

# Forest Foundations – Program Overview

K | Gr. 1 - Gr. 5 |

## Program Description

Have you ever wondered what it takes to make a tree? What about a forest? Join a Surrey Nature Centre program leader in the heart of Green Timbers Urban Forest to explore how different parts of trees play different roles in creating strong, healthy organisms capable of building a forest.

We will explore leaves, roots, and trunks using games, experiments and explorations that help us to understand how trees, like us, have different parts (organs) that allow them to acquire what they need to survive!

Students will leave understanding trees more deeply and appreciating them as an integral part of a healthy forest ecosystem and planet.

## Considerations

- This program is completely outdoors, rain or shine, so please dress for the weather.
- For your safety in the event of extreme weather conditions, this program will be adapted for an open area or rescheduled to another day.
- Public washrooms are available on-site - arrive early to make use of these facilities before the program begins.
- All vehicles parking in our lot will need to register their license plates inside the Nature Centre before the program.

## Curriculum Focus Areas

### Science Curricular Links

- Basic needs of plants and animals: food, water, shelter, space
- Names of local plants and animals
- Water is essential to all living things
- Structural features of living things in the local environment
- Biodiversity in the local environment
- Energy is needed for life: trees as producers and how this can benefit other living things
- Sensing and responding: trees responding to light, water, and disturbance
- Multicellular organisms have organ systems that enable them to survive and interact with the environment
- Multicellular organisms rely on internal systems to survive, reproduce, and interact with the environment
- Stewardship

## Vocabulary

**Chloroplast** – The green-pigmented *organelle* inside leaves in which photosynthesis occurs. This is what makes leaves green, and what allows plants to make their food.

**Coniferous** – Trees that have cones (ex. Pinecones) and do not lose their leaves in the winter

**Deciduous** – Trees that lose their leaves in the winter

**Disturbance** – Work or activities that move or remove dirt and soil, ex. Digging

**Ecosystem** – Living things in an environment (area) that interact with one another

**Oxygen** – A product of photosynthesis – many animals need to breathe oxygen for survival. Trees make oxygen while they make food for themselves.

**Photosynthesis** – The process by which plants create sugar using sunlight, water and carbon dioxide. Trees use their leaves to make food using only water, carbon dioxide (which is part of air), and sunlight

**Stewardship** – taking care of nature and Earth

## Dressing For the Weather

Please ensure you are checking the forecast in the days prior to your program and communicating with your students to ensure they are prepared.

### Clothing Recommendations

We require students to wear **sturdy, closed-toe footwear** for all outdoor programs. During the winter and during rain, footwear should be waterproof.

We recommend that students wear **layers** in all weather.

For colder programs, wool is the best base layer (closest to skin) – it stays warm even if it gets wet! Students should also have an insulating layer, and wear a water-resistant outer layer, gloves, and a hat or toque. We have some rain ponchos on site; Should a student need to borrow one, please let us know at the beginning of your program.

For warmer program days, students should still bring a light jacket, or sweater, as temperatures can be significantly lower in the forest. Hats are always recommended.