

THEME: Habitats - Tropical Rainforests



Lesson Goal: To develop one's knowledge of the flora and fauna of tropical rainforests, including how this biome is depleting over time.

Book Used in Lesson:

Tropical Rainforests by Anita McCormick

Snapshot of Lesson:

- The facilitator elicits the children's prior knowledge of tropical rainforests.
- The children learn new vocabulary needed to understand the book.
- The facilitator reads the text aloud to the children, applying the strategies of comprehension monitoring through questioning.

- The children will respond to the text by answering literal, inferential, and evaluative questions.
- The children will work collaboratively in groups to create a musical soundscape imitating the sounds heard in the Amazon Rainforest.
- The children will work collaboratively in pairs to consider the positive and negative effects of deforestation.
- Each child will complete an exit ticket to conclude the lesson, demonstrating what they have learned.

Grade Level: 2-5 (Note: the activities in this lesson plan can be tailored to suit the needs of the specific group of children, at the discretion of the facilitator.)

Time Frame: 40-60 minute session

Background Information and Discussion Points for Facilitator:

Tropical Rainforests is a nonfiction picture book describing the climate of tropical rainforests, where this biome can be found across the world, what animals and plants live there, and how they survive in this habitat. In this book, there are various references to the animal and plant species noted below, both in the text and in the pictures.

This book shows all measurements in metric units. Facilitators may use this as an opportunity to teach about different types of measurements around the world using Language Lizard's measurements lesson [here](#). The measurements lesson can be utilized as a co-curricular math activity. Metric to imperial conversions for all the measurements in the Habitat series can be found [here](#).

It may be helpful to the lesson facilitator to be aware of where each of these species are located around the world, to support a fruitful discussion on the book content during and after the interactive read-aloud.



Animal & Plant Species in the Book:

- **Page 2 - Macaw Parrot:** Macaws are native to South and Central America.
- **Page 2 - Emerald Tree Boa:** This boa species is found in the rainforests of northern South America.
- **Page 3 - Ocelot:** Ocelots are medium-sized wild cats that have an orange-yellow coat marked with black stripes and spots, native to South and Central America.
- **Page 4 - Sloth:** This species can typically be found in the tropical rainforest of Central and South America.
- **Page 5 - Cecropia Tree:** These trees are typically found along the Pacific and Atlantic Mexican coasts and in Central and South American forests.
- **Page 5 - Toucan:** Toucans typically live high in the rainforest canopies of Central and South America.
- **Page 5 - Rhinoceros Beetle:** Rhinoceros beetles are found on every continent except Antarctica.
- **Page 6 - East African Nile Crocodile:** This crocodile is Africa's largest and most widely distributed, ranging from Northern Africa, through Central and East Africa, down to South Africa.
- **Page 7 - Eastern Lowland Gorilla:** This species is native to the Democratic Republic of Congo.

- **Page 8 - Cacao Tree:** Africa has the largest population of cacao trees, while this species of trees is also grown on the continents of North America, South America, and Asia.
- **Pages 8 & 9 - Howler Monkeys:** This species is typically found in southern Brazil, Paraguay, eastern Bolivia, and northern Argentina.
- **Page 10 - Fig Tree:** Fig trees are native to Asia, but also grow in most Mediterranean countries.
- **Page 12 - Blue Morpho Butterfly:** These butterflies are native to the rainforests of Mexico, Central America, and South America.
- **Pages 12 & 13 - Heliconia:** Heliconia is typically found in Central America, the Caribbean, and South America.
- **Page 14 - Flying Fox Bats:** These bats live in South Asia, Southeast Asia, Australia, and East Africa.
- **Page 14 - Tree Kangaroo:** This species is typically found in the rainforests in Papua New Guinea, Indonesia, and parts of Australia.
- **Page 16 - Tarantula:** Tarantulas are most commonly found in Mexico, Central America, and South America. However, tarantulas can also be found in some parts of Australia, Southern Asia, and Africa.
- **Page 17 - Air Plants:** Air plants are typically found in the West Indies, Mexico, Central America, and South America, and some near the southern border of the USA.
- **Page 19 - Brazil Nut Tree:** This tree is commonly found in the Amazon Rainforest, situated in the north of South America.
- **Page 20 - Rubber Tree:** This tree is native to the Amazon region of South America.

