

# The Life of a Honey Bee

Cassie Clements



# Table of Contents

Fun Facts	3
Types of Honeybees	4
Life of a Honeybee	5-6
Life Cycle	7-8
How Honey is Made	8-9
Who Takes of Honeybees	9
A World Without Bees	11
Glossary	12
Work Reference	13-14
Common Core State Standards	15

## Fun Facts!



- Honeybees can fly up to a speed of 15 miles per hour.
- Honeybees communicate to each other through scents and movement.
- Honeybees make a “buzzing” sound because their wings rub against each other 11,400 times per minute.
- If a honeybee stings you it will die.
- Honeybees have five eyes and have hairs on their eyes!
- Honeybees don’t sleep!

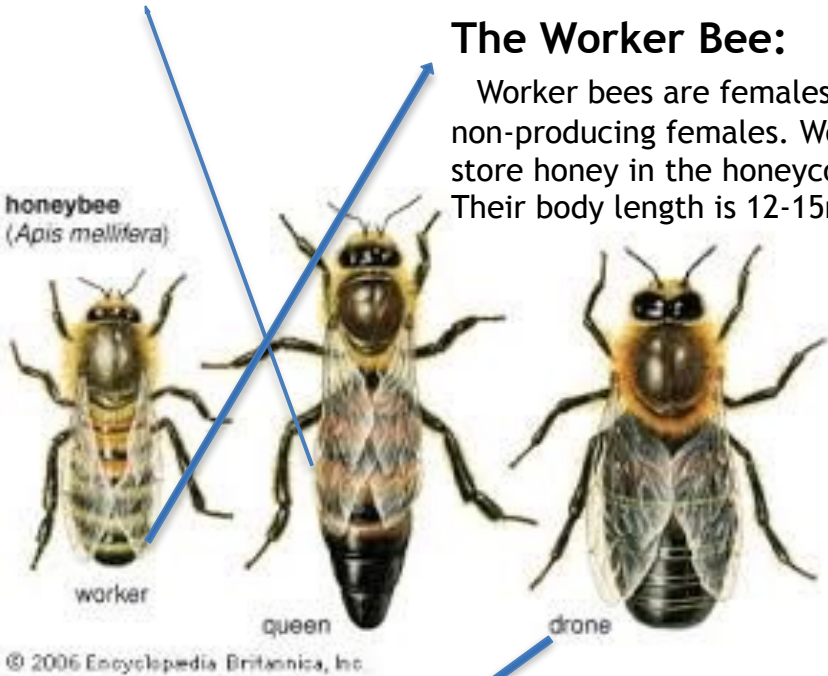
There are three kinds of bees in every hive. The **worker** bee, **drone** bee, and **queen** bee.

### The Queen Bee:

The queen bee can live up to 3-4 years. During her life spa she will lay up 1,500 eggs each day. Their body length is 18-22mm.

### The Worker Bee:

Worker bees are females but are non-producing females. Workers store honey in the honeycombs. Their body length is 12-15mm



### The Drone Bee:

Drone bees are only male and never leave the hive to collect pollen and nectar. Drone bees do not have stingers. The main purpose of a drone is to mate with the queen bee. Drone bees were unfertilized eggs. Their body length is 15-17 mm

## What Does a Honey Bee Do?

Honey bees help pollinate flowers, crops, and plants. Honey bees are also one of the only species of bees that make honey. While honey bees collect nectar they are transferring pollen from plant to plant, thus **fertilizing** the plant. The nectar they collect is brought back to the hive where it is turned into honey.



# Where does a Honey Bees Live?

- A Honey bee's home is called a **hive**.
- Wild Honey bees live in hollowed out logs or in trees.
- Man-made hives can include wood and pottery structures.
- Honey bees will only travel 3 miles away from their hive.
- The bees that live in a beehive are known as a **colony**. Honey bees have a **perennial** colony.
- One colony can contain up to 60,000 bees.
- The inside of the hive will maintain at the average temperature of 93 degrees even if is -30 degrees or 100 degrees outside.
- In one year, one bee hive can make up to 400 pounds of honey



Man-made hive in a wood box



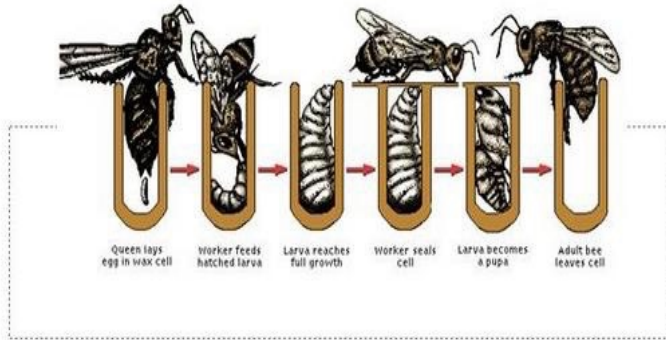
Wild hive in a tree

## What Does a Honey Bee Eat?

A honeybee's diet includes nectar, pollen, royal jelly, and honey. Pollen is the yellow powder substance in flowers and nectar is the liquid in flowers. Larvae eat only honey and the queen is the only one that eats royal jelly her whole life.



# Life Cycle Of A Bee



## Larvae:

Larvae will hatch from eggs in 3-4 days after the queen laid the egg. They are fed royal jelly by the worker bees while they remain in the cell combs.

## Pupa:

When the larva reaches the stage of becoming a pupa the worker bees will cap the top of the cell that the pupa is occupying.

