Paul Bunyan
(GPN #21)

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Publisher: Morrow

Program Description: LeVar joins Smokey Bear for a trip to Maine, the legendary birthplace of Paul Bunyan, where he takes part in forest firefighter training. He also visits a reforestation area and finds out how little seeds become big trees, as well as why planting and caring for trees is important.

Class Tree Year Book

Key Words: trees, measurement

Concept: Trees have characteristics that can be described.

The fictional character, Paul Bunyan, was an extraordinary lumberjack who spent most of his time in the forest. To be a lumberjack you need to enjoy being outdoors around trees. Take a year and get to know a tree.


1. Have students choose a tree to observe for the next year. Create a class tree journal and, working together, have students record as much information as they can about the tree including:
   • The measurement of the tree’s circumference.
   • An estimate of the tree’s height.
   • A map showing the location of the tree.
   • An impression of the bark using aluminum foil (tape it into the notebook).
   • The type of tree and general information about it (use a tree resource book).

2. Have pairs of students take turns making monthly journal entries describing the tree. Ask them to include the following in each journal entry:
   • The date, the season, and a description of the weather.
   • A drawing of how the tree looks this month (to show the branches, the shape, and whether it has leaves or not)—and a tracing or rubbing of a leaf (to show the shape and size if it has leaves during this season).
   • A description of the area around the tree including other living things near it such as mosses, fungi, lichens, grasses, plants, etc.
   • A prediction of what the tree will look like next month.

Students will observe more changes in the appearance if they choose a deciduous tree. If they choose a coniferous tree or other plant, they will see changes in the weather, animals, and the plant as it bears fruit or produces seeds.
Tree Cookies

Key Words: trees, growth rings, bark, wood

Concept: You can tell the age of a tree by counting its growth rings.

In this episode LeVar tried his hand at sawing a log in a lumberjack contest. Thin slices sawed off the end of a log are sometimes called tree cookies. Use tree cookies for dendrochronology, the study of tree rings.

Materials: Tree cookies (thin slices of wood from a tree trunk or large branch; ask a Christmas tree farm for pieces cut off the ends of tree trunks or ask parents to cut thin slices from recently cut fire wood), pencils, index cards.

1. Give each small group a tree cookie. Ask students to describe their cookie by telling about its size, color, shape, and smell.

2. Help students identify the different layers of the tree and discuss their purpose.

   The bark helps to protect the tree and can be used to identify the kind of tree. It is actually old layers of phloem, pronounced “flo em.” The phloem, which is usually pinkish or reddish, carries the food produced by the leaves to all the parts of the tree. The cambium, which is very thin and may be too small for students to see, is the part of the tree that grows a new layer of wood and a new layer of phloem each year. The wood layer, which is most of the interior of the tree, helps support the tree and carries water, minerals, and salts up from the soil to the leaves. This is the part of the tree that contains the growth rings. It is also the part of the tree that carpenters use to build houses and furniture. The pith is the central core of the tree trunk and is the tree’s first year of growth.

3. Have students count the number of growth rings in the wood to find the age of the tree their cookie came from. If the cookie is from a tree branch, the rings will tell the age of the branch which may be less than the age of the tree.

4. Explain that dendrochronology is the study of tree rings. Tree rings are studied to learn about past weather. Ask students to look carefully at the rings in their tree cookie. Tree rings from bad growing years (little rain or very cold) will be thin. Years that were mild with plenty of rain tend to be good growing years, so the rings from those years will be thick. Ask students to try to identify rings from good and bad growing years. They can compare tree cookies to see if there are similarities in the pattern of good and bad growing years.

5. Have them make a card telling the age of their tree cookie. Place all the tree cookies with their cards on a table so students can compare them. Mix-up the cards and challenge students to match each cookie with the correct card.