

Tree Structure

GRADES 3–5

Guiding Question

What are the different parts of a tree, and how do they work together to support the tree?

Connecting Concepts

- Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (NGSS, LS1.A: Structure and Function}
- Trees can be classified into family, genus, and species groups based on their relationship to other similar species. Identification is often based on seeds, leaves, flowers, and other tree parts. (PLT FLF, 1.B.3)

Scope and Sequence

The collection and arrangement of content below supports an intentional student learning progression.

Activity	Description
The Closer You Look (in Grades K–2)	Students draw a tree from memory and compare their drawing with observations of an actual tree.
Tree Factory	Students model the parts of a tree to learn how each part functions and how they work together.
Nature’s Skyscrapers (in Grades 6–8, see 3–5 Variation)	Students measure the height and trunk circumference of a tree.
Tree ID	Students learn about trees through their identifying structures, such as leaves, bark, seeds, flowers, and fruits.

See plt.org/academic-standards for detailed standards correlations for each activity.

Storyline

Students explore the concept that a tree is composed of different parts that function together to support the tree.

- Begin with the activity *The Closer You Look* to help focus students’ observations of tree structures. (While the activity is listed in the Grades K–2 section of the guide, it is also suitable for Grades 3–5.) Even though students may be very familiar with trees, they may not have thought much about the actual structure of a tree.
- Next, conduct the activity *Tree Factory*, in which students model the parts of a tree through an active simulation.
- Then, use the activity *Nature’s Skyscrapers* to examine a tree and its structures up close as students measure its height and trunk circumference. You may choose to use the activity itself, which is geared for Grades 6–8, or the simpler variation for Grades 3–5.
- Conclude the unit with the activity *Tree ID*, in which students look at a tree’s leaves and other structures to identify the species. As a culmination of the unit, ask students to explain how the internal and external structures they’ve studied work together to support the tree.