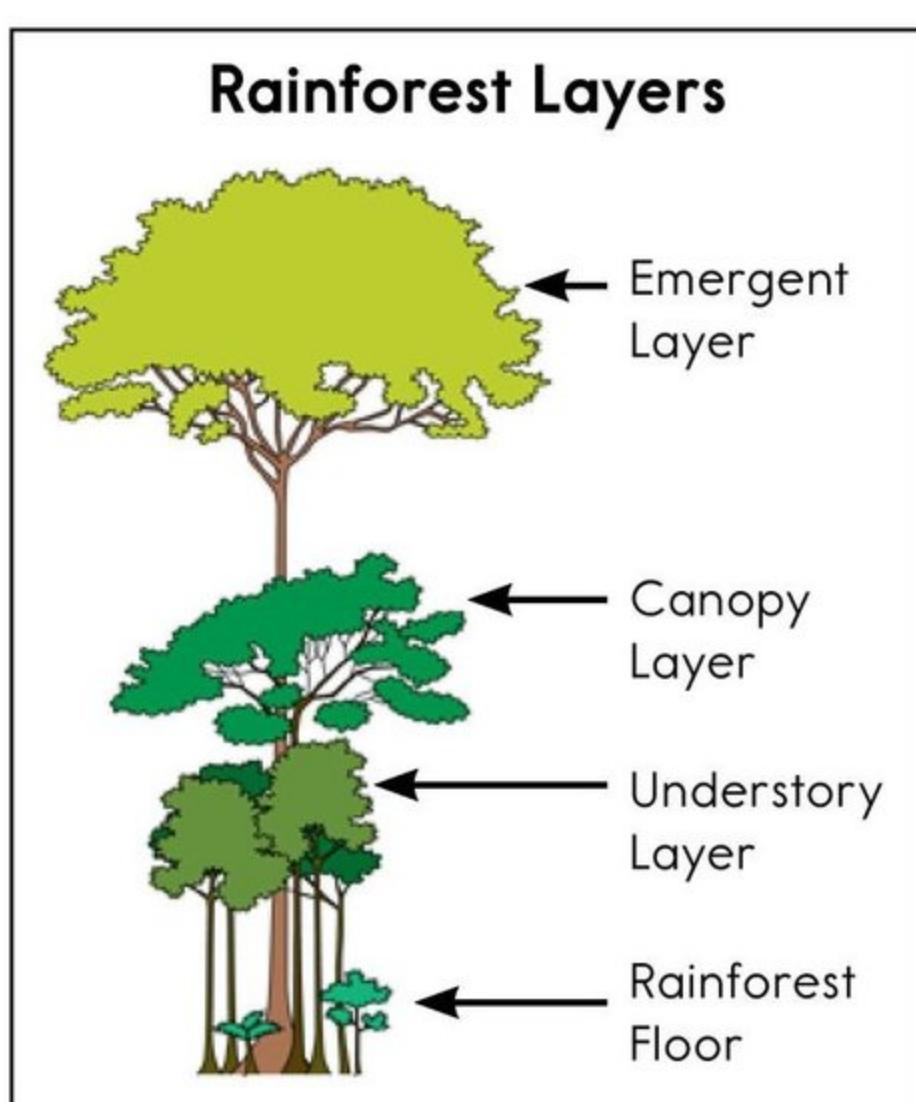
Paulo the Poison Arrow Frog

Paulo was voted: *Most Dangerous Amphibian*

## Chapter 2: Layers of the Rainforest

To better understand the rainforest, scientists have "divided" it into four layers, or sections. You

can think of it like a four-story building, with the highest trees making up the top floor, called the *emergent layer*, and the next-highest trees making up the *canopy layer*. Below them is the *understory layer*. At the bottom is the *rainforest floor*.



**High Risers** The tallest trees of the rainforest are the *emergents*. They are like big umbrellas that rise as much as 60.9 meters (200 ft) above the thick forest. Emergents are exposed to sun, wind, rain, and lightning.

Big roots support these giant trees. Because rainforest soil is shallow, tree roots often grow above the ground. The kapok tree is deciduous, meaning it sheds its leaves during the dry season, and has tall roots that extend out like wooden walls. These roots are so big that your whole class could hide behind just one of them!

