

Teaching Tips

Using Old Christmas Trees

by Joy Finlay

Rather than discard Christmas trees when the short festive season is over, recycle them as a resource for learning and creative projects.

Create a forest corner

In the schoolyard, set trees out in buckets of sand, freeze them into pails of ice, or prop them in a snowbank. Make paths in and around the trees.

Drifting snow can add interesting features to your forested landscape. If there is wildlife in the area, watch for signs that birds and mammals have taken shelter in your evergreen forest.

A tree for the birds

After putting trees outside, decorate them with suet chunks, seed baubles, peanuts and popcorn. If they are anywhere near, woodpeckers, jays, chickadees and grosbeaks may come to feed. Then the tree will once again be part of the living scene in winter.

Landscape for a winter carnival

Use old Christmas trees for temporary landscaped backdrops and for marking off activity areas. Or, arrange them to make a maze.

A crystal tree

Set a discarded tree upright and secure it to a post in the ground. Attach a hose to the trunk, with the nozzle facing upward at the top. Turn on the water during freezing temperatures to form a fountain of ice. (Be prepared to lose the hose if it freezes too!) Spraying water on a tree is another way to get an icing effect. Rime and hoarfrost, caused by water vapour, are nature's way of forming ice crystals on trees, making beautiful winter scenes.

How long did each tree live?

Determine the approximate age of each tree by counting the number of branch whorls (the places on the trunk where branches grow out all round) plus the tip, called a candle, at the top.

Measure the distance between the whorls of branches to find how much the tree grew each year. The last year of growth can be determined by measuring the candle tip.

Plot the growth on a graph and compare trees and growth for each year. How does this compare with students' growth?

What factors would affect the rate of growth? Which trees were fast growing? Which were slow? Is growth the same on all sides? Or did the tree have competition for light on one side?

Which trees have grown in untended native forests? Which have grown in managed plantations? What are the clues?

Hint: Growing trees may be shaped by cutting tips of branches to produce bushier clusters of shoots.

What makes a good Christmas tree? Consider this question from various imagined perspectives, such as that of a Christmas tree grower, a Christmas tree shopper, a snowshoe hare, a bluejay, deer, squirrel, or a tree itself.

What tree rings can tell us

Saw slices of wood from the trunk of a discarded tree, taking one cross-section from below every set of whorled branches. Number each slice on the underside. Sand the top so the annual rings show clearly. Count the rings to determine the age of the tree at each slice and stack the slices in sequence.

Each annual ring is made up of light-coloured large cells that grow in spring and early summer, and darker, smaller cells that grow more slowly in late summer and winter.

Measure the width of each ring.

Drought years or crowding cause narrow growth rings. A leaning tree has narrow rings on one side.

The history of the tree's life is recorded in the tree rings. Reading the story in the tree rings depends on the scientist's ability to interpret the relationships between ring growth and the environment. It is like a detective story – the clues are in the rings.

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