Primary Science

Living Things
Month 01

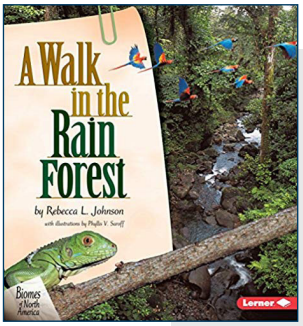
Biomes: Rainforest & Tundra

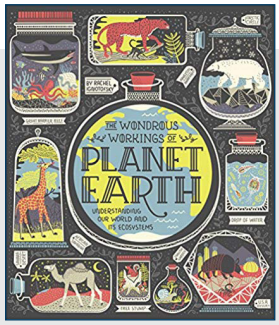
The first two weeks of this month will focus on the exciting world of the busy rainforest, including its layers, and the plants and animals that call this biome their home. The next two weeks will explore the frozen tundra. Though barren and treeless, the tundra has many fascinating animals and plants to study. The activities and readings focus on tundra characteristics and life such permafrost, arctic foxes, and polar bears.

Rainforest

Part 01

The reading this week (approximately the first half of the book) will focus on explaining biomes, climate, and the many layers of the rainforest.





A Walk in the Rain Forest
by Rebecca L. Johnson, p. 5-24

The Wondrous Workings of Planet Earth
by Rachel Ignotofsky, p. 7-21

Biome—A biome is a large area of Earth that has its own climate, plants, and animals.

Climate—Climate is a large area's weather patterns over a long period of time.

Equator—The equator is an imaginary line horizontally going around the Earth, dividing it into the Northern and Southern Hemispheres.

Canopy—The canopy is the umbrella-like structure, or "roof," of the rainforest made from the tops of the trees.

Understory—The understory is the layer of the rainforest between the canopy and forest floor. It is an area that gets enough light for some plants and animals to survive.

Forest floor—The forest floor is the ground in the rainforest. There is very little light down there.

What is a biome?

Answer: A biome is a large area of Earth that has its own climate, plants, and animals. (p. 9)

What kind of climate does a tropical rainforest have?

Answer: The climate of a tropical rainforest is warm and wet. The temperature stays about the same all year. (p. 10)

How much of Earth's plants and animals live in rainforests?

Answer: More than half of Earth's plants and animals live in the rainforests. (p. 11)

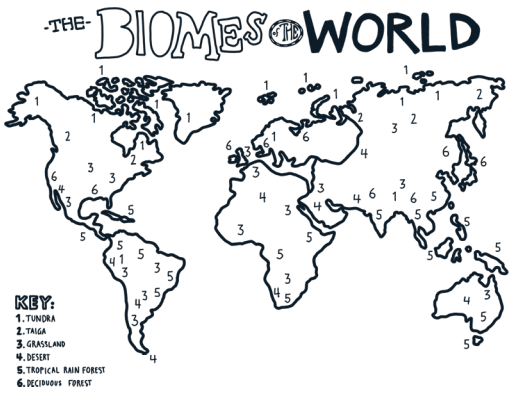
Why is it not very bright on the rainforest floor?

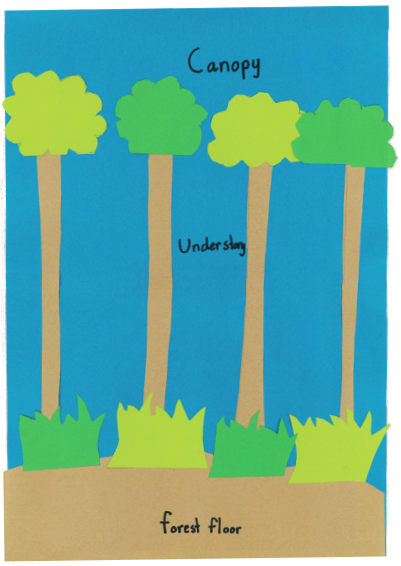
Answer: The canopy creates an umbrella-like structure over the rainforest and the understory creates a covering over the forext floor. Together they block out most of the sunlight. (p. 13)

Why are the leaves of the plants in the understory so large?

