



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 4** STUDENTS!

Objectives:

- Honeybee anatomy and lifecycle
- Differentiate between honeybees, Africanized bees, wasps, bumblebees
- Explore honeybees as a living resource and beekeeping as managing this resource
- Understand the form and function of flowers
- Understand the process and importance of pollination
- Understand how compound eyes form images
- Explore the adaptation of honeybees to their environment
- Explore the co-adaptation of flowers and honeybees
- Explore the structure of the honeycomb as an adaptation for honeybee survival

Honeybee Centre
www.honeybeecentre.com
604-575-BEES (2337)
kateshivers@honeybeecentre.com

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 4 Bee-cology contains lessons and activities to fulfill the following Prescribed Learning Outcomes in the context of honeybees.

Life Sciences (Adaptations of Organisms)

- Relate the structure and behaviour of local organisms to their survival in local environments
- Discuss how changes in an organism's habitat can affect the survival of individual organisms and entire species
- Give examples of how the differences in individuals of the same species may give an advantage in surviving and reproducing
- Relate the growth and survival of organisms to a variety of conditions

Mathematics

- Describe, classify, construct, and relate three-dimensional objects and two dimensional shapes using mathematical vocabulary to describe their properties

Honeybee Centre
www.honeybeecentre.com
604-575-BEES (2337)
kateshivers@honeybeecentre.com