

# Why Do Bugs Matter?

## **Bugs, mini-beasts, creepy crawlies...**

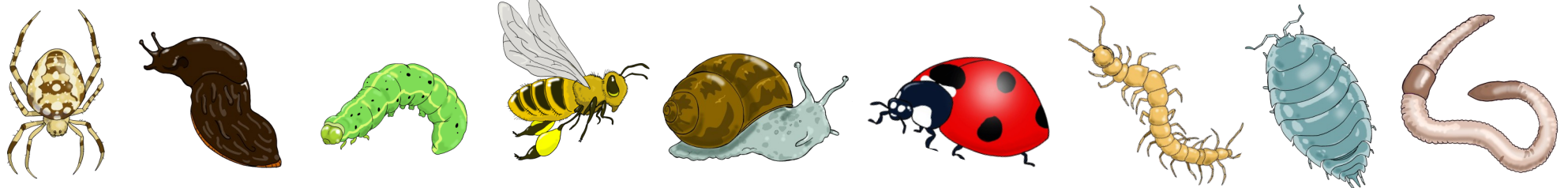
the amazing range of small creatures that inhabit our gardens and green spaces are too often overlooked.

They provide a food for birds and many other animals and perform many important roles that help us humans.

Working through this pack you will...

- **Identify various mini-beast species**
- **Use the interactive sheets to support your learning**
- **Be able to observe and support your local wildlife**

Once completed the pack, you'll have earned your **certificate** as a Living World ***Champion of Bugs!***

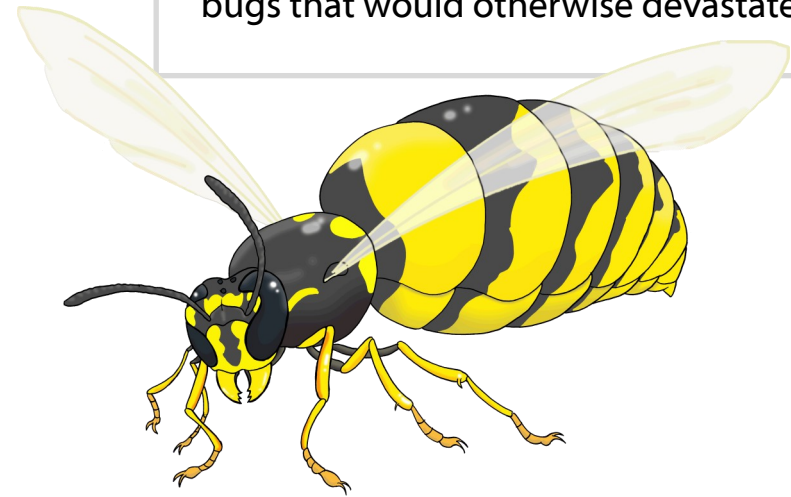


# PEST PREDATORS

Here are some examples of bugs that predate on species that could ruin the crops we depend upon. Without these helpful invertebrates, populations of pests would explode.

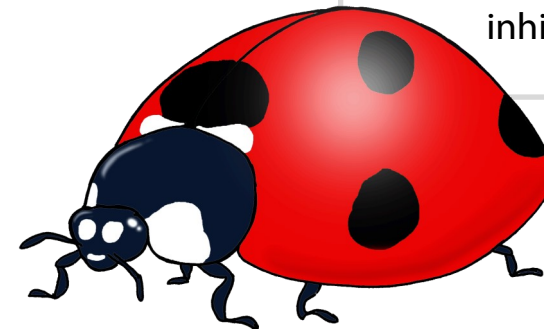


**Violet ground beetles** hunt at night and forage for small invertebrates including **slugs**.



Despite a reputation for stinging, **wasps** are essential predators of **caterpillars** and other bugs that would otherwise devastate crops.

**Ladybirds** munch on **aphids** (small green and black flies) that suck nutrients from plants, inhibiting their growth.

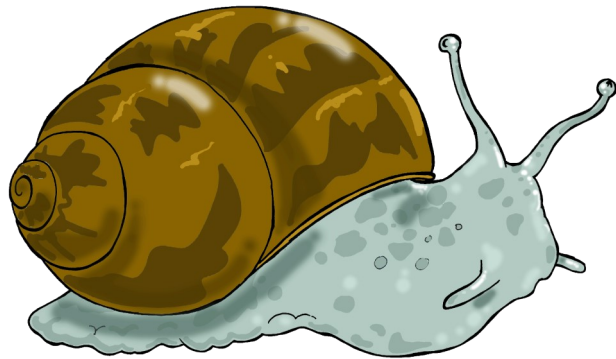


*Draw in the following pests being gobbled up by the bugs...*

- a slimy slug lunch for the violet ground beetle
- 3 greenflies for our ladybird
- A juicy caterpillar for the wasp

# COMPOSTING CREATURES

The efforts of these busy bugs ensure that dead or waste material from other living things is recycled, with nutrients returning to the soil.



