

Teacher's Guide for APPLESEEDS

January 2012: You Are There...in the Rainforest

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This guide provides practical classroom activities teachers may wish to use to supplement the reading passages appearing in this issue. Vocabulary words are highlighted (italicized words are defined in the article) and small group and independent activities/projects that address a range of learning styles are suggested. Many of these are suitable for group work or homework.

Discussion questions and activities align with the Common Core National Standards (Reading for Literature and Informational Text; Writing Standards for Text Types and Purposes, Research to Build Knowledge, Presentation of Knowledge and Ideas; Vocabulary Acquisition and Use; and Speaking and Listening, Comprehension and Collaboration, Presentation of Knowledge and Ideas).

Objectives:

To supplement the reading and discussion of this magazine, students will:

1. Explore rainforests and learn important features of this environment.
2. Gain an appreciation of rainforests by identifying the contributions we have as a result of them.
3. Synthesize new information on their understanding of rainforests.

Pre-reading Activity:

Introduce an essential question: (1) What important roles do rainforests play in helping us and our communities? While introducing these guiding question, you might also wish to create a KWL Chart (with headings "What I Know, What I Want to Learn, and What I Learned) about rainforests. Begin by recording information in the first two columns of the chart. Add ideas to the KWL chart as students read through the articles.

"Rainforests -- What, Where, and Why?" by Carollyne Hutter (pages 2 – 5): Dr. Nalini M. Nadkarni is a well-known rainforest scientist who believes that "...everything in the rainforest is amazing!" Find out why scientists call the rainforests "jewels of the planet" and "the lungs of Earth."

Vocabulary: absorbing, atmosphere, avocados, canopy, carbon dioxide, climate, droughts, global warming, industrial products, mangos, pharmaceutical, *rainforests*, regulate, species, *tropics*

Discussion Questions: Discuss some of the "gifts" we receive from rainforests. Share your thoughts on the importance of rainforests. Explain some reasons why Dr. Nadkarni may believe that rainforests are "amazing!"

Activities: Write a help wanted advertisement for a rainforest scientist using details from the article. Using the information and illustrations in the article, draw a picture depicting "An Amazing Rainforest" and label and describe some of activities that take place there. Conduct a Rainforest Scavenger Search of your home and identify household items that may have originated in a rainforest.

"AN APPLECORPS ADVENTURE: Our Rainforest Vacation" by Barbara Gowan (pages 6 – 9): Join Meghan and Kaitlin Gowan and their friends Erin and Katie Carlson on their adventurous trip to the Amazon rainforest in Peru.

Vocabulary: anti-malaria pills, blowgun darts, boa constrictor, dugout canoe, hammock, lily pads, macaws, machete, *piranha*, *plantains*, *riberenos*, sloth, tributaries, typhoid, yellow fever

Discussion Questions: Identify the unique experiences Meghan and Kaitlin had during their rainforest vacation. Describe how Meghan and Kaitlin might have felt during their many adventures in the rainforest and support your opinion with evidence from the article. Imagine traveling with the Gowans to the rainforest and share your opinion about your adventures.

Activities: Present a mock Rainforest Talk Show and, using a question-and-answer format, interview classmates role-playing Meghan and Kaitlin and their guide, Celso. With teacher or adult supervision, visit the website on page 9 to learn more about working together with a student or a school in the Amazon rainforest. Using details from the article, create captions for the photographs appearing in the story.

"A Long, Hot Walk" by Gail Skrobback Hennessey (pages 10 - 11): British explorer Ed Stafford shares details about his awesome 859-day hike of the Amazon River.

Vocabulary: Peruvian, trek, unconscious

Discussion Questions: Discuss Ed's reason for trekking the length of the Amazon River. Describe some of the challenges Ed encountered during his journey. Explain whether or not you would like to trek the Amazon River.

Activities: Using information from the article, write a fictitious journal entry from Ed's point of view describing one of his amazing memories from his journey. Draw your own comic strip of a particular difficulty that Ed encountered during his hike. Using your school or local library, write a research article about the Amazon River.

"Who Lives Where?" by Carollyne Hutter (pages 12 - 15): The rainforest is home to some of the most colorful, interesting, and unusual creatures, from little insects to large mammals including humans!

Vocabulary: *canopy*, *emergent*, *forest floor*, *prey*, *understory*

Discussion Questions: Discuss characteristics of each of the four layers in the rainforest. Describe how the layers in the rainforest are similar to "neighborhoods in a city." Share your thoughts on spending the night in the rainforest like Dr. Nadkarni.

Activities: Using ideas from the article, draw and label the different layers of a rainforest and identify the animals living in each. Write a story from the point of view of an animal living in the rainforest. Using your school or local library, research information on one of the rainforest animals you wish to learn more about.

"A Rainforest Ride" by Carmelle LaMothe (pages 16 - 17): While touring a rainforest on the Caribbean island of St. Croix, Blue and Leah learned that not all rainforests are created equal.

Vocabulary: fauna, flora, tamarinds

Discussion Questions: Discuss the differences and similarities between the rainforest in this article and the one described in "Who Lives Where?" Explain some reasons why there might be differences among rainforests. Share your views about touring a rainforest on horseback.

