

# Second Grade

---



- **Rainforest Complexity and Diversity**
- **Independence and Conservation**
- **Products from the Rainforest**

## Lesson 1

2

# Rainforest Complexity and Diversity

Amazon Rainforest Conservation, Brazil

### Concept

Maintaining interdependence and diversity among plants and animals is essential in sustaining rainforests.

### Essential Question

How can so many plants and animals share such a small space?

### Introduction

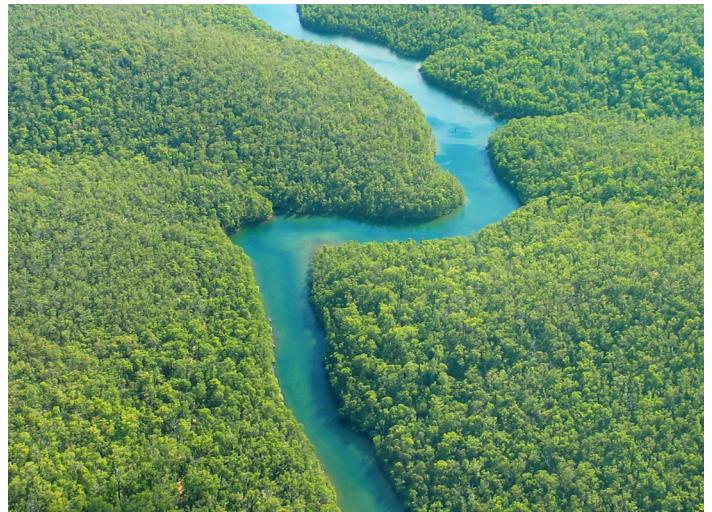
#### Informational Introduction For the Teacher

Biodiversity is the total number and variety of plant and animal life found in an ecosystem. The rainforests are complex and have extraordinary amounts of biodiversity. This biodiversity is a result of the environmental conditions (rainfall, sunlight and temperature) present in rainforest areas.

A typical 10 sq. km area contains 1,500 kinds of flowering plants and 750 tree species. These plants form a system of layers in the rainforest called the forest floor, understory, canopy and emergent layer.

The rainforest is an ideal place for many types of animals to live. There is plenty of water, shelter and food, and it is warm all year. These conditions mostly benefit the insects that can grow and reproduce the year round, unlike in colder climates. Some insects grow very large. Walking sticks reach lengths of more than 12 inches. Beetles can be as large as your hand and some moths are the size of small birds. But the really amazing thing about them is their variety. One tree in the Amazon can house 200 different types of insects—not 200 insects but 200 different types! Scientists believe many insect types have yet to be named and catalogued.

Rainforest animals play a vital role in maintaining their habitat. Because there is no wind in the lower layers to carry pollen from one flower to another, many plants depend on insects, birds and bats for pollination. The 900 varieties of fig tree is a good example of this process as there are 900 different kinds of wasps that pollinate them. Spreading plant seeds is necessary for their survival, and fruit-eating birds, mammals and



even fish help to accomplish this task.

#### Informational Introduction For the Student

Tall, mighty trees, millions of insects, constant sounds, monkeys climbing overhead and more birds than you've ever seen in one place—tropical rainforests harbor tremendous amounts of life. How can so many living things share such little space? Rainforests are complex systems. Our exploration of how they work will involve understanding the weather, the structure of the forest, the way that each plant and animal depends on another... basically how complex and fragile a rainforest really is.

### Step 1: Connect (the concept to prior knowledge)

#### Challenge

Biomes are large areas that have the same general cli-

## Lesson 1

2

# Rainforest Complexity and Diversity

mate conditions (extremes of temperature and amount of rainfall), plant life and animal life. Students understand the diversity and complexity of different biomes including their particular biome and that of the rainforest. By comparing plants and animals of their own neighborhoods to what they have learned about the rainforest, students will understand the diversity and complexity of the rainforest.

