

Lesson: Forest Fun

Topic/Essential Question: How do people use trees?

Unit: “Why Are Trees Terrific?” Kindergarten Environmental Literacy



Content Standards:

- Social Studies 3.d.1.b. Identify ways that people change their environment to meet their needs, such as planting crops or cutting forests
- Social Studies 4.A.1.c. Recognize that natural resources, such as water, trees, and plants are used to make products
- NGSS K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- NGSS K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- NGSS K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- 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.6 Speak audibly and express thoughts, feelings, and ideas clearly.
- Foundation for EL Standards 2.0 Interaction of Earth’s Systems, 3.0 Flow of Matter and Energy, and 4.0 Populations, Communities, and Ecosystems, 5.0 Humans and Natural Resources

Length of Lesson: 30 minutes (*The entire group will be together for the first 15 minutes of the lesson and then split into two groups for the second 15 minutes of the lesson.*)

Student Outcome: The student will

- Explain some ways that people use trees
- Describe parts of trees and their functions
- Describe some types of forest animals

Knowledge of the Learner:

- Prerequisite knowledge, skills and processes: Parts of a tree, types of forest animals; listening, observing, following instructions.
- Students’ needs, interests, and previous learning will vary.
- The instructor may pace the lesson according to the responses and participation of the students.

Knowledge of Content:

- Content knowledge for instructor: Provided in the text of the lesson.
- Vocabulary: tree parts, types of animals
- Resources:

Large posters of song lyrics	Hula-hoops
Easel	Tree Needs game tags
Fire supplies (in cold weather)	Bean bags

Pre-Assessment: During the opening at the beginning of the field trip, Camp Woodlands staff will invite students to share what they have learned at school about trees including trees as living things, trees as plants, parts of a tree, and what is a forest.

Part A: Songs**Set Up Before Students Arrive:**

Set up easel for song posters, build a fire (only in colder weather), untangle and set out the “Tree Needs” tags along with bean bags.

Motivation/Warm Up:

1. Welcome students to the activity and introduce yourself.
2. Have students sit on the benches. Ask students if they have sung songs in class or at camp.

Procedure:

1. **If taught in warm weather, skip to step 3.**
2. Invite students to use their senses to enjoy the fire. Have them review their senses: seeing, hearing, smelling, feeling, tasting (which they won’t use in this activity):
 - a. What colors do you see? What else do you see?
 - b. Close your eyes. What do you hear? *Crackling or popping*. What do you smell? *Smoke*.
 - c. Place your hands out in front of you. What do you feel? *Warmth*.
3. Discuss with the students:
 - a. What is the fuel for a fire? *Explain that the fuel is the wood. Just like we put gasoline in our cars to make them go. Fuel for people is food.*
 - b. Where does wood come from? *Trees*.
 - c. What else can wood be used to make? *Houses, furniture, paper, cardboard, mulch, etc.*
 - d. If people cut trees for wood, what can we do to make sure we still have enough trees? *Plant more trees.*
4. Invite students to sing and act out the following tree songs with you:

Question: *What are the parts of a tree?*

Leaves, Branches, Trunk and Roots

To the tune of “Head, Shoulders, Knees and Toes”
(Sing several times, start slow and speed up each time)

Leaves, branches, trunk and roots, trunk and roots

Leaves, branches, trunk and roots, trunk and roots

Bark on the outside. You and I can see.

These are the parts of every tree! Every tree!

Actions:

Leaves: (Wave hands), branches (“Strong man” pose), trunk (Hands on hips) and roots (Touch feet)

Bark on the outside (Point to skin on arm)

See: (Point to eyes)

Every tree!: (Stand up tall with arms out like a tree)

Question: *What lives in a tree?*

Old MacDonald Had a Tree

To the tune of “Old MacDonald Had a Farm”

Old MacDonald had a tree, Ee i ee i oh!

*And in that tree he had some **birds**, Ee i ee i oh!*

*With a **tweet-tweet** here, and a tweet-tweet there*

Here a tweet, there a tweet, everywhere a tweet-tweet

Old MacDonald had a tree, Ee i ee i oh!

*And in that tree he had some **squirrels**, Ee i ee i oh!*

*With a **nibble-nibble** here, and a nibble- nibble there*

Here a nibble, there a nibble, everywhere a nibble-nibble

Old MacDonald had a tree, Ee i ee i oh!

