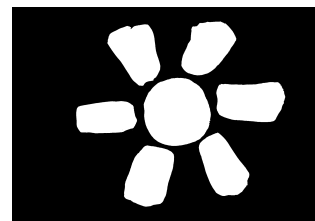


**OVERVIEW**

Students explore a variety of December holiday traditions. Students then focus on the Christmas tree, its significance and where they come from in Pennsylvania.

**BACKGROUND****Products from Live Trees****Foods**

We get a wide variety of foods from live trees, mainly fruits and nuts. In Pennsylvania, apples are our primary fruit trees, while a variety of edible nuts can be found in our forests: hickory nuts, walnuts, acorns and in the past, chestnuts.

**Maple Syrup**

Maple syrup is made from the sap of maple trees. Sugar maple is the tree species most often used, but red maple and black maple trees are also tapped for their sap. An average of 43 gallons of sap is needed in order to boil down one gallon of syrup. For some people that make maple syrup in Pennsylvania it is a major cash crop. Most do it just as a hobby or use the process as an educational tool.

**Christmas Trees**

European settlers brought with them to the new world their traditional seasonal celebrations, among them that of decorating evergreen trees. The custom quickly gained acceptance across the United States. Celebrations in different regions of the new country were directly influenced by the new lifestyles of the settlers, as well as by the traditions of their homeland.

Nationwide, more than 35 million live Christmas trees are purchased each year. Most Christmas tree operations are small family farms on less than 40 acres of trees. Many growers sell trees directly to the consumer, either already cut or “you-cut-your-own.” Other trees must be cut, bundled and shipped. In Pennsylvania, a variety of different tree species are grown for Christmas trees. Species include Scotch and Eastern White Pine, Balsam, White, Douglas and Fraser fir and white, Colorado blue and Norway spruce.

Christmas trees take 7–12 years to grow to marketable size. While the trees

are growing, the grower must take time to control weeds, to prune trees to develop a desirable shape and deal with insect and disease problems. Time is also needed to clear new sites and/or prepare for planting new trees to replace those cut.

**PROCEDURES**

1. In early December, ask students to share some of their family’s holiday traditions and the types of decorations, foods and other items that these traditions involve. While the majority of students may focus on the Christian holiday of Christmas, be sure to also include discussion of other December celebrations such as Hanukkah and Kwanza.
2. Ask students to think in particular about any holiday items that might come from trees or from the forest (live Christmas trees, pine boughs, pine cones, holly, mistletoe, princess pine, wooden menorah, wild turkey for holiday dinner, etc.). Bring examples to class or have students bring examples of these items from home to share in class.
3. Ask students if they know the significance of the traditional Christmas tree to the celebration of the Christian Christmas holiday? Is a tree a meaningful component of their holiday celebrations?
4. Explain that growing and selling Christmas trees is an important business in some parts of Pennsylvania. Have the names, addresses and phone numbers available for several Christmas tree farms, nurseries and/or Christmas tree sale lots in the local area.
5. Ask students who live relatively close to each other to work in groups to visit one of these establishments close to their home and to interview the owner or manager. It is best if the students’ call ahead to set up an appointment that is convenient to the owner or manager.

**GRADE LEVELS:**

Grades 5-10

**OBJECTIVES:** Students will (1) discuss a variety of December holiday traditions and (2) develop and conduct an interview to gather information on the sources of Christmas trees in Pennsylvania.

**PENNSYLVANIA PROPOSED ENVIRONMENT & ECOLOGY STANDARDS ADDRESSED:****4.2.7**

- A. Know that raw materials come from natural resources.
- B. Examine the renewability of the resources.

**4.4.7**

- B. Explain agricultural systems’ use of natural and human resources.

**4.2.10**

- A. Explain that renewable and nonrenewable resources supply energy and materials.
- B. Evaluate factors affecting availability of natural resources.

**4.4.10**

- B. Explain the functions of the components of the food and fiber system.

**ESTIMATED DURATION:** One to two 50-minute class periods.

**MATERIALS NEEDED:** Paper and pen (or computer) for developing interview questions and recording responses.

6. Students should work together to determine interview questions before the interview. Possible questions might include:
    - If the trees have already been cut, where have the trees come from? Who is the supplier and where is the supplier located?
    - Do they (or their supplier) supply trees to other lots within Pennsylvania? Outside of Pennsylvania?
    - How many acres of planted trees do they (or their supplier) have?
    - What are the species of trees for sale? What are the prices? Which species of trees are the best sellers?
    - If the trees have already been cut, approximately what dates were they cut?
    - Generally how many of the cut trees remain unsold after the holidays? What is done with the trees?
    - Do they sell any other holiday items?
    - How many people work there? What positions do they hold? Are they all seasonal positions? What are the general starting and ending dates for the seasonal positions?
  7. After the interviews have been completed, have the groups share the information they collected with the entire class.
  8. Discuss the following as a class:
    - If the trees came from a forest rather than a nursery or tree farm, could there have been another reason for cutting them? What positive and/or negative effects, if any, might the removal of the trees have on the forest and the wildlife that live there?
    - Do any local people depend on Christmas trees sales to make a living?
    - Are there any farms or forests nearby where people are allowed to cut their own trees? Why do the owners or managers of these farms or forests allow these trees to be cut?
    - Do you prefer a natural Christmas tree or an artificial one? Why?
    - Has your family ever bought a live tree that can be replanted after Christmas? What are the advantages and/or disadvantages to buying a live tree that can be replanted?
- What are the advantages and/or disadvantages to buying a live, cut tree? What options are available for what can be done with the tree after the holidays?
  - What are the advantages and/or disadvantages to buying an artificial tree? What natural resources are used to make artificial trees?
  - What are the advantages and/or disadvantages to buying no tree at all?
  - How do you prefer to decorate your tree (what types of decorations do you put on it)? If your family does not celebrate Christmas, are there any special types of decorations used to celebrate your holidays?
  - What might happen if a significant number of people stopped buying Christmas trees?

### EXTENSION

- Have students develop a written questionnaire to collect data from local residents. Use this questionnaire to determine which December holidays are celebrated, what types of special holiday foods and decorations are used in their homes and (if they decorate a Christmas tree) whether their Christmas tree is generally a live tree, a cut tree, an artificial tree or some other alternative.
- Have students research the natural history of those species of trees that are most often used as Christmas trees. Have students try to determine what makes these trees more appealing.

### ASSESSMENT

Have students write a short reflection of the most significant aspects of the December holiday traditions that they and their families celebrate.