Arbor Day

Materials:
- Crayons
- Stiff Paper
- Paper bags
- Tree Cookie or Stump

Overview & Objective
For over 100 years, Missouri has celebrated the value and benefit that trees bring to our health, community, economy, and ecosystems. In our area, Arbor day is celebrated on the last Friday in May. We can Celebrate Arbor Day in the school garden by exploring the trees we have on our school grounds, learning how trees improve environment and formalizing ourselves with the functions of the tree.

Students will:
- Identify the types of trees in their school yard, **Deciduous** or **Coniferous/Evergreen** by collecting evidence from the trees.
- Review plant parts and discuss the function of plant parts focusing on the stem and compare to the parts of a tree, focusing on the trunk.
- Learn key terms and functions of **Cambium, Phloem,** and **Xylem**.
- Discuss and identify 5 benefits of trees.

Standards and Curricular Connections
Next Generation Science Standards
**K-ESS2-2** Earth’s Systems
**2-LS4-1** Biological Evolution: Unity and Diversity
**4-LS1-1** From Molecules to Organisms: Structures and Processes

Strategies for Engagement
Contact Missouri Department of Conservation for native trees for your students plant in the school garden or to take home to plant with their parents: [https://mdc.mo.gov/trees-plants/tree-seedlings/about-missouris-state-forest-nursery](https://mdc.mo.gov/trees-plants/tree-seedlings/about-missouris-state-forest-nursery)

Apply for Forest ReLeaf’s CommuniTree program and receive 3-gallon trees for school grounds: [http://moreleaf.org/plant/project-communitree/](http://moreleaf.org/plant/project-communitree/)

Pre-Activity Questions:
1. Why do we need/how do we benefit from trees?
2. How do plants, including trees, get water and nutrients to the rest of the plant?
3. How have trees adapted/changed to better live in their environments?
4. How do trees and animals help each other?
Arbor Day

Resources
- Gateway Greening Demonstration Garden on Bell
- Trees Work at www.treeswork.org
- Missouri Department of Conservation at mcd.mo.gov

Gateway Greening's Lending Library
- The Tree Lady by Hopkins and McElmurry
- Tell me, Tree: All about Trees for Kids by Gail Gibbons
- Wangari's Trees of Peace: A Tree Story from Africa by Jeanette Winter
- The Giving Tree by Shel Silverstein

Gateway Greening Resources
Connect with us on Facebook to discover upcoming Youth Garden Institute workshops or join the Gateway Greening Educators Group to connect with other teachers:

Discover season-specific gardening how-to’s and examples of current lessons:

Next, take your class on a journey around the school yard.
- Have each student make a rubbing of the bark on of a few select trees you find and collect evidence of their tree in a paper bag leaves, acorns, sweet gum balls, any evidence of the tree that they have taken a rubbing.
- Have your students try and recall if their tree kept their leaves/needles over the winter introduce the term coniferous or evergreen. If the tree they collected their evidence from has leaves returning this spring, that is a deciduous tree.
- Have your students share their findings.

Activity
- Start this lesson with clarifying the importance of a tree’s trunk. With a cross section of a tree, called a tree cookie you can show the bark for protection from gnawing insects and weather, inside the transport system of the tree, cambium layer where more cells are made, xylem which carries water up from the roots and phloem which carries sugars created in the leaves down to the rest of the tree. At the very center you’ll find the rigid heartwood, providing stability for the tree.
Arbor Day

Additional Activities & Follow Up:
Your students can determine the age of a tree by counting the rings in a cross-section cut of a tree. If you have stumps in your garden, have your students find the oldest stump. When counting the rings either count the light layer or the dark, together they form one year. Instruct your students to count back from the bark however many years old the student is to find out what was happening in the trees life when around that time. If there was a drought in the area, the rings will be very close together, if there was plenty of water or even flooding, the rings will be spaced out, each showing the amount of growth of the tree. Have the students write a story about what the tree was "doing" the year the student was born.

Have students "adopt a tree" to observe for the year. Let students decide how the will observe the tree; by the changes the tree goes through as the seasons change or how many birds and animals visit the tree. This is a perfect opportunity for your students to collect data and create graphs.

Write thank you letter to trees for all the do for us, making sure to list specific benefits and all the ways our trees enhance our lives.