



## **Kindergarten: Seed to Seed**

### **Learning Outcomes:**

- Plants have observable features
- What basic needs do plants have?
- How do the different features of plants help them meet their basic needs?
- Observing local plants- features may include roots, stems, leaves, flowers, seeds.
- Adaptations: what are the structural features that allow plants to survive?

### **Workshop:**

This workshop will teach children all about plants, from seed to sprout, and beyond. They will learn to identify the parts of plants including the roots, stems, leaves, flowers, and seeds, explore the importance of plants, learn about plant life cycles, and plant some seeds of their own. This workshop will include an in depth look at the life cycle of a plant and answer important questions such as: what are seeds? What do they look like and what do they do? What happens to the seed after it is planted? What happens to a plant after it has released its seeds?

Children will also learn why bees and other beneficial insects are so important for plants, and will explore the garden looking for pollinators. During a hands-on planting activity, children will learn what a seed needs to grow- sunlight, water, air and time- and will plant their very own seeds in recyclable pots. Now the students will get to watch the entire life cycle of the plant at home!

## **Grade 1: Going Buggy (Insects and habitat)**

### **Learning outcomes:**

- Living things have features and behaviours that help them survive in their environment.
- How do local animals and insects depend on their environment?
- Which structural features help them survive and how have they adapted to better survive?
- Behavioural and physical adaptations

### **Workshop:**

Children will learn all about bugs- why they are beneficial, what kinds of important jobs they do, where they live, and what types of bugs live around us. We will explore the special features of insects and learn how those features help them to survive in their habitats. Finally, we will learn all about the lifecycle of a bug, from cocoon, to larvae to adult. Children will participate in a hands-on bug hunt bug hunt in which, equipped with



magnifying glasses, they will search for bugs in all stages of their life cycles around the Earthwise Garden. Children will discover some special bug hiding spots and learn to look for clues about where they might be. As an alternate activity, we will play a game of Bug Bingo: kids will explore a heap of compost on a tarp to see which critters they can find, and will record their discoveries on special bug bingo sheets!

## **Grade 2: Water Wisdom**

### **Learning outcomes:**

- Water is essential to all living things
- The water cycle: evaporation, condensation, precipitation, runoff
- The water cycle and how it relates to weather
- Water conservation: fresh water is a limited resource and is not being replaced at the same rate as it is being used.
- Living things have life cycles adapted to their environment.

### **Workshop:**

Children will learn all about water conservation and the water cycle in the Earthwise Garden. They will be introduced to our rain gardens and rain barrels, which are a part of the Rain Harvest Program to encourage people to use water more wisely, and learn how the Earthwise rain barrels distribute water. Students will learn how chemicals from gardens and farms can get into our local streams and oceans and cause pollution, and the connection between healthy water and healthy animals- what kinds of animals are usually found near water? Students will discover what makes a rain garden different from other gardens, and how rain gardens can help to filter out pollutants. They will also discover which plants prefer rain gardens, how these plants have adapted for water uptake, and participate in a hands-on water related activity.

## **Grade 3: Soil and Worm watchers**

### **Learning outcomes:**

- What is biodiversity?
- Why is biodiversity important in an ecosystem?
- What are the different types of living things in an ecosystem,
- The relationship between producers (plants), consumers (animals), and decomposers (bacteria and fungi).
- Energy pyramids and food chains and the interconnectedness of all organisms in an ecosystem.

**Workshop:**

Students will learn about the many different types of insects that are present in the Earthwise garden and their day-to-day activities, depending on the time of year. Learn where bugs live, what they eat, what special things they do, and why they all play such an important role in their ecosystems and contribute to biodiversity. Children will explore the relationship between plants, animals, and bacteria and fungi, with an in-depth exploration of the Earthwise worm and composting bins. The worm bin demonstration will showcase the world of worms and other decomposers, including microorganisms, and demonstrate just how important insects are for our environment and food systems. Children will look for worms in the worm watcher bin, and dig through individual piles of dirt to see which critters they can find. They will learn all about the features of worms, and what they do, and they will learn all about soil composition and why it is important to make our soil as healthy as possible. The workshop will conclude with a compost-making session to create a rich soil for our plants in the Earthwise Garden!

**Grade 4: Habitat Hike****Learning outcomes:**

- All living things respond to their environment.
- How do living things sense, respond, and adapt to their environments?
- The interdependence within ecosystems
- Biomes and habitats

**Workshop:**

Explore the many different animal habitats that the Earthwise Garden offers! This workshop will include an in-depth garden discovery session to spot different habitats and search for animals that might live there. Key topics covered include: What does habitat mean? What are the four parts of habitat (food, water, shelter, and space)? How do animals adapt to live in each one? Which animals and insects live in the garden? How can we tell they live here, even if we don't see them? Why is it so important to care for these plants and critters? Students will discover the interdependence of insects, plants, animals, and humans and the importance of creating a healthy and diverse environment. Explore the native garden to learn about native plants and why they are so important to local wildlife, and the pollinator and butterfly gardens to learn what makes these habitats special. The workshop will conclude with a visit to the Earthwise barn, which provides critical habitat for owls and other birds. Students will use the examples from the Earthwise Garden to think of ways they can create wildlife habitat at home or at school!



## **Grade 5: Pollinator Power**

### **Learning outcomes:**

- Systems and the concept of interconnectedness within ecosystems in our local areas
- The idea that we have a responsibility to care for the environment.
- The nature of sustainable practices around BC's resources.

### **Workshop:**

Pollinators are a crucial part of our food system. Almost all plants depend on bees! One in three bites of food are made possible by bees. Students will learn all about bees, why they are so critical to our environment, how they play a part in every aspect of our complex and interconnected ecosystem. Students will tour the Earthwise pollinator Garden and visit the mason bee houses to learn how bees and other critters are key to pollination, how pollination works, and why pollution, the use of pesticides, climate change, and lack of habitat are contributing to the decline of pollinator populations. Students will learn how they can help our pollinators by providing habitat for bees, including planting bee-friendly flowers for food, and creating ecologically friendly gardens. Children will explore their own role in the environment and discover how small actions can have big impacts. The workshop will conclude with the planting of some bee-friendly seeds in the Earthwise Garden.