

# Calendar Connections

## September~ Rain Forest

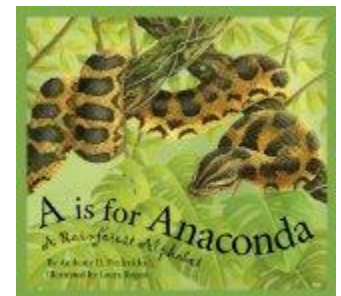
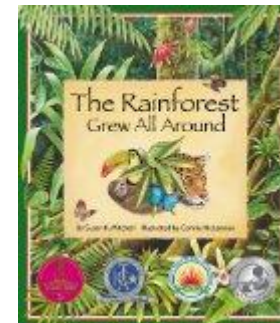
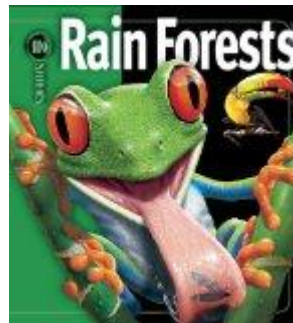
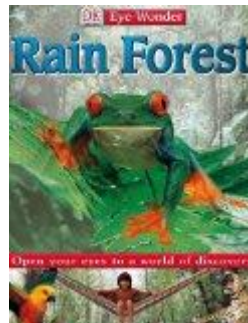
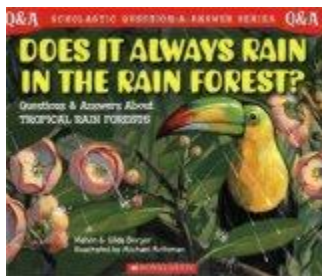
Target Level: grades 3-6

The facts are created at a more advanced level but can easily be used for the entire homeschool family! Young children will soak up the information their older siblings are taught while all together.

Although the cards were created for September, they can be used for any month of the year!

## Rain Forest Books

Click on the book image to see it on Amazon.



# Calendar Connections

## Helpful Items

~these are the exact products we use~



cardstock



laminator



laminating film

[Oriental Trading](#) carries the exact calendar I used to create these cards, it is item # IN-62/2017. Many times it is out of stock, so just check to see if they are carrying it by searching for the item #. [Use my link](#) to get free shipping with a \$49 purchase!

Home >



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### Classroom Calendar Pocket Chart

IN-62/2017

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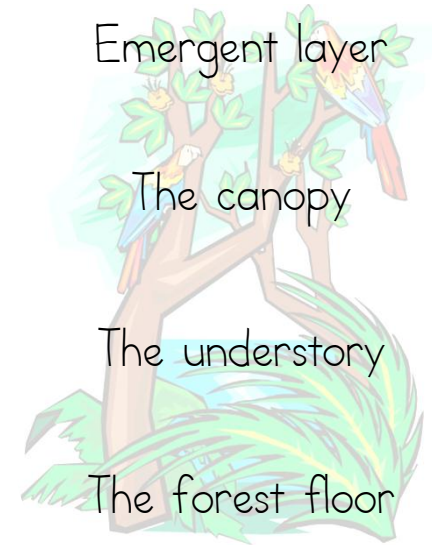
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Emergent layer



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## 1 Rain Forest

A rain forest, or jungle, is an area of dense growth of trees and plants that receives an average of 160 inches of rain a year. Rain forests only cover 7% of the earth's surface yet over half of the world's wildlife lives there! The largest rain forest is the Amazon jungle located in South America.

Can you find it on a map?

## 2 Where in the world?

Rain forests are located on either side of the equator. The weather conditions along the equator, warm and humid, make it ideal for flourishing forests to grow. The soil in a rain forest is very shallow, only 4 inches deep. Yet, some of the tallest trees are found within it!

Can you find the equator on a globe?  
Take a ruler and measure four inches.  
Not very deep is it?

## 3 Levels

A rain forest is comprised of four levels: the emergent layer, the canopy, the understory, and the forest floor. Each level is home to specific animals. This month we will talk about each level and the animals that live within each layer.

## 4 Emergent Layer

Emergent means "rising into notice" according to the Webster dictionary. This is very appropriate as this layer is the uppermost layer of the rain forest – trees rising above all the rest of the jungle. Some emergent trees can be as tall as 200 ft. No one knows very much of this layer. With the trees being so high they are difficult to study.

## 5 How do they grow so tall?

Do you remember how deep the soil is in a rain forest? (4 inches) So how do the trees stand so tall? It is due to their huge roots, called buttress roots. They fan out along the surface of the forest floor, making a steady base and drawing up water and nutrients from the top, most fertile, layer of soil. Some of these giants are up to 1,400 years old!

## 6 Up in the air!

Animals that live in the emergent layer of the rain forest must have an extraordinary sense of balance as well as a significant tolerance for heights! Many of these animals are small and light given that the treetop branches are thin. Any animal that lives in this level must also endure a lot of rain and storms. We will look at four specific animals that call the emergent layer home.





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## Who Lives Here?

