Fall Apple Tree Care

Description
Students learn about the tree cycle and take care of the school’s fruit trees.

Guiding Question
How do trees grow?

Big Idea
We take care of our trees so they provide us fruit.

Learning Objectives:
⇒ Learn about the life cycle of a tree and how to take care of them

Vocabulary:
Life cycle – the series of changes in an organism, including reproduction
Seasons – the four divisions of the year by weather
Fall – The season when the weather begins to cool and most crops are ready to harvest
Winter – The coldest season of the year when most plants are dormant
Spring – The season when the weather begins to warm up and plants and flowers begin to bloom
Summer – The hottest season with the longest amount of sun when plants grow the most and most when fruits develop

Materials:
☐ Tree life cycle cards (Appendix A)
☐ Plastic tube for trees
☐ Woodchips
☐ Bucket
☐ The Life and Times of the Apple by Charles Micucci, or other book about apples
3rd–5th grade:
☐ Apple facts worksheet (Appendix B)

Engage (5 mins):
Walk and Talk: Have students make two lines and talk to partner on the walk to the garden: What fruit trees grow in Maine? OR Have them take 1-2 minutes in the garden to talk to partner about this question.

Explain (5-10 mins)
Explain that we have fruit trees growing at school and we will take care of them and learn about them. Ask what season it is (Fall). Ask what we do with apple trees in the fall (Harvest apples). Now that we have enjoyed the apples that the trees produced for us this year, we need to prepare our trees for winter.

The trees will go dormant – or to sleep – in the winter, and we need to keep them warm and protect them from animals. We will do this by putting a thick layer of woodchips at the base of the trees to keep the roots warm under all the snow that may fall. Before we put the woodchips down we will remove any weeds around the base of the tree (and collect the weeds in a bucket to add to our compost) so they don’t compete with the tree roots for space or nutrients.

Just as our tree needs to stay warm, animals need warmth, too. Animals will often burrow under the snow next to the tree to stay warm and then eat the bark of the tree when they are hungry. This will kill the tree. So we will put this plastic guard on our baby fruit trees to protect them from rodents until they grow big and strong.
**Explore (30 mins)**

**Station 1: Tree Care (8-10 mins)**
Students work with volunteer to weed, mulch, and wrap the trees.

**Station 2: Reading/Research (8-10 mins)**

- **K-2nd**
  Students learn the history of an apple through *The Life and Times of the Apple* by Charles Micucci

- **3rd-5th**
  Using the apple facts worksheets (Appendix B), have students write down one beneficial fact for each apple variety. More advanced students can make a Venn-diagram of the features of the three apple varieties.

**Station 3: Tree Life Cycle (8-10 mins)**
Volunteer will assist students in organizing season cards in order starting with fall. Then they will match the tree cards for each season. Have students defend why each tree picture fits a season. Finally, they will match the “what is happening” pictures. The volunteer will lead them to talk more about what is happening in each season with the tree such as dormancy, blooming, pollination, and harvest.

**Evaluate: Exit Ticket**
Have students whisper answer as they are leaving. What type of tree did we take care of today?

**Curriculum Connections**

- Science 3.LS1.1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- ELA.Literacy.RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- ELA.Literacy.RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- ELA.Literacy.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- ELA.Literacy.RI.5.3 Explain the relationships or interactions between two or more individuals, events, or concepts in a historical, scientific, or technical text based on specific information in the text.
Fall

Summer
GoldRush Apple Winter. The first of the new disease-resistant varieties have superior storage qualities. Medium to large fruit has deep greenish-yellow chewy skin that turns golden in storage. Creamy white green-flecked flesh is hard, very crisp, juicy and tart. A solid apple with excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Ripens very late in fall, but will usually do so successfully in central Maine. Keeps until early May in the root cellar. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Moderately vigorous tree with a strong central leader. Blooms mid to late season.
**McIntosh Apple** Fall. First discovered by John McIntosh on his farm near the St. Lawrence River. Originally called Granny’s Apple, then McIntosh Red, sometimes Gem, and finally McIntosh. Certainly the most important apple in the Northeast. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some striped, some blushed, some solid red. Recent strains have been selected for traits other than flavor, and the variety has gotten a bad reputation. This strain has green ground color overlaid with red stripes and blush. It was planted in 1906 in Mercer, ME. Of all the strains we have sampled, this one has the best “Mac” taste. This is a delicious aromatic apple. Annual cropper. Large beautifully rounded spreading strong easily managed tree. Very susceptible to scab but has shown resistance to apple maggot fly. Does not keep well in home storage. Blooms midseason.
**Wolf River Apple** Fall. Near Wolf River, WI, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round fruit. Pale yellow-green skin mostly covered with pink, deep red and bright crimson. Almost always has a vivid yellowish-greenish russety splash around the stem. Creamy-white coarse firm-but-tender flesh. Aromatic flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season.
**Duchess of Oldenburg Apple** Late Summer. Russia, 17th c. Also called *Duchess*. In 1835 the Massachusetts Horticultural Society imported the first of many apple varieties from Russia. These Duchess was planted extensively wherever growers needed extreme hardiness and is still quite popular in most of northern New England. Medium-sized round red-striped fruit is irregularly splashed and mottled with crimson. Yellow firm fine-grained crisp tender juicy subacid aromatic flesh. Highly esteemed for all sorts of cooking; Duchess is one of the best pie apples for coldest districts. Makes a pie with a tart flavorful zip and cooks up quickly into thick creamy delicious sauce. Small to medium-sized adaptable tree. Scab resistant. Blooms early-midseason.