Ag in the Classroom Going Local

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December 2020 Book of the Month *Night Tree* By: Eve Bunting

Night Tree is a heartwarming Christmas story about a family that takes an annual journey to a place called Luke's Forest to find a Christmas tree on Christmas Eve. They do not cut the tree down but instead bring supplies to decorate the tree for the animals of the forest. The supplies they use to decorate are not the typical ornaments and tinsel you might find on your tree. The family decorates the tree with fruits and nuts so that the forest animals can have a Christmas snack.



Fun Facts

ORTH CAROLIN

- The North Carolina Forest Service operates a system of seven <u>Educational State</u> <u>Forests (ESFs)</u> designed to teach the public—especially school children—about the forest environment.¹
- North Carolina's timberlands (land covered with forest suitable or managed for timber) are growing 50% more softwood (conifers) and 100% more hardwood (deciduous, flowering, fruit, or nut-producing trees) than they are harvesting.²
- The Biltmore Estate was the site of the first forestry school in the United States, and the estate also helped establish the Pisgah National Forest.³
- Clearcutting often gets a bad reputation, but many of the myths have been debunked. See <u>Clearcutting...FACTS and MYTHs</u> in the Links section for more information.

Activity 1: Before, During, After Discussion Questions⁴

- 1. Call students to the reading area, or a central area in the classroom. Discuss:
 - a. What types of family traditions do you have around the holidays?
 - b. If your family decorates a tree at Christmas time, do you use an artificial tree or a real one?
 - c. Have you ever chopped down a tree before?
- 2. Tell the students that today they will be reading a story about one boy's family Christmas tree tradition.
- 3. Show your students the cover of *Night Tree*, and read the title and the authors; names.
- 4. Ask:
 - a. What do you think this story is going to be about?
 - b. What information does the cover of a book give us?
- 5. Begin reading the story. Pause after the family sees the deer. Discuss:
 - a. What do you think they are going to do?
 - b. Have you ever gone walking in a forest at night?

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- c. What other types of animals might they see in the forest?
- 6. Finish reading the story.
- 7. Conclude with a summary discussion:
 - a. Why did the family hang those types of decorations on the tree?
 - b. Were you surprised by what the family did with the tree?
 - c. What do you think the author of this book is trying to tell us?
 - d. What are some other ways we can help wild animals?
 - e. Did you enjoy this book? Why?

Activity 2: Reading Questions Organizer⁵

Make a large class questioning chart on chart paper or the board. This will serve as an advanced organizer. Below is an example chart. Some sections are filled in to help guide the teacher for prompting the class, but only the section header should be provided to the students. The class completes the chart as a group after previewing the illustrations and reading the story. Complete the final column **What We Learned** after reading *Night Tree*.

Things to Consider	What We Noticed	Questions We Have	What We Learned
Setting: • When	There are Christmas decorations on the bouse and in the town	Is it Christmas Day? Is it Christmas Eve?	
• Where	It's night time?		
Characters:	It looks like a mom and	Do they all get along	
• vvno	look happy There are	Do these animals know	
	also lots of animals.	this family?	
Events:	The family is going into	Why is the family going	
What	the woods at night.	into the woods?	
	They are having a	they having and are	
	They decorate a tree	they singing?	
	and then leave the	Why would they	
	forest.	decorate a tree in the	
	There are lots of	middle of the forest?	
	animals on the last	What are the animals	
	page.	doing at the end?	
Big Idea	It seems like it's about	What is the story	
Author's Message:	Christmas.	mostly about?	
Why		Why did the author	
		write the story?	

Activity 3: What is a forest?⁶

- 1. Discuss:
 - a. What is a forest?
 - b. Who has visited a forest?
 - c. What did you see there? What did you do?
- 2. If no one has visited a forest, ask students to describe a forest they have heard or read about. If students have visited a forest, ask them to share specific information about those they have visited. Encourage them to talk about all facets of a forest, not just the trees. Students may mention other plants, animals,

or non-living forest elements, as well as spontaneous or planned activities they witnessed or participated in. (For example, A forest is...a place with a lot of trees; a habitat for many animals; somewhere you can go to get away from the city.)

