



Bugs, mini-beasts, creepy crawlies...

The amazing range of small creatures that inhabit our gardens and green spaces are too often overlooked. Providing food for birds and many other animals, bugs also perform many important roles that help us humans, although they are incredible in their own right, once you learn more about them...

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**

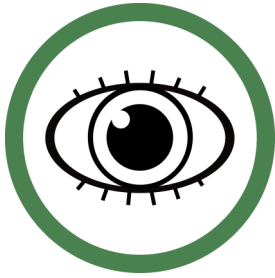


Once completed the pack, you'll have earned your **certificate** as a ***Champion for Bugs!***



The Wildlife Garden Project

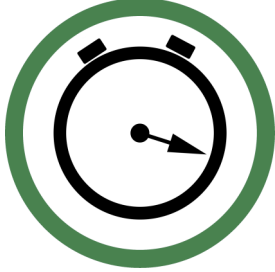
BUG HUNT GOLDEN RULES



Look out for **any dangers** (allergies, stings, bites)



Only handle **if safe** to do so, and with **respect**



Return any creature to **where you found it**



Only keep any creature for a **short time**
















Consider **water safety** at all times



BUG HUNT TALLY CHART

Use this tally chart to record the number of bugs you find.

	 spiders	 butterflies	 slugs	 beetles	 snails	 worms	 centipedes	 ladybirds	 wasps	 woodlice	 bees	 ants	 millipedes
TALLY													
TOTAL													

Which type of creature did you find most of? _____

Which type of creature did you see the least/ not at all? _____

What measures could you take to improve your garden areas for wild creatures? (there are ideas in this work pack)

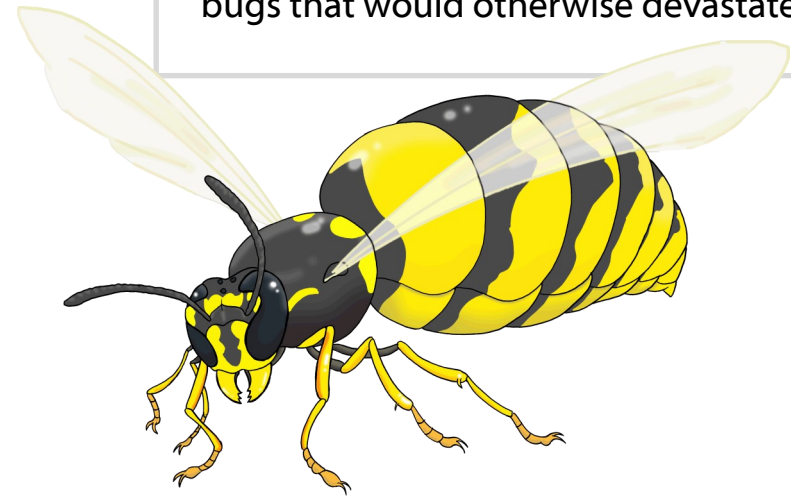
Discuss this with your family or class and make an action plan.

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.

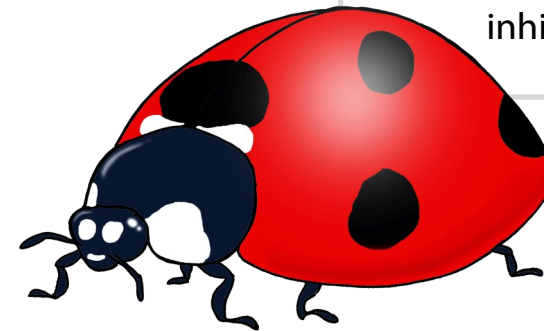


Violet ground beetles hunt at night and forage for small invertebrates including **slugs**.



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

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.

