



THE LIFE OF A HONEYBEE

Honeybees live in the nests or hives where they store their honey. Each hive has a large group of 30,000 to 60,000 bees that make up the colony. In the wild they can be made in hollows of trees, but beekeepers keep them a hive with boxes and frames, usually a Langstroth hive. There are 3 basic types of bees in the hive: workers, drones and the queen. We will cover the life cycle of the worker bee.

All worker bees start out as eggs that are laid by the queen in a clean cell. A queen can lay up to 2000 eggs a day, that is A LOT of babies! After three days this egg will hatch into a small larva. Once hatched the nurse bees (who are just younger worker bees) will feed the larva over 100 times per day. They continue to get fed at this pace until they are around 10-12 days old. At this point they begin to form their pupa. When they start to form their pupa, the nurse bees will stop feeding them and cap off their cell with beeswax. After being in the sealed cell for about 10-12 days the adult worker will emerge (around 21 days old). All worker bees are female, and as they mature they begin to participate in different jobs to take care of the hive, future bees, and honey.



Their first few days as an adult worker bee are spent as a cleaning bee. They will start by cleaning their own cell and then move on to other cells. After a few days as cleaning bees, the young workers will become nurse bees. Nurse bees take care of feeding and caring for the brood (larva stage).

They also are the bees that will seal the pupa cells. During their time as nurse bees their stingers and wings will finish developing. Once this happens, they will be able to go on orientation flights, so they can learn the area that the hive is in. During this time, they move into the duty of being guard bees to the hive. Guard bees keep watch for any threat and attack that threat if necessary. Once they become more familiar with the area where the hive is, they begin their stage as forager bees. Forager bees go out look for good nectar and pollen, collect it, and bring it back to the hive. This will be their final job as worker bees, and they will continue to be foragers until they die of old (when they are about 2 months old).

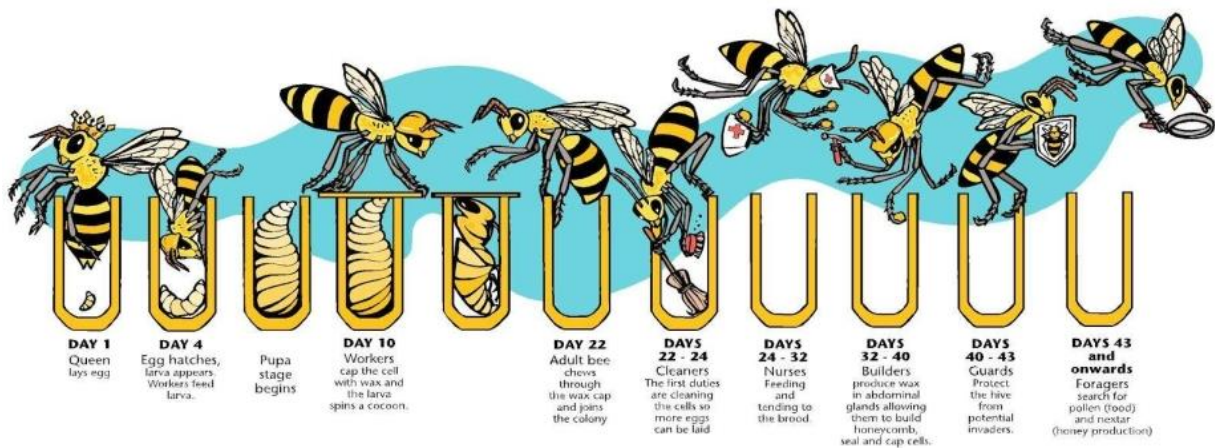


This cycle repeats all spring, summer, and early fall. When it gets cold the queen takes a break from laying eggs. In January she will begin laying more eggs. So, what happens to the hive during the winter? Well, some species of bees hibernate all winter (like bumblebee queens) and others will die off (like yellow jackets, but honeybees are special and live all winter long, that is why they make honey!



The honeybees that who live all winter are special, not just regular honeybees. They are slightly larger and have fatter bodies. Because of this they don't live the average 2 months (for worker bees) but instead about 6 months long. These winter honeybees will remain active, inside their hive, all winter long. As the temperature drops outside the hive the workers will gather close around the queen, the remaining eggs, and larva. The bees will then

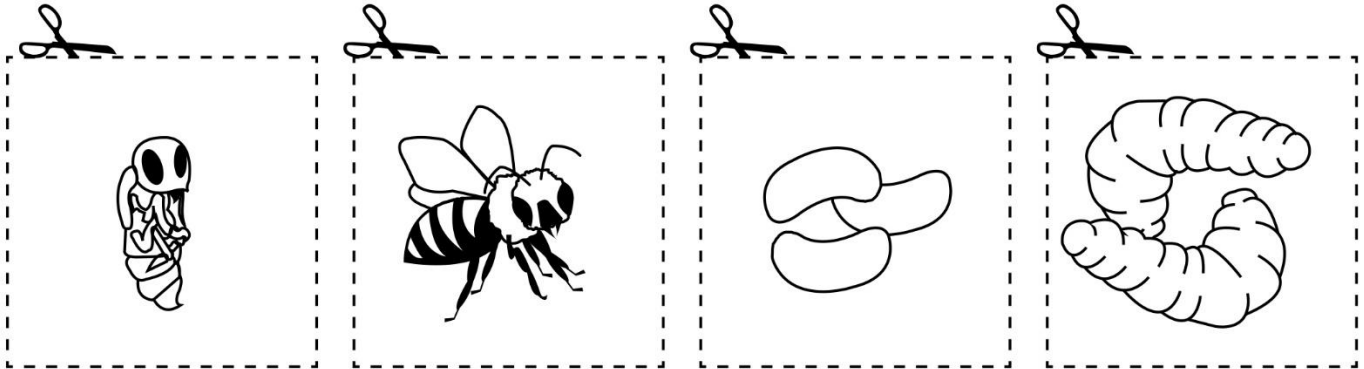
begin to shiver. This movement warms the entire hive to keep the bees from freezing. In fact, the hive will stay a toasty 90+ degrees inside! To help warm themselves and get energy the bees will feed on honey. They also will also constantly shift position from the outside to the inside to keep from freezing. Their design is pretty amazing!



LIFE CYCLE OF A HONEY BEE

Color each picture.

Then cut them out and match them with the correct life cycle stage below.



EGG:

A fertilized egg develops into a female worker bee. A nonfertilized egg develops into a male drone bee.

LARVA:

The egg hatches within three days. The larva looks like a grub. It eats nonstop, molting as it grows.

PUPA:

The larva spins a cocoon like a caterpillar. Over 12 days, tucked in a cell, it will grow adult features.

ADULT:

When the pupa grows body hair, it's ready to live as an adult. It chews out of the cell and goes to work!

