SCIENCE NORTH SCIENCE NORD

WHAT'S THE BUZZ?

ELEMENTARY SCHOOL PROGRAM
Grades 1 to 3 | 50 minutes
Life Systems | Adaptations | Coding



Students explore adaptations through honeybees, including colony living, life cycles, worker bee jobs, and the waggle dance. Students then connect bee communication to coding by programming Bee Bot floor robots to follow step-by-step instructions in a waggle dance or flower collection challenge.

KEY LEARNING OBJECTIVES

- Define adaptation and give examples of physical and behavioral adaptations.
- Distinguish honeybees from bumble bees and describe hive living as an adaptation.
- Sequence the four stages of the honeybee life cycle: egg, larva, pupa, and adult.
- Describe how worker bee jobs change as a worker bee ages.
- Explain how the waggle dance communicates direction, distance, and quality.
- Test and debug a simple sequential code using a Bee Bot robot.

STEM TOOLS — Bee Bot robots

CURRICULUM EXPECTATIONS

Grade 1 — Coding and Life Systems

- A2.1 write and execute code in investigations and when modelling concepts, with a focus on creating clear and precise instructions for simple algorithms
- B2.2 identify the basic needs of living things, including the need for air, water, food, heat, shelter, and space

Grade 2 — Coding and Life Systems

- A2.1 write and execute code in investigations and when modelling concepts, with a focus on decomposing problems into smaller steps
- B2.3 describe the life cycle of a variety of animals, including insects, amphibians, birds, and mammals
- B2.5 describe adaptations, including physical and/or behavioural characteristics, that allow various animals to survive in their natural environment

Grade 3 — Coding and Life Systems

- A2.1 write and execute code in investigations and when modelling concepts, with a focus on testing, debugging, and refining programs
- B2.8 describe ways in which plants and animals, including humans, depend on each other.