TALK ABOUT TREES™
Caring for Oregon's Forests

Pre-primary activities to prepare for a 'Talk About Trees' program

Talk About Trees strives to present the highest quality curriculum and on-site tree program. This curriculum was designed by a pre-school/kindergarten specialist and was revised by peer review. Developmentally appropriate practices were incorporated into each activity. Additionally, our curriculum correlates with Oregon State benchmarks.

Feel free to use the activities that best suit your classroom. Activities that will help you prepare for your on-site tree program are indicated by a "◆."

Math Center

- ◆**Sorting.** Give each child a handful of a variety of seeds (hazelnuts, walnuts, chestnuts, almonds, acorns, etc.) Direct children to sort the seeds into groups according to shape, color and size.

- ◆**Graphing.** Prepare a simple graph by drawing a grid on a large piece of paper. Glue a leaf (or cone) on each of the left-hand squares of the grid. Set out a variety of matching colored leaves (or cones) and have the children sort them into separate piles. Next help each child match the colored leaf (or cone) on the graph. Color in a square for each leaf (cone) from the pile. Continue until all leaves (or cones) are counted and recorded on the graph. Variation: Graph shapes instead of colors.

- **Counting.** Collect a number of tree rounds from trees of varying age. An urban tree cutter or tree farm can be very helpful in collecting rounds, boughs, cones, etc. Practice counting the rings of the trees to determine their ages. To count the rings, begin in the middle and count the dark rings out toward the bark.

  Extension: Cut eight circles out of posterboard or cardboard and divide them into four pairs. On each pair of circles, draw matching numbers of rings to represent tree rings. Mix up the circles and let children take turns finding the matchups.

- **More Counting.** Collect a number of break apart plastic eggs. Write a different number from one to twelve (or any number that you choose) on the outside of each cup. Supply each child with a handful of seeds. Instruct the child to fill each cup with the number of seeds that is written on the outside of the eggcup.

  Variation: If you find the plastic eggs a challenge for the students, cut an egg carton in half and number it. Children can count the correct number of seeds for each cup in the carton.

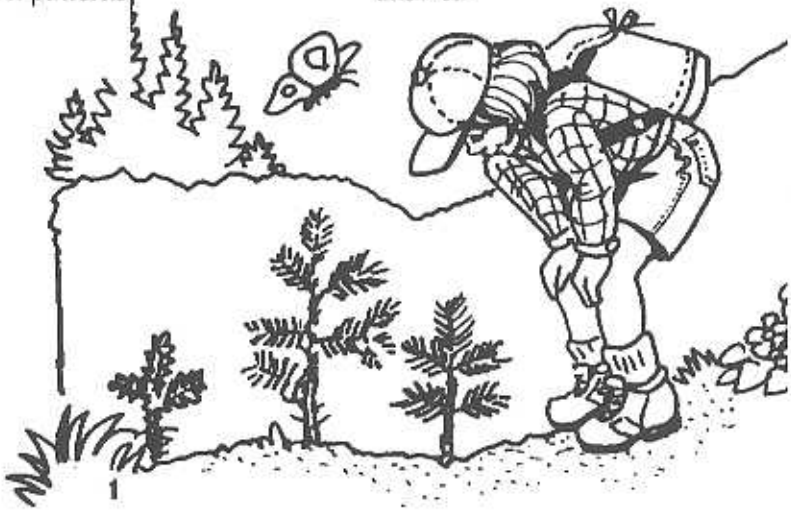
- **Patterns.** Create pattern cards using a variety of seeds. Instruct the children to copy the patterns from the cards using the seeds.

  Variation: Older or more advanced children could create their own patterns.

- **Leaf Matching.** Create a set of leaf shaped cards with two cards in each set being the same size, shape and color. Write a different equation on one of each of the matched cards. For example: 1+1 on one leaf. The corresponding leaf would then have a 2 on it. Label the remaining leaves with the corresponding answers.

- **Weighing/Estimation.** You will need a balance scale for this activity. Place an apple or any tree fruit on one side of the scale. Ask the children how many marbles, blocks, washers or other units of measure it will take to balance the scale. Record the estimates. Count as you add weights to balance the scale. Repeat the process with different sizes of fruit and different units of measure.

  Variation: Use two types of fruit, like an apple and orange. Hold one in each hand. Estimate which will weigh more, and then use the scale to determine the answer.



Library Area

About Trees:

Dorros, Arthur. *A Tree is Growing*. Scholastic, 1977. Excellent illustrations, higher level concepts.