Answer: The leaves of plants in the understory are large so they can catch as much light as possible. (p. 16)

Biome Map. For our first biome journal activity, you will need colored pencils, a glue stick, your child's journal, and the Biomes map at the end of this document. Biomes are large areas that have their own climates, plants, and animals. Precipitation level and temperature determine the area that the biome occupies. Those things also directly affect what plant and animal life survives in the biome. There are many ways to create biome maps. This map correlates with the way biomes are studied in this unit. Have your child designate a color for each number on the map, which represent the different biomes. Ask them to color lightly over each number to show how the different biomes are spread out all over the world. Have your child glue this map into their journal.

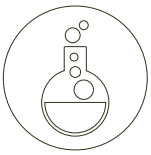




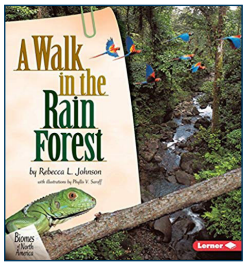
Activity 01—Rainforest Layers. For this art project, you need one piece each of large blue, green, and brown construction paper (12x18 inches), scissors, a glue stick, and a Sharpie. Review the layers of the rainforest and what you can find in each one (p. 12-16). Ask your child to cut 4 tree trunks out of the brown construction paper, about 1 inch wide and 12 inches long. You can draw them with pencil first if that helps your child. Have your child glue these to the blue paper. Then show your child how to cut cloud shapes out of the green construction paper. These will become tree tops and understory. These can vary in size and shape, but they will be layered in a row at the top of the trees to create the canopy, and a few spread out over the tree trunks to become part of the understory. Have your child cut a few leaves out of the brown paper and scatter those along the forest floor. Using the Sharpie, ask your child to label each layer with as much assistance from you as is needed. The uppermost green leaves are the "Canopy;" the middle section of the tree trunks and the few green leaves can be labeled "Understory." Label the bottom the "Forest Floor." As an optional extension, have your child choose some animals, plants, and/or flowers, then cut them out of construction paper and add them to the appropriate layer.

Activity 02—Rainforest Trees. For this experiment, you will need a measuring instrument, masking or painter's tape, and a space that is about 120 feet long. If you use a yardstick, you will need to do a quick mini-lesson on 120 divided by 3. Look at page 18 in the book with your child.

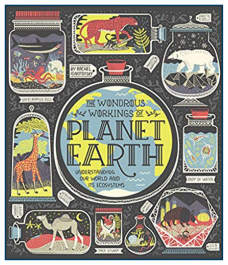
Reread the first paragraph to them about climbing one of the tallest trees in the rainforest. While this is not possible for most of us, we can get an idea of how tall those trees are. On one side of your long space, have your child help you use masking tape to mark on the ground where the bottom of the tree will be. After a discussion on what 120 feet may look like (120 rulers, 40 yardsticks, etc.), let your child walk out to where they think that 120 feet mark would be. Have them use the masking tape to mark their spot. Now, ask your child to help you use your measuring tool to measure out and mark with tape the actual height of the tree to get an accurate idea of how tall trees in the forest actually are. Discuss with your child how close their guess was. Did they guess too much or too



little? To extend the math work, figure out together the difference between their guess and the actual tree height. What other things does your child know about that may be as tall as those trees? What kind of animals do they think could live at the top, at the bottom, or in the understory?



A Walk in the Rainforest



The Wondrous Workings of Planet Earth

120 Feet of Space, or approximate
Biome Map, at end of document
Tape Measure, or other measuring device
Journal

Colored Pencils
Construction Paper, 12x18 inch
Glue Stick
Masking or Painter's Tape
Scissors
Sharpie

Wlld Republic Rainforest Nature Tube

Melissa and Doug Rainforest Floor Puzzle

Mellisa and Doug Stamp a Scene Set: Rainforest