



AMAZING BEES! **AMAZING EDUCATION!**

BEE-COLOGY!

Honeybee Centre's New Integrated Tour and Classroom Experience for grades K-12

Explore the new Honeybee Centre and Bee-cology! We offer giant-sized observation hives, honey processing facility, greenhouse tour, safe viewing of a beekeeper handling live colonies, experienced tour guide, complimentary teacher information package and lesson plan companion. An unforgettable tour experience.

EXPLORE BEE-COLOGY WITH YOUR **GRADE 2 & 3** STUDENTS!

Objectives:

- **To enhance curiosity about the natural world**
- **To encourage students to be observant and ask questions**
- **To encourage students to become stewards of their local and global environments**
- **To inspire students through fun, educational and memorable activities**

All Students will enjoy the following activities while on tour at Honeybee Centre

- Peer into our observation hive and watch bees work and dance, view different castes of bees, identify eggs, larva and pupa (the lifecycle of bees)
- Learn about honeybees as social insects
- Use a microscope and magnifying glass to observe honeybee anatomy
- Identify and observe the different members of honeybee society
- Observe honeybee communication
- Explore the similarities and differences between our honeybees and Africanized bees, bumblebees, wasps and solitary bees using a magnifying glass and microscope
- Appreciate the intricate and symbiotic relationship of honeybees and flowering plants
- Learn how and why bees pollinate through models and visual aids
- Learn about the lifecycle of flowering plants using models and visual aids
- Observe the characteristics of flowers that are pollinated by bees
- Explain how and why bees collect pollen
- Describe how and why bees make honey, wax, propolis and royal jelly

- Taste pollen, honey, propolis
- Experience how bees navigate and sense their world using various scientific equipment
- Learn about the history of beekeeping
- Observe equipment and clothing used by beekeepers
- Learn how to build a beehive
- Watch as a beekeeper handles an active colony of honeybees
- Describe how a beekeeper harvests honey, pollen and propolis
- Appreciate the economic importance of the honeybee industry
- Understand the interdependence of humans and honeybees

In addition, Grade 2 and 3 Bee-cology contains lessons and activities to fulfill the following Prescribed Learning Outcomes in the context of honeybees.

Science

- Demonstrate a knowledge of how plants take in water, nutrients, and light
- Compare and contrast different types of plant life cycles
- Describe structures that enable different plants to survive in different environments
- Suggest reasons for the endangerment or extinction of plant species
- Compare and contrast different types of animal life cycles
- Compare and contrast plant and animal life cycles
- Describe structures that enable animals to survive in different environments
- Demonstrate a knowledge of what animals need to survive
- Explain how animals interact with one another
- Suggest reasons for the endangerment or extinction of animal species
- Conduct simple tests and describe observations
- Use simple magnifiers or microscopes to observe things
- Suggest possible improvements to investigations
- Formulate questions to guide observation and investigations
- Identify patterns and groupings to draw conclusions from information
- Communicate scientific observations to peers, teachers, and family
- Construct models to represent ideas or concepts
- Describe the ways people in the community use science

Math

- Develop number sense for whole numbers from 0 to 1000 and common fractions to tenths
- Use a variety of strategies to apply a basic operation on whole numbers
- Measure, estimate, and compare using whole numbers and non-standard units of measure
- Describe, classify, construct and relate three dimensional objects and two dimensional shapes using common language to describe their properties
- Use positional language, numbers, and directional words to describe the relative positions of objects in one dimension and to communicate motion in real-world contexts
- Collect data based on first and second-hand information, display results in more than one way, interpret data, and make predictions
- Use simple experiments designed by others to illustrate and explain probability and chance