Ehlert, Lois. *Red Leaf, Yellow Leaf*. Harcourt, Brace, Jovanovich, 1991.

Gallob, Edward. *City Leaves, City Trees*. Scribner and Sons, 1972. Good photographs.

Gibbons, Gail. *The Seasons of Arnold's Apple Tree*. Harcourt Brace Jovanovich, 1984.

Lyon, George. *A B Cedar, An Alphabet of Trees*. Orchard Books, 1949.

Manson, Christopher, adapted by. *The Tree in the Wood*. North/South Books, 1986.

Oppenheim, Joanne. *Have You Seen Trees?* Young Scott Books, 1967.

Silverstein, Shel. *The Giving Tree*. Harper and Row, 1964.

Udrey, Janice May. *A Tree Is Nice*. Harper and Row, 1956.

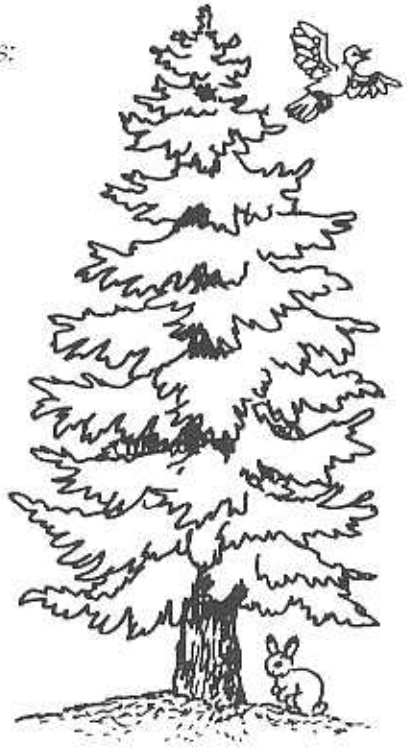
About Growing Things:

Ehlert, Lois. *Eating the Alphabet*. Harcourt Brace Jovanovich, 1989.

Ehlert, Lois. *Growing Vegetable Soup*. Harcourt Brace Jovanovich, 1987.

Jordan, Helene J. *How a Seed Grows*. Harper Trophy, 1992.

Titherington, Jeanne. *Pumpkin, Pumpkin*. Mulberry Books, 1986.



Dramatic Play Area

- ◆**Additions to Dramatic Play.** Dress up clothes/accessories: flannel shirts, hard hats, binoculars, work boots, plastic saws, brown/green work shirts, ranger hats, badges, tape measure, small canvas bag, small stuffed animals relating to forests and trees (birds, squirrels, snakes, etc.)

- **Animal Home.** Paint a large cardboard box with brown paint. Glue pieces of green felt on the box for moss, or use a small amount of real moss. Cut some holes along the sides of the box.

- **Felt Board Forest.** Place a felt board with felt leaves, animals, tree parts, etc. at children's level. Include natural pieces (small twigs, moss, leaves, etc) with pieces of felt or velcro glued on the back.

Creative Arts Area

The first list contains suggested items to add to your free art area. Following are some ideas on incorporating arts and crafts projects into your tree based theme.

- ◆Suggested materials for free art area:
  pine/fir boughs
  nuts/seeds
  small cones
  feathers
  fur
  small twigs/branches
  moss
  pre-cut leaf shapes

Replace paintbrushes at the easels with pine/fir boughs and twigs. You may also wish to add products that come from trees to this area — maple and vanilla flavorings, scented tree oils (especially in playdoh), small plastic pieces, pieces of carpeting, wood shavings, fabrics, pieces of camera film, newspaper, rubber pieces, popsicle sticks.

- **Arm Tree Prints.** Discuss with your children the parts of a tree — roots, trunk, branches. Give each child a piece of construction paper. Help one child at a time brush brown paint on his/her palm, fingers, and inside forearm. Finger paint roots at the bottom. Then show the child how to press their arm and hand on the paper to make a print of a tree with five

"branches." Later add torn paper leaves/needles, small cones or sponge paint blossoms.

Variation: For blossoms or leaves, have children wrap small pieces of tissue paper around a pencil eraser. Remove the tissue and put a small amount of glue on the tissue. Glue to the tree.

- **Bark Rubbings.** Give children pieces of newsprint and unwrapped crayons, then take them on a walk where there are several varieties of trees. Have them place their papers against the trunk of the tree and color over them with the sides of their crayon. When you return from your walk, encourage the children to discuss their Bark Rubbings.

  Variation: Leaf rubbings.