- 3. As a class discuss these typical qualities of forests. Together, create a class definition of a forest. This discussion will be a great springboard for exploring the concept of urban forests later in the lesson, as well.
- 4. Allow students to explore the <u>US Forest Service website</u> to discover National Forests in North Carolina and across the United States. In what regions are these forests located?
- 5. Next share some forests from this list that may not look as students expect:
 - a. The saguaros of the Colorado National Forest
 - b. The temperate rainforest of Olympic National Forest
 - c. The sand pine scrub forest of Ocala National Forest
 - d. Petrified Forest National Park
- 6. **Extended Discussion**. Encourage students to think more broadly about forests, either as part of a class discussion or individually through journaling.
- 7. Ask:
 - a. What does a forest look like?
 - b. What different forms can a forest take? (Examples: rainforest, mountain top, national forest, urban forest, local forest, your own backyard)
 - c. What or who lives in forests?
 - d. How do different parts of the forest work together?
 - e. How do forests help our planet and us?
 - f. What may harm forests?
 - g. Who takes care of forests, and why is it important to do so?

Activity 4: Where are forests? and "Forest Freeze" Game⁶

- 1. Share a map of your town or county, or have students create their own using the <u>Discover The Forest tool</u>. Ask them to locate your school and as many nearby forests as possible.
- 2. Have students bring a journal outside to the schoolyard (or nearest area with one or more trees). Ask students to point in the direction of the nearest forest, using what they have learned from the map(s).
- 3. Explain to students that they are actually standing in a forest—an urban forest. An urban forest may not seem like a traditional forest because most parts of an urban forest do not have dense tree growth.
 - a. An urban forest is the ecosystem in any settled area—urban, suburban, or rural. It encompasses all of the green space, including street trees, parks, landscaped boulevards, public gardens, greenways, and more! Eighty percent of the nation's population resides in urban areas, so urban forests may sometimes be the only forests that people experience.
 - b. Urban forests enrich our lives by providing us with clean air and water, storm-water control, energy conservation, reduction of pollution and noise, and an increase in outdoor opportunities and economic development, not to mention tranquility and beauty
- 4. Explain to students that they will be environmental journalists, using their journal to record their research and writing a non-fiction story about their urban forest.

5. "Forest Freeze" Game

- a. Have students walk around the schoolyard/urban forest and write or draw what they experience in their Forest Journals. Remind them to use their senses of sight, touch, hearing, and smell. Then, call "Freeze."
- b. Students should stop, look and closely observe the small area immediately around them, recording (words or pictures) what they discover. Call "Unfreeze" and they will return to a larger area of exploration until you call "Freeze" again.
- c. Return to the classroom and have students discuss their urban forest and share their journals with each other.
- 6. Lastly, revisit and revise the classroom definition of a forest based on these experiences. Have students write a new definition in their journals. Students could also create a Venn diagram comparing a "traditional" forest and an urban forest.
- 7. **Extension Activity**: Students can choose forests in three different forms (examples: urban forest, rainforest, scrub forest) and research/write a paper exploring these forests' similarities and differences.

Activity 5: Collecting and entering data for the National Tree Benefits Calculator⁶

- 1. Go to <u>www.treebenefits.com</u>
- 2. Enter your zip code.
- 3. Record the tree species you have identified from your community, school, yard, etc.
- 4. To find the diameter of the tree, first find the circumference by wrapping a length of string round the trunk, approximately 4.5 feet up from the ground. Mark the string where both pieces meet, and measure the length (the length is the circumference). Calculate the diameter of the tree (diameter = circumference/ π [pi, or 3.14]).
- 5. Choose your land-use type for the tree, and click Calculate.
- 6. Students can complete a survey of the trees around their home and neighborhood.

Activity 6: Making edible tree decorations⁷

1. Peanut Butter Pinecones

- a. Collect pine cones. Any shape or size will do, just make sure they're open.
- b. Cut 12" string or wire and tie to the end of the pine cone.
- c. Spread peanut butter over the pine cone, covering completely.
- d. Roll the pine cone in a bowl full of birdseed.

e. Tie to tree branches.

2. Birdseed Orange Feeders

- a. Mix two envelopes of Knox Gelatin (approximately 4 tablespoons) to 1 cup of water. Simmer on the stovetop, over low heat, until the gelatin has completely dissolved. Then stir in 2 cups of birdseed.
- b. Prepare the citrus (any citrus) by cutting one end—just enough so you are able to get in and scrape the rind clean.



