Beech Maple Forest Unit
Additional Classroom Activities & Resources

Activities:

Every Tree for Itself: Play a game that will teach kids how trees survive. Explain to them that they are now going to become a tree and try to get everything they need to produce their own food in order to grow tall and strong. Have them plant themselves firmly in a spot and remind them that trees can only move their branches (arms). As they do this, spread out color-coded requirement cards (colored poker chips also work) and explain that each color square represents a requirement that trees need to survive (nutrients – brown, water – blue, sunlight – yellow). Tell them that when the round starts they are to gather with their branches as many of the requirement cards as they can. Let them gather for 30 seconds. Then discuss what happened. Feel free to play more rounds by adding twists to the game such as drought (not enough water), move the trees closer together (to simulate overcrowding), storms (too much water, not enough sun), nutrient deficient soil (few nutrient cards), etc. (Adapted from Every Tree for Itself Lesson Plan from Project Learning Tree by the American Forest Foundation)

Meet a Tree: In pairs, have one student wear a blind fold. Their partner must lead them to a tree (within the perimeter you’ve set). The blind folded students must use their senses—other than sight—to explore their tree. They can hug it, sniff it, rub their cheeks on it, listen for what might be living on it, and even lick it. After they have explored the tree, their partner should lead them back to the starting point and then, with blindfolds removed, the students must try to locate the tree they explored. Switch places and have the leader wear the blindfold. This a great introduction activity to teach students about the different characteristics of trees by using a variety of senses other than sight. It is also a wonderful activity to teach the importance of teamwork and trust.

Art:

Animal Track Maps: In conjunction with a forest animal storybook, have the students think back to the forest stories you read together as a class. Now that they have learned about animal signs, they can create maps of the animal signs that the characters in the books would leave behind (i.e. tracks, scat, shelters, browse, fur, feathers, etc.). Have the students create a visual representation of the stories and make an animal signs map.

Create Your Own Forest Animal:
Using recycled materials (egg cartons and various other containers) and craft supplies, have students create their own forest critter. As they create it, have them think about its name, adaptations, habitat, diet, etc. They can write a report about it and/or share their critters and their unique critter characteristics with the class. This is a favorite art activity of both our campers and camp leaders at the Ecosystem Preserve and works well in a learning cycle lesson plan as the application section.

Forest Animal Sculptures: Invite the students to create clay sculptures of forest animals that they observed in the Ecosystem Preserve or studied in class.

Leaf Critter Creation: In the fall, collect leaves of various shapes and colors from the ground. Have students create their own leaf critters by gluing the various leaves to their paper. At the preserve, we like to read the book Leaf Man by Lois Ehlert before doing this art activity.
Leaf Rubbings: Collect leaves of various shapes and sizes from the ground. Have students place a leaf underneath a piece of paper and use the flat side of a crayon to color over the leaf. The leaf’s shape and venation should appear on the paper as the student continues to color over the leaf.

Tree Portraits: Collect leaves, twigs, and seeds from the ground. Have students create tree portraits by gluing these items onto a paper as the main parts of a tree such as roots, trunk, branches, leaves, and seeds.

Exploration & Experiments:

Decomposition Experiments: Fill gallon Ziploc bags with moist soil. Give each student (or group of students) a piece of a material that we commonly throw away (i.e. disposable diaper, paper, plastic shopping bag, glass, wood, etc.) and have the students measure their item and record the data. Additionally, have them make a prediction about whether or not they think it will decompose and why. Place the object in a Ziploc bag and leave the bags in a room temperature storage space (such as a cupboard or closet). Over a period of time (several weeks or even months) come back to the bags and measure the materials, to check their decomposition. Have a discussion about the data collected. Were their predications right?

Plant Life Cycle Experiment: In a one gallon Ziploc bag, place several sheets of wet paper towel. Place 2-4 bean seeds in the middle of the paper towel and staple underneath each seed in order to prevent it from falling to the bottom. Nearly seal up the bag, but leave a small corner open for some air flow. Through this process, students can watch the process of germination.

Sharing/Discussion:

Nature Station: Set aside an area in your classroom for students to bring in nature items to display. Have the students share where they found the item, why they think it is special, how it feels, smells, looks, etc. A nature station also creates a unique resource for other sensory activities where students can blindfold each other and try to identify the object by using their other senses such as touch, smell, and hearing.

The Lorax: Read the story of The Lorax by Dr. Seuss in class and have a class discussion with the students about the message of the book. Some questions to guide the discussion include:

- How does the story relate to us and what we are studying in class?
- Does it remind you of anything happening around us?
- What can we do to help save our forests, the animals, and the natural community?
- What are some things that we can do every day to help protect the earth?

Writing:

Animal Reports: Have students write their own forest animal reports by conducting simple research and learning about their animal’s diet, habitat, and unique adaptations. Students could also draw a picture of their forest animal or create a clay sculpture and share their animal report with the class.

Animal Stories: For younger children that cannot do simple research yet, have them write a story about a forest animal. It could be a real or a make-believe story, but encourage the students to write about their animal in a natural (not fantasy) setting. Students can then share their stories with the class.

Tree Reports: Have each student pick a Michigan tree that they are going to research. They can practice using resources such as field guides, libraries, the internet and experts to write a presentation for the class.
You could have the class take notes on each presentation, or have each student make a fact sheet for their tree so that you can create a class field guide from each student’s research information.

Great Resources for the Classroom

Our Favorite Forest & Forest Critter Storybooks Include:

- A Log’s Life by Wendy Pfeffer
- Around the Forest: Who’s Been Here? by Lindsay Barrett George
- Diary of a Worm by Doreen Cronin and Harry Bliss
- Forest Explorer: A Life-size Field Guide by Nic Bishop
- In a Nutshell by Joseph Anthony
- Leaf Man by Lois Ehlert
- Lost in the Woods by Carl Sams and Jean Stoick
- Sky Tree by Thomas Locker
- Some Snug Slug by Pamela Duncan Edwards
- Red Leaf, Yellow Leaf by Lois Ehlert
- The Busy Tree by Jennifer Ward
- The Gift of the Tree by Alvin Tresselt
- The Giving Tree by Shel Silverstein
- The Lorax by Dr. Seuss
- The Salamander Room by Steve Johnson
- The Tin Forest by Helen Ward
- Under One Rock – Bugs, Slugs, and Other Ughs by Anthony D. Fredericks
- Where Would I Be in an Evergreen Tree? by Jennifer Blomgren
- Who Will Plant a Tree? by Jerry Pollatta

Internet Resources:

Mesic Southern Forest (Beech Maple Forest) Community Abstract- This is a great scientific description of a Beach Maple Forest community on the Michigan Natural Features Inventory’s website.
http://mnfi.anr.msu.edu/abstracts/ecology/Mesic_southern_forest.pdf

Michigan Animal Factsheets-The Michigan Department of Natural Resources’ website contains a variety of factsheets about Michigan animals.
www.michigan.gov/dnr/0,4570,7-153-10370_12145---,00.html

Lesson Plans:

- Creepy Crawlies and the Scientific Method: More Than 100 Hands-on Science Experiments for Children by Sally Kneidel. Published by Fulcrum Publishing
- Project Learning Tree: Environmental Education Activity Guide for Pre-K-8th Published by American Forest Foundation