### Materials (per class)

- paper and pencils
- access to daily weather report (i.e., newspaper or internet)
- large chart for Bio Profile of the schoolyard
- Rainforest Alliance species profiles and slideshow

### Procedure

1. Students participate in a BioBlitz of their neighborhood or schoolyard by observing and recording every plant and animal within a designated area. The area should be observed by all separately so they can combine their findings and designate objects as rare or common, depending on how many students observe that particular species.
2. The BioBlitz should be done three consecutive times over the course of a week. It can be done out of the windows of a school classroom as long as the area is the same as the area observed directly (on the ground). At least one session should be outdoors.
3. Every object observed should be recorded—insects, weeds, birds, squirrels, spiders, etc. The weather (temperature, wind, humidity) should be recorded as well.
4. All of the information is transferred to a large chart that is prominently displayed in the classroom as the "Bio Profile for the Schoolyard."
5. Conducting internet research and reading reference books and resources from the Rainforest Alliance Learning Site, students prepare a chart of the rainforest to hang next to their own BioBlitz that records the plants and animals they would observe if they did a similar BioBlitz in the rainforest.
6. Students compare and contrast the two charts and make observations about which ecosystem has the most diversity and complexity.

7. Have students guess at reasons that allow this diversity to exist in the rainforest.
8. Discuss the temperature and rainfall and how they impact the range of species that live in the rainforest. Discuss the layers of the rainforest and how each one is filled with a different interdependent world.

### Step 2: Literature/Discuss (give expert information book; ask questions)

#### Challenge

Students will understand and be able to identify the relationship among different species in geographical locations.

#### Materials

- large world map
- smaller map of Brazil
- book: *The Great Kapok Tree* by Lynne Cherry

#### Procedure

1. Take one or two of the animals that were mentioned in the local BioBlitz. Discuss the shelter, food sources, water, safety/protection, the way they move and their range of movement, animals they get along with, animals that prey on them, etc.
2. Discuss with children what would happen to a squirrel (or other local animal) if one source of food was taken away or if the source of materials for their shelter disappeared.
3. Using a large map, locate the Brazilian rainforest. Move from a large global map to show where the children live to a smaller map of Brazil. Show the equator and how that influences the weather. As one moves closer to the equator, the sun has a greater effect on rainfall and temperature.
4. Visualize with children how it would feel and sound to walk in the rainforest.
5. Read Lynne Cherry's book, *The Great Kapok Tree*. Discuss the inhabitants that are mentioned in the book.
6. Talk with students about how the different animals depend on one another to survive. Take three different animals and list all the things children



# Lesson 1

2

## Rainforest Complexity and Diversity

noticed about them. List all of the things that each animal needs to survive; food, shelter, safety/protection, animals or plants they depend on, where they live in the rainforest (forest floor, canopy, etc.), water and the way they move.

7. Pose the questions: What would happen if the water disappeared? How important is the kapok tree to these animals? Who and what do they depend on for survival?

### Step 3A: Practice (math and learning centers)

#### Challenge

Students will understand that annual ranges of temperature and exposure to the sun are factors in the complexity of a biological system.

#### Materials

- lined or graph paper
- pencils
- access to Weather Channel Web site

#### Procedure

1. Students record data about the annual temperatures and rainfall in their geographical area from the Weather Channel Web site. Temperatures from December, February, April, June, August and October should be recorded.
2. Students record data about the annual temperatures and rainfall from Brazil's Amazon rainforest ([www.rainforest-alliance.org/curricula/rainfall-data](http://www.rainforest-alliance.org/curricula/rainfall-data)) for the same months.
3. Using the two graphs, students will analyze the differences in rainfall and temperature and draw conclusions about growing seasons and life cycles of different animals and plants in the two locations.
4. Discuss what would happen if the temperature levels for the two places were reversed.

### Step 3B: Create (performance tasks related to standard indicators)

#### Challenge

Students will realize the importance of keeping all aspects of a temperate and rainforest ecological system intact for the health and safety of the animals and plants.

