

Build-a-Bug

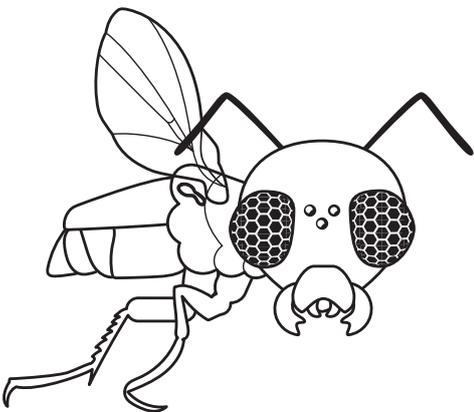
INFORMATION SHEET

How do I build my own bug? (or insect!)

To Build-a-Bug select from the various anatomy options: a thorax (and legs), abdomen, head, eyes, antennae, mouthpart and wings.

Each piece of anatomy is different and will affect what your insect is able to do. Is it a great flyer, an amazing predator or simply something beautiful?

Glue your anatomy parts together on an Identity Sheet. Be sure to name your 'bug' and provide a description of what it does and where it lives.



All bugs are insects but not all insects are bugs!

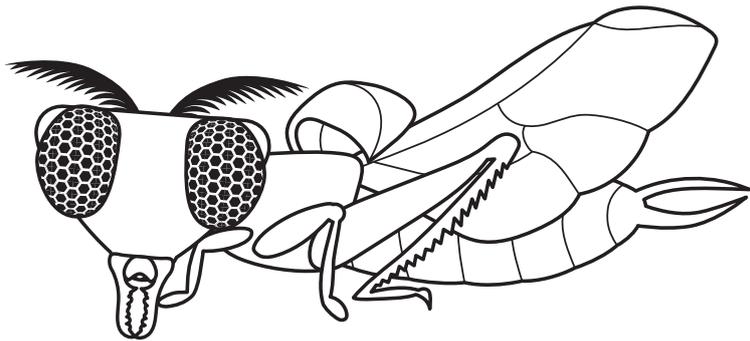
It's true. We often use the word bug to describe all insects, but it's not quite right.

We named this activity 'Build a Bug' because it sounds fun!

True bugs are insects with a mouth shaped like a straw (stylet) that can pierce and suck juices from plants.

They have leathery front wings that are coloured near their body and clear toward the end of the wing.

Are you building a bug or another kind of insect?



Did You Know?

All insects, including true bugs, have three main body parts – a head, a thorax, an abdomen and three pairs of legs.

Amazingly their skeletons are on the outside of their body. This is called an exoskeleton. *Exo* means 'on the outside'.

Insects have blood but like our blood, insect blood doesn't carry oxygen so instead of being red, like ours, it is clear.

Different insects eat different things including pollen, nectar and other parts of plants and some are happy eating rubbish left by humans.

There are about 250,000 species of insect in Australia but only 20-30% of them have been named by scientists. Scientists estimate there are at least 100,000 Australian insects waiting to be described!



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Fascinating Facts

Abdomens

Some insects have leaf-shaped abdomens – this camouflage helps them avoid being eaten by predators.

Bombardier beetles defend themselves by shooting a boiling hot and deadly chemical spray from their abdomen.

Thorax and legs

Fleas don't use strength to jump like we do. They have special structures in their legs that 'fire' when they jump, like a bow and arrow.

Mantises have unique front legs that catch and grab other insects. They are such formidable predators that there is a style of kung fu based on their movements!

Wings

Many insects, including butterflies and moths, have eye spots or bright colours to trick predators into thinking they're very big, dangerous, or poisonous.

Crickets make sound by rubbing their legs against their wings or by rubbing their wings together.

Almost all insects have two sets of wings. Beetles have a hard set on the outside that form a protective shell, and softer under wings beneath.

Some grasshoppers only have vestigial wings – tiny wings that are no longer used for flying but are useful for making sound.

Heads

Male rhinoceros beetles have large horns on their heads that they use to fight each other to impress a female.

Praying mantises are the only insects that rotate their heads 180 degrees. All the better for seeing their prey!

Antennae

Insects use their antennae to smell, which is handy if its dark!

Insects also use their antennae to balance, like a tightrope walker with a long balancing pole.

Ants will touch and tap each other with their antennae. They do this to "smell" each other, and also to ask each other questions, like "hey did you see that bird hanging

around?" and "I'm hungry, can I have some of your lunch?"

Eyes

Insects have compound eyes. These are made up of thousands of lenses which are great for detecting movement, but not as good for seeing detail.

Whirligig beetles have four eyes, two up top and two down below. This allows them to see above and below the water at the same time when they swim.

Mouth parts

Common houseflies can't chew, instead they spit saliva on to food to liquidise it, then they drink it up!

Only the female mosquito feeds on blood which she needs to grow her eggs. Males and non-breeding females feed on nectar. So when you get bitten by a mosquito it's a pregnant female!

Butterflies have a proboscis, (a very long mouth part), but can't taste their food with it, they actually taste with their feet!

