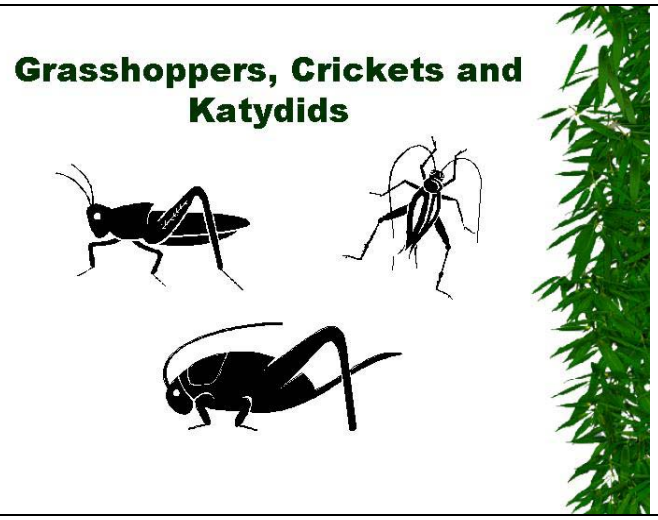
Insects PowerPoint Outline

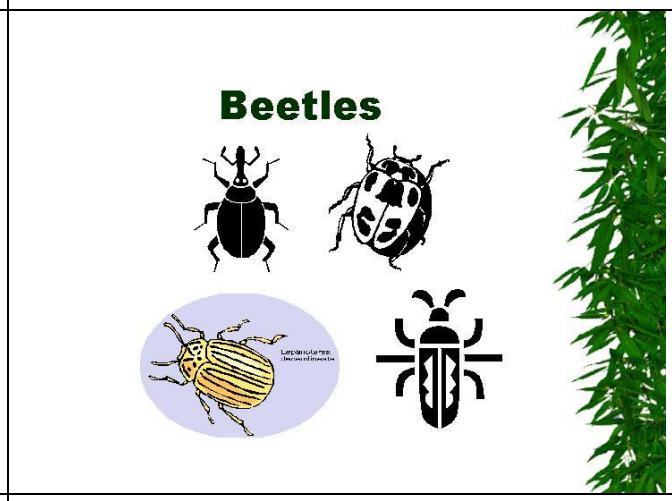


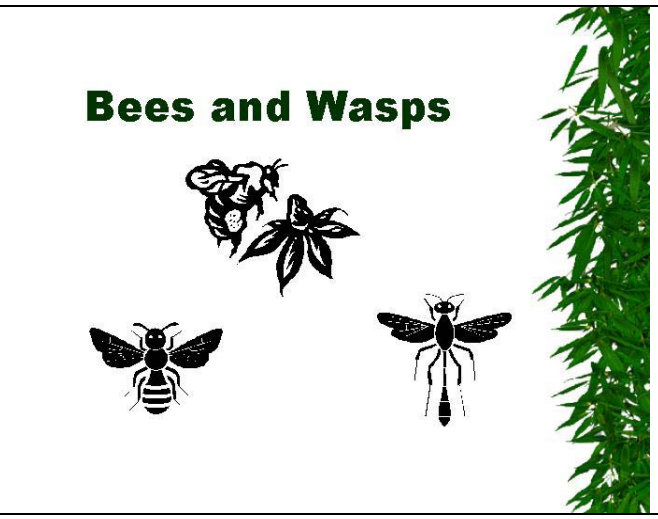
These insects are in the group *Orthoptera.* The key characteristics of this group are:

- Chewing mouthparts
- Leathery wings folded and flattened against their backs
- Usually fairly large compared to some other insect groups
- The young and adults look very similar
- Antenna quite prominent

Beetles are in the group *Coleoptera*. They are one of the most common living things on earth. The key characteristics of this group are:

- A hard shell-like covering over their folded wings
- Chewing mouthparts
- Range in size from tiny to large
- Antennae are short and have a variety of forms
- Life cycle consists of larva that look very different from the adults.