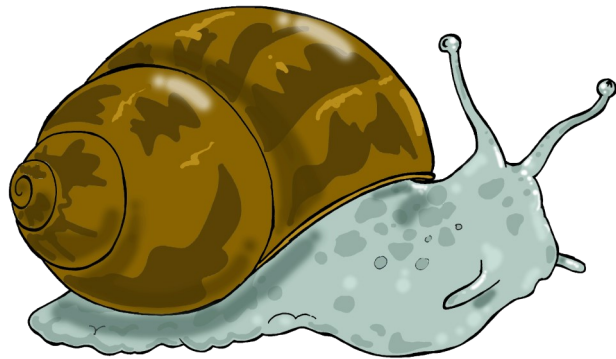
You can add the following to your heap...

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



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.



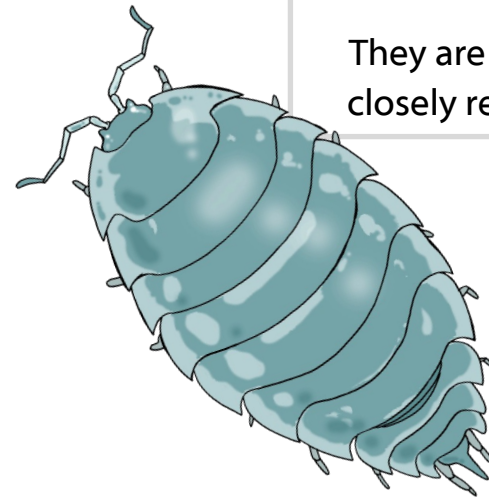
Garden snails and **slugs** help break down rotting vegetation. These molluscs have a rasping set of microscopic teeth that scrape away at the soft plant tissue.



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!



WORMERY

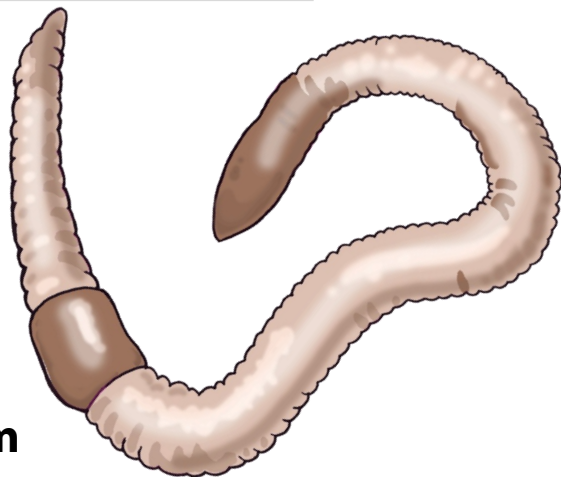
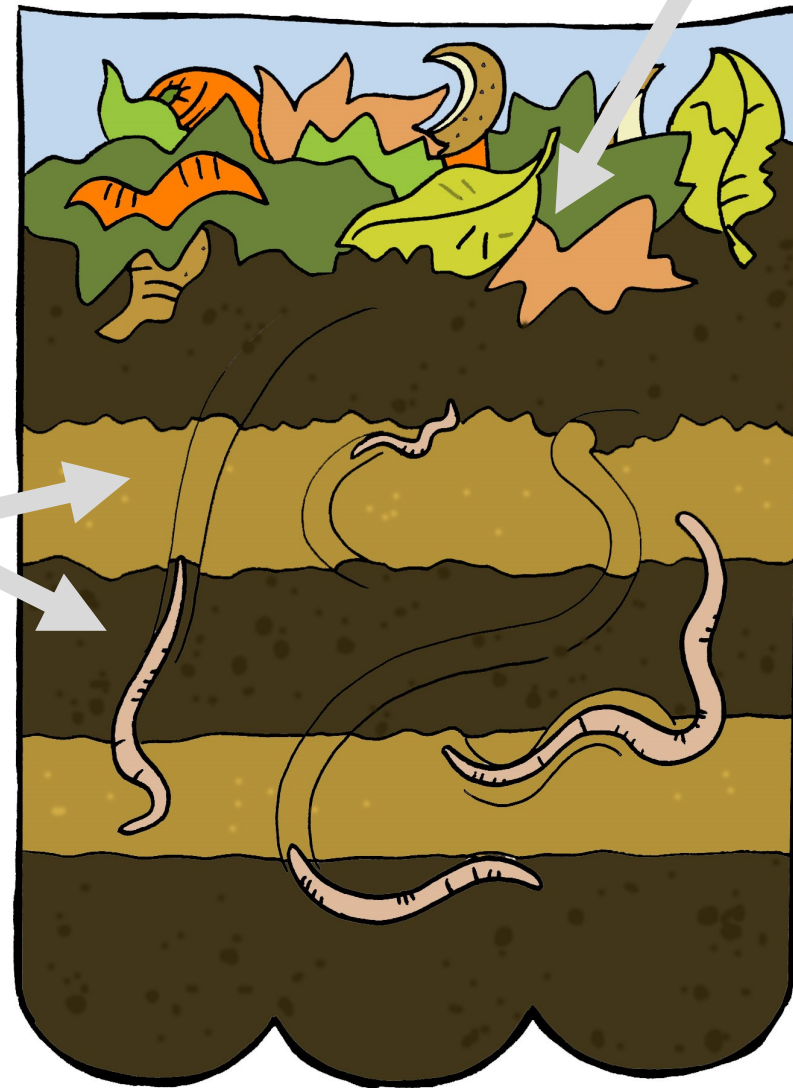
An old fish tank, recycled jar or cut-off drinks bottle makes an excellent wormery container.

