

## **Life Systems: Grades 1-6**

All of the following workshops fall under the Science and Technology portion of the Ontario School curriculum and are designed to meet both overall and specific expectations as outlined by the ministry. The majority of the workshops listed below take place outside, so please dress appropriately for outside exploration. (Grade 7 program available upon request.)

### **Grade 1: Workshops Available for: Fall/Winter**

#### **A Hike into Nature**

Take a special hike into nature and find out why the trees in the forest keep the animals that live there healthy and happy. In this workshop you will learn about animals and their habitats while collecting natural treasures along the way to make your own forest home. Through hands on exploration, children will have the chance to see just what it takes for an animal to make their home and how the animals get ready for the long and cold winter.

#### **What you can expect:**

- A tree tour where the students will collect seed and leaf samples and bark rubbings.
- A tour of the wetland pond where students will look for the different insects that live in the pond.
- Cutting, pasting and colour craft using the items found on our nature walk.
- Outdoor hands on exploration of our arboretum.

#### **Use your Common Senses**

Get ready to challenge your senses with optical illusions, taste tests and more. In this workshop, you will compare how you see, hear, feel, taste and smell with other animals. The results may surprise you! In this workshop students will take a look at how important their senses are and how they can improve their senses. Through exploration the children will see how they can adapt to certain situations if one of their senses suddenly became impaired. Then they will look at how insects and animals use their senses to meet their needs and how they adapt and change to fit the environment that they live in. We will also look at human development and compare the similarities and differences that we share with other animals.

#### **What you can expect:**

- Messy craft.
- Small group rotations with hands on exploration.
- Taste tests.
- Students will learn what senses are the strongest/weakest in humans as compared to other animals.
- Students will learn about how other animals and insects use their senses.

### **Workshops Available for: Spring/Summer**

#### **Dip Into Nature**

Spring has sprung and the creatures in our pond are beginning to warm up and wake up. In this workshop we will take a look at our Demonstration Wetland Pond. Students will take a closer look and identify the creatures that have chosen the pond as their home such as fish, insects and frogs. We will also look for any eggs that these creatures may have laid. Then we will take a look at the pond to see what creatures may visit there and where they might have originally come from.

**What you can expect:**

- Hands on exploration of the wetland pond.
- Students will learn what creatures and insects live in the pond and what creatures may visit the pond.
- The children will see the different stages of the life cycles of some of the creatures that live in the pond .
- The children will see visually the delicate ecosystem that is present in the pond and how a pond starts to come to life when the seasons change from winter to spring.

**Grade 2: Workshops Available for: Fall/Winter****Growth and Changes in Animals**

In this workshop, we will take a journey through the lifecycles of a variety of amazing animals. The children will be taken on a tour of the arboretum, stream and wetland pond. In the trees, the stream and wetland pond, we will look for different animals to see their stage of development in their life cycle. We will also look to see what kinds of adaptations they have made or resources that the animals may need in order to live. Along the tour we will also be collecting seed and leaf samples from five to seven trees; which will be used later on in our craft portion of the workshop.

**What you can expect:**

- Students will gain a greater visual understanding of animals and their different habitats and how animals adapt or change to fit their environment.
- They will learn what animals need in each particular habitat and how they get it; whether it is air, space, shelter, food or water.
- Students will gain a greater visual understanding of the life cycles of different animals.
- Cutting, Pasting and Colour Craft.

**Wacky Animal Behaviour**

It seems like animals do the weirdest things, however they do those things for a very important reason. In this workshop, we will take a closer look at some animals that we have in our neighbourhood and inside our centre. We will look for the similarities and the differences between the different animals that we have in our centre in terms of their stage in the life cycle and how they may have adapted to fit their environment. The children will also look at these comparisons and see how our answers may be the same or different when discussing animals that are living outside. Then the students will create a new creature and design a habitat that their creature would live in. They will be encouraged to think about how their creature would adapt and change to fit in the outside environment.

**What you can expect:**

- Small group rotations
- Students will gain a greater visual understanding of animals and their different habitats and how animals adapt or change to fit their environment.
- They will learn what animals need in each particular habitat and how they get it; whether it is air, space, shelter, food or water.
- Students will gain a greater visual understanding of the life cycles of different animals.
- Cutting, Pasting and Colour Craft.