- **Four Seasons Placemats.** Give each child four identical pictures of a bare tree drawn on pieces of light blue construction paper. Talk with your children about the changes that a deciduous tree goes through during the year. Then let them decorate their pictures with crayons, paint, cotton balls, colored pencils, etc, to show how a tree would look in fall, winter, spring and summer. Cover the pictures with clear self-stick paper.

- **Autumn Leaf Prints.** Give each of your children several fresh autumn leaves. Let them paint the front sides of their leaves with fall colors. Have them arrange the leaves on pieces of cardboard painted, side up. Cover the leaves with black construction paper and rub across the construction papers with their hands. Then have them carefully lift their black papers to reveal the leaf prints.

Block Area

- **◆Suggested additions to block area**:
  hard hats
  toy logging trucks
  dump trucks
  small wooden cylinder blocks
  small wooden trees and wooden animals
  woodland/jungle/rainforest animal puppets

Paint 3-5 oatmeal boxes brown and cut some holes in them to use a "tree homes" for animals. Note: If space is a premium, you may wish to remove your block area for the duration of this theme and replace it with a Carpentry Area.

Carpentry Area

The following are suggestions for setting up a carpentry area that can be used long term, even after your tree/forest unit is complete. However, you can scale it any way that is appropriate for your classroom. If you choose to put away your block area for the duration of your tree/forest unit, it is suggested you replace it with a carpentry area and treat it as a "◆" activity prior to a Talk About Trees visit.

Helpful Hints

When introducing tools, begin with the hammer. It's the easiest tool for young children to manipulate. Introduce sawing last. It is the most dangerous and difficult carpentry skill to master. Have adequate tools and materials for everyone. Encourage children to help each other while they are working. If children become tired or stressed while working at the area, offer to set aside projects so they can be finished at a later time.

- **Set Up.** Make certain your carpentry area is spacious and situated away from other play areass. A separated area inside or outside your building would be ideal.

  Provide a workbench that is low enough for your children to bend over when they are hammering or sawing. Make certain that it has one end that can hold a clamp. Workbench suggestions: wooden cable spool, a sturdy wooden box or an old table cut down to size.

  Provide separate storage bins for each kind of material used. Provide a small broom and dustpan for cleaning the floor and workbench. Keep a large magnet handy to move over the floor to collect stray nails and screws. Note: Magnets will not attract aluminum screw or mails.

- **Supplies.** Try to use softwoods (pine, fir, hemlock) for your carpentry projects. For example, check grocery stores for wooden boxes, and lumberyards or construction sites for piles of free wood scraps. Christmas tree farms may be able to provide you with pieces of bark and sections of tree trunks. They also are a good source for tree rounds to use at your science and/or math area. Make sure you provide goggles for the children to wear while woodworking. Encourage families to participate by asking for items from home that can be used in the area.

• **Developmental Appropriateness.** Children should be at least three years old before they are allowed into the carpentry area. Be sure to adapt all activities to the needs of your children. Three-year-olds will enjoy the process of sanding, hammering and sawing rather than building. Provide many opportunities to master these areas.

Four-year olds will gradually show interest in gluing or nailing pieces of wood together. They can be encouraged to create their own masterpieces by using the scrap materials.

Five-year-olds may show interest in extending the activities by creating a plan and building from it. For example, you may wish to have them build a birdhouse. They could decide how the birdhouse would look and make a plan. The plan can be discussed in the child's journal or with the teacher. Then the child can work from the plan to create his/her birdhouse.

• **Hammering Ideas.** Introduce hammering by having children pound large headed nails into an old tree stump or log. Or hammer nails or golf tees into large chunks of styrofoam. Bottle caps hammered on blocks of wood until flattened are also another good hammering exercise. Flattened caps can be stacked together and attached to the ends of narrow pieces of wood to create rhythm instruments.

• **Sanding Ideas.** Introduce sanding by exposing children to different grades of sandpaper, from coarse to extra-fine. Let them sand wood pieces. Have them discuss or write how the different sandpaper grades change the wood. Add the sanded and painted wood pieces to the block area.

• **Inserting Screws.** Try this idea to teach children to insert screws into wood. Have the child hammer a nail partway into a block of wood and then wiggle it out. Next, have the child rub the end of the screw on a bar of soap and then screw it with a screwdriver into the nail hole. Let them practice screwing and unscrewing. Screw various sizes and kinds, including Phillips head screws, into a large piece of wood. Let one child at a time experiment with different screwdrivers to find out which works best on each screw.