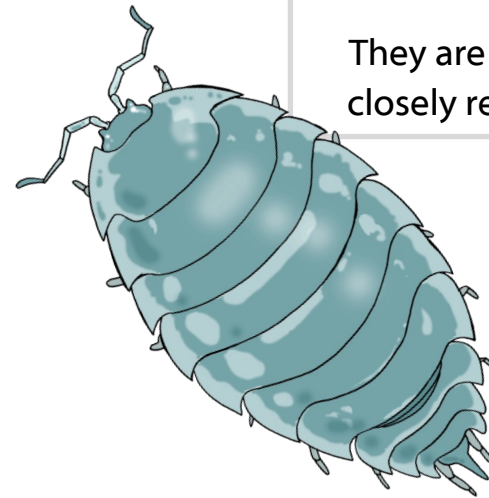
**Garden snails** and **slugs** help break down rotting vegetation. These molluscs have a rasping set of microscopic teeth that scrape away at the soft plant tissue.



1. ***DRAW*** the sort of items you'd find in a compost heap around the creatures.
2. ***Create your own compost heap or bug hotel*** (see the instructions in this pack!)

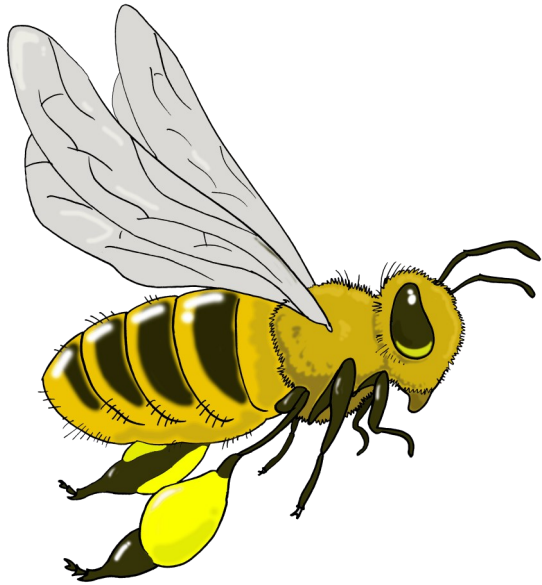
**Woodlice** like the dark, moist spaces such as under rotting wood, rocks or compost heaps where they feed on decaying organic material.

They are actually crustaceans and closely related shrimps and crabs!



# POLLEN PATROL

So much of the food we depend upon requires on the creatures that transfer pollen between flowers, having been attracted by the scent, colourful petals and promise of a sweet nectar meal.



There are many species of bee that are crucial pollinators. This **honey bee** also harvests pollen grains to feed on storing it using the pollen sacs on its back legs before returning to the hive.

*Draw in some flowers for them to visit!*

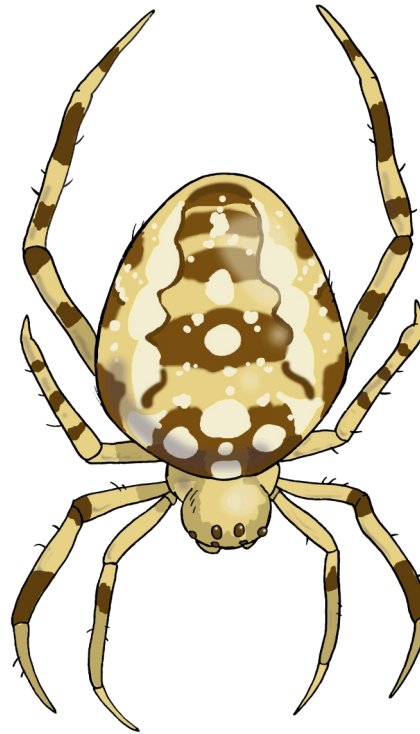
*Can you plant some insect-friendly flowers?*



**Peacock butterflies** and the dazzling variety of related species must be some of the most popular garden visitors. They possess a long proboscis, which they uncurl and extend into the flower to reach the energy rich nectar.

# BEASTLY BITES

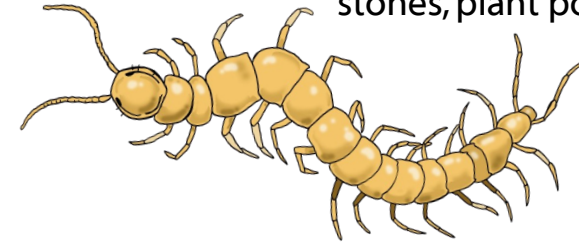
Despite have special bites to capture their prey, these creatures are of no risk to us and, as with all mini-beasts, add to the biodiversity in our gardens.



Having trapped their prey (mostly flying insects) in the sticky strands of their web, the **garden spider** gives a venomous bite and wraps this meal in silk before then feeding.

*The spider needs a web, can you draw one?  
(include an unfortunate trapped fly)*

Whilst **centipedes** use a venom to capture prey bites to humans are incredibly rare, and these shy creatures be found hidden under stones, plant pots or logs.