Not many animals live in the emergent layer; however, some birds, bats, monkeys, and butterflies do visit to eat leaves and fruit. One huge bird, the harpy eagle, actually lives up there, high above the Amazon.



Harpy eagle

#### SPOTLIGHT INTERVIEW:

### **The Harpy Eagle**

*RAZ Interviewer:* Hello there, Harpy. Is it true that you are the largest eagle in the Americas?

*Harpy:* I think so. In your people terms, I am about one meter tall, which is more than three feet high.

*RAZ Interviewer:* It looks as if you have some big wings as well.

*Harpy:* Oh, these things? I was born with these. If I stretch them out like this, they are longer than most people. You see? My wingspan is two meters across—about six and a half feet. Flying fast really helps me find food.

*RAZ Interviewer:* What is your favorite food?

*Harpy:* Oh, I like pizza delivered to my door. Just kidding—there's no pizza here in the rainforest! I hunt sloths, monkeys, and fellow birds. Monkeys are probably the tastiest.

*RAZ Interviewer:* Is that what your big talons are for?

*Harpy:* Yep. Since they are thirteen centimeters long—that's about five inches—these meat hooks can scoop **unsuspecting** animals right off tree branches.

*RAZ Interviewer:* Do you ever fear revenge, like a monkey uprising?

*Harpy:* No, I'm the top bird around here. I build my stick nests 27 to 43 meters, or about 90 to 140 feet, up in the tallest trees. I choose trees with widely spaced branches so I have a clear flight path in and out of my nest. That way I can see what's around. Monkeys don't normally go up that high. Hey, there's a monkey now! I'll see you later!

**Crazy Canopy** The rainforest's real action is in the canopy layer. This primary layer is where most of the rainforest plants and animals live. It is like a thick roof woven out of tree branches, plants, and vines that covers the two remaining layers. About 80 percent of the sunlight in the rainforest is absorbed by the trees in this layer, so very little gets to the lower layers.

Many trees in the canopy are covered with climbing vines and **epiphytes**. Epiphytes are plants that grow on top of other plants and receive most of their moisture and nutrients from the air. Most of the rainforest's flowers, fruit, and seeds are found in this layer.

With so much good canopy food, it makes sense that animals hang out here. Many animals rarely come down to the ground, preferring to eat, sleep, hunt, and give birth high up in the trees. Many of them fly, jump, glide, and hop to get from tree to tree. Sloths, toucans, and parrots are just some of the canopy's residents, but the hardest ones to ignore are probably the howler monkeys. Their name befits their behavior, as these monkeys (the largest of the New World monkeys) howl and scream to keep other animals out of their territories.

SPOTLIGHT INTERVIEW:

## The Howler Monkey

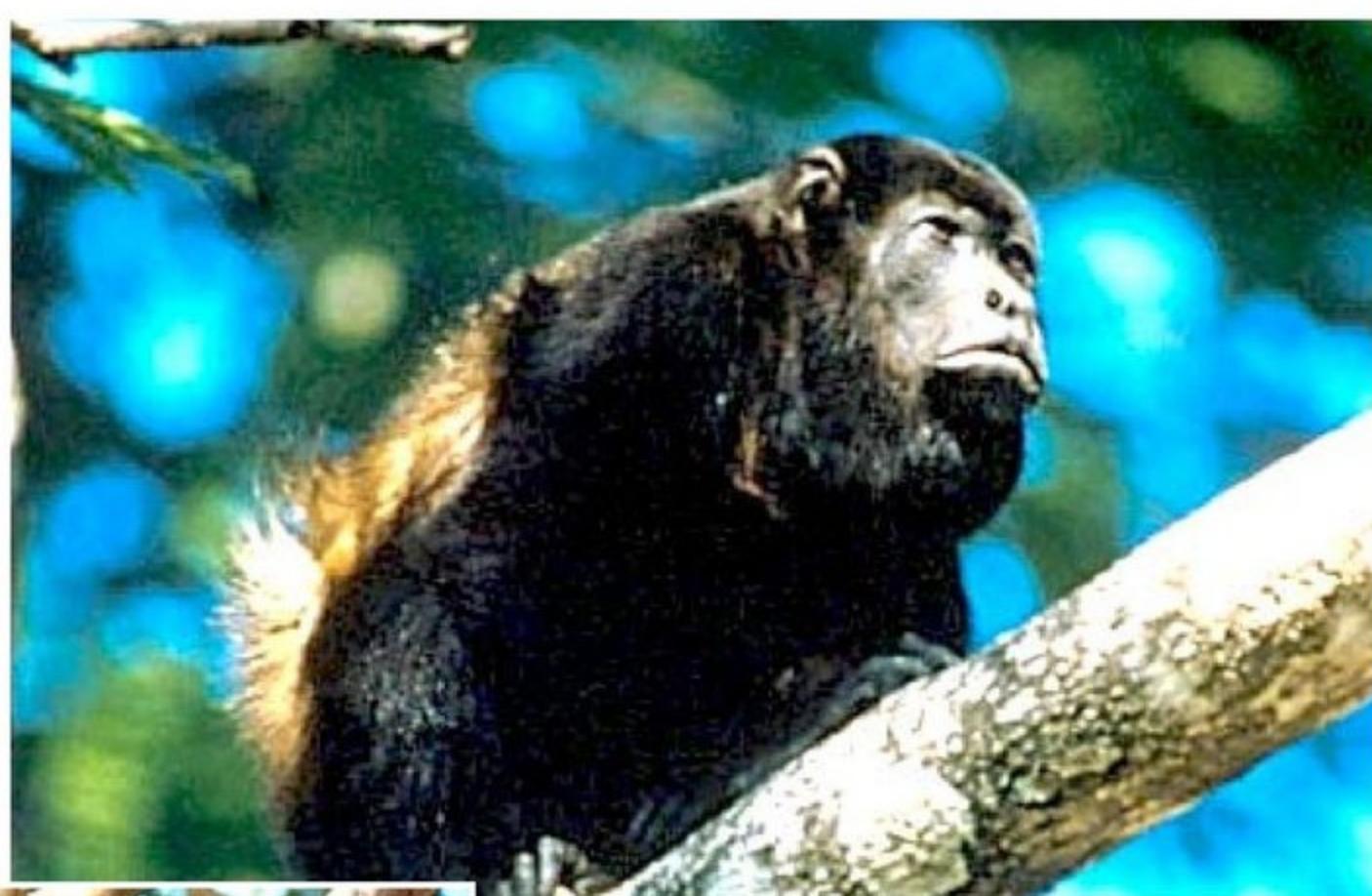
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*RAZ Interviewer:* Wow, that was one loud and distinctive howl! Excuse me, but could you please stop screaming for one moment? I would like to ask you a few questions!

*Howler:* Okay, but hurry up. If I don't scream like this regularly, other monkeys may come into our territory to claim our food.

*RAZ Interviewer:* Do you always stay up here in the canopy?

*Howler:* This is our home, my man. On the ground, there are some really big animals—it's



Howler monkey

a jungle down there. When it comes to safety, we don't monkey around. We're herbivores, so up here we can eat fruit, leaves, and flowers, and we can live in safety.

*RAZ Interviewer:* Does your long tail help you? It looks **prehensile**.

*Howler:* Yeah, if by *prehensile* you mean "grab onto." My tail helps me climb, but my hands and feet are very useful for climbing, too.

*RAZ Interviewer:* You sure use big words for a monkey. Hey, stop the howling! If you can be heard from five kilometers, or three miles, away, just think how loud it is for me. What makes you so loud anyway?

*Howler:* I have a special bone in my windpipe. My throat is like a hollow sound box. See the big swelling under my chin? Here, touch it.

*RAZ Interviewer:* Oww! That's not funny—you have sharp teeth! Okay, Mr. Monkey, you can go back to howling now.

***The Darker Story*** The understory is the third level of the rainforest; it is below the canopy and above the ground. The ferns, plants, and young trees that grow in this layer rarely reach much more than 3.6 meters (12 ft) in height. It is dark in the understory because very little light shines through the thick canopy. Understory

plants grow leaves that are big and wide in order to have a better chance of catching some rays. The flowers these plants produce are brightly colored and **emit** strong scents to attract **pollinators** such as birds and insects.