• **Sawing Ideas.** Begin sawing practice by sawing through large pieces of styrofoam or several thick pieces of cardboard. Clamp the styrofoam or cardboard to the workbench. Then let each child have a turn using a handsaw or a coping saw to saw through the material. Gradually introduce different species of wood.

As they improve, you may want to have the children practice sawing on a straight line using a straight edge and a pencil. Later introduce a carpenter's square and let children practice drawing the lines and cutting.

• **Carpentry Ideas.**

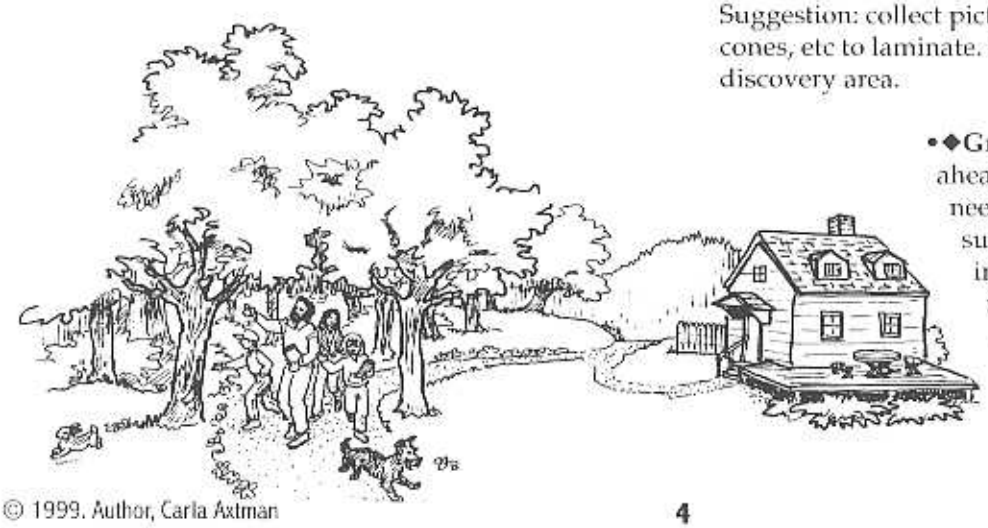
Collage: Let children nail or glue various small scraps to plywood to make a group collage.

Tin-punch designs: Draw dotted outlines of simple shapes on frozen juice lids. Place the lids on wood blocks and show children how to lightly hammer a nail through each dot to create a see-through design. Punch a hole in the top of each lid and tie on a loop of yarn for hanging.

Wood curl collages: Have children glue wood shavings (from pencil sharpener curls made from hand held pencil sharpeners) to plastic foam trays to make collages.

Science & Discovery Center

Suggestion: collect pictures/photos of trees, leaves, cones, etc to laminate. Use to decorate your science/discovery area.



•◆**Grow Your Own Tree.** Discuss ahead of time what your seeds will need to grow — air, soil, water, sun. Peel grapefruit seed covering with a razor blade. Peel the rounded end first; the pointed end contains the embryo. Sprout seeds in wet paper toweling, then plant in soil. (This activity works

better if seeds have sprouted first.) Plant in store bought soil to avoid damaging micro-organisms. Have children graph or journal progress.

Variation: Experiment with different types of seeds.

- **Understanding Tree Rounds.** Have a number of tree rounds at your science table. Have children note different characteristics about the rounds. How thick are the rings? How far apart are the rings spaced? How big is the dark spot in the middle? The dark spot in the middle is called the "pith." It's where the tree began growing. Why do you think some rings are far apart, and some are closer together? Why do some of the rounds have marks on them that are different from the rings?

- **Make Your Own Soil.** Set out a pan of soil along with dried leaves, small twigs, tree bark, and dried coniferous needles. Let children pretend that they are worms or grubs busy making new soil. Have them crumble or grind leaves, twigs, bark and needles into tiny pieces. Then have them mix the pieces with the existing soil. Later add the new soil to a garden or save for planting indoors.

Group Time & Circle Time

The first two activities also double as outdoor activities.

- ◆**Tree Parts.** Lead discussion about different parts of a tree — roots, trunk, branches. Showing pictures of leaves, roots, bark, trunk, branches, etc., discuss what the different parts do. Have a xerox copy of different species of leaves, and have the leaves on hand.

Next, give each child one of the leaves. Ask children to observe their leaves closely. Questions you might ask: Are edges pointy or smooth? Are some of the leaves different colors? Do any of the leaves have tiny hairs on the underside? Can you see or feel veins? Anything special on the leaves not already mentioned? Have each child stand next to the copied leaf picture that matches the leaf they hold. This could be done over several days and in connection with the next activity.