# WORMERY

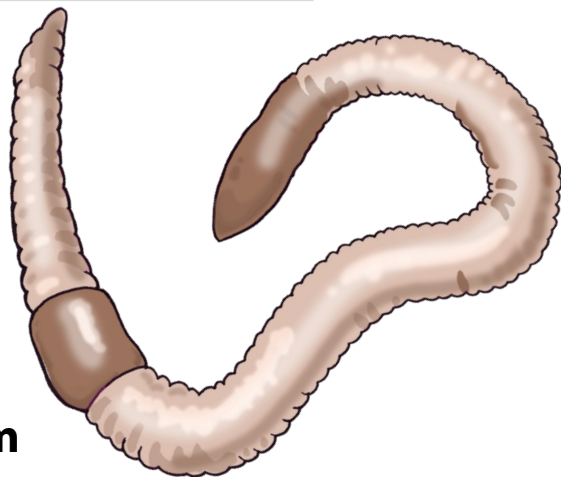
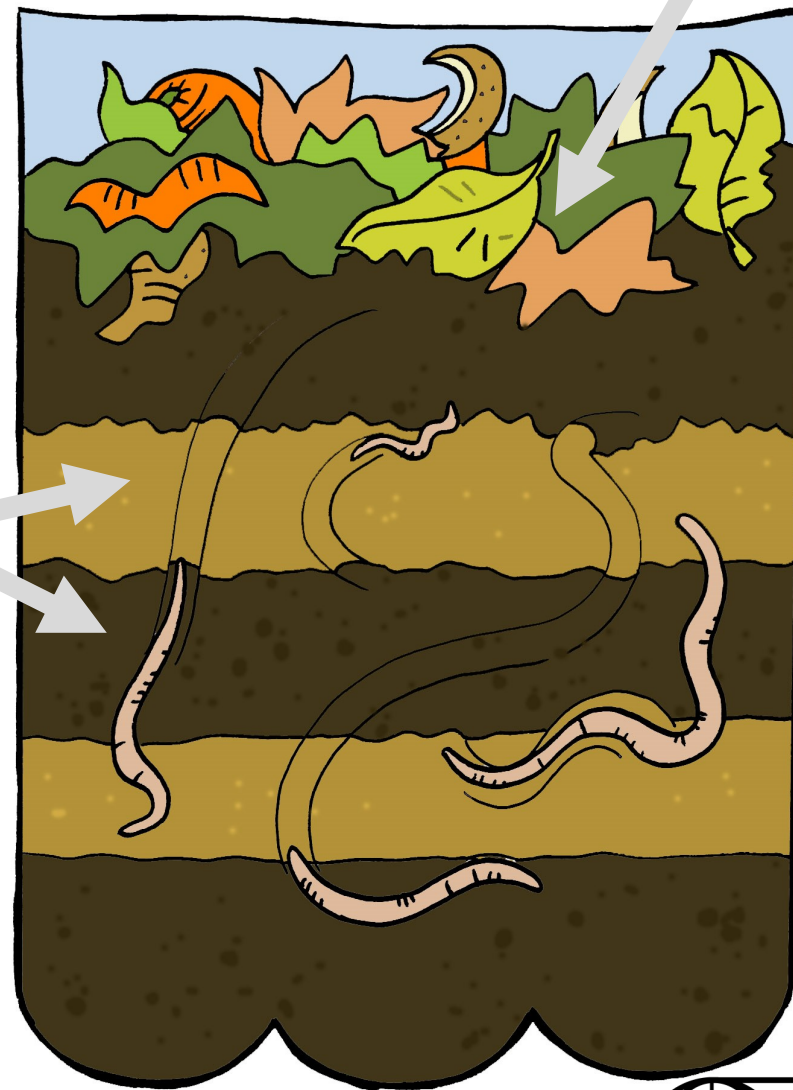
An old fish tank, recycled jar or cut-off drinks bottle makes an excellent wormery container.

Keep the soil moist with an occasional spray of water and cover the sides with a sleeve of card (worms prefer the dark) which you can remove to see the burrowing action of your worms.

Make sure you return the worms to your garden after a week of worm-watching!

You can see how worms mix up the layers of soil and/or compost and sharp sand.

A surface covering of leaves and vegetable peelings will provide a source of food.