Objectives:

- **Knowledge:**
 - Learn and use new vocabulary words based on tropical rainforests.
 - Identify on a map where the world's tropical rainforests are located.
 - Identify the temperature of tropical rainforests.
 - Recognize the flora and fauna associated with this biome.
- **Skills:**
 - Make inferences based on the illustrations in the book.
 - Use language to explain and describe one's thinking.
 - Use language to answer and formulate questions based on the text.
- **Attitudes:**
 - Understand the role that humans play in the destruction of this biome over time.
 - Enjoy actively listening to the story being read in English and, where possible, in a second language. (If possible, the story could be read in a second language with the help of a bilingual parent, child, or teacher).



Materials and Resources:

The text ***Tropical Rainforests*** by Anita McCormick; access to ICT (interactive whiteboard or laptop or tablet/iPad); household items that could be used during a creative music task

Linkage and Integration Across Subject Areas:

- **Creative Arts:** a musical soundscape
- **Social Studies:** climate change; positioning of tropical rainforest habitats on a map

Procedure:

- **Introduction:** Elicit the children’s prior knowledge of tropical rainforests. It may be useful to record these responses on a whiteboard/chart with older students.
- **Vocabulary Development:** The facilitator will introduce the following words, explain them using a child-friendly definition, and give several examples of how the word could be used in a sentence.
 - **equator:** a line drawn on the earth dividing it into the north and south hemisphere
 - **communicate:** share information, news, or ideas
 - **nectar:** a sugary food in flowers, collected by bees to make honey

- **humidity:** the amount of water/moisture in the air/atmosphere
- **beak:** a bird's jaw
- **destruction:** damage caused that cannot be repaired
- **recover:** return to normal

- **Vocabulary Game: Pictionary**

Split the children into 2 teams. One student from each team will come to the whiteboard. Each of the two chosen children will be assigned a new vocabulary word from the list above, and they will be tasked with drawing an image to represent the word as best as they can. The students' teams should try to guess which vocabulary word is being drawn (from the list above), within a certain time limit. The team that guesses correctly first gets a point. This activity should be repeated with different members of each team coming to the whiteboard.

- **Interactive Read-Aloud:** The facilitator will read the text, *Tropical Rainforests*, aloud. The facilitator should pause on occasion to interact with the students by asking the questions below.

- **Reading Discussion to Encourage Reflection and Response:** Once the story has been read, allow for a class discussion based on the story. The facilitator may use questions from the list below or choose to ask other questions based on their own knowledge of the children with whom they are working.

- **Literal Questions:**

Readers use information directly from the text to answer this type of question.

 - Where in the world are tropical rainforests found?
 - How many of the Earth's species live in tropical rainforests?
 - How much rain falls in tropical rainforests?
 - What is the average temperature of tropical rainforests?
 - How tall are the trees in the tropical rainforest?
 - What size are the wings of blue morpho butterflies?
 - How do flying fox bats keep cool?
 - How do air plants grow?
 - Why do macaw parrots have strong curved beaks?

- **Inferential Questions:**

Readers use the information in the text, as well as background knowledge, to deduce the answer (not explicitly stated in the text).

 - Why are tropical rainforests not located in America?
 - Why are tropical rainforests warm and humid?

- **Evaluative Questions:**

Readers use knowledge from their personal lives and of the wider world to answer this type of question.

- Why are tropical rainforests important?
- Why do you think tropical rainforests are being destroyed?
- In what ways can humans help to preserve tropical rainforests?