## **Workshops Available for: Spring/Summer**

### **It's Alive!**

Dip into the murky waters of our ponds to find what creatures are growing. During the workshop you will learn about the different things that live our pond. You will also see that this is a special time of year when we will be able to catch insects, frogs and fish at various stages of development. Students will take a closer look and identify the creatures that have chosen the pond as their home such as fish, insects and frogs. We will also look for any eggs that these creatures may have eggs laid. Then we will take a look at the pond to see what creatures may visit there and where they might have originally come from.

#### **What you can expect:**

- Hands on exploration of the wetland pond.
- Students will learn what creatures and insects live in the pond and what creatures may visit the pond.
- The children will see the different stages of the life cycles of some of the creatures that live in the pond
- The children to see visually the delicate ecosystem that is present in the pond and how a pond starts to come to life when the seasons change from winter to spring.

## **Grade 3:Workshops Available for: Fall/Spring/Summer**

### **Growth and Changes in Plants**

In this workshop children will examine different types of plants, trees, shrubs, grasses and flowers. They will learn how a seed is formed and the different parts of a seed. We will talk and observe the processes of pollination and transpiration. Then they will make their own anatomically correct flower out of straw pipe cleaners and construction paper.

#### **What you can expect:**

- A scientific craft that will teach children the different parts of a flower.
- A seed planting craft that the children can take with them to observe the different stages of growth.
- A seed growth journal that the children can keep to document the seeds growth.
- Students will gain a greater understanding of what trees and plants need in order to survive and how seeds travel and spread to create new plants.

## **Grade 4: Habitats and Communities: Workshop Available for: Fall/Spring/Summer**

### **Living Under, Above and Around the Watering Hole**

Children will discover through investigations the lives and connection between animals and plants in and around the water. During this workshop students will investigate the world of the forest by taking a hike through our arboretum and visiting the stream nearby. Then they will look at our wetland pond to see what animals live in and outside of the water. We will discuss why these animals may have chosen to live there and take a look in depth at the habitats that they have created.

#### **What you can expect:**

- Students will gain a greater visual understanding of what a community is in the outside animal world and how plants and animals make adaptations in order to live in or near water.
- The children will look for the different food chains that may be present outside in the arboretum, stream and wetland pond.

- Hands on exploration of our arboretum, stream, insect gardens and the wetland pond.
- Students will learn how seeds travel and spread to create new plant life.

### **Grade 5: Human Organ Systems**

#### **Our Amazing Body**

Have you ever thought about the mysteries of your own body? During this workshop, we'll investigate the amazing universe within us all and then examine muscles, organs and your senses in our Amazing Body Gallery. Students will also look at how we can keep our bodies healthy and strong because a healthy body makes a strong body.

#### **What you can expect:**

- This workshop will be available in December 2007.
- Hands on exploration of our Amazing Body Gallery.
- Students will gain a greater visual understanding of how different parts of their bodies work.
- Students will learn how to keep their bodies healthy and strong through proper diet and exercise.

### **Grade 6: Workshops Available for Fall/Spring/Summer**

#### **Diversity of Living Things**

In this workshop, you will explore the boundless possibilities of nature first hand, by hunting insects in our gardens and looking for creatures in our arboretum, stream and wetland pond.

#### **What you can expect:**

- Students will gain a greater visual understanding of the differences between vertebrates and invertebrates.
- Students will learn about how plants and animals have had to change and evolve in order to meet their needs to survive.
- Hands on exploration of the arboretum, stream, insect gardens and wetland pond.
- They will see the similarities and the differences between the ecosystems of the wetland pond and the stream.

### **Grade 7: Workshops Available for Fall/Spring/Summer** (Available upon request)

#### **Interactions within Ecosystems**

Insects, plants, microorganisms and animals are very industrious and opportunistic. They form complex ecosystems that are constantly interacting and changing. In this workshop, students will get the chance to experience the wonder of these ecosystems and communities first hand while we explore the arboretum, the wetland pond, and the beneficial insect gardens.

#### **What you can expect:**

- Students will gain a greater understanding of what makes up an ecosystem and the importance of having producers, consumers and decomposers present in that system.
- Students will gain a greater visual understanding of the differences between biotic and abiotic elements in an ecosystem.
- Hands on exploration of the arboretum, wetland pond and beneficial insect gardens.