*And in that tree he had some **bees**, Ee i ee i oh!*

*With a **buzz-buzz** here, and a buzz-buzz there
Here a buzz, there a buzz, everywhere a buzz-buzz
Old MacDonald had a tree, Ee i ee i oh!*

***Sing extra verses, but have the students choose different animals who live in trees. Insert the name of the animal into the song, the action can be anything you or the students come up with. (Examples: Raccoons, bugs, spiders, butterflies, etc.)**

Actions:

Birds: *Flap arms*

Squirrels: *Put hands up to mouth and pretend to nibble a nut*

Bees: *Put your hands behind your back and flap like a bee*

Question: *What jobs do the parts of the tree do?*

The Roots on the Trees
To the tune of "The Wheels on the Bus"

*The roots on the trees go slurp, slurp, slurp
Slurp, slurp, slurp; Slurp, slurp, slurp
The roots on the trees go slurp, slurp, slurp
All through the town.*

*The trunks on the trees sway back and forth
Back and forth, back and forth
The trunks on the trees sway back and forth
All through the town.*

*The branches on the trees go reach, reach, reach
Reach, reach, reach; reach, reach, reach
The branches on the trees go reach, reach, reach
All through the town.*

*The leaves on the trees go flutter, flutter, flutter
Flutter, flutter, flutter; flutter, flutter, flutter
The leaves on the trees go flutter, flutter, flutter
All through the town.*

Actions:

Roots: *Pull up from the floor with hands and fingers*

Trunks: *Stand tall and sway back and forth*

Branches: *Reach up and out with arms*

Leaves: *Make fluttering motion with hands*

Question: *What tool do you need to plant a tree?*

The Tree Planting Song

To the tune of "Row, Row, Row Your Boat"

*Dig, dig, dig the hole
Then you plant the tree
Give it water, watch it grow
Helping you and me*

Actions:

Dig: *Pretend to dig a hole with your imaginary shovel*

Plant: *Pretend to pat soil around the base of a tree*

Water: *Pretend to pour water on the tree*

Helping: *Point to others then yourself*

Question: *Why is the forest floor soft?*

The Forest Floor Rap

Not to the tune of a song

***Before teaching this song, find a place among the trees for students to observe the forest floor. Have them jump up and down to feel that the ground is soft.
(Bold words get the beat)**

*It **doesn't** have a **window**!
It **doesn't** have a **door**!
Now I know that the **forest** has a **floor**!*

Leaves fall down, again and again
So the ground is soft
And the rain soaks in.

Actions:

Window: *Outline a window in the air with your fingers*

Door: *Pretend to knock on a door*

Now I know: *Point to your head and march in place*

Leaves: *Wave hands side to side and downward like leaves floating down*

Ground: *Point to the ground*

Rain: *Wiggle fingers, bringing hands down like rain*

Question: *What season do leaves fall off the trees? What's another name for fall?*

Autumn Leaves

To the tune of "London Bridge is Falling Down"

Autumn leaves are falling down, falling down, falling down

Autumn leaves are falling down. Red. Yellow. Brown.

Take a rake and pile them up, pile them up, pile them up.

Take a rake and pile them up. Red. Yellow. Brown.

Actions:

Falling down: *Start with hands in the air then lower them, wiggling fingers in falling motion.*

Take a rake and pile them up: *Pretend to rake leaves*

Part B: Forest Games

Motivation/Warm Up:

1. Welcome students to the activity and introduce yourself.
2. Ask students if they would like to learn about trees by playing games. Explain that the purpose of these games is learning, having fun, cooperating and problem solving, not winning or losing.

Invite students to play the following games with you:

Go With the Flow

Explain to students that they will work together to act out water flowing up a tree from the roots, through the trunk, through the branches and out to the leaves.

1. Have students stand in a line holding hands. Tell them that they are all **one** tree. Assign the tree's parts to the students. The first student in line will be a root. The last student in line will be a leaf. The students in between can be the trunk and then a branch (*Several students can make up the roots, trunk or branches depending on group size.*)
2. The "water" will "flow" up the tree by students gently squeezing the hand of the next person in line. The instructor can begin by squeezing the root's hand. The root then squeezes the trunk's hand and so on.
3. When the water gets to the leaf, the leaf can say, "*Ah, thanks for the drink!*"
4. The instructor can then role play cutting the trunk in half (*Have two students in line let go of each other's hands*). Have students repeat the activity again. Does the water reach the leaf? *No. Why? Trunk was cut in half; water could not flow up to the rest of the tree.*

The game can be repeated if the students want to play different roles.