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.

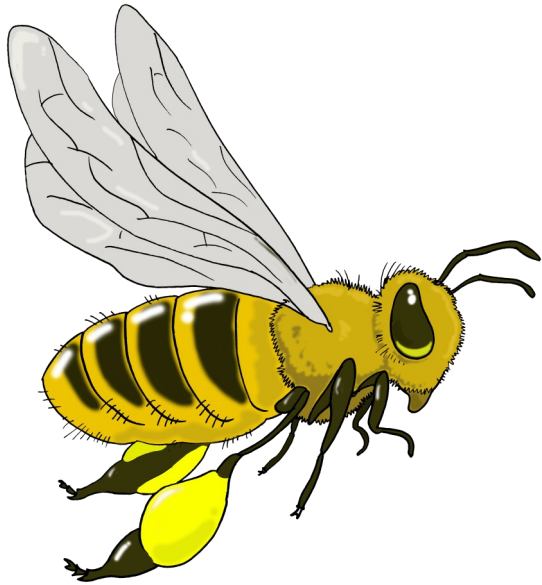


earthworm



POLLEN PATROL

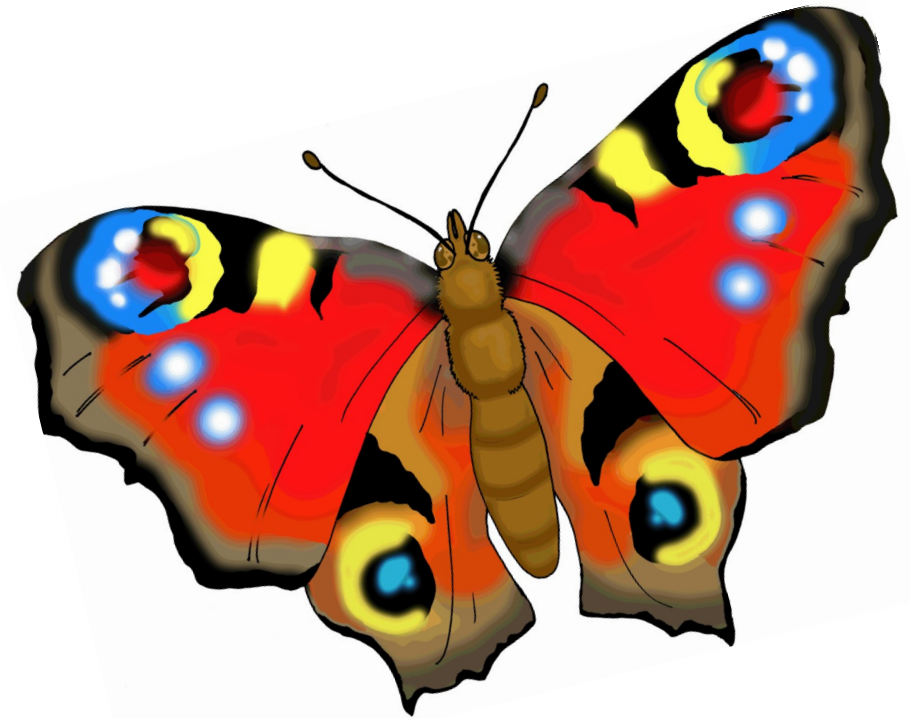
So much of the food we depend upon requires on the creatures that transfer pollen between flowers, having been attracted by the scent, colourful petals and promise of a sweet nectar meal.



