

## Concepts

# Pre-visit activity • Cycle One

## Trees Up Close

### What roles do each of the main parts of a tree play?

The main parts of a tree are the roots, trunk, branches, leaves, flowers and fruit. Each part has a very specific role to play in keeping the tree healthy and allowing it to reproduce.

The roots, which are usually hidden underground, anchor the tree and help keep it standing. They draw water and the other nutrients the tree needs in order to grow from the soil.

The trunk lifts the tree toward the sun, holds the branches and transports the sap. The wood it is made from keeps the tree stable.

The branches hold the leaves, lifting them toward the sun. They also transport the sap.

The leaves capture sunlight and, by means of a process called photosynthesis, produce the sugars that feed the tree. The pores in the leaves, also called stomata, allow them to breathe and control the amount of water that evaporates.

The flowers help the tree reproduce by producing fruit once they have been pollinated.

The fruit contains seeds that are capable of sprouting and producing new trees.

### Why do people say that trees help maintain biodiversity?

Trees provide shelter and food for different species of animals and fungi.

Some mammals, like squirrels, build summer nests out of leaves and twigs, perched high in a tree. They also use holes in tree trunks as winter shelter. The fruit and seeds of trees, like acorns, chestnuts, hazelnuts and berries, are a squirrel's staple food.

Many birds, like northern cardinals, build their nests in trees and shrubs. They hide in the foliage, which protects them from predators and the weather. Cardinals also eat tree fruit (berries, for instance).

Some types of insects, like paper wasps, build their nests out of wood fibre, which they chew and mix with their saliva. They often locate their nests in the branches of a tree, which offer good shelter.

Many types of fungi live on or near trees. Some of them feed on dead wood, while others absorb some of the sugars from a live tree in exchange for nutrients and water.

