

Submitted by: GENERATION CURES

TITLE: BEE COLONIES

SUBJECT: Science

GRADE: 6th

RECOMMENDED TIME: 25-30 minutes

GENERATION CURES CONTENT: Zebrafish Webisode 5-Worlds Apart

LEARNING GOALS:

Students will learn the types of honeybees, and their natural habitat—colonies. Students should be able to understand the basic functions of a bee colony.

RESOURCES/MATERIALS NEEDED:

- Computer / Internet / Projector
- Pen / Pencil / Paper
- *Zebrafish* Webisode 5-Worlds Apart (www.kids.generationcures.org)
- Dictionary: Define terms
 - Apiary- a place where bees are kept. Honeycombs and hives are collected in order to extract their honey.
 - Metamorphosis- literally means to “change forms.” It is the process whereby insects transform from eggs to adults.
 - Larva- in insects, the life stage following emergence from an egg. Larvae are wingless and wormlike and often feed during this stage. The bee undergoes the most growth during the larval period. “Larvae” is the plural form of larva.
 - Pupa- the insect life stage between larva and adult. During the pupal stage, insects typically exhibit traits similar to those visible as adults (i.e. wings, legs, etc.).

BACKGROUND:

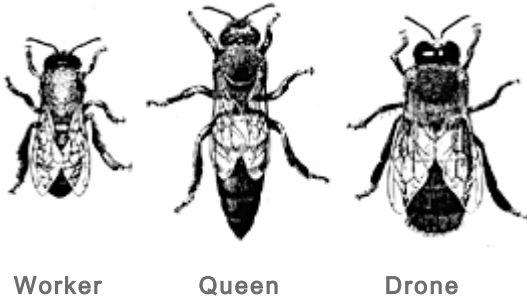
Walt has been creating a fantastical world, Alterica, and all of his friends are in this virtual world. In Walt’s imagination, Tanya is a magical healer with a Caduceus staff. Plinko still has the hiccups. Of course, Vita is what she has always been singing about—a Queen Bee!

LESSON STEPS:

- Review with students the various types of bees in a colony: queen, drones, and workers.

- The Queen Bee is normally longer than other bees, and she is the only fully-developed female in a colony. Her wings are shorter than worker and drone bees, and her stinger is curved and longer than the stingers of drones and worker bees.
 - Drone Bees consist of all male bees in a colony, and they are the largest of the types of bees. Their wings span the full length of their bodies. Drones fertilize the Queen Bee so that she can lay her eggs, but they provide no other function contributing to the work of the colony.
 - The most numerous within a colony, Worker Bees are responsible for providing the food for the Queen and Drone Bees in the colony. They also clean cells in the colony, protect the Queen, and guard the entrance to the colony. Worker Bees are underdeveloped female bees that do not lay eggs.
- Ask students to draw each member of a bee colony.

Example:



EXTENSIONS:

- Give students information to visit a local beekeeper or apiary so that they can see a colony.