- **Group Work Activity: Soundscape**

For this activity, the children will think creatively about how they can recreate the sounds heard in tropical rainforests using household items, their own bodies, and voices. For example, the children may wish to use rice in a jar to imitate the sound of rain in the forest, stomping and patting their bodies to imitate thunder, fluttering paper to imitate bird's wings flying in the sky, whistling to imitate bird's chirping, howling to imitate the sound of howler monkeys, etc. The children may also wish to recreate the sound of machinery chopping down trees and transporting them out of the forests. After each group is given time to rehearse their musical soundscape, they could, in turn, perform their musical composition for the class.

This sound clip could be used to provide additional inspiration to students who need additional scaffolding during this creative thinking task:

<https://www.youtube.com/watch?v=8myYyMg1fFE>

- **Pair Work Activity: Deforestation**

For this activity, the children will discuss the positive and negative effects of deforestation from a factual standpoint. The graphic organizer below will assist them when completing this task. For the positive effects of deforestation, the children will consider the utility of trees/wood for humans, and for the negative effects of deforestation, the children will reflect on the impact deforestation has had on the animals which inhabit the space.

Tropical Rainforests: Deforestation

Positive Effects	Negative Effects

- **Conclusion: Exit Ticket**

The facilitator will ask the class to write down three new facts they learned during this lesson to consolidate their learning.

Assessment:

- **Questioning:** The students will be asked literal, inferential, and evaluative questions by the facilitator during and after the interactive read-aloud to promote deeper thinking about the text and assess whether the class has developed a coherent understanding of the text.
- **Graphic Organizer:** The group responses written in the graphic organizer will be a useful assessment tool of the children's understanding of deforestation.
- **2 Stars and a Wish:** After the performance of the musical soundscapes, each group could be invited to share two aspects of each composition that they really liked ('two stars') and one aspect of each composition that could be improved ('a wish').

- **Exit Ticket:** The facilitator will use the children's exit tickets to assess which children in the class comprehended the lesson content.



Accommodations/Differentiation:

- **Differential Questioning:** Use of higher and lower order questioning (i.e., literal, inferential, and evaluative questions).
- **Wait Time:** Provide extra wait time and language scaffolds/supports for students who need them (e.g., showing pages from the book, sentence starters).
- **Visual Supports:** All students (but especially English language learners) will benefit from pictures accompanying the vocabulary to be learned in the story.
- **Mixed-Ability Groups:** This lesson uses mixed-ability groups to allow for peer support as a way of scaffolding the children's needs in the classroom.
- **Home-School Connection:** It may be helpful to allow English language learners (ELLs) to take home the dual language book either before or after the lesson. It could then be read at home in the child's home language prior to or after class engagement with the text. English language learners would feel more confident in talking about the book in class and would have a deeper understanding of the content if the book is read to them in their home language.
 - If possible, ask the parents of English language learners to record the book being read in one's home language. The book and the recording could then be shared at school so that other students can see and hear some of the home

- languages spoken by their classmates, deepening their appreciation for language diversity.
- English language learners should use the QR code in the book to listen to an English recording of the book before class to increase their familiarity with the English vocabulary presented in the text.
 - **Open-Ended Tasks:** This lesson includes an open-ended music task (soundscape) which allows children to respond to the text in innovative and creative ways, supported by CAST's Universal Design for Learning Framework.

Additional Resources: These resources will support the facilitator in building their own background knowledge on the topic of tropical rainforests. In addition, these resources could be used during independent research time in older elementary grades.

- [Rainforest Habitat facts and photos \(nationalgeographic.com\)](https://www.nationalgeographic.com)
- [Rainforest Facts For Kids - The Ultimate Guide \(activewild.com\)](https://www.activewild.com)
- [KDE Santa Barbara \(ucsb.edu\)](https://www.ucsb.edu)
- [The Rainforest: Educational Resources for Parents and Teachers \(kidworldcitizen.org\)](https://www.kidworldcitizen.org)