

# The Gift of Trees

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## Standards of Learning

Science 1.7, 1.8, 2.4, 2.7, 3.6, 3.8  
Language Arts 1.9, 2.8, 3.5

## Objective

Students will

- Identify common Virginia evergreen trees (conifers)

## Materials

- *A Wish to Be a Christmas Tree* by Colleen Monroe
- *Why Christmas Trees Aren't Perfect*. By Richard H. Schneider
- Tree branches (Evergreens)

## Background Knowledge

Winter is a great time to get outdoors and enjoy the beauty and variety of Virginia's evergreen trees. Begin this activity by sharing one or both of the suggested holiday children's books with your students. Younger students will enjoy the story and accompanying illustrations while older students can practice their skills in tree identification.

**Did you know that Christmas trees are considered an agricultural crop?** When we think of agriculture, we usually only think of things we can eat – cows and corn! But agriculture also provides us with fiber for our clothing and building supplies for our houses. In this case, agriculture provides us with a central item in our holiday celebrations – Christmas trees!

According to Virginia Cooperative Extension, Christmas tree farming is steadily increasing in Virginia. Approximately 1.8 million Christmas trees were harvested in Virginia in 1990. In 1997, Virginia ranked 8<sup>th</sup> in the nation in producing Christmas trees with approximately 1400 growers. On average, a Christmas tree farm in Virginia is 15 acres. Christmas trees can be harvested and sold six to twelve years after they are planted.

So what are the advantages to raising Christmas trees? Farmers plant trees on unused open land, thus making it more productive. It only takes a few acres to grow Christmas trees economically, as opposed to most food crops and timber. A crop of Christmas trees helps prevent erosion of the soil. When planting these trees, ground vegetation is not removed, so bare soil is not exposed to an increase in erosion. This is not so with other agriculture crops and timber. And finally, Christmas trees can flourish on land that is less fertile, too rocky, or too steep - harsh environments for other more sensitive crops.

## Procedure

1. Choose one or both of the books listed above to read to your students. In *A Wish to Be a Christmas Tree*, an older tree, "too big and too tall", laments the approaching Christmas as he is never chosen by any of the families who visit the tree farm to select their tree. The forest creatures rally around him, each telling him how grateful they are for his presence. This story is written in rhyme, providing younger students the opportunity to practice identifying rhyming pairs. In *Why Christmas Trees Aren't Perfect*, a tiny evergreen, who hopes to grow into a majestic Christmas tree, gives up this wish in order to protect the creatures of the forest.
2. Both of these books list many examples of the resources evergreen trees provide in a forest ecosystem. Ask students to list specific examples of these resources from the story. All answers will involve shelter and food.
3. Students may enjoy illustrating one specific scene from the book that depicts a forest creature taking comfort from the tree.
  - \*basic needs and life processes of animals
  - \*animals have life needs and specific physical characteristics



- \*identification of natural resources – plants, animals, forests
- \*living organisms are interdependent with their living and nonliving surroundings
- \*plants produce oxygen and food, are a source of useful products, and provide benefits in nature

4. Display the branches of evergreen trees that you brought in, or take your students on a nature walk to collect their own. Two or three different branches per lab group, or even just one branch to identify per group, are enough.
5. To start students on the path to identifying these branches, have them make a sketch of each branch, while noting its similarity and differences to other branches.
6. The website, “ID It”, can be found at <http://www.cnr.vt.edu/dendro/dendrology/idit.htm> This website is produced by Virginia Tech. Trees can be identified by use of a dichotomous key.
7. Discussion questions:
  - a. Were you able to correctly identify your evergreen tree branch? How sure are you?
  - b. Did you encounter any problems during the identification process? If so, what were they? Did all of the members of your lab group agree?
  - c. Which evergreen tree is most common in your part of the state? Can you state a hypothesis as to why you think this tree is most common where you live? Hint: Does the soil on your school property match the description of the soil type needed for this particular tree to grow (soil descriptions are listed on the Virginia forestry website)?
  - d. Compare and contrast evergreen leaves to those of deciduous trees (trees that lose their leaves in the fall). Do you see any “survival advantages” in the shape of evergreen leaves?
  - e. Are Christmas trees a renewable or nonrenewable resource? Explain your answer.

### **Extension**

If your students feel fairly confident in their Virginia evergreen tree identification skills, survey the property around your school to record the type and number of trees.

Collect pine cones – the fruit of some evergreen trees - with your students. Roll the pine cones in peanut butter and then bird seed. Suspend the pine cones with string from tree branches. This is a classic activity that all students enjoy! Once again, the needs of animals can be addressed along with the effects of seasonal changes and respect for wildlife. It will also provide you with the opportunity to discuss the shape and form of many common natural objects – seeds, cones, and leaves.

### **References**

<http://www.virginiachristmastrees.org>

Virginia Christmas Tree Growers Association

[www.hortontreefarms.com/tree\\_species.html](http://www.hortontreefarms.com/tree_species.html)

This website in Canada lists and describes several varieties of Christmas trees.

Christmas Tree Education Kit. Otti O'Neill. New York Christmas Tree Growers' Association. 1996. This teachers' guide offers activities on the history, farming and identification of Christmas trees. It contains student hand-out sheets and puzzles. This kit can be ordered from the Cornell Educational Resources Program at <http://cerp.cornell.edu> .

