



Nature-Watch Activity Kit

Rainforest Ramble

(Nature Watch Kit #115)

Kit Contents

Item	Kit Size	
	Qty	Qty
Rain Forest Product Samples	1	1
Tagua Nut Slices	25	100
Adhesive Pin Backs	25	100
Instructor Manual	1	1

Additional Items Needed:

Markers
Glue

This page includes the Next Generation Science Standards (NGSS) mapping for this kit and Science, Technology, Engineering, and Math (STEM) extensions (on back) to use in adapting and extending this activity to other subject areas.

**See Back for
STEM Extensions**

Next Generation Science Standards Alignment

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

HS-LS2-5. Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activity on the environment and biodiversity.

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

This Nature Watch Activity Kit contains an Instructor Manual and materials to implement the curriculum. The kit was designed to be used with adult supervision only. Unsupervised use is not recommended.



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STEM Extensions

Science

- Make a matching game about the layers of the rainforest. Create pairs of cards so that one of the cards displays a rainforest plant or animal and the other card tells the layer of the rainforest where that plant or animal resides. Repeat for additional plants/animals until you have eight pairs of cards. Turn them all over and mix them up. Take turns picking a card and trying to find a match.
- Set up a rainforest parade to showcase the biodiversity of the rainforest. As a group, select a specific rainforest somewhere in the world. Each student should then choose one animal to represent from that rainforest and create a mask that looks like that animal. Invite an audience to watch your parade, then have a “meet and greet” where the audience can ask the students about their animals. Make sure everyone has learned a lot about their animal so they can answer the audience’s questions.
- Tourism – *ecotourism*, to be exact – is one of the industries that can help sustain the resources of a rainforest. Create a brochure that advertises some ecotourism activities in the Amazon rainforest. In the brochure, point out how the activity helps in conservation efforts.

Technology

- Make a WebQuest about tropical rainforests. Come up with five questions about tropical rainforests to stump your friend, and have your friend do the same for you. Then give each other 20 minutes to find the answers to the other’s questions by searching online. (Sample questions: Which continent has the most area covered by tropical rainforests? What is the tallest kind of tree that grows in the Amazon Rainforest?) What are some reliable and informative websites with information about tropical rainforests?
- Take a virtual trip to the rainforest by going online. Search for “virtual rainforest” and take note of the interesting things you see and hear in pictures and videos. Compare notes with a friend to see if you found out something that they didn’t see on their virtual journey.

Engineering

- It’s hard to imagine that coffee starts out as a “cherry” on a tree. Go online to learn about the process that leads from coffee plant to coffee in a cup. Create an educational presentation for the coffee drinkers around you and see if you can make them really appreciate their morning cup of joe.
- Based on the size, shape, and other properties of your tagua nut slice, what other uses can you think of for a tagua nut? Think about what other kinds of objects you could make with it in addition to your pin.

Math

- As much as 240 inches of rain can fall per year in a tropical rainforest. What is the average annual rainfall for where you live? Make a bar graph to show the average annual rainfall for a tropical rainforest, your location, and three other interesting locations on Earth. How do they compare?
- A cacao tree produces about 30 pods a year, with about 40 beans in each. It takes about 500 beans to produce one pound of chocolate. Estimate how many pounds of chocolate you eat each year. How many beans are required to make that much? How many cacao trees does it take to make that much chocolate?