What is the first animal that comes to mind when you think of a rain forest? If you thought monkey, you would be correct! There are several species that live in the emergent layer including the marmoset and colobus monkey. The colobus monkey can perform magnificent leaps from tree to tree. It uses it's feathery tail to steer its jumps as well as to slow down in the air. It will also dive fearlessly down 30 feet to a lower tree! That's like you jumping out of a second story window!

8

## Moving Rainbows

Birds are the second animal that come to mind when thinking of the rain forest. One fifth of all the birds in the world are found in the rain forest. There are several different species of birds living in the emergent layer, from colorful macaws and noisy parakeets, to beautiful eagles and odd looking vultures. Macaws have an incredibly powerful beak. Biting into a nut is as easy to them as biting into a banana.

9

## Watch Out Below!

One of the world's largest eagles lives in the rain forest, the Philippine eagle. This bird can grow to be 3 ft tall and weigh as much as 17 lb. It has broad rounded wings that help it to swoop down among the branches of the trees and snatch unsuspecting monkeys! As indicated by it's name it lives in the Philippines and is it's national bird.

Find a yard stick and hold it perpendicular to the floor. That's the height of a Philippine eagle. Would you want to meet up with one?

10

## Do you know me?

A Colugo is a tree-dwelling mammal that weighs 2-4 lbs and measures 14-16 in. in length. These animals are clumsy climbers as they lack opposable thumbs. So how can they live in the emergent layer? Because they are incredible gliders! They have large flaps of skin on their sides that form "skin wings". A Colugo can glide 230 feet with minimal loss of height!

Can you measure out 230 feet?  
How far can you jump?

11

## Canopy Layer

This layer plays host to the greatest number of trees, making it the most popular place to live. Trees found within this layer are between 100-130 feet tall. As it's name suggests, the trees in this layer form a thick covering over the remaining layers, preventing much sunlight from reaching the bottom. Canopy leaves can reach lengths of 13 feet causing them to behave like huge umbrella's which prevents most of the rain from reaching the forest below.

12

## Epi-what?

Within the canopy layer you will find gardens! The branches host plants called epiphytes (**ep-uh-fahyt**). These plants attach themselves onto the bark of canopy trees. The roots are only for gripping. These plants either absorb water from the air or collect rain like a bucket. The most popular epiphyte in a rain forest is called a bromeliad (broh-mee-lee-ad).



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**Slithering Things!**

One of the most popular creatures in the canopy is snakes! A green tree python has excellent camouflage as it drapes itself along a branch during the day. At night it becomes a quiet hunter sneaking up on unsuspecting prey such as sleeping monkey's and rodents. Like other pythons it is a constrictor, meaning it wraps its body around its prey and squeezes it to death.

14

**More Monkey-ing Around!**

Squirrel monkey's are fun-loving, mischievous creatures that live in troops (the name of a monkey group) as small as 30 but as great as 500! Squirrel monkey's grow to be 25-35 cm tall but have a tail 35-42 cm long. Unlike other monkey's their tails are not used for climbing. It is more of a balancing tool to help them navigate through the canopy quickly.

15

**Acrobats!**

Another monkey found in the canopy layer is the Gibbon. They really know how to swing! They use their extra long arms to swing through the canopy and can reach speeds of 35 mph! Gibbons also have trichromatic (color) vision, unlike some other monkey's that have dichromatic vision - only two colors. Gibbons can also turn their heads and look behind them.  
Can you turn just your head to look behind you?

16

**Once upon a tail!**

Spider monkey's have what are called prehensile tails. These tails act as a fifth limb helping them to navigate the canopy and pick up things. This type of tail comes in handy as its hooked-shaped hands have little to anything resembling a thumb. They are called Spider monkey's because they look like a spider when suspended from their tail. Spider monkey's generally eat fruits and nuts. It is the lead females job to determine where to forage for food.

17

**So Sweet!**

This adorable little creature measures 1 ft from nose to tail. It, too, has a prehensile tail it uses to hang from tree branches. Sugar gliders love to eat the sugary sap of eucalyptus trees. These creatures glide from tree to tree using "skin wings", flaps of skin that extend from the fifth finger to the first toe. When the legs are stretched out it can glide distances of 165 – 350 feet! It controls its gliding by changing the curvature of the skin or moving it's legs or tail.

18

**The Understory**

This layer is made up of leafy bushes and smaller trees. It is very dark as only 5% of sunlight reaches through to this layer. It is also hot and steamy as the moisture can't escape through the thick foliage. Many interesting and beautiful animals live in this part of the rain forest.





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**19****Jumpin' Jaguar!**

The jaguar is the third largest cat in the world (after the tiger and lion) and loves to eat meat! Jaguars are great climbers and prefer to sleep on the tree branches of the understory layer. This spotted cat often gets confused with the leopard, but is usually larger and of a sturdier build. Jaguars have been known to hook fish out of the river with its claws and tackle sleeping alligators. The jaguar is known as the king of the Amazon as no other animal is brave enough to take it on!

