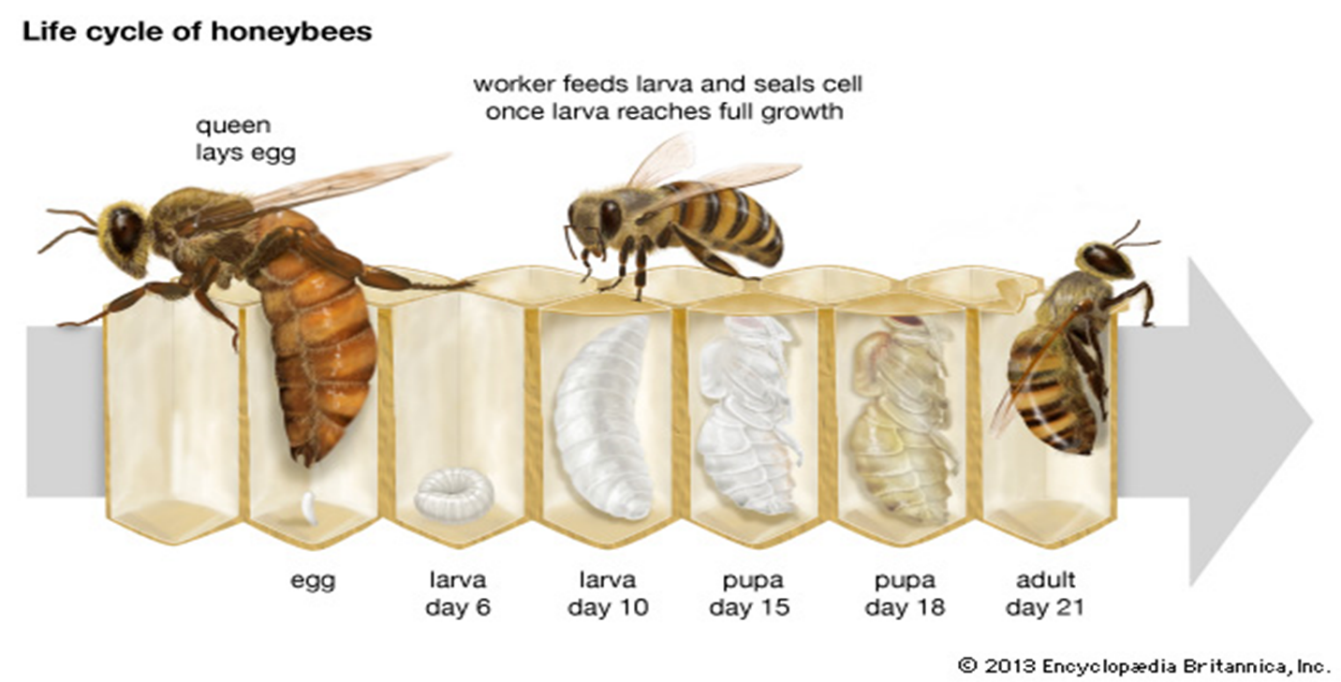
Honey Bees



Honey Bee Characteristics

* The queen is the only fertile female
* Drones are males who fertilize the queen
* Workers are sterile females who do everything else!
* The entire colony lives by the queen’s pheromone
* A colony can have up to 40,000 bees
* Bees construct perennial, colonial nests from wax
* Honey and pollen are stored in the nest
* Immature bees are called the brood
* Bees develop from eggs to adults in 28 days
* Brood are reared in hexagonal wax cells
* Bees cap the cells with wax to help larvae pupate

Examining a Colony

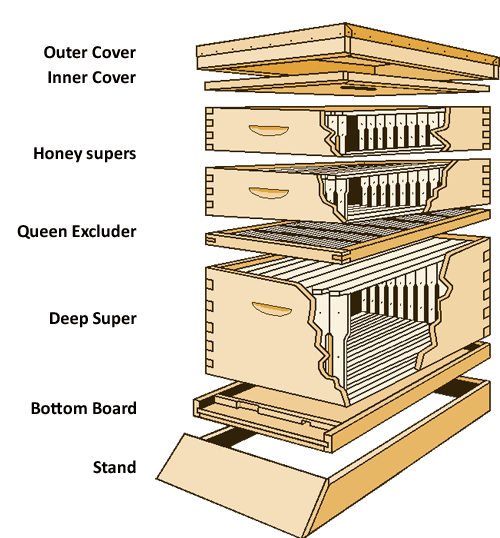
* Wear personal protective equipment (PPE)
* Use a smoker to calm bees before working
* Lift hive frames gently so as to not injure bees
* Observe the bees
* Observe general number and activity of bees
* Observe bees for abnormal behavior
* Note ratio of drones to worker bees
* Try to find the queen
* Observe honeycomb for evidence of disease
* Mixed Brood (too many drones)
* American Foulbrood (*Paenibacillus larvae*)
* European Foulbrood (*Melissococcus plutonius*)
* Chalkbrood (*Ascosphaera apis*)
* Hive beetle larvae or adults (*Aethina tumida*)

PPE

* Bee suit, bee jacket or bee hood
* Gloves
* Jeans or thick canvas pants
* Closed toe shoe and socks
* You may still get a sting or two!



The Honey Bee Hive



Honey Bee Frames

* Lots of bees
* Nice golden color (not gray!)
* Rainbow of honey on top surrounded by pollen
* Drone brood at the bottom
* Even distribution of capped cells