

Basic insect groups:

1. True bugs: Hemiptera (half wings)
 - a. Piercing/sucking mouthparts
 - b. incomplete metamorphosis
 - c. Front wings thick and leathery, hind wings membranous
2. Flies and mosquitoes: Diptera (two wings) 87,000 species
 - a. Piercing/sucking mouthparts, large eyes
 - b. Complete metamorphosis
 - c. Transparent front wings, hind wings are short, knobby structures
3. Beetles: Coleoptera (sheath wings) 250,000+ species
 - a. Chewing mouthparts
 - b. Complete metamorphosis
 - c. Front wings are horny wing covers, hind wings are membranous
4. Bees, wasps, and ants: Hymenoptera (membrane wings) 115,000 species
 - a. Chewing/lapping mouthparts
 - b. Complete metamorphosis
 - c. Membranous wings, the fronts pair are larger. Some species are wingless.
5. Butterflies and moths: Lepidoptera (scale wings) 140,000 species
 - a. Sucking mouthparts, coiled when not using
 - b. Complete metamorphosis
 - c. Front wings larger than hind wings and scale-covered
6. Dragonflies and damselflies: Odonata (toothed)
 - a. Chewing mouthparts
 - b. Incomplete metamorphosis
 - c. Two part of transparent, membranous wings of equal size¹

¹ Ward B. Watt, *World Book Encyclopedia*, "Insects", World Book, 1990., Vol. 10, p. 299-300.