earthworm

# BUG HOTEL

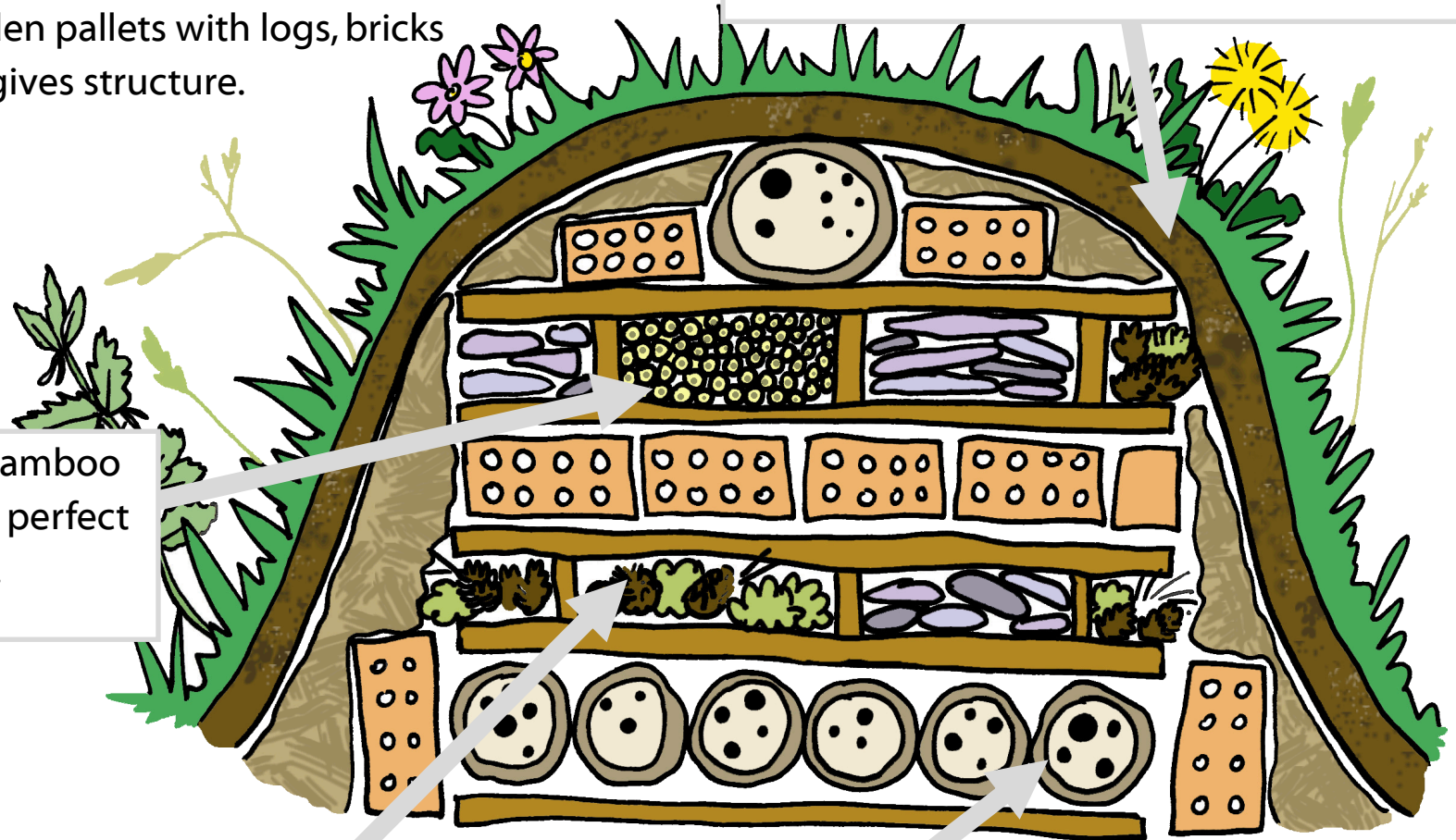
An easy way of providing shelter for bugs is the classic bug hotel. There is no right way to make one, but layering old wooden pallets with logs, bricks, and flat rocks or tiles gives structure.

Topping your hotel with turf or bug-friendly flowers will insulate the hotel and give even more food and shelter.

Sections of sticks or bamboo bundled together are perfect for bugs to crawl into.

Stuffing the gaps with natural materials like pine cones, straw and moss makes the hotel cozy in winter.

Get an adult to drill holes in to logs to give even more hiding spaces.



# GARDEN FOR BUGS

Small actions can have a big effect, and these simple projects will have a long term positive impact on the wildlife in your garden.

A LOGPILE is a great hiding place for many types of bugs and the decomposing wood will encourage fungi as well as many types of bug.



Encourage grown ups **not to use chemical pesticides.** These kill all kinds of bugs, including the natural predators of pest species.

## COMPOST HEAPS

These are a great way to recycle vegetable and garden waste into useful growing material.

You can add the following to your heap...

