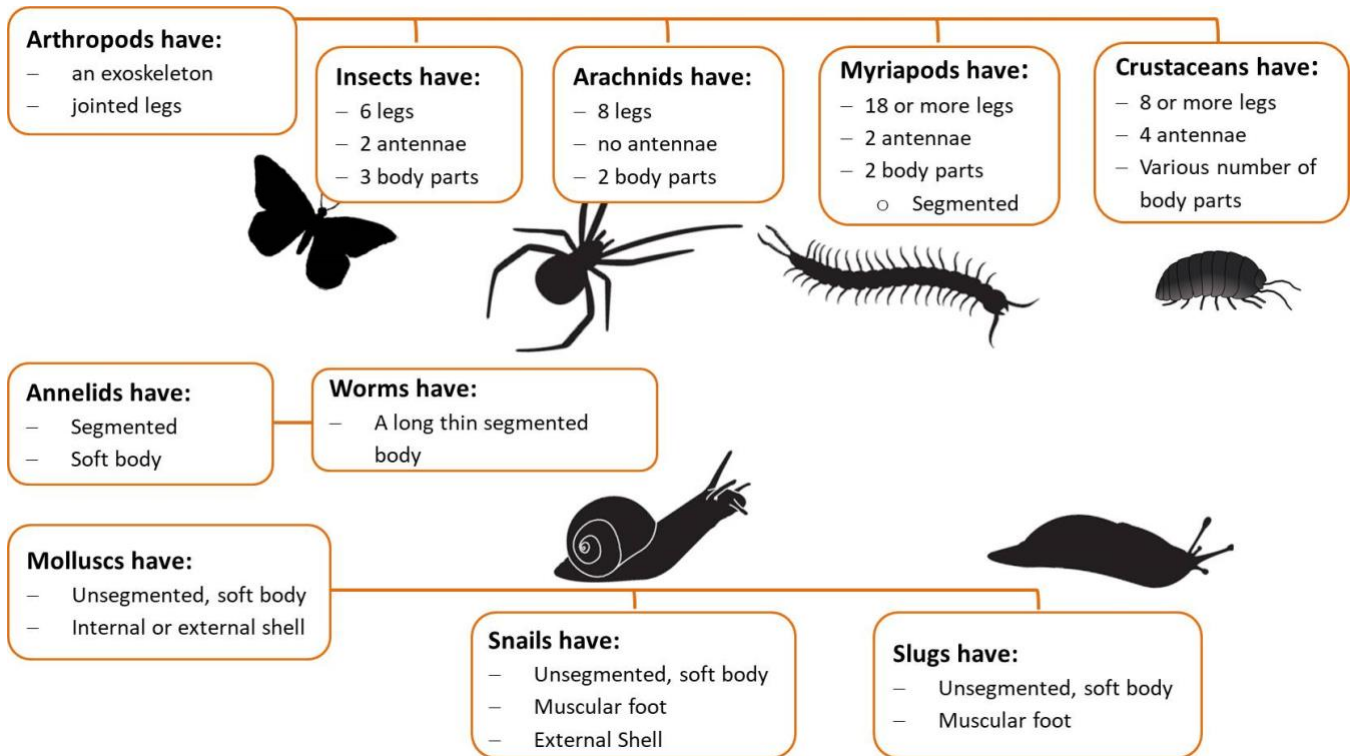


## What makes a minibeast?

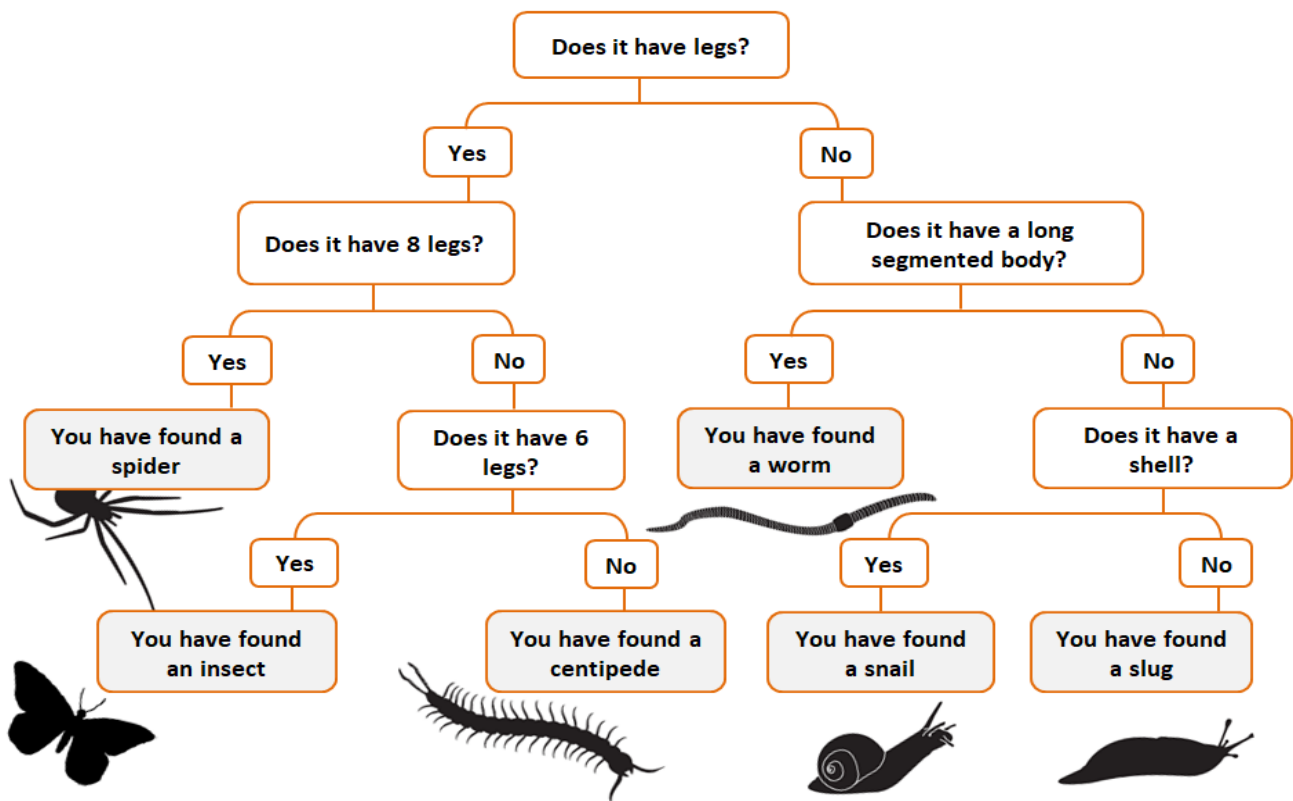


Sit quietly and listen for 2 minutes. List the urban sounds and circle the natural sounds you can hear.

Urban	Natural	
	Crickets	Cicadas      Frogs
	Flies    Bees	Birds
	Mosquitos	

Explore your backyard or local park for 10 minutes. Record the type of Minibeast and the numbers you observe. Look on the ground, in the trees and shrubs and in the air.

Type of Minibeast	Number of Minibeasts



Use the key to help you identify the Minibeasts in your backyard.

- **Please remember that some minibeasts can bite or sting.**
- Always tell an adult if you are looking for Minibeasts.
- Wear gloves when collecting and looking in leaf litter.



### Praying mantids: Mantodea

- Head triangular
- Wings are held flat over body
- Forelegs rows of sharp spikes

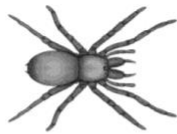


### Grasshoppers, Locusts, Crickets, Katydid – Orthoptera

- One or two pairs of wings
- Wings cover abdomen
- Hind legs shaped like a drumstick.

### Spiders, scorpions, ticks and mites: Arachnid:

- Over 60,000 identifies species
- 8 legs
- 2 body parts



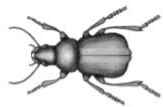
### Worm: Annelida

- Long segmented body



### Snails and slugs – Gastropoda

- Body soft and slimy
- Shell obvious in snails.
- Have one or two tentacles.



### Beetles: Coleoptera

- Over 350,000 identified species
- Chewing mouthparts
- 2 hard wing coverings

### Ants, bees, wasps, sawflies: Hymenoptera

Over 150,000 identifies species

#### Ants

- Body constricted at 'waist'.
