

How do bees work?



The important bits

Antennae rich in sensory organs for smell, taste, vibration, touch, temperature

2 Compound eyes contain 4000 ommatidia each. Can see all colours apart from red. Can also see UV and polarized light

3 simple eyes, ocelli, probable light sensors

4 wings front and rear couple together in flight



The important bits

Proboscis containing extensible tongue for sucking nectar

Brain

Glands within head and jaws which produce brood food, enzymes, saliva, alarm pheromones

Glands in thorax, feet, and sting chamber producing important pheromones



The important bits

Thorax containing large flight muscles

All surfaces covered with **branched (plumose) hairs**

Abdomen contains heart, honey sac, most of gastrointestinal tract, sting, malphigian tubules, wax glands

Respiratory system comprising spiracles, trachea, tracheal sacs and tracheoles



The important bits

Haemolymph circulates within body cavities and carries nutrients, waste and hormones

6 legs rear legs are specially adapted for carrying pollen in corbiculae

Each leg terminates in specialised foot equipped with both hooks and pads



Communication



- Vision
- Vibration (buzzes and dances)
- touch
- Pheromones
- Taste (trophylaxis)