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.

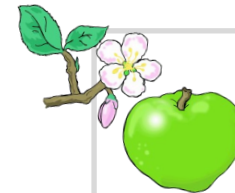
BUILD A BUG FRIENDLY GARDEN

Providing the right plants and places to hide will have a positive impact on the bugs in your garden. Read the **top-tips** (right) and use the space below to design what you want in a bug-friendly garden...



Leave space for 'weeds'. Nettles and dandelions are amazing for bugs!

Fruiting bushes, such as bramble give security to garden edges and a crop of fruit for wildlife and ourselves.



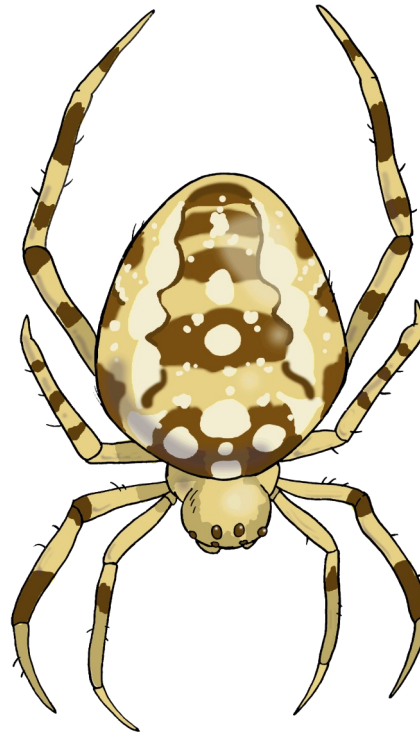
Fruit trees like cherry or apple, will give a welcome springtime boost of nectar.

Check out the **bug hotel**, **compost heap** and **log pile** info in this pack.
Could you include these in your garden design?



BEASTLY BITES

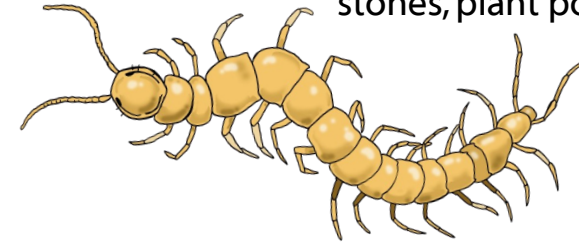
Despite have special bites to capture their prey, these creatures are of no risk to us and, as with all mini-beasts, add to the biodiversity in our gardens.



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.