- Mouthparts for chewing or munching.



#### Wasp

- Body constricted at 'waist'.
- Mouthparts for chewing or munching.
- Abdomen tip with long spike

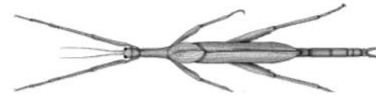


#### Bees

- Body constricted at 'waist'.
- Eyes large to very large.
- Hind legs enlarged with forked hairs

### Cockroaches: Blattodea

- Body oval, flattened
- Mouthparts for chewing or munching
- Many species do not have wings.



### Stick insects – Phasmatodea

- Body stick or leaf shaped
- At rest wings are held flat or rolled around body



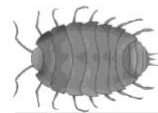
### Centipedes – Chilopoda

- One pair of legs per body segment
- 15 to 191 pairs of legs (always an odd number)
- Body tip has thread-like appendages



### Millipedes – Diplopoda

- Body usually curved
- Most coil or roll into a ball when disturbed



### Slaters – Isopoda

- 7 pairs of legs 1 per segment.
- 2 pairs of antennae,
- Wide with curved surface.
- Many roll into a ball

### Bugs: Hemiptera

- Over 60,000 identifies species
- All bugs have tube-like mouthparts for piercing and sucking.



### Flies and mosquitoes: Diptera

- Antennae generally short
- One pair of functional wings



### Moths and butterflies: Lepidoptera

- Over 300,000 identifies species
- Have overlapping scales.
- Antennae never longer than body.
- Mouthparts long feeding tube coiled
- Two pairs of wings often patterned



### Dragonflies and damselflies: Odonata

- Body long and narrow.
- Antennae short and hair-like
- Eyes large and bulging
- Dragonflies: wings held outstretched
- Damselflies: wings pressed together