1. The honeybee has been around for millions of years.

2. Honey bees, scientifically also known as *Apis mellifera*, which mean "honey-carrying bee", are environmentally friendly and are vital as pollinators.

3. It is the only insect that produces food eaten by man.

## 4. Honey is the only food that includes all the substances necessary to sustain life, including enzymes, vitamins, minerals, and water; and it is the only food that contains "pinocembrin", an antioxidant associated with improved brain functioning.

5. Honey bees have 6 legs, 2 compound eyes made up of thousands of tiny lenses (one on each side of the head), 3 simple eyes on the top of the head, 2 pairs of wings, a nectar pouch, and a stomach. See image for: honeybee body parts.

6. Honey bees have 170 odorant receptors, compared with only 62 in fruit flies and 79 in mosquitoes. Their exceptional olfactory abilities include kin recognition signals, social communication within the hive, and odor recognition for finding food. Their sense of smell is so precise that it could differentiate hundreds of different floral varieties and tell whether a flower carried pollen or nectar from meters away.

7. The honeybee's wings stroke incredibly fast, about 200 beats per second, thus making their famous, distinctive buzz. A honeybee can fly for up to six miles, and as fast as 15 miles per hour.

8. The average worker bee produces about 1/12th teaspoon of honey in her lifetime. Read and you will understand why it makes so much sense to say: "as busy as a bee".

9. A hive of bees will fly 90,000 miles, the equivalent of three orbits around the earth to collect 2.5 pounds of honey.

10. It takes one ounce of honey to fuel a bee's flight around the world.

11. A honey bee visits 50 to 100 flowers during a collection trip.

12. The bee's brain is oval in shape and only about the size of a sesame seed, yet it has remarkable capacity to learn and remember things and is able to make complex calculations on distance travelled and foraging efficiency.

13. A colony of bees consists of 20,000-60,000 honeybees and one queen. Worker bees are female, live for about 6 weeks and do all the work.

14. The queen bee can live up to 5 years and its role is to fill the hive with eggs. She is the busiest in the summer months, when the hive needs to be at its maximum strength, she lays up to 2500 eggs per day. The queen bee has control over whether she lays male or female eggs. If she uses stored sperm to fertilize the egg, the larva that hatches is female. If the egg is left unfertilized, the larva that hatches is male. In other words, female bees inherit genes from their mothers and their fathers while male bees inherit only genes from their mothers. Click here to learn more about the Honey Bee Life Cycle

15. Larger than the worker bees, the male bees (also called drones), have no stinger and do no work at all. All they do is mating. In fact, before winter or when food becomes scarce, female honeybees usually force surviving males out of the nest.

16. Each honeybee colony has a unique odor for members' identification.

17. Only worker bees sting, and only if they feel threatened and they die once they sting. Queens have a stinger, but they don't leave the hive to help defend it. It is estimated that 1100 honeybee stings are required to be fatal.

18. The worker bees produce honeycomb which comprises hexagon shaped cells through the consumption of honey produced from the collected flower nectar. To produce one pound of beeswax, six to eight pounds of honey are ingested

19. Honey bees communicate with one another by dancing. More on their awesome sense of time, communication of distance and direction in "The Awesome Honeybee Dance".

20. During winter, honeybees feed on the honey they collected during the warmer months. They form a tight cluster in their hive to keep the queen and themselves warm.

## **Bonus Facts:**

The honey bee colony is a highly organized society, how it acts with such intricate cooperation, and the various bee products, the more I admire and respect this amazing creature. It is no wonder why sometimes the colony is called a superorganism.

Honey is NOT bee vomit!