#### Materials

- book: *The Great Kapok Tree* by Lynne Cherry
- Rainforest Alliance species profiles
- drawing paper
- drawing/coloring utensils

#### Procedure

1. Students will research one of the species (plant or animal) mentioned in *The Great Kapok Tree* by Lynne Cherry. Refer to the Rainforest Alliance's species profiles for additional information ([www.rainforest-alliance.org/species](http://www.rainforest-alliance.org/species)).
2. Students will draw a picture that begins with their species in the middle of the page.
3. Students fill out the page with all of the animals and plants that are important to that animal for food, shelter, water, safety, friendship, survival and health.
4. Children will display pictures in a gallery and make observations about how other pictures are the same or different than their own. Which animals are repeated in different pictures, which only appear once, etc.

### Step 4: Present (edit work/students orally present projects)

#### Challenge

The pictures and the student observations are collected and bound into a book.

# Lesson 1

## Assessment Rubric

Teacher observations of performance tasks with rubrics as listed below, as well as collected work samples.

Assessment Guidelines	3=P (Proficient)	2=S (Satisfactory)	1 = NW (Needs Work)
Student describes the diversity in their school-yard/neighborhood by developing a catalog of plants and animals within their schoolyard/neighborhood in their Bio Profile.			
Student locates Brazil and the location of their school on a globe.			
Student creates a chart comparing and contrasting plant and animal populations within their neighborhood with that of the Brazilian rainforest.			
Student discusses how the location of each area (their schoolyard and the rainforest) affects the weather, temperature, light, etc.			
Student creates a chart that compares the temperature and rainfall in their own geographic area with that of the Brazilian rainforest over a six-month period and notes its influence on species.			
Student researches and develops a profile of one animal or plant in the Brazilian rainforest, detailing in a drawing the elements necessary for the survival of that species.			

## Lesson 2

# Independence and Conservation

2

### Amazon Rainforest Conservation, Brazil

#### Concept

Things change in all environments. The impact of one loss or disturbance may not be visible until the rate of change and impact on diversity threatens the habitat of a particular species so much that their food source, shelter, health or safety disappears. What is the critical threshold?

#### Essential Question

Does it all collapse when one block is pulled out?

#### Step 1: Connect (the concept to prior knowledge)

##### Challenge

Students identify what they need to live within their present environment and what might happen if those things were absent.

##### Materials

- art/drawing supplies
- large drawing paper or posterboard (one for each student or group of students)
- old magazines, other sources of pictures

##### Procedure

1. Students draw pictures of themselves in the middle of a page. Using magazines or other sources of pictures, they attach pictures of the things that they need to survive (food, shelter, transportation, friends, clothes, etc.).
2. Ask students to write a "What if?" story that places them in the rainforest where they have to find food, shelter, safety, transportation, etc. How will it be different than what they describe in their pictures of home? What might they eat? Where might they live? How would they make themselves safe? How would they have to move through the forest (would their bicycles work there)?

#### Step 2: Literature/Discuss (give expert information book; ask questions)

##### Challenge

Students realize that it is difficult to change environments without making important adaptations. They



understand that keeping all the important ingredients to survival intact and working well is important to the survival of all species.

##### Materials

- book: *The Salamander Room* by Anne Mazer

##### Procedure

1. Read the book *The Salamander Room* by Anne Mazer. Discuss the reasons the salamander couldn't live with the boy, including their different needs for food, climate and habitat.
2. Explain that most of the plant and animal species that live in the rainforest are specifically adapted to where they live. If rainforests disappeared, so would they.

## Lesson 2

# Independence and Conservation

2

### Step 3A: Practice (math and learning centers)

#### Challenge

Students will understand "tipping points" in an environment.

