

Abuzz for Honey Bees-Day 2

Ms.Savannah-Girl Scout Troop 889



Discussion-Honey Bees Are Social Insects

Where do honey bees live?

In a hive with....

Beeswax Combs



Wooden frames



Beehive



Propolis (bee produced glue)



Do honey bees have to eat a balanced diet, like people?

Honey



Pollen



Nectar



Water



How are honey bee colonies like a soccer team?



2 wild honey bee swarms making a chain (in order to combine the swarms)



Honey bees are social insects, a single honey bee can NOT survive on its own

Honey bees are the ultimate example of teamwork, every honey bee has its own job

What is the job of drone bees?



Drone bee (Male)



Drone bees must be fed by nurse bees



Drone bees are like honey bee couch potatoes, **their only job is to mate with the queen**

Does anyone know where the saying “busy as a bee” comes from?



↑ Hive maids



↑ Hive waitresses



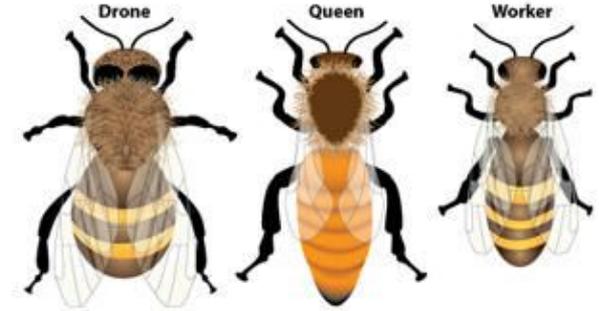
↑ Guard bees



→ Forager bee

-All of the above jobs are performed by **worker bees (workers are very busy)**, jobs are based on age

Why is the queen bee called a “queen”?



-The queen bee is surrounded by her attendants which feed and bathe her

-The queen releases queen pheromone (chemical signal) which controls worker behavior



Queen bee lays worker eggs

Royal jelly=queen bee's diet her entire life

Discussion-The Art of Making Honey

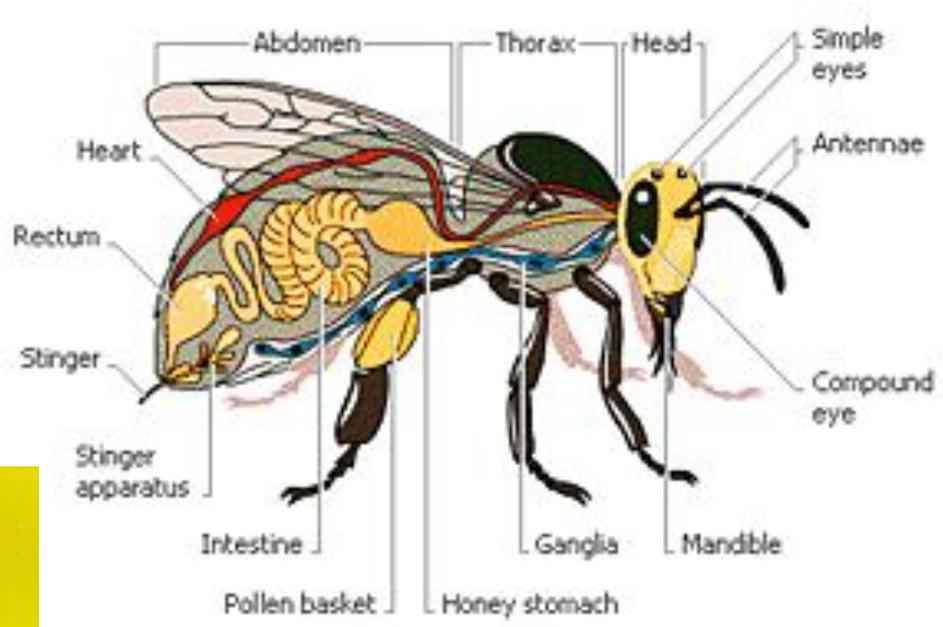
What specific body parts of the honey bee help it to harvest and process nectar?



Pollen baskets



Proboscis



Why do you like flowers?



Credit: Bjorn Roslett

- How humans see the flowers (left), how honey bees see the flowers (right)
- Honey bees can see UV light (invisible to humans)

The colors, scents, and patterns of flowers attract honey bees and guide them to nectar



The honey bee's compound eyes can distinguish between different flower patterns

How is the nectar processed into honey once the honey bee brings it back to the hive?



↑
Nectar transfer



↑
Hive bees blow tiny nectar bubbles to ripen the nectar through evaporation

Honey bees cap ripened honey



Does honey ever go bad?



5000 year old honey (that is **still** edible) has been found, this honey is from the era of the Ancient Egyptians



Honey technically lasts forever because of its thickness, high sugar and acid content, and enzymes (special chemicals)

Honey is antibacterial, antifungal, and antiviral

If mankind were to harvest nectar and ripen it through evaporation, would we be able to make honey?



Humans **CAN'T** make honey without honey bees-we can't reproduce the enzymes and honey-making body parts of the honey bee (proboscis, honey stomach, etc.)

Honey has a variety of food and medical uses