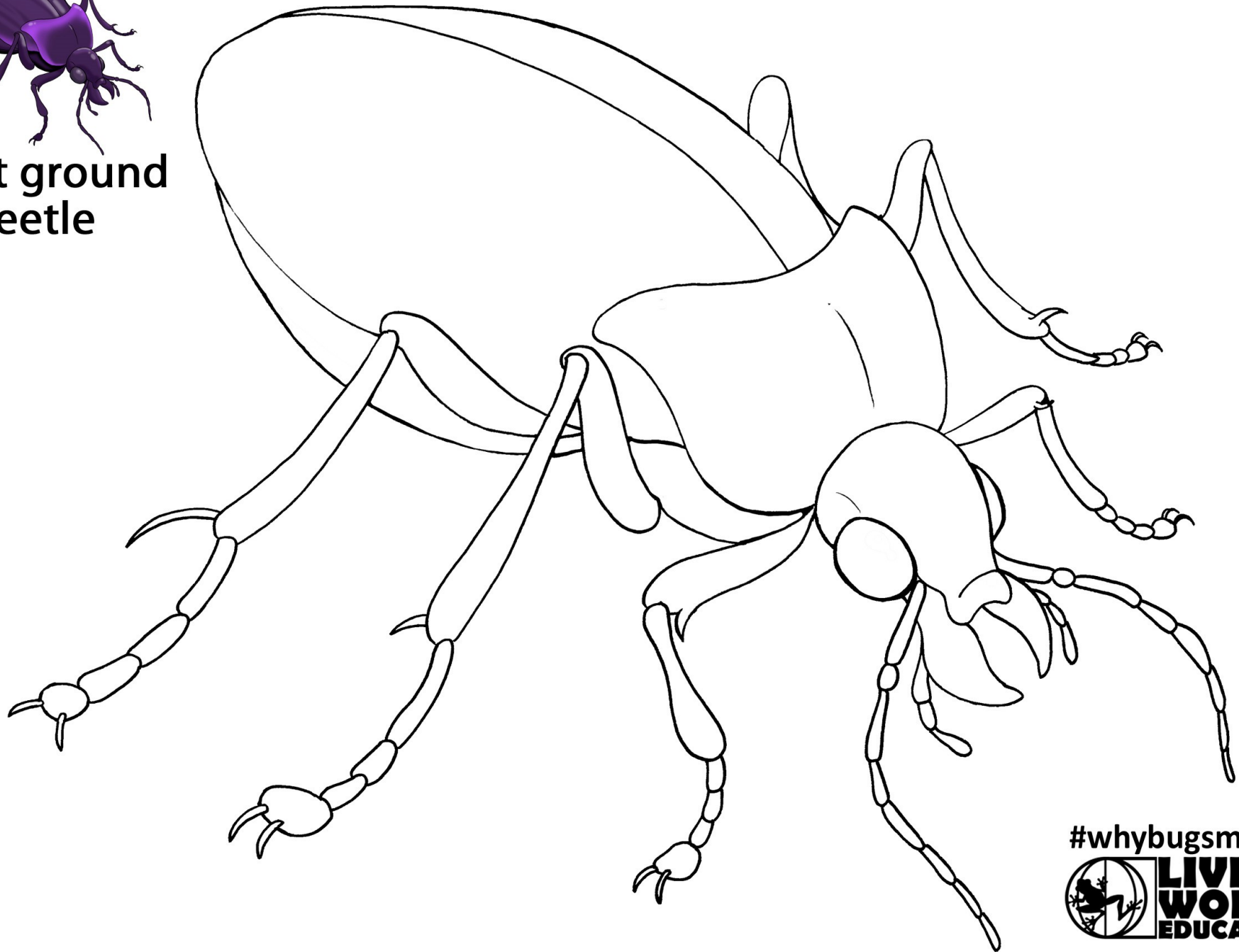
- **Grass cuttings**
- **leaves**
- **vegetable peelings**