#### Materials

- Jenga™ or similar block-stacking game (one set per group of students)
- white label stickers or small rainforest photos (for Jenga™ blocks)

#### Procedure

1. Ask students to compare the boy's experiment with the salamander to a game of Jenga™.
2. Have students draw pictures of the different parts of the rainforest that they identified in the previous activity on the Jenga™ pieces, or label them with words like hot temperatures, humidity, tall trees, vines, tapirs, snakes, insects, etc.
3. Construct a rainforest tower of labeled Jenga™ blocks. Taking out one at a time, make guesses about how many will have to be pulled out to make the tower fall.
4. To play Jenga™ with students, start with the wooden blocks stacked as a tight tower. Ask students to remove pieces from the bottom of the tower and stack them on top. Keep stacking until the tower collapses.
5. Discuss the game with the class. Ask students:
  - Why can't we keep building higher?
  - How is the system different at the beginning?

- What is the benefit of the original structure?
- How do the parts rely on each other?
- What happens when one part is removed?
- Why can some pieces be removed without causing problems?

### Step 3B: Create (performance tasks related to standard indicators)

#### Challenge

Students understand that a system needs all of its parts to work effectively.

#### Materials

- labeled Jenga™ pieces from Step 3A
- drawing paper
- drawing/coloring utensils

#### Procedure

Using the list of plants and animals essential to the rainforest created for the Jenga™ blocks, create a drawing or diorama of a working rainforest.

### Step 4: Present (edit work/students orally present projects)

#### Challenge

Students present their rainforests to the rest of the class and explain how the elements included are connected to each other.

## Lesson 2

### Assessment Rubric

2

Teacher observations of performance tasks with rubrics as listed below, as well as collected work samples.

Assessment Guidelines	3=P (Proficient)	2=S (Satisfactory)	1 = NW (Needs Work)
Student constructs a chart that illustrates what he/she needs to survive: food, shelter, transportation, friends, clothes, etc.			
Student writes a "What if?" story that shows how their food, shelter, transportation, clothes, etc. will change if they move to the Brazilian rainforest.			
Student plays a Jenga™-type game to determine the tipping point of change that might occur in an environment when things necessary for survival disappear.			
Student creates a drawing or diorama of the rainforest that illustrates how the elements are connected to each other.			



## Lesson 3

# Products from the Rainforest

2

Amazon Rainforest Conservation, Brazil

### Concept

Bananas, cocoa, coffee, wood and many more products originate in the rainforest. As demand for products from the rainforest increases, more pressure is exerted on these precious ecosystems. With 90 percent of the world's forests outside of protected areas, the Rainforest Alliance works to protect ecosystems and the people and wildlife that depend on them by transforming land use practices, business practices and consumer behavior. For instance, companies and communities in Brazil work with the Rainforest Alliance their partners to harvest wood while ensuring that the forest will remain healthy and productive for generations to come.

### Essential Question

Is this table someone's old climbing tree?

#### Step 1: Connect (the concept to prior knowledge)

##### Challenge

Students identify the countries of origin for many products they currently use everyday.

##### Materials

- rainforest items/food; see examples at [www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives](http://www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives) (12 items per small group)
- internet or encyclopedia access
- paper/pencils

##### Procedure

1. Students are divided into small groups.
2. Each group has 12 items that are common to everyday life including but not limited to: balsa, bamboo, raffia, coconut, plantains, tangerine, sesame seeds, vanilla, chocolate, chewing gum and rubber balls. These items are mixed with foods and products that come from the United States (locally).
3. Students sort the items into two categories, those that originate "locally" or those that originate in the "rainforest."
4. Students search the Internet for the countries that produce these items. Visit [www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives](http://www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives).



5. Once the country of origin is found, create a chart of where the items originate.

#### Step 2: Literature/Discuss (give expert information book; ask questions)

##### Challenge

Students begin to understand how many items they use individually come from the rainforest and how the amount of resources may impact the integrity of a landscape.

