

Grade Level/Subject: 4th-5th grade
Program: Trees, Please!

Stage 1 – Desired Results

Established Goal:

Students will be able to explain why plants are important and will be able to name the parts of a plant and their functions.

Standards: 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.

Takeaways:

- Students will be able to name what parts of a plant are.
- Plants need water, sunlight, air, and nutrients to grow.
- Some plants require a lot of water while others require very little.
- Some plants belong here and other plants were brought here from other places.
- People, animals, and insects depend on plants for various resources.

Essential Questions:

- What do plants provide for people?
- What do plants provide for animals?
- What does a plant need to grow?

Student Objectives: *Students will know . . .*

- Students will know that each part of the plant has a specific function.
- Students will know that every different species of plant produces a different type of seed.
- Students will know that seeds have a protective outer shell to help ensure they grow a new plant.
- Students will know that animals, insects, water, gravity and wind move seeds from one location to another.
- Students will know that photosynthesis is the process that plants use to convert carbon dioxide and water into sugars using sunlight.
- Students will know that plants are an essential part of the food chain.

Stage 2 – Assessment Evidence

Performance Tasks:

- Starter- Seed germination phenomena
 - Reviewing that plants get the materials they need for growth chiefly from air and water.
- Why people and animals need plants?
- What are parts of a plant?
- How do seeds disperse?
- What do we need to grow a plant?
- Wrap up questions to check for comprehension.

Other Evidence:

- Comprehension checks during the program.
- Wrap up questions to check for comprehension.

Stage 3 – Learning Plan

Learning Activities:

- **Teacher will create the initial interest in the topic by beginning with phenomena.**
 - **Ask students:**
 - **What do you see?**
 - **What do you notice?**
 - **What are you wondering?**
- **Teacher will make sure the students understand the key concepts by asking comprehension-checking questions throughout the program.**
- **Teacher will ask the students questions after the program and evaluate if they understood the key concepts taught during the program.**
- **After the program, teacher will engage students in companion activity to reinforce topic.**
 - **4th Grade: Students will dissect a flower or seed and observe the internal and external structures that function to support survival, growth, and reproduction.**
 - **5th Grade: Students will grow seeds in a bag with air and water and observe the growth and progress.**
- **The program incorporates multiple strategies for reaching the different types of learners including visual and audio.**
- **The program is designed to keep the students engaged during the entire program to maximize the amount of learning that is possible.**

Vocabulary Words

- **Adaptation**
- **Biodegradable**
- **Cambium layer**
- **Carbon Dioxide**
- **Compost**
- **Conservation**
- **Decompose**
- **Drought tolerant plant**
- **Germination**
- **Heartwood**
- **Invasive Species**
- **Native plant**
- **Natural Resources**
- **Phloem**
- **Photodegradable**
- **Photosynthesis**
- **Sapwood**
- **Species**
- **Xylem**