BUG HOTEL

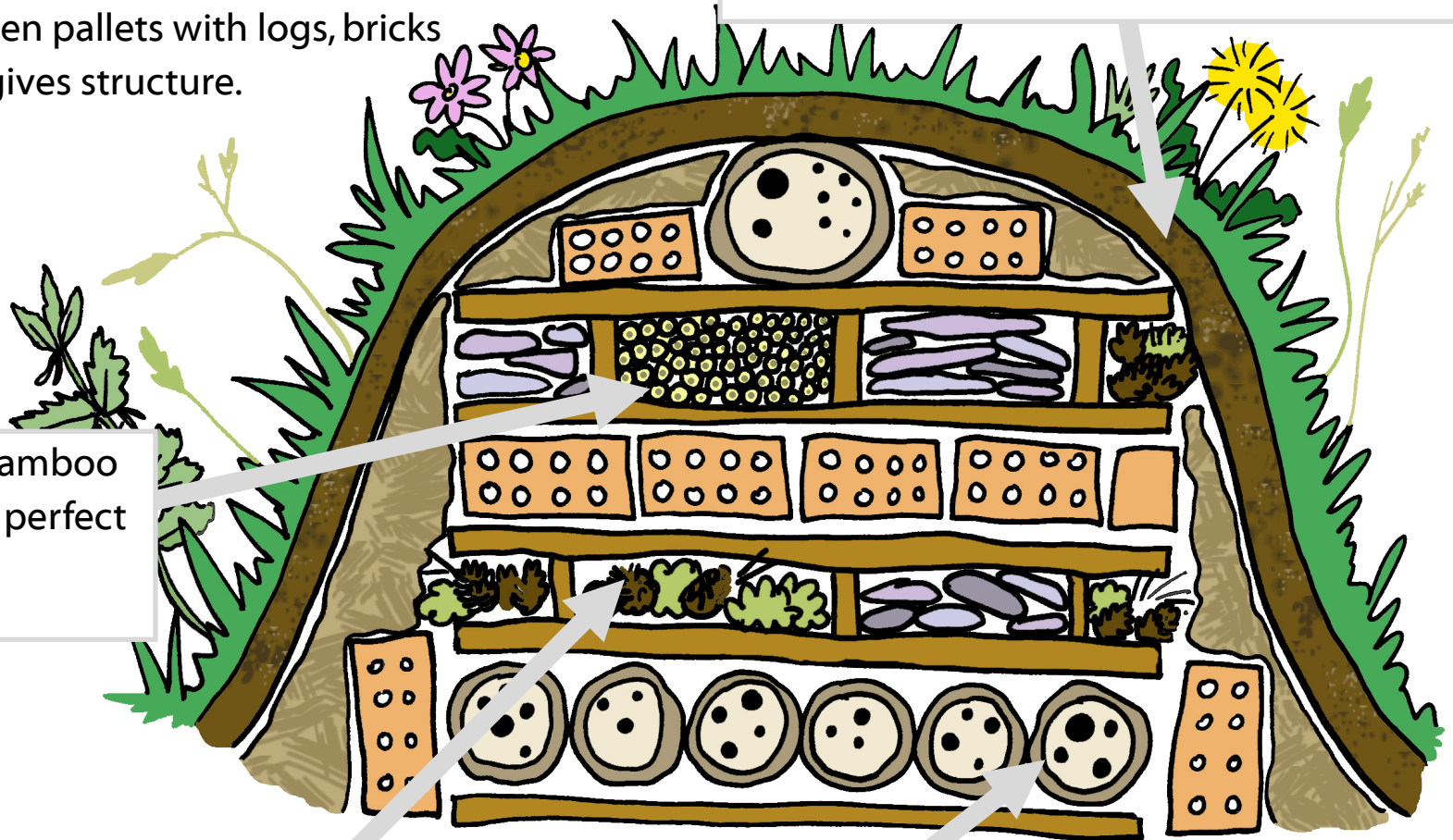
An easy way of providing shelter for bugs is the classic bug hotel. There is no right way to make one, but layering old wooden pallets with logs, bricks, and flat rocks or tiles gives structure.

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

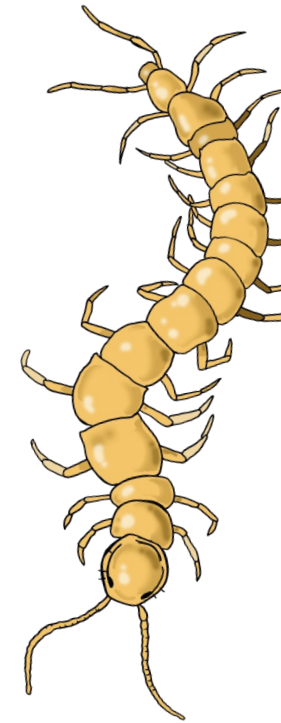
Sections of sticks or bamboo bundled together are perfect for bugs to crawl into.

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.