## Lesson 3

# Products from the Rainforest

2

### Materials

- book: *Rain Forest Plants* by Pamela Dell
- internet or encyclopedia access
- paper/pencils

### Procedure

1. Read *Rain Forest Plants* by Pamela Dell. There is a section in this book that describes rainforest products we commonly use. This book demonstrates our reliance on rainforests. Use this book or similar texts to introduce how indigenous people live in the rainforest and how they depend on its healthy existence. Introduce the idea of the importance of conservation of these resources and how we still may be able to harvest products while keeping the rainforest safe.
2. Students take two items from their previous list that are from the rainforest. Through internet research, students will discover where their items are from and how they are harvested or farmed.
3. Students write a story of the journey one item must make to get to their home and some of the experiences they might have along the way. This should be role-modeled by the teacher so that each different type of transportation and their possible routes is talked about with children.

### Step 3A: Practice (math and learning centers)

#### Challenge

Students take the product from their story and follow its journey on a map from point of origin to their home.

#### Materials

- maps of North and South America with roads and rivers
- colored stickers or markers (to chart distances on the map)

#### Procedure

1. Using maps of South America and North America that show major riverways, oceans and some major roads, help students trace the route that their product might take to get to their home.
2. Have students research the distances "as the crow flies" in a straight line from Brazil to their home.

3. Challenge the students to chart how it might have moved across land or over waterways to get to their home in the United States. These might be marked in different colors on the maps. Does this journey take more time? Is it a longer distance to go over water or land routes?

### Step 3B: Create (performance tasks related to standard indicators)

#### Challenge

Students recognize that the product they have in their home comes from a place where another person their age may live.

#### Materials

- story: *Nelson's Journey through the Amazon Rainforest*, from the Rainforest Alliance
- paper, pencils

#### Procedure

1. Introduce the story by discussing the idea that some of the items sorted in Step 1 may have come from the Amazon rainforest in Brazil.
2. Read *Nelson's Journey through the Amazon Rainforest*, an original Rainforest Alliance story, to students.
3. Discussion questions:
  - How did Nelson change throughout the story?
  - List five ways the rainforest is helpful.
  - Would you want to live near Davi and Nelson? Explain.
  - What do you predict will happen the next time Nelson sees a leafcutter ant?
  - Why was Nelson's mom proud of him?
4. Discuss how the Rainforest Alliance and their partners are working to protect the forest while harvesting the products we all use daily. In addition to protecting the endangered ecosystems, these sustainable enterprises also help the local people earn money to support their livelihoods.
5. Have the students write a story describing why the rainforest is important to them and how their daily lives are connected to tropical forests.
6. Extra: Have the students write a letter to the Rainforest Alliance thanking them for giving us the

## Lesson 3

# Products from the Rainforest

---

2

opportunity to protect the rainforest and boost the income of local people by buying Rainforest Alliance certified products.

*Additional references: Adventures of Riley – Amazon River Rescue by Amanda Lumry and Laura Hurwitz; pib.socioambiental.org/en/povo/yanomami/ (this site provides background information on the Yanomami, along with photos)*

### Step 4: Present (edit work/students orally present projects)

#### **Challenge**

Students either read their story of the journey that the item took from the rainforest to their home or read their letter to the Rainforest Alliance.

## Lesson 3

### Assessment Rubric

2

Teacher observations of performance tasks with rubrics as listed below, as well as collected work samples.

Assessment Guidelines	3=P (Proficient)	2=S (Satisfactory)	1 = NW (Needs Work)
Student sorts and identifies 12 items of common usage by their country of origins on a chart.			
Student creates a guide to the origin and harvesting, processing and transportation/distribution of two common items found in their homes.			
Student writes a story (through narrative with pictures) of the journey their consumer item might take from Brazil to their home.			
Student charts the movement of a consumer item from Brazil to the consumer sale location in North America on a map to calculate the distance it traveled.			
Student writes a story describing how his/her life is connected to the rainforest.			