**20****Chameleons**

These amazing lizards have colorful markings but also remarkable camouflage abilities as they can change color to merge into their backgrounds. They can also flash a different color to warn their enemies to stay away. Chameleons also have stereoscopic vision, meaning three-dimensional sight. This characteristic gives them very good eyesight allowing them to see small insects up to 30 feet away. Also, by rolling their eyes they can see in every direction.  
Can you do that?

**21****Beautiful Birds**

Hummingbirds are among the smallest of birds, measuring from 3-5 inches. They can hover in mid-air while flapping their wings 12-200 times per second! They are also the only bird that can fly backwards. Hummingbirds feed on nectar, a sweet liquid inside of flowers. They have long tongues that reach to the end of their spiky beaks that they use to lick up the nectar.

**22****Ribbit, Ribbit**

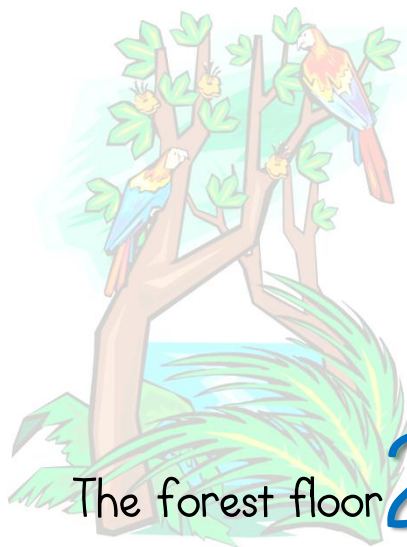
Within the rain forest you can find several different species of frogs including a poison arrow frog and the white-lipped tree frog. These frogs are similar to pond frogs in that they need a lot of water. So where do they get it? Do you remember from day 12 we discussed epiphytes? Frogs love to nestle inside these bucket-like plants and soak in the water that collects there. They also conserve water by sleeping during the hottest hours of the day.

**23****Sssssss.....**

Not only does the snake inhabit the canopy layer, they are also neighbors to those living in the understory. There are far too many species to name but they consist of venomous, non-venomous, constrictor and flying snakes. Flying snakes, such as the Paradise Tree Snake, are able to flatten their bodies and propel themselves from tree to tree. The rain forest is known to contain some of the most venomous snakes in the world including the eyelash viper (pictured) and the African mambas.

**24****Going a little batty!**

There are several different species that live within the understory. Bats are mammals and the only mammals that can fly. Their wings are different from birds in that it is made up of a sheet of thin skin stretched between very long fingers. During the day, bats hang upside down in caves or trees and wrap their wings around them like a blanket. The largest bat is the Malaysian flying fox with a wing span of 5 feet, while the smallest is the bumblebee bat with a total length of 1 inch!



The forest floor

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## 25 The Forest Floor

This part of the forest only receives 2% of sunlight! The conditions here are dark and humid. Little vegetation lives on the forest floor. It is a carpet of decaying plants and animal matter. A perfect place for insects and insect-eating animals. Many different forms of fungi grow in this layer of the forest floor, also aiding in the decaying process.

## 26 Amazing Armadillos

Armadillo is Spanish for “little armored one” as their bodies are covered with plates of dermal bone, bone with a covering of horn. This armor helps to protect the backs of Giant armadillos from big cats as they dig. Giant armadillos are the size of sheep and use powerful claws to dig for insects and worms. Armadillos have 100 teeth, but rarely use them.

## 27 Gorillas

Gorillas are the largest primates. They are forest floor dwelling animals that live in family groups. These groups work together to protect their territory and their young. Gorillas like to take it easy! They sleep for 13 hours each night and have regular rest periods throughout the day. Gorillas are mainly herbivores but sometimes supplement their diet with ants and termites. Male gorillas eat about 50 pounds of food a day.

## 28 A Hairy Beast!

Tarantulas! The word strikes fear in some and awe in others! These hairy spiders can grow as large as a man's fist. Tarantulas hunt for their prey after dark by sneaking up and paralyzing it with its venomous bite. The spider then sucks up the contents of the victim's body with its straw-shaped mouth. The prey gets coated in a digestive juice to turn it into liquid so it can be eaten. Tarantulas produce silk and line their burrows to assist in climbing in and out and to stabilize the walls.

## 29 The Ants Go Marching One by One!

Even though they are tiny, they can be extremely dangerous! Army ants are the most dangerous. When these ants go hunting they form a long column that wind along the forest floor. They will attack and kill anything in its way, including large animals. Leaf-cutter ants can strip a bush of all its leaves in one night. All worker leaf-cutter ants are female. They carry portions of leaves back to their underground nests for food.

## 30 Fungi

Fungi, or mushrooms, are the great decomposers of the forest. They do not photosynthesize (produce their own food), but have an external digestive system. They actually eat and digest the dead plants and animals found on the forest floor. They break down this organic material to help produce a rich soil that helps the rain forests to continue to grow. Fungi need a lot of water to keep their cells inflated to maintain their shape.



31

God saw all that he had made and it was good. And there was evening, and there was morning – the sixth day.

Genesis 1:31

31

We have only scratched the surface of what the rain forest contains. God's amazing creativity is evident in so many other creatures and plants. Go to the library and check out a few books to study this topic further!

# September