- c. Poke a small hole through the rind and thread a piece of string on each side for hanging. A large sewing needle can be used or even the end of a metal skewer.
- d. Pack the rind with the birdseed mixture and place in the fridge for 2 hours.
- e. Once the birdseed mixture sets it will be hard to the touch and ready to hang.

Links

Clearcutting...FACTS and MYTHS (informational reader from the North Carolina Forest Service)

https://www.ncforestservice.gov/publications/FM0313.pdf

- What is Forestry? (video) <u>https://docs.google.com/presentation/d/1sWHKzHifyLhLZTkCAbUFDNuJ5iqx72V</u> <u>lomQtZ1xRRgl/edit#slide=id.p</u>
- Forestry Educational Resources
- https://drive.google.com/drive/folders/1ERIzOdSm3GfqLYUj82L5OtvRpcG-rA14

Sources

- 1. <u>https://www.ncesf.org/</u>
- 2. https://content.ces.ncsu.edu/north-carolinas-forest-and-forest-products-industry-by-the-numbers
- 3. https://www.ncforestservice.gov/publications/FM0313.pdf
- 4. <u>https://study.com/academy/lesson/the-night-tree-lesson-plan.html</u>
- 5. <u>https://can.gcisd.net/UserFiles/Servers/Server_96721/File/Activities/Book%20of%20the%20Month/Night_Tr</u> ee_12.10.pdf
- 6. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5201734.pdf
- 7. https://wilderchild.com/decorating-outdoor-edible-tree-for-the-animals/

K-5 Subject Areas

Reading, Writing, Speaking and Listening, Science, and Social Studies **NC Standard Course of Study**

Reading

- RL.K.1 With prompting and support, ask and answer questions about key details in a text.
- RL.K.2 With prompting and support, retell familiar stories, including key details.
- RL.K.3 With prompting and support, identify characters, settings, and major events in a story.
- **RL.1.1** Ask and answer questions about key details in a text.
- **RL.1.2** Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- **RL.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- **RL.2.2** Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- RL.2.3 Describe how characters in a story respond to major events and challenges.
- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- **RL.5.1** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text
- RI.K.1 With prompting and support, ask and answer questions about key details in a text.
- RI.K.2 With prompting and support, identify the main topic and retell key details of a text.
- RI.1.1 Ask and answer questions about key details in a text.
- **RI.1.2** Identify the main topic and retell key details of a text.
- **RI.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- **RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RI.3.2** Determine the main idea of a text; recount the key details and explain how they support the main idea.
- **RI.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing
 inferences from the text.

Writing

- **W.K.6** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question
- **W.1.6** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- **W.2.6** Recall information from experiences or gather information from provided sources to answer a question.
- W.3.6 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking and Listening

- **SL.K.1** Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
- **SL.K.2** Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
- **SL.K.3** Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- **SL.K.4** Speak audibly and express thoughts, feelings, and ideas clearly.
- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions. b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion.
- **SL.1.2** Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

- **SL.2.1** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions. b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
- **SL.2.2** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- **SL.2.4** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent and complete sentences.
- **SL.3.2** Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- **SL.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly in complete sentences at an understandable pace.
- **SL.4.2** Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- **SL.4.4** Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; adjust speech as appropriate to formal and informal discourse.
- **SL.5.2** Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- **SL.5.4** Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; adapt speech to a variety of contexts and tasks.

Science

- K.P.2 Understand how objects are described based on their physical properties and how they are used.
- **1.E.2** Understand the physical properties of Earth materials that make them useful in different ways.
- **1.L.1** Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.
- **1.L.2** Summarize the needs of living organisms for energy and growth.
- 3.L.2 Understand how plants survive in their environments.
- **4.L.1** Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.
- 5.L.2 Understand the interdependence of plants and animals with their ecosystem.

Social Studies

- K.G.1 Use geographic representations and terms to describe surroundings.
- K.G.2 Understand the interaction between humans and the environment.
- 1.G.2 Understand how humans and the environment interact within the local community.
- **2.G.2** Understand the effects of humans interacting with their environment.
- **3.G.1** Understand the earth's patterns by using the 5 themes of geography: (location, place, human environment interaction, movement and regions).
- **4.G.1** Understand how human, environmental and technological factors affect the growth and development of North Carolina.