Structure and Function

GRADES K-2

Guiding Question

What different parts does a tree have, and how do they help the tree grow and thrive?

Connecting Concepts

- All organisms have external parts. Plants have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.
- Individuals that are the same kind of plant or animal are recognizable as similar, but they can also vary in many different ways.
- A tree is a woody perennial plant that is usually at least 12 feet (4 meters) tall at maturity, often with a single main stem, and a more or less distinct crown of leaves, needles, or scales.

Scope and Sequence

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

Activity	Description
Adopt a Tree	Students select individual trees to observe over time, developing a greater appreciation of the structure and function of different parts of the trees.
The Closer You Look	Students go outdoors or view pictures to observe trees and their parts
Bursting Buds	Students investigate tree leaf buds, which will develop into leaves.
Have Seeds, Will Travel	Students observe, collect, and classify seeds to learn about one aspect of a plant's reproductive system.

See pltcanada.org/en/education for detailed standards correlations for each activity.

Storyline

Students explore the concept that trees and other living things are made up of parts that help them grow and thrive.

- Begin with the activity Adopt a Tree to introduce the idea that trees are made of different parts. Encourage students to describe the leaves and overall shape of individual trees.
- Next, use the activity The Closer You Look to help students focus more closely on the structure of a tree. By drawing a tree from memory and comparing it with their observations of an actual tree, students begin to identify characteristics of a tree's form and structure. (They may use their adopted tree or another tree as the basis of their observations.)
- Then, with the activity Bursting Buds, invite students to investigate the protrusions from tree twigs and branches that will develop into leaves, stems, and flowers. As they observe these structures over days, weeks, or months, ask them to describe how these tree parts help the tree grow.
- Follow up with the activity Have Seeds, Will Travel, in which students examine seeds—the parts of trees and other flowering plants from which a new plant can grow. After investigating seeds, you might conclude the unit by asking students to draw a picture of a tree showing all the parts they explored and how each part helps the tree.