The understory is not nearly as busy as the canopy, but many animals do live here. About 220 species of poison arrow frogs hide in the foliage. **Venomous** and nonvenomous snakes wrap around trees like vines. Birds peck and pull insects from the wood. Large cats such as cougars and jaguars leap between branches.

#### SPOTLIGHT INTERVIEW:

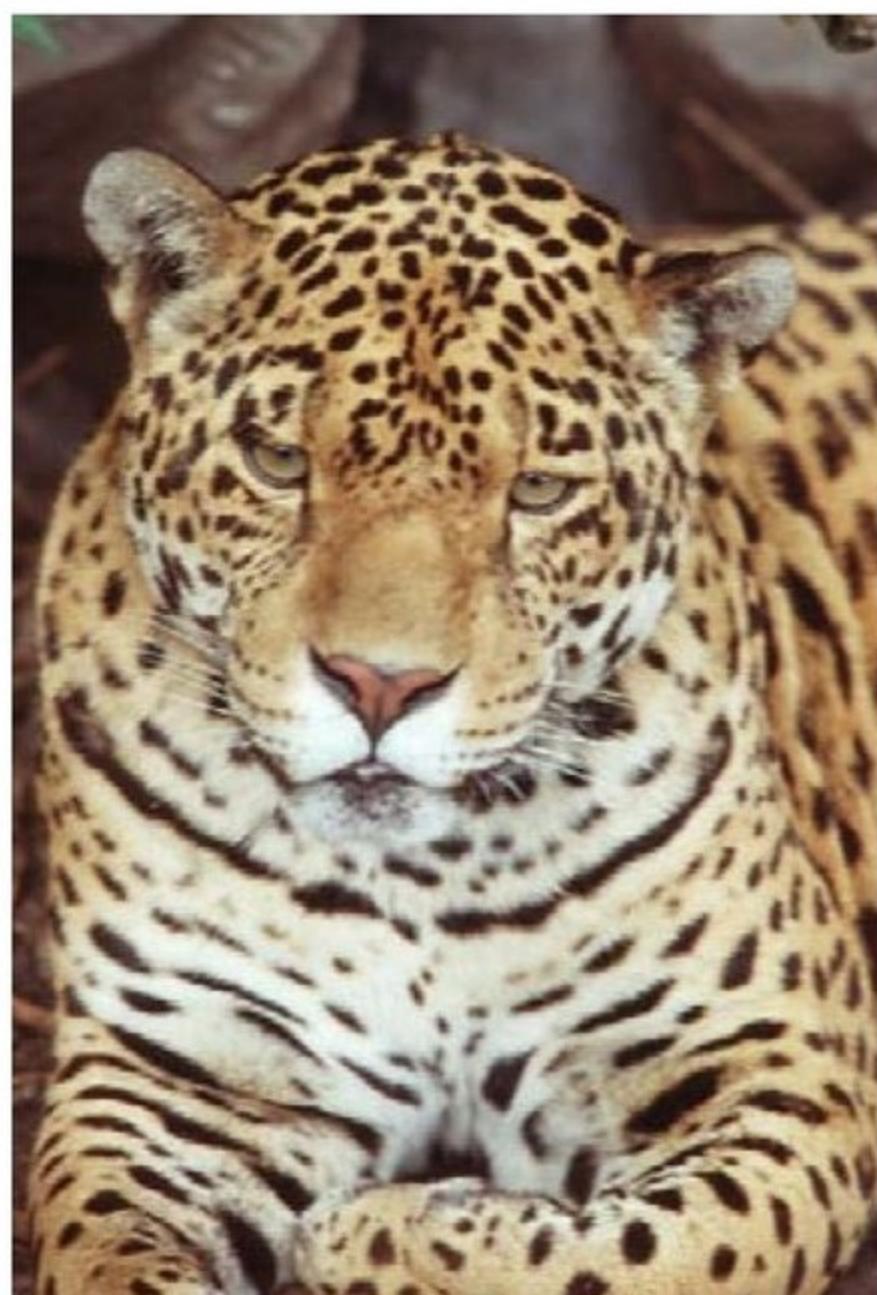
### **The Jaguar**

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*RAZ Interviewer:* Hey, put me down! And don't bite. Bad cat, bad big cat!

