

# PARTS OF A TREE



## CROWN

The crown of a tree is composed of branches, twigs, and leaves. The branches and twigs hold the leaves up allowing them to receive sunlight which is vital to food production. In addition, branches and twigs also support the flowers and fruit of a tree.



## FLOWERS

Tree flowers produce fruit, which encase seeds. Within each seed lies the beginning of a new tree. Tree seeds are dispersed by wind, wildlife, and water



## TRUNK

The trunk is the main stem of a tree and has two primary functions: to support the crown of branches, twigs, and leaves and to transport food and water throughout the tree. Cutting through the outer bark would expose many different layers. The outer bark of a trunk protects the inside of a tree from injury as well as acts as an insulator against cold and heat. The phloem is soft and serves to distribute the food produced in leaves to every living cell in a tree. The xylem or sapwood distributes water up the trunk to the leaves, where food is manufactured. The Cambium is the thin growing layer found between the xylem and the phloem. The heartwood is the accumulation of older wood which no longer carries sap.



## LEAVES

Leaves are the manufacturers of food for trees. Food is produced through the process of photosynthesis, which means “putting together with light”. Powered by sunlight, the green substance in leaves called chlorophyll uses carbon dioxide and water to produce carbohydrates. Also through the process oxygen is released through tiny pores called stomata and water is released through the process of transpiration. In a way trees act like a giant air conditioner, cooling the air with water vapour and expelling oxygen, which we need to breathe. Leaves come in many different shapes and sizes and are attached to the twig in different patterns. For example, some leaves like the maples, are attached opposite one another. Others, like the oak, are arranged alternately on the twig. Observing shapes and arrangement of leaves is helpful in identifying trees.



## ROOTS

Roots are the network found underground that helps to anchor the tree. In addition, roots help in absorbing water and nutrients from the soil which the trees use to manufacture food and grow.