# Second Grade

---



## Supplementary Materials

- **Teacher Summary**
- **Resources**
- **National Standards**



The headwaters of the Amazon basin, in the north of Brazil, are a remote region of the country that has suffered from chronic neglect and overexploitation of resources. The area of Boa Vista do Ramos is even more isolated, as it lies several hours upriver from Manaus, the regional capital, along the border with Venezuela. The region has traditionally been exploited for its mineral wealth (gold, uranium, emeralds) and abundant forests.

The area is very sparsely populated (just over two people per square kilometer). The Amazon basin is home to more than 15 million people, but less than 300,000 of these are considered to be indigenous. Many of the current residents of the Amazon are relatively new arrivals, drawn to the region by the same ideas that brought settlers to the American west—a better life. Unfortunately, for most of this dream has not materialized. Unemployment and poverty plague the region. Many (probably most) rural families are involved in logging, mining or ranching in order to eke out a living.

There are two major cities in the north of Brazil—Manaus and Belem. Both have more than one million inhabitants and are centers of industrialization. The cities have many factories and processing plants to harvest the resources, both human and natural, that are extracted from the region. Most of the population are *mestizos*, a mix between native peoples and Portuguese colonists, who have arrived in the region during one of the recent economic booms in search of work and riches.

The area of Boa Vista has two types of topographic representations: high-altitude plateaus (including the highest point in Brazil) and the adjacent flood plains which

drain into the Amazon River via more than 7,000 tributaries. The vegetation is divided into three categories: terrestrial rainforest, with trees that reach more than 100 feet tall; riverine forests, which flood seasonally during the rainy season; and flooded forests, areas that are permanently flooded where forests form living islands in the slow-moving rivers. One can also find grassy savannas, most of which flood during the rainy season.

The climate varies little during the year, as with most areas along the equator. Temperatures remain largely constant, with humid warm weather (temperatures in the 80s and 90s being the norm). The only seasonal variation is in the rainfall. The Amazon receives, on average, nine feet of rainfall each year. Because of this, roads are almost non-existent in the region. Most transportation occurs via the many rivers of the Amazon. This protected the region to some extent from even more development, since transportation along small rivers is limited.

The rural economy depends on the extraction, sustainable or destructive, of natural resources. Many residents harvest products such as Brazil nuts, rubber, wood, guarana (a natural stimulant used like caffeine) and local fruits from the forest for sale in other parts of Brazil and around the world. In addition, many communities harvest medicinal plants that they use to cure themselves and sell to brokers who export to other parts of Brazil. Families often also have a small plot of land that they farm to produce rice, beans, coffee, corn, bananas and other staples for their own consumption and to sell to neighbors.





The vulnerability of livelihoods in the rural Boa Vista do Ramos (BVR) municipality of the state of Amazonas keeps the majority of the population in poverty and fuels the unsustainable use of natural resources, as well as a tendency towards outward migration of local inhabitants, especially young adults.

Throughout Brazil, the vulnerability of rural communities drives a downward spiral in urban and natural environments. It is intimately linked to major social problems facing Brazilian cities and rural populations. The process can be summarized as follows:

- The vulnerability of rural livelihoods leads to rural poverty.
- Rural poverty fuels the large outward-migration flows from rural communities to cities, putting severe pressures on existing public services and outstripping employment opportunities, thus generating urban poverty.
- Rural poverty also fuels unsustainable, short-term use of forest products and environmentally aggressive subsistence farming methods by rural dwellers.
- The vulnerability of livelihoods of the rural poor also favors the acceptance—by local and/or regional authorities and sometimes by rural communities themselves—of unsustainable, large-scale economic activities to alleviate poverty in the short term. These activities include large-scale logging, cattle ranching, mining, etc.

Led by the Rainforest Alliance partner in Brazil, IMAFLORA, conservation groups are working with poor communities to help them uncover for themselves the dynamics of these associations, and to build on existing

community strengths and develop constructive relations with key stakeholders to develop solutions that go beyond short-term relief of poverty. The solutions in BVR will be geared toward making rural livelihoods there more robust and sustainable.