*Jaguar:* Sorry, I thought you were a monkey. Lucky for you that you're not as tasty. Hey, what do you think you're doing here anyway?

*RAZ Interviewer:* I came to interview you, the



Jaguar

biggest cat in the Americas. Mr. Jaguar, are you really 2.6 meters (8.5 ft) long?

*Jaguar*: That's what they say. I weigh 136 kilograms (300 lb), too. Not many animals mess with me. By the way, you can just call me Jag.

*RAZ Interviewer*: Okay, Jag, what do you do for exercise?

*Jag*: I get bored with just one sport. That's why I cross-train: I run, swim, climb, fish, and hunt.

*RAZ Interviewer*: What do you hunt?

*Jag*: Lots of things. My spots, called rosettes, camouflage me so my prey won't see me coming until it's too late. Sometimes I climb up in the canopy to eat sloths and monkeys. On the ground, I hunt **peccaries**, tapirs, and yummy capybaras. On lazy days, I lie near the river and catch fish with my claws. When I'm really hungry or want a challenge, I kill anacondas and caimans. Let's face it, I'm one big carnivore.

*RAZ Interviewer*: Wow, I don't want to be in your powerful jaws ever again! If you'll excuse me, I need to go now.

### **Chapter 3: Keeping It Clean**

If you walked around the rainforest floor, you might be surprised. It is not just one thick jungle. Sure, you would see roots, ferns, herbs, and baby

trees, assuming you could see in the almost complete darkness. But most of the green would be high above you.

Earthworms, termites, fungi, and bacteria eat up the fallen fruit, leaves, and branches, recycling it back into nutritious soil. Plants decay quickly on the rainforest floor. When a big tree falls, the insects quickly munch it down into small pieces. A leaf that falls from a tree **decomposes** in a mere six weeks in the rainforest, whereas in other ecosystems it could take up to a year.

Also on the ground are big animals such as giant anteaters, deer, tapirs, peccaries, and capybaras, but they are far outnumbered by the smaller spiders, beetles, and ants. Ant highways crisscross the rainforest floor. One kind of ant, the famous leaf-cutter ant, even parades around with leaves and flower petals in its mouth, creating trails that stretch more than 30 meters (98 ft) across.

### Trivia Question

In the Amazon rainforest, are there more mammals, birds, insects, or reptiles?

Answer: Insects! (There are more than two hundred types of mosquito alone. There are well over one thousand different kinds of butterflies. And just think of all the ants!)

SPOTLIGHT INTERVIEW:

## The Leaf-Cutter Ant

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*RAZ Interviewer:* Hey down there! Yeah, you—the one carrying the big leaf over your head! I'd like to ask you a few questions. Do you have a moment?

*Ms. Ant:* Sure, but I do need to hurry back to the fungus garden. We're low on food.

*RAZ Interviewer:* Did you really just climb up a tree and cut off that leaf?

*Ms. Ant:* That's correct. And now I'm carrying it back to our underground colony, where smaller ants will chew it up into little spongy bits.

*RAZ Interviewer:* So you don't eat the actual leaf?



Leaf-cutter ants

*Ms. Ant:* No, even though we are herbivores, we use the leaves as a **substrate** for the cultivation of a special type of fungus. Then we eat the fungus. Want to try some?

*RAZ Interviewer:* No, thank you—I, uh, just had lunch. So tell me, what is it like underground?

*Ms. Ant:* We have deep nests with hundreds of chambers. We have a stratified society, meaning different ants perform different jobs in different places within the colony. In the middle rooms, smaller ants tend to our fungus gardens, and our only queen is in a different room laying up to thirty thousand eggs in one day. That's why there are almost five million of us here! Now if you'll excuse me, I need to sniff my way home. And please watch your feet—if you step on our trail, it might alter the scent and I might get lost!



Bromeliads are cone-shaped plants that grow on trees. Their cones catch a lot of rainwater and form little swimming pools high above the ground. Tiny frogs, salamanders, and crabs live in these pools. Mosquitoes and dragonflies lay eggs in them.