Go With the Flow II

Just as in "Go with the Flow," have students holding hands in a line (They will represent the same parts of the tree that they were in "Go with the Flow".) Explain that students will work together to act out "food" made from sun, water and air flowing down from the leaves through the tree and to the roots. They will also act out water flowing up from the roots through the tree and to the leaves.

1. Explain to students that a blue hula-hoop will be used to represent the "water" flowing up the tree from the roots and a yellow hula-hoop will be used to represent the "food" flowing down the tree from the leaves.
2. Start with the yellow hula-hoop at the top of the tree with the leaves. Each student will go through the yellow hula-hoop from one student to another without letting go of their classmates' hands. When the hula-hoop reaches the roots they are to celebrate.
3. Now use the blue hula-hoop at the roots of the tree, as well as, the yellow hula-hoop starting at the leaves again. This time both hula-hoops will be passed, the blue hula-hoop from the roots representing "water" and the yellow hula-hoop from the leaves representing "food." When the blue hula-hoop reaches the leaves and the yellow hula-hoop reaches the roots they are to celebrate.

Tree Needs

1. Ask students "What are five things that trees need to grow?" (*Air, soil, water, sunlight and space.*)

2. Ask one student to volunteer to be a tree. Refer to this student as (*"Students' first name tree."* For example, *Ted Tree* or *Erin Tree*.) The other students will be one of the things that a tree needs (*More than one student can be the same thing; every student should pick something; make sure all five needs are covered.*) Give each student their "tree need" tag to carry in their hand.
3. Have the "student tree" stand on one side of the instructional area and stand like a tree. Have all the other students line up on the other side of the instructional area.
4. Ask students, "What do trees need to grow?"
5. Call on a student and whatever "tree need" they are; for example, "*water*," have all the students with the "water" tag walk with a bean bag on his or her head over to the student who's the tree and place their tag on them. If the bean bag drops to the ground, the student does not have to start over, just have them pick it back up, place it back on their head and continue.
6. Go until all the "tree need" students have gone. Celebrate at the end for giving the tree everything it needs to grow.

Adopt a Tree

1. Explain to the students that they are each going to choose a tree near the instructional area. Tell them they will have a few minutes to become acquainted with their tree (instructors and chaperones should accompany students). They should:
 - a. Look at their tree, touch it, and even smell it so that they can remember it.
 - b. Be able to describe one characteristic of their tree (*e.g., "My tree is smooth," "My tree is tall," "My tree has prickly leaves."*)
 - c. Make up a name for their tree.
2. Send students out to find their tree and give them time to observe and think.
3. Gather students and tell them they are going on a "**Tree Tour**" to allow each of them to share their "special tree." At each "adopted" tree students will take turns sharing the name of their tree and one thing about it.
4. Continue the tour until all of the students have shared.

***Optional Games:**

Forest "Simon Says"

The instructor calls out and demonstrates actions for the students to follow. The students copy the instructor's actions **only** if the instructor first says "Simon Says." No one gets out; students keep trying not to get "tricked." Sample Actions (*these can be repeated; the instructor can think of other actions as well.*)

Grow like a tree

Wave your branches

Fall like a leaf

Slither like a snake

Climb like a squirrel

Fly like a bird

Hop like a frog

Dig like a skunk

Run like a fox (in place)

Hide in your shell like a turtle

Swim like a fish

Who Lives in A Tree?

1. The students should stand in a group facing the instructor. Each child should have enough room to stretch out their arms (branches).
2. The instructor calls out, "Pigs live in trees!" (Or some other animal), if that animal lives in a tree the students spread out their arms (branches) to make a tree. If the animal does not live in a tree, the students put their arms down.

Animals that live in trees	Animals that do not live in trees
Owl	Fish
Robin	Earthworm
Woodpecker	Turtle
Squirrel	Cat
Raccoon	Dog
Bat	Cow
Tree frog	Pig
Opossum	Crab

Tree, Tree, Seed!

1. Have students sit in a circle.
2. Choose one student to begin and play "duck, duck, goose" changing the words to "tree, tree, seed."