BVR is a municipality of approximately 250,000 hectares situated 350 kilometers east of Manaus. It is a rural municipality with a total population of about 10,000 inhabitants, of which 4,000 live in the city itself. The rest of the population lives in 43 widely dispersed communities. The communities of Boa Vista do Ramos are several hours up the Rio Negro from Manaus and are very isolated from external markets. The municipality and most of the communities are in the midst of primary rainforest. However, the people of BVR are not traditional forest dwellers, but migrant colonist small-scale farmers and loggers who started settling in the region about a hundred years ago.

While utilization of the forest is an obvious path to economic and social benefits for BVR communities, present exploitation is contributing little beyond subsistence livelihoods. Sustainable development in BVR is therefore about making less vulnerable and more productive while ensuring that the natural resource base is not degraded.

IMAFLORA is working to help empower the people and families of BVR to take positive action to improve the quality of their lives without threatening the long-term conservation of regional natural resources. IMAFLORA is not telling people what to do, but rather exploring existing possibilities with BVR communities to enable them to make conscious, informed decisions in relation to the

options identified. They are facilitating and supporting the development of knowledge, insights, understanding, criteria, commitment and skills to enable participants to determine for themselves the actions they consider to be in their best interests.

IMAFLORA and their partners have worked with five communities to develop a plan for managing their resources and have outlined their priorities in terms of benefits to the community (health services, improved wages and education for their children). Of the five communities involved in consultations with IMAFLORA, each has initiated a new income-generating activity on a community-wide scale. The communities have divided themselves among the following income-generating activities: fishing, sustainable logging, creation of wood handicrafts, raising honey bees, and harvesting fruit's medicines and plants from the forest. By agreeing to use diverse income-generating activities, the communities are avoiding a common pitfall in developing communi-

ties. Often, several neighboring communities will all try to grow coffee, extract Brazil nuts, or tap rubber, and create a local oversupply that pushes down the price for their products. These communities are assuring that they will have stable local and regional markets for their products by agreeing to limit supply, and thus minimizing pressure on their natural resources.

The community that has selected handicrafts as a focus for their efforts has developed markets in Manaus, the main city of the Amazon, where tourists from around the globe come to see wildlife and marvel at the vast forest. Local artisans have begun making wooden boxes from a variety of sustainably harvested local woods and local children have been enrolled in the Luthier school to learn to make high-quality musical instruments. Ultimately, endeavors like these will allow these communities to improve their lives, provide economic opportunities for their families, and will protect the wondrous wildlife of the Amazon.

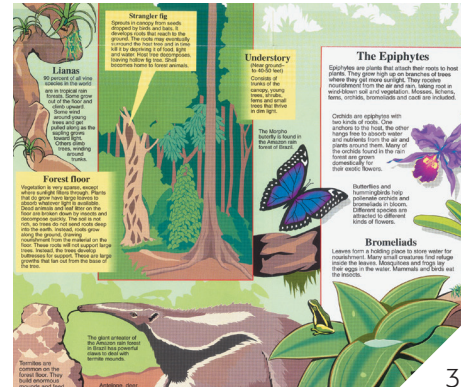




1



2



3

## Resource Index

Check out this page for additional supplemental materials that complement these dynamic units and to access many of the resources listed below.

[www.rainforestalliance.org/curricula/resources](http://www.rainforestalliance.org/curricula/resources)

## Slideshow (1)

The Curriculum site provides a slideshow and script about Brazil that includes background information about the animals, people and landscape of this region. The slideshow can be downloaded for viewing in the classroom, printed out and read as a story, or viewed online with the students.

[www.rainforest-alliance.org/pictures/boa-vista-do-ramos](http://www.rainforest-alliance.org/pictures/boa-vista-do-ramos)

## Species Profiles (2)

The species profiles include photos, habitat, foraging behavior, group relationships, threats and many more facts.

