Identifying Insects

When you are out in nature and you happen across an unfamiliar insect you may want to know what kind of insect you have found. There are a few characteristics that make an insect an insect. First, insects are arthropods meaning they have an exoskeleton, outside hard shell, and jointed, bendy legs. Some characteristics that all insects have in common are six legs and three distinct body parts (head, thorax and abdomen). Use our guide to help you identify the insect you have found.

Know before you begin

• This activity can be done inside or outside
• All supplies are easy to find, substitute or leave out entirely
• Adult supervision is recommended
• Please choose a safe space to play

Materials

• Your eyes
• Your brain
• A field guide to insects (optional)

Instructions

First find an insect.

• Ask is this an arthropod (Does it have an exoskeleton and jointed legs)?
  o Yes, keep going,
  o No, find another insect.
• Ask does this animal have six legs and three body sections?
  o Yes, keep going,
  o No, find another insect.

These are some common insect groups you will find in this area. Note: There are many groups, but here are the most likely for you to find in your backyard.
• Dragonflies and Damselflies
  o Two pairs of wings
o Antennae short
o Narrow body, large eyes
o Larvae in water

- Mayflies, Stoneflies and Caddisflies
  o Two pairs of wings
  o Antennae vary in size
  o Larvae in water, Adults always near water

- Roaches, Mantids and Walking sticks
  o Winged or wingless
  o Antennae long
  o Chewing mouthparts
  o Short appendages at tip of abdomen

- Grasshoppers, Katydidts and Crickets
  o Winged or wingless
  o Large hind legs for jumping
  o Chewing mouthparts
  o Females have a stinger or long ovipositor

- Beetles
  o Winged or flightless. If winged have a hard cover, elytra, over second membranous wings.
  o Antennae vary in size
  o Chewing mouthparts

- Butterflies and Moths
  o Two pairs of wings that are covered in scales
  o Antennae long
  o Sucking mouthparts

- Wasps, Bees, Ants
  o Two pairs of wings or wingless
  o Antennae long
  o Chewing mouthparts
  o Females have a stinger or long ovipositor