Activities: Create a crossword puzzle containing words used in the article. Write a fictitious interview with either Blue or Leah and describe some of the adventures they had while visiting the rainforest. Illustrate an advertisement for this rainforest using information from the article.

“The Tastes of a Tropical Farm” by Amber Royer (pages 18 - 19): Chocolate, coffee, and chicle (chewing gum) are tasty treats you might find on a tropical farm, along with many others.

Vocabulary: *cacao beans, collective, ferment, Manilkara zapota, synthetic*

Discussion Questions: Describe the unique foods that could be found on a tropical farm. Explain the process of making chocolate using cacao beans. What do you think Carlos Ramirez means when he states that Samana “...is a tropical paradise full of friendly people with a great desire to show the many beauties of our land.”

Activities: Write a rap or song about the foods described in the article and perform it for classmates and other friends. Design a menu featuring the treats that might be found at a tropical farm. Compare and contrast the types of treats found on a tropical farm to those found on a crop farm.

“A Magical World: A Visit to Papua New Guinea” by Lorna Elliott (pages 20 - 22): Learn about the magical world of a village in the tropical rainforest.

Vocabulary: *deliberately, initiation, ravines, stilts, sago mash, plagued, procession, transport*

Discussion Questions: Describe some of the unique features of this rainforest village that the author most probably believes are magical. Explain what is meant by the statement “My long, hot, humid night will be plagued by a procession of biting, stinging, itching, crawly things all intent on making a meal out of me.” Share your experiences visiting places that you felt were magical.

Activities: Using information from the article, write a diary page describing a memorable event as if you were a first-time visitor to Papua New Guinea. Create a dictionary featuring the verbs the writer uses in the article and illustrate your entries with pictures of rainforest animals. Write a poem about the sights and sounds the author describes in Papua New Guinea.

“Bird-napped” by Helen Pyne (pages 23 - 25): As a way to protect diverse and fragile ecosystems, ecotourism is a form of tourism that has helped not only to preserve rainforest areas, but to turn poachers into protectors as well.

Vocabulary: *deforestation, diverse, ecotourism, endangered, fragile, plummeted, poachers, protectors, smugglers*

Discussion Questions: Using information from the article, discuss the importance of preserving the fragile rainforest areas. Explain how Dr. Munn’s group, Tropical Nature, has helped to preserve the rainforest ecosystems. Share your experiences helping to save or preserve something.

Activities: Write and illustrate an advertisement for the Tropical Nature and promote the benefits of preserving the rainforest ecosystem. Write a persuasive letter to a fictitious trapper, persuading him or her to consider creating an ecotourism lodge instead of trapping. Using your school or local library, research more information about endangered parrots and share five interesting facts with classmates and other friends.

"Vanishing Forests and Disappearing Pygmies " by Rani Iyer (pages 26 - 27): The native people of central Africa, known to westerners as Pygmies, are facing many challenges as their rainforest environment is becoming destroyed.

Vocabulary: civil war, *deforestation*, discriminate, ecotourism, national reserves, *nomads*, *Pygmies*, resistance, temporary structures

Discussion Questions: Discuss the problems the Pygmies face as a result of changes taking place in the rainforest. Explain what the author means by the word "harmony" in the following statement: "This harmony has been shattered by deforestation..." Why do you suppose that solutions to help the Pygmies are not easy?

Activities: Using your school or local library, research five interesting facts about the Pygmies and share your research with classmates and other friends. Write a poem about the difficulties the Pygmies face. Using this article and other passages in this issue, list some of the consequences of deforestation.

"Come with Me..." by Kimberly Shaw (pages 28 - 29): Enjoy this imaginary tour of a rainforest with Carlos Jimenez, a guide at Hacienda Baru, a National Wildlife Refuge in Costa Rica.

Vocabulary: *cables*, habitats, *leap*, *mangroves*, *wetlands*

Discussion Questions: What evidence in the article suggests that Carlos enjoys his guiding job? Describe some of Carlos's daily activities. Share your thoughts about visiting Hacienda Baru with Carlos as your guide.

Activities: Write and illustrate a comic book featuring Carlos's daily activities as a guide. Write and perform a reader's theater skit about an event that could occur in a rainforest. Create an advertisement promoting guided tours of the Hacienda Baru Wildlife Refuge.

"Rainforests in Peril" by Marcia Amidon Lusted (pages 30 - 31): Rainforests are disappearing quickly, yet conservation groups are helping inform us what we can do to save them.

Vocabulary: accommodate, carbon dioxide, conservation, harvesting

Discussion Questions: Explain in your own words why the rainforests are disappearing. Discuss the consequences of the disappearing rainforests. Share your thoughts and opinions about trying to save the rainforests.

Activities: With teacher or other adult supervision, visit some of the websites listed on page 31 and share five interesting facts with classmates and other friends. Using details from this article and others, create a poster sharing your feelings about saving the rainforests. Write your own acrostic or name poem (similar to the Trees poem on page 31) about an important issue affecting rainforests.

Closing Activity: Students can return to the pre-reading activity and conclude their thoughts on the essential question: (1) What important roles do rainforests play in helping us and our communities? You might also wish to complete the last column of your KWL Chart (What I Learned). Lastly, you might review the lesson objectives and encourage student discussion on the topics contained there.