## Adult Bee:

Queen bees will come out of their cells in 16 days while workers take 21 days and drones take 24 days.



# What is Honey?

Honey consists of 20% water and 80% sugar and never spoils. Honey includes water and all substances needed to sustain life. Honey is the only food that contains all substances needed to maintain life. In order for a bee to make one pound of honey it needs to visit 2 million flowers. When a bee visits flowers it consumes the sugary nectar and stores it in its stomach until it returns to the hive. Once at the hive, the bee regurgitates the nectar into an empty honeycomb. The nectar then becomes dehydrated and turns into honey.

The top three states that produce the most honey include Florida, South Dakota, and California.



## Who Takes Care of the Bees?

- **Beekeepers** take care of and raise honeybees.
- Beekeepers make their money by selling honey and by pollinating crops.
- Beekeepers use smoke to calm and transport bees.
- Beekeepers have to wear special clothing to protect them from getting stung to many times.



## A World Without Bees

Without bees the world would be a much different place. Over 85% of plants on Earth are pollinated and exist because of bees. Bees pollinate more than 100 different types of food crops. Bees pollinate one third of the food that humans eat. This includes crops such as alfalfa, which we use to feed our livestock. Without cows we would also not have beef, milk, or cheese. Without bees we would not have vegetables, fruit, seeds, nuts, and much more.



# Glossary

**Hive:** A structure in which bees are kept.

**Colony:** Beehive that bees occupy.

**Perennial:** A colony that last all year and for multiple years.

**Fertilize:** To spread a natural or chemical substance on land in order to make plants grow well.

**Beekeeper:** A person who raises honeybees.

## Works Referenced

"Beekeepers." *Beekeepers*. N.p., n.d. Web. 05 Dec. 2016.

"Fun Facts about Honey Bees." *Fun Facts about Honey Bees*. N.p., n.d. Web. 05 Dec. 2016.

"Honey Bees: Overview of Honeybee Types, Habitats & Characteristics." *Orkin.com*. N.p., n.d. Web. 05 Dec. 2016.

"How Do Bees Make Honey?" *BuzzAboutBees.net*. N.p., n.d. Web. 05 Dec. 2016.

Spector, Dina. "What Our World Would Look Like Without Honeybees." *Business Insider*. Business Insider, 2013. Web. 05 Dec. 2016.

### **Macro Flying Honey Bee Landing on Purple Flowers**

<http://media.gettyimages.com/photos/macro-flying-honey-bee-landing-on-purple-flowers-picture-id165987177?s=170667a>

### **Honey Bee Covered in Pollen**

[http://www.scholastic.com/content/images/articles/sn\\_ts/sn\\_ts\\_101510\\_hdr.jpg](http://www.scholastic.com/content/images/articles/sn_ts/sn_ts_101510_hdr.jpg)

### **About Honey Bees**

<http://www.honeybeecentre.com/PagePictures/Learn/3-honeybee-types-300.jpg>

### **Bee Pollen Benefits**

<http://www.bees-and-beekeeping.com/images/honey-bee-pollen-baskets.jpg>

### **Bee Hive in a Tree**

[http://1.bp.blogspot.com/NUIRZG4L\\_b0/VUFWi\\_PNezI/AAAAAAAAAC5I/z4DKsudLcvg/s1600/Bee%2BSwarm%2B1.jpg](http://1.bp.blogspot.com/NUIRZG4L_b0/VUFWi_PNezI/AAAAAAAAAC5I/z4DKsudLcvg/s1600/Bee%2BSwarm%2B1.jpg)

### **Manmade Bee Hive**

<https://smediacacheak0.pining.com/originals/32/ac/b7/32acb76713aabf2cdfbf7159d0fbfa9c.jpg>

### **Bee Collecting Pollen**

[http://climatekids.nasa.gov/bees/honey\\_bee\\_extracts\\_nectar2-lrg.jpg](http://climatekids.nasa.gov/bees/honey_bee_extracts_nectar2-lrg.jpg)

### **Bee Life Cycle**

<https://i.ytimg.com/vi/K0GP1zZ7qvs/hqdefault.jpg>

### **Honey**

<https://encryptedtbn1.gstatic.com/images?q=tbn:ANd9GcSxaan1jAuLIbQA3hTOyQHi1Ha5kIJBWZxIPTKNDrV1>

PpSoJ07

**Produce Without Bees**

<http://3.bp.blogspot.com/epbuY7scRqs/UkmUPvq1sAI/AAAAAAAAAG3A/ISkvsdXC9ng/s1600/Bees1.jpg>

**Beekeeper**

[http://img.dailymail.co.uk/i/pix/2008/04\\_02/BeeKeeperAPEX\\_468x310.jpg](http://img.dailymail.co.uk/i/pix/2008/04_02/BeeKeeperAPEX_468x310.jpg)

# **Common Core State Standards**

3.S.5.1.1-Identify local environmental issues

3.S.3.2.3- Label a food chain that shows how organisms cooperate and compete in an ecosystem

This e-book and any prints are released under a [CC BY 3.0 license](#) by the author.

This means that you are free to share, remix, transform, and build upon this book as long as you give appropriate credit to the original author.

Included works (e.g., images and other media) may have separate licensing requirements, and this release does not supersede or replace those requirements.

This e-book template is provided under a CC BY 3.0 license by the University of Idaho College of Education. If you use, share, remix, or transform this template, you should include this page at the end of your book.