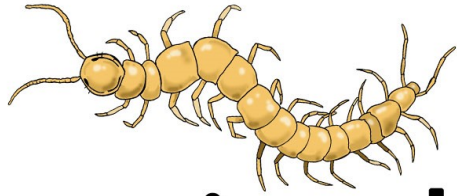




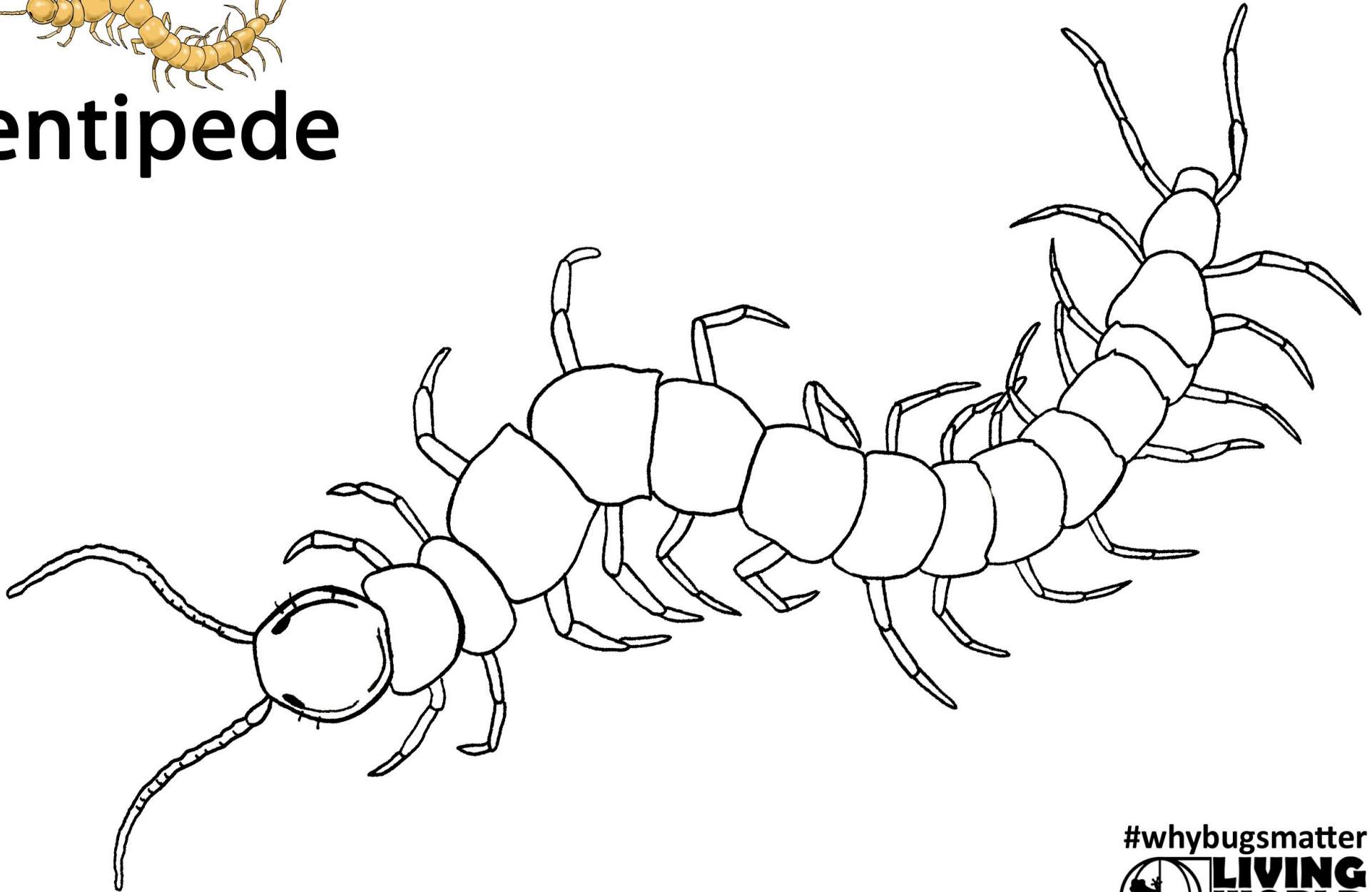


violet ground  
beetle



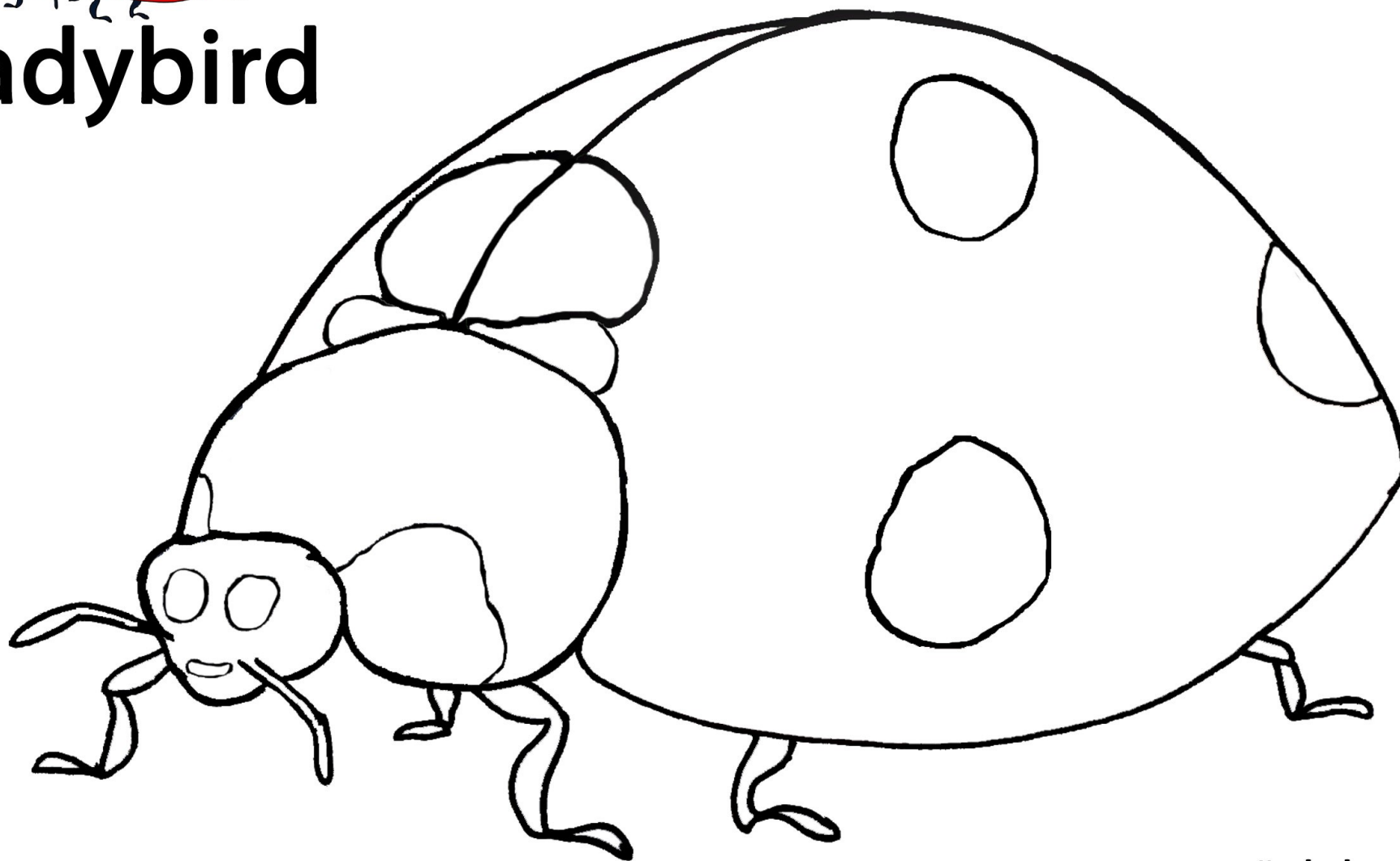


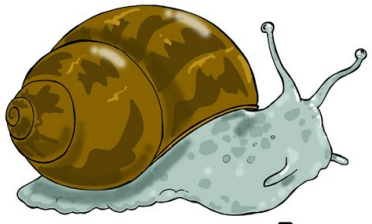
centipede



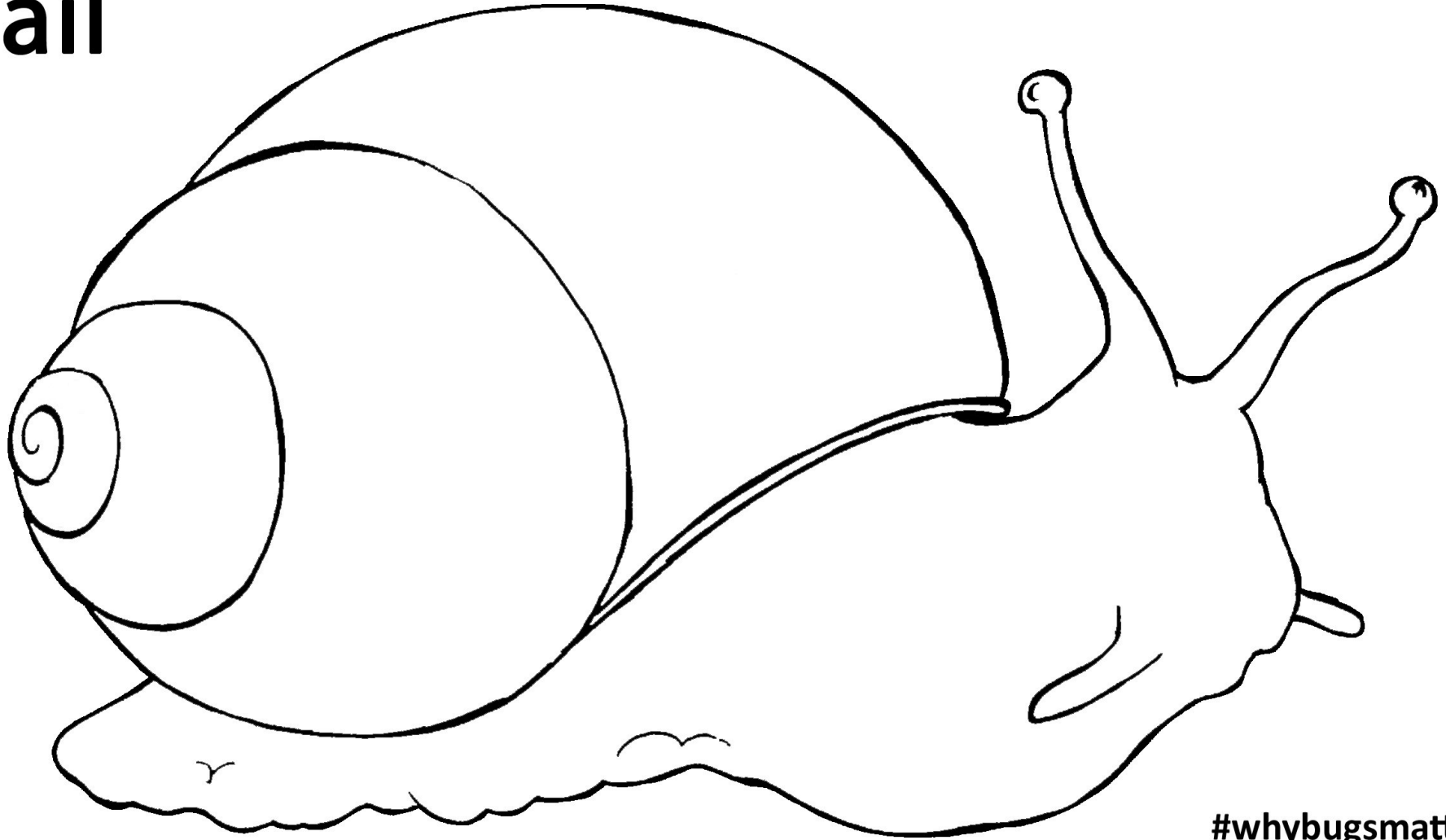