- Amazon river dolphin
- Heliconia
- kapok tree
- leafcutter ant
- rufous-bellied thrush
- tapir
- collared peccary

[www.rainforest-alliance.org/species](http://www.rainforest-alliance.org/species)

## Rainforest Poster (3)

Download and print out this colorful two-page poster, which is available for you to use in explaining the layers of the rainforest, its products and the environmental threats facing many rainforests around the world.

**Inside the Canopy** – structure and species of the rainforest

[www.rainforest-alliance.org/publications/inside-the-rainforest-canopy](http://www.rainforest-alliance.org/publications/inside-the-rainforest-canopy)

## Rainforest Products

Check out a summary of products that we use in our everyday lives that originate in rainforests. Both teachers and students will find information on the products found in their homes and supermarkets that either originated in tropical forests or are currently produced there.

[www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives](http://www.rainforest-alliance.org/articles/tropical-forests-in-our-daily-lives)

## OELA

Check out this online resource for more information about the Rainforest Alliance's partner group in Brazil.

[www.rainforest-alliance.org/adopt-a-rainforest/brazil](http://www.rainforest-alliance.org/adopt-a-rainforest/brazil)

## Venn Diagram Template

A photocopy-ready Venn diagram for use in this unit.

[www.rainforest-alliance.org/sites/default/files/uploads/pdfs/curricula/venn-brazil.pdf](http://www.rainforest-alliance.org/sites/default/files/uploads/pdfs/curricula/venn-brazil.pdf)

## Certificate of Accomplishment

Print out colorful rainforest certificates for your students to commemorate their completion of these units.

[www.rainforest-alliance.org/curricula/certificate-of-participation](http://www.rainforest-alliance.org/curricula/certificate-of-participation)

## Writing

### **Standard 3**

#### **Level 1: Grade K–2**

- Generates questions about topics of personal interest
- Uses a variety of sources to gather information

## Reading

### **Standard 7**

#### **Level 1: Grade K–2**

- Uses reading skills and strategies to understand a variety of informational texts
- Relates new information to prior knowledge and experiences

## Listening and Speaking

### **Standard 8**

#### **Level 1: Grade K–2**

- Listens and responds to a variety of media

## Thinking and Reasoning

### **Standard 1**

#### **Level 1: Grade K–2**

- Understands and applies the basic principles of presenting an argument

### **Standard 3**

#### **Level 1: Grade K–2**

- Identifies the similarities and differences between persons, places, things and events using concrete criteria

### **Standard 5**

#### **Level 1: Grade K–2**

- Identifies simple problems and possible solutions

## Mathematics

### **Standard 1**

#### **Level 1: Grade K–2**

- Uses a variety of strategies in the problem-solving
- Draws pictures to represent problems
- Makes organized lists or tables of information necessary for solving a problem

### **Standard 3**

#### **Level 1: Grade K–2**

- Understands basic estimation strategies

### **Standard 4**

#### **Level 1: Grade K–2**

- Understands the basic measures of length, width, height, weight and temperature

## Life Sciences

### **Standard 4**

#### **Level 1: Grade K–2**

- Knows that differences exist among individuals of the same kind of plant or animal

### **Standard 5**

#### **Level 1: Grade K–2**

- Knows the basic needs of plants and animals (air, water, nutrients, light or food, shelter)
- Knows that plants and animals have features that help them live in different environments

### **Standard 6**

#### **Level 1: Grade K–2**

- Knows that plants and animals need certain resources for energy and growth

### **Standard 7**

#### **Level 1: Grade K–2**

- Knows that there are similarities and differences in the appearance and behavior of plants and animals

### **Standard 12**

#### **Level 1: Grade K–2**

- Knows that learning can come from careful observations and simple experiments

### **Standard 13**

#### **Level 1: Grade K–2**

- Understands that in science it is helpful to work with a team and share the findings with others