- ◆**Tree Find.** Before class, take a walk around the school grounds or an area where you can take the children for a walk. Find some leaves or cones from different species of trees. Laminate (or use clear contact paper) the leaves and punch a hole in one end. Tie with a string like a necklace. Secure a string on the cones to use as a necklace as well.

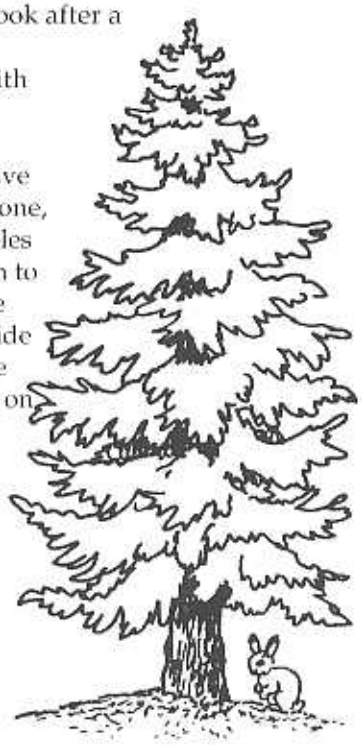
At group time, tell the children you'll be going for a walk. Give each child a leaf or cone necklace to wear on the walk. While on the walk, have the children locate the tree whose leaves or cones match their necklace.

- **Comparing Wood.** Gather together different species of wood. Try obtaining deciduous (oak, maple, ash, cherry, walnut) and coniferous (pine, fir, hemlock) pieces with similar dimensions. Have children give descriptions of how the different pieces look. Write their comments on a large sheet of paper. Also compare the different sounds the wood pieces make when struck with a wooden spoon. Do some sound hollow? High pitch? Low pitch?

- **Dramatic Movement.** Ask children to sit on the floor. Have them pretend to be tiny acorns in the gound by rolling themselves into little balls. Have them slowly extend their roots (legs) and then gradually push up through pretend soil into sunlight, with their arms held at their sides. As they grow taller, have them extend their branches (arms) out at their sides. Finally, have them stretch their arms up over their heads, as they become full-grown trees.

While the trees are standing together in a grove, talk them through different weather conditions. For example, "How do you move when a gentle breeze blows through your branches?" "What happens to you when there's a big storm with rain and wind?" "How do you look after a heavy snowstorm?" "When it's a hot day with no breeze at all?"

- **Trees At Home.** Have children bring in leaf, cone, branch, nut/seed samples from home. Allow them to discuss/describe where they got them. Go outside for a walk and see if the same tree can be found on the school grounds.



Outdoor Activities

• ◆**Observe Seasonal Changes**. With children, locate a deciduous tree in your neighborhood and make a special point of visiting it every month or so. Help your children keep a record or journal of the changes that are observed in the tree throughout the year. Photograph the tree each time you visit it.

Let the children work together to create seasonal charts that include their own illustrations. You can create a bulletin board of the photographs and illustrations. Also include leaves, branches, bark rubbings, seeds, etc., from your tree on the bulletin board.

• **Measuring Temperatures**. Talk with children about how the forest acts like a big air cooler. Forests cool surrounding areas with shade, and give off moisture through the leaves and needles. On a hot day, take children outside. Help them use an outdoor thermometer to measure the temperature in direct sunlight. Then carry thermometer to a shady spot under some trees. Wait a few minutes, then measure the temperature again. Discuss how much the trees help to lower the temperature and make the air feel cooler.

Cooking & Tasting

• **Tasting Foods from Trees**. Obtain some food samples that come from foods which grow in forested areas. For example, set out pine nuts for children to taste. Try tasting varieties of nuts including walnuts, hazelnuts, chestnuts, and macadamia nuts.

• **Tree Snacks**. During your tree theme time, choose special days for cooking and tasting. Have children help you prepare a snack using different fruits that grow on trees. For example, your menu for a 2-week theme might include baked apples, peach yogurt, grapefruit or orange juice, etc. Other fruits you might consider using are pears, plums, apricots and dates.

Extension: Have children sample other foods that come from trees such as olives, nuts, chocolate and maple syrup.

• **Tree Cookies**. Use a favorite sugar cookie recipe. Roll out the dough and let children cut tree shapes with Christmas tree cookie cutters. Bake according to recipe directions. Let children decorate with green frosting and chocolate chips (cones).