**ladybird**

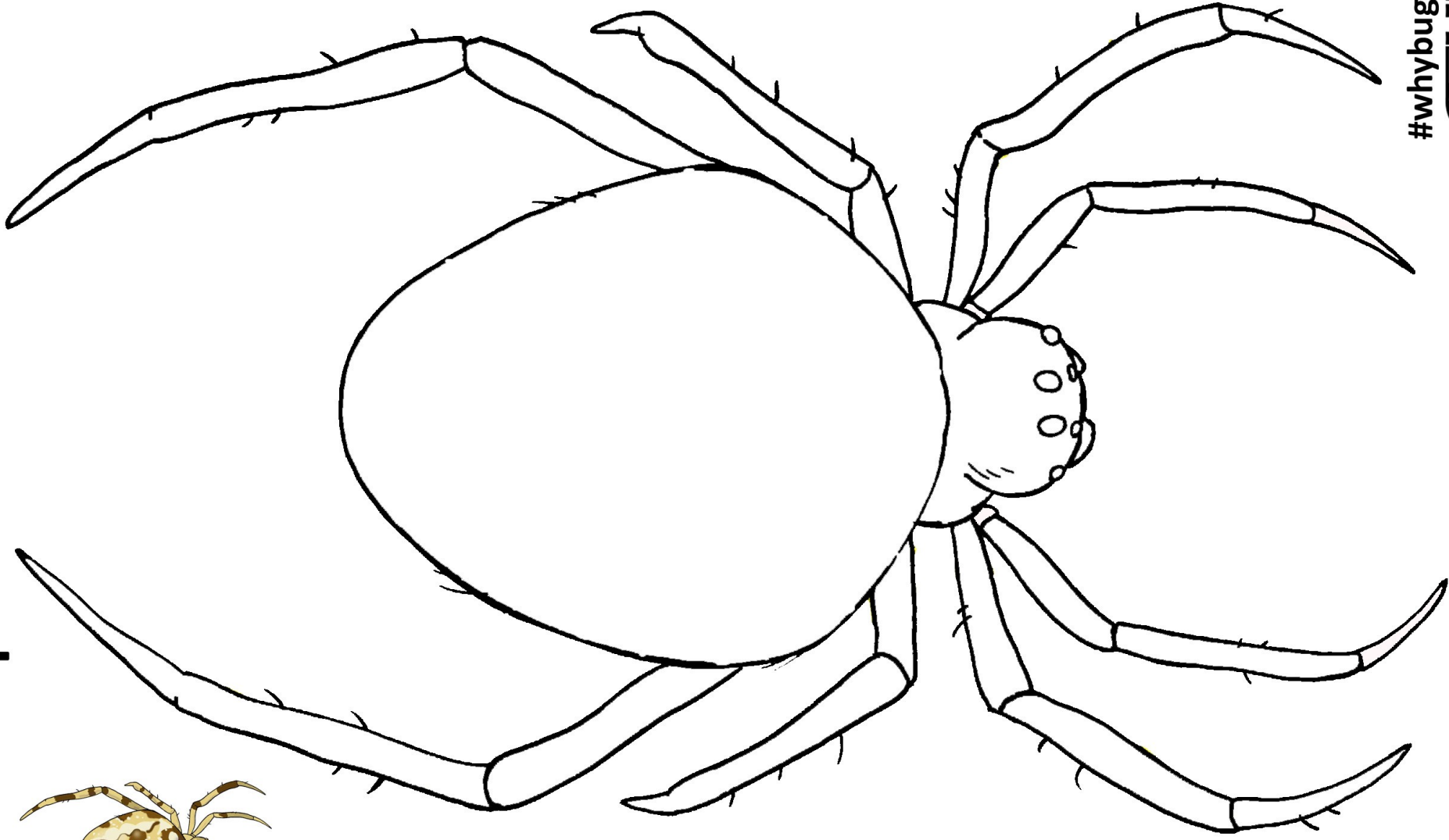
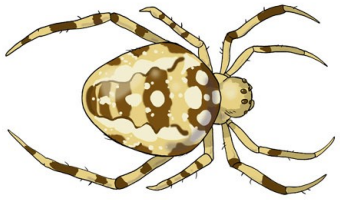


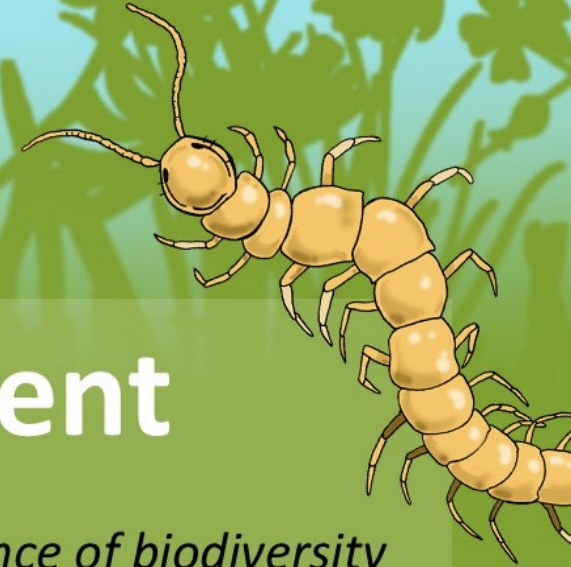


snail



**garden spider**





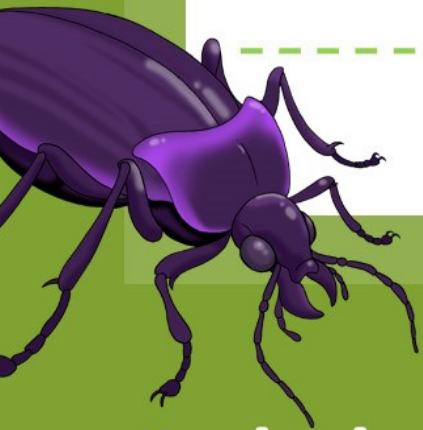
# Certificate of Achievement

*For becoming a champion for bugs and learning about the importance of biodiversity*

Awarded to

SIGNED

DATE



**#whybugsmatter**  
[www.livingworldeducation.com](http://www.livingworldeducation.com)

