



Best Tree Forever: 2nd-5th Grade Guided Field Trip

Thank you for choosing Hoyt Arboretum for your school field trip! This field trip uses inquiry-based methods to introduce your students to tree structures and their functions. Our goal is to have students use their senses to engage with the environment and connect with trees, wherever they may be. Second through fifth grade groups will leave Hoyt Arboretum with a deep understanding of a native tree species or Best Tree Forever (BTF) that can be recognized all over the greater Portland area. This field trip is 90 minutes long.

Hoyt Arboretum Friends has created this program to follow Oregon's Next Generation Science Standards (NGSS). We have implemented the following Disciplinary core ideas and Performance expectations into our **Best Tree Forever** field trip.

- Disciplinary Core Ideas:
 - **LS1.A: Structure and Function** - All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.
 - **LS1.B: Growth and Development of Organisms**- Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.
 - **LS1.C: Organization for Matter and Energy Flow in Organisms**- All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.
 - **LS2.A: Interdependent Relationships in Ecosystems**
 - Plants depend on water and light to grow.
 - Plants depend on animals for pollination or to move their seeds around.
- Performance Expectations:
 - **K-LS1-1.** Use observations to describe patterns of what plants and animals (including humans) need to survive.
 - **1-LS1-1.** Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
 - **2-LS2-2:** Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
 - **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.
 - **4-LS1-1.** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
 - **5-LS1-1.** Support an argument that plants get the materials they need for growth chiefly from air and water.





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Best Tree Forever (BTF) Field Trip Activities

Below are the experiential activities that could take place on the field trip. Please be advised that every field trip is variable, and our nature educators are encouraged to alter the direction of learning, based on the questions and curiosities the students may have. Students will use observation skills and movement, to learn about concepts of seed dispersal, deciduous vs. coniferous, tree life cycles, interrelationships of an ecosystem and the inner layers of a tree trunk.

1. **Introduction to Tree Signs:**
 - Students will learn how to read each of the tree signs at the Hoyt Arboretum and will be introduced to reading Latin scientific names.
2. **Mystery Bag**
 - Students will learn about the difference between deciduous and coniferous trees, by using their sense of touch, smell and observation skills.
3. **Squirrely Seeds**
 - Students will understand the importance of wildlife and how they help with seed dispersal.
4. **Seed Races**
 - Students will identify different types of seeds and understand how each can be dispersed by different methods of wind, water and wildlife.
5. **Best Tree Forever (BTF)**
 - 2nd and 3rd grade will identify the interrelationships of their BTF tree and other living organisms.
 - 3rd and 4th grade will identify and recognize their BTF's life cycle and work together as teams to find examples of these stages.
 - 4th and 5th graders will look at the inside of a tree trunk and understand each of the different layers by acting out new cell growth and how water and nutrients move throughout the tree.

Best Tree Forever Certificate (Optional)

Please print a **Best Tree Forever (BTF) Certificate** so that your students can reconnect with their tree back in the classroom. The certificate and additional pre- and post-activities can also be found on our website.

Thank you for your interest in Hoyt Arboretum Education Programs. If you have any questions please contact our Youth Programs Coordinator, Elena Amaya at elena@hoytarboretum.org.