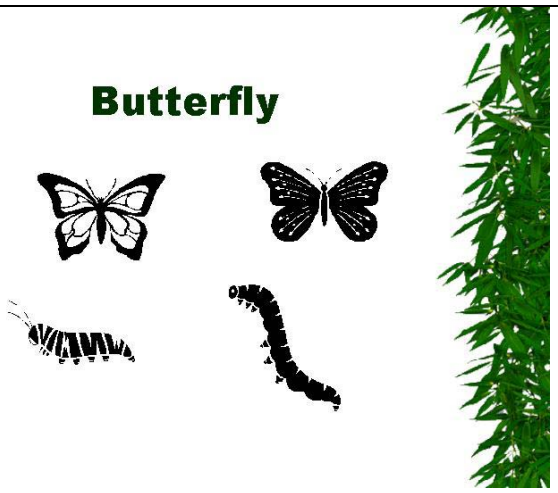


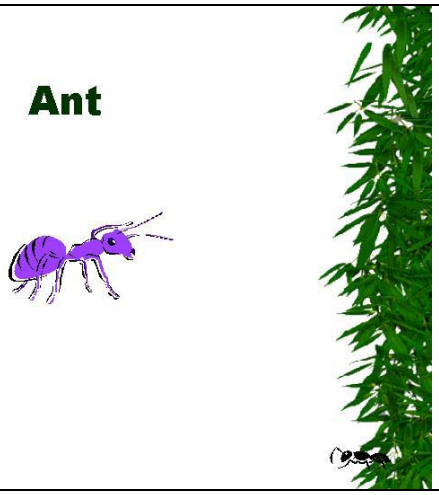
Bees and wasps belong to the group *Hymenoptera*. The key characteristics of this group are:

- Two pairs of transparent wings; the hind wings are smaller than the forewings.
- The middle of their body often has a constricted appearance.
- Chewing and sucking mouthparts
- Females often have a stinger
- Often live in colonies, but not all types do.
- Grub-like larvae

These insects belong to the group *Lepidoptera*. The key characteristics of this group are:

- Adults have two prominent pairs of scaly wings. Larvae are wingless.
- Larvae have chewing mouthparts. Most adults have sucking mouthparts, although some adults have no mouthparts at all, they only live long enough in this stage to mate before they die.
- Butterflies have antennae with knobs on the end; moths have feathery antennae.
- Most larvae form a chrysalis or cocoon for the pupa stage before tuning into an adult.





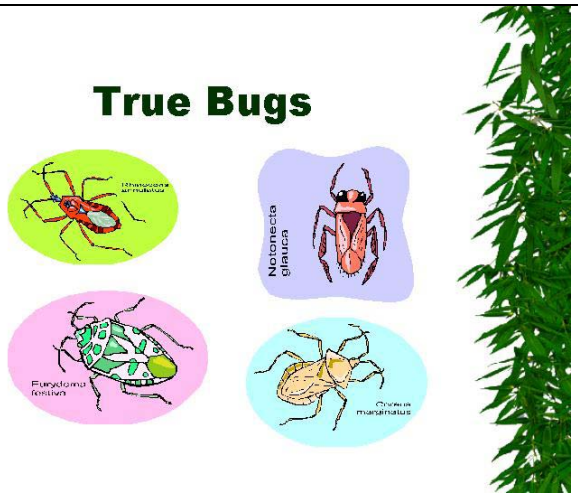
Ants are also in the insect group *Hymenoptera*. They have many of the same characteristics of this group that are mentioned in slide number three above, (chewing mouthparts, constricted waist, living in colonies.)

However, most ants are wingless, only the queen of the ant colony and reproducing males have wings, the rest of the colony is made up of infertile, wingless females.

These insects are in the group *Hemiptera*. The key characteristics of this group are:

- Folded wings that form an "X" pattern on their backs. This sometimes appears as a small triangle just behind the midsection (thorax).
- Piercing and sucking mouthparts.
- Young look similar to the adults

Note: They are sometimes called *true bugs* but there is nothing more "true" about them than any other bug.



Dragonflies

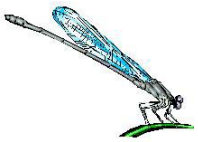
Dragonflies belong to the group *Odonata*. Their key characteristics are:

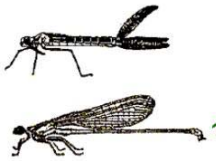
- Long, transparent, showy wings with visible patterns made by the wing membranes.
- Wings equal in size
- Long, slender bodies (note: dragonflies do not have a stinger, although in extreme circumstances they could bite.)
- Short antennae, often barely visible unless you look closely
- Eyes very large in proportion to head size
- Immature stage, called *nymph,* lives in water.
- Voracious predators of mosquitoes and other flying insects, they catch their prey in midair.

Damselflies also belong to the group *Odonata.* The key difference between dragonflies and damselflies is the way they hold their wings:

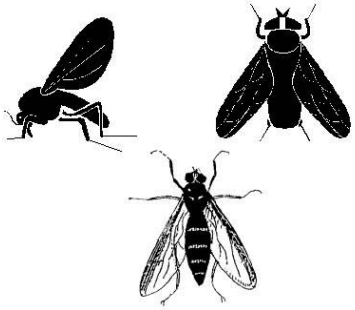
- When flying and at rest, dragonflies' wings are extended like an airplane
- Damselflies wings are folded together

Damselflies





Flies



Flies belong to the group *Diptera.* The key characteristics of this group are:

- Sizes ranging from tiny to medium size
- Sucking or lapping mouthparts
- Second pair of wings very small in size, often not visible to the naked eye. The second pair of wings serves as a balancing device; flies are very quick to take off and maneuver in the air.
- Small antennae
- Large eyes in proportion to the head size
- Development includes grub-like larvae and pupae.