INSTRUCTIONS TO TEACHERS

Bee Life

Elementary Cycle 2 Mathematics, Science and Technology Unit

bees matter

Bee Life

Instructions to Teachers

This unit is a **Science, Mathematics and Technology** lesson plan for *Living Things*. Over a duration of 30 minutes, the lesson will take Elementary Cycle 2 students through an overview of the life and structure of honey bees.

Concepts this will teach students include: recognizing insects, diagramming anatomy, considering the life habits of insects.

The materials included are:

- Blackline Master: *The Honey Bee Life Cycle*
- Blackline Master: *Honey Bee Anatomy Worksheet*

Based on the Quebec curriculum, we've identified three Essential Knowledges that this unit will meet as described in the curriculum guides (and in more detail on the next page).

Prior to the lesson, make copies of each of the *Bee Life* Blackline Masters for all of your students and attach them together in a hand-out package. Determine if you will be using the Honey Bee Anatomy Worksheet as an assignment and if so, keep it separate from the other materials.

During the lesson, ensure each student has all the relevant materials. Draw a diagram on the board of a bee, included with *Honey Bee Anatomy Worksheet*, but don't label any of the parts. Instead, in a list next to the drawing, include a list of the terms that students will learn:

- **Head**
- **Thorax**
- **Abdomen**
- **Stinger**
- **Legs**
- **Eye**
- **Antenna**
- **Wings**

As you explain the material in the Blackline Masters, add the simple function next to each of the words to define them. Draw lines from the words to the parts of the bee to reinforce the parts and their names.

Bee Life

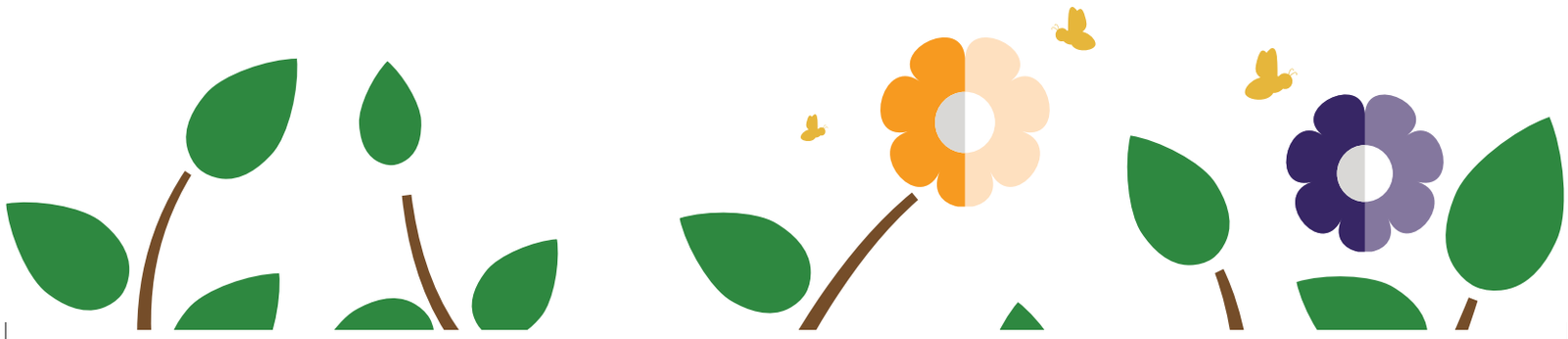
Curriculum Expectations

Elementary Cycle 2 Science, Mathematics and Technology – *Living Things*

By the end of this cycle, the students correctly interpret and convey simple scientific and technological information involving some facets of the language of science and technology (everyday words whose scientific meaning is the same as their everyday meaning, everyday words whose scientific meaning is different from or more precise than their everyday meaning, some specialized terms and expressions as well as simple diagrams, tables and graphs).

Essential Knowledges:

- **Organization of living things:**
  - anatomy of animals (e.g. parts and principal systems)
- **Transformations of living things**
  - growth of plants and animals
- **Appropriate language**
  - drawings, sketches



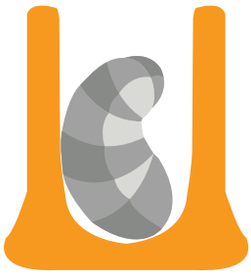
Bee Life

The Honey Bee Life Cycle

Egg

The **queen** lays an **egg** into a **cell** in the honeycomb.

Larva



The **egg** hatches into a young **larva,** which gets fed by other honey bees.

Pupa

The **larva** spins a **cocoon** around itself and becomes a **pupa.**

Adult

In its **cocoon,** the **pupa** develops into an **adult,** and then leaves the **cell.**

Honey Bee Anatomy

Honey bees are **insects.** Their bodies are divided into a **head,** a **thorax** and an **abdomen.** On their **head,** they have two **antennae,** which they use to "smell" their surroundings. They also have very complicated **eyes,** and they can see in many directions at once.

The **thorax** is the middle section of a honey bee, connected to six **legs** and two **wings** on each side. Honey bees use their legs to walk, and also to carry **pollen,** which they turn into a food called "bee bread".

Stay away from the **abdomen!** That's where a honey bee's **stinger** is, but they will only use it to defend themselves.

Fill in the diagram above with the words that match the parts of the **honey bee:**

head	**abdomen**	**legs**	**antenna**
thorax	**stinger**	**eye**	**wings**

Honey Bee Anatomy

Answer Key

Fill in the diagram with the words that match the parts of the **honey bee:**

head	**abdomen**	**legs**	**antenna**
thorax	**stinger**	**eye**	**wings**