## **Chapter 4: Who, Me?**

Yes, you. Do you eat bananas? Do you like chocolate? Have you ridden a bicycle with rubber tires? Well, guess what! Bananas, chocolate, and rubber all grow in the Amazon rainforest. Many more things come from the Amazon, too, such as pain and cancer medicines, woods for furniture, pineapples and other fruits, and fresh air.

The Amazon is a rich, living treasure. Insects buzz by that do not even have names yet. Trees grow, fall, and decompose into rich soil. Rainstorms fill up frogs' swimming pools. And perhaps most importantly, plants of the rainforest take carbon dioxide from the air and replace it with oxygen. Rainforests contribute approximately 24 percent of the oxygen in Earth's atmosphere. Humans and other animals need oxygen in order to live.

The Amazon rainforest is a real place. Even if it is far away from you, the Amazon lives at this very moment. As you read these words, a jaguar slinks through the understory, a leaf-cutter ant marches back to a fungus garden, and the scream of a howler monkey echoes throughout the forest. Can you hear it?



The Amazon rainforest is home to many living things.

## **Explore More**

Did you like learning about the Amazon rainforest? Well, there is much more to see. If you do some research, you're bound to find some very interesting animals!

### **1. At the Library**

Tell your librarian that you are interested in books about the Amazon rainforest.

### **2. On the Web**

In the address window, type: *www.google.com*

Then type: *Amazon rainforest*. Click on “Google Search.”

Read the colored links. Click on one that looks interesting.

When you want to explore other links, click the “back” arrow on the top left.

Or try a new search: *Amazon River*



Capybara

### **3. Try This!**

Where do you live? Do you live in the rainforest? What about in a desert, tundra, or pine forest? Do you live on the coast, up in the mountains, or out on the plains? You must live somewhere, right?

If you live in a town or city, sometimes it can be hard to tell what kind of region you live in. But there are clues all around. What kinds of trees and bushes grow nearby? What kinds of birds fly overhead? What is the weather like? Look around and investigate. If you are not sure, ask your teacher, librarian, parent, or friend.

Once you figure it out, make a report. Draw a picture like the one on page 9, but make it for your area. What kind of insects, plants, and animals are native to your home? You could find this information by walking around outside. You could also ask other people. Or you could read a book or search the Web. You'll probably be surprised by the cool things you learn about your neighbors!

## Glossary

<b>decomposes</b> ( <i>v.</i> )	decays, rots, or breaks down into small parts (p. 17)
<b>emit</b> ( <i>v.</i> )	to send out from (p. 15)
<b>epiphytes</b> ( <i>n.</i> )	plants that grow on top of other plants instead of being rooted in soil and get their nutrients from air and rain (p. 12)
<b>foliage</b> ( <i>n.</i> )	plant leaves (p. 4)
<b>nocturnal</b> ( <i>adj.</i> )	active at night rather than during the day (p. 8)
<b>peccaries</b> ( <i>n.</i> )	nocturnal pig-like mammals found in the Americas (p. 16)
<b>pollinators</b> ( <i>n.</i> )	things that transfer pollen from flower to flower (p. 15)
<b>prehensile</b> ( <i>adj.</i> )	able to hold or pick up things (p. 14)
<b>slithers</b> ( <i>v.</i> )	moves smoothly from side to side over a surface (p. 4)
<b>species</b> ( <i>n.</i> )	a group of living things that are physically similar and can reproduce (p. 5)

## Glossary Continued

<b>substrate</b> ( <i>n.</i> )	the surface or layer on which an animal or plant grows or is attached (p. 19)
<b>tributaries</b> ( <i>n.</i> )	rivers or streams that flow into larger rivers (p. 6)
<b>trickles</b> ( <i>v.</i> )	flows in a thin stream (p. 4)
<b>unsuspecting</b> ( <i>adj.</i> )	unaware of potential danger (p. 11)
<b>venomous</b> ( <i>adj.</i> )	having the ability to inject venom, a poisonous fluid, by striking, biting, or stinging (p. 15)

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# The Amazing Amazon

A Reading A-Z Level Z1 Leveled Book

Word Count: 2,683

## Connections

### Writing and Art

Create a travel brochure for the Amazon that informs readers and persuades them to visit. Use information from the book as well as outside resources.

### Math

Choose two animals from the text. Find and record the difference in size between these two animals. Then, draw a picture of both animals to scale and label it.



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