BUG HUNT WORD SEARCH



APHID
BEE
BEETLE
BLACKANT

BLUEBOTTLE
BUGHOTEL
BUTTERFLY
CATERPILLAR

CENTIPEDE
DRAGONFLY
GRASSHOPPER
HABITAT

INSECT
LADYBIRD
MILLIPEDE
MOTH

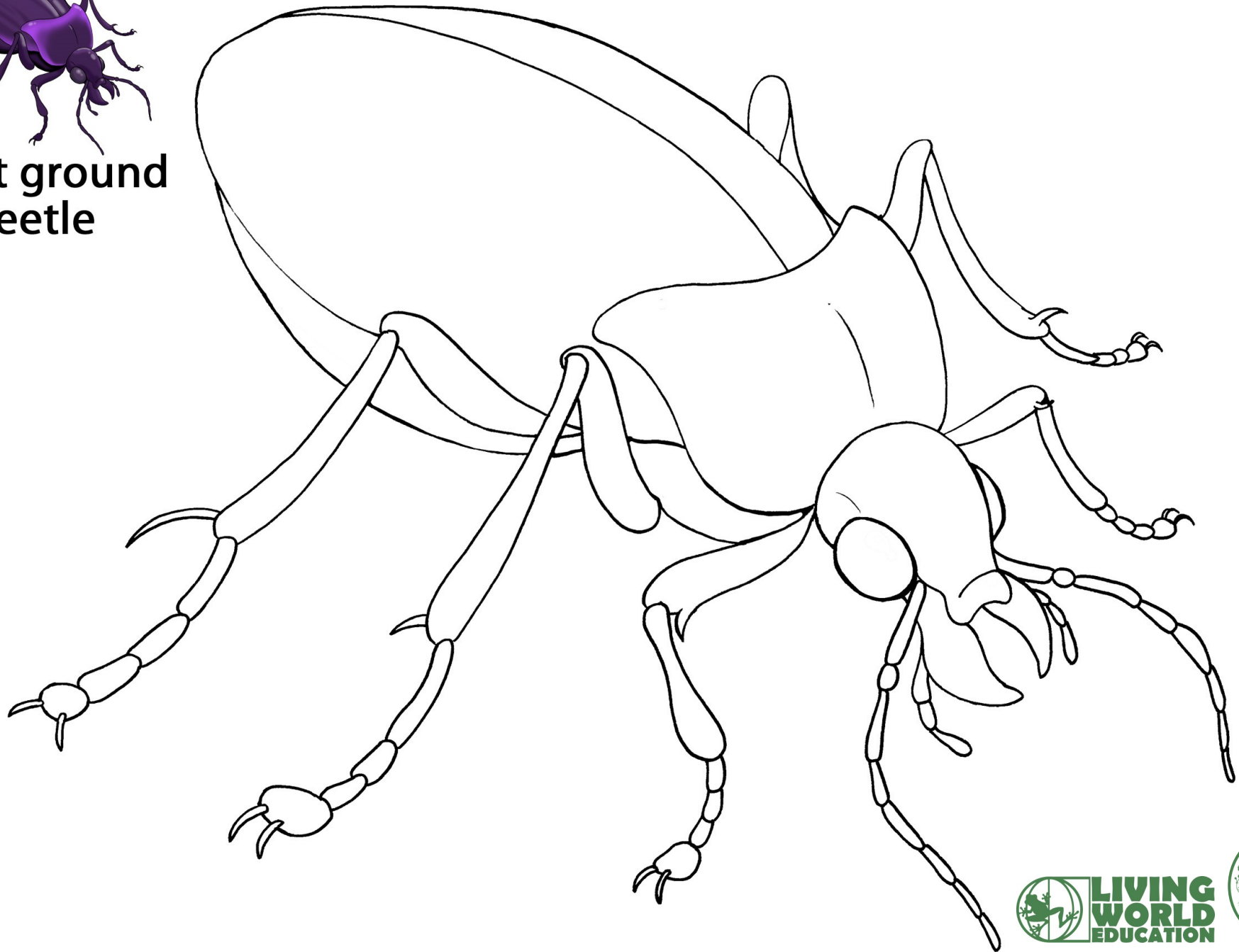
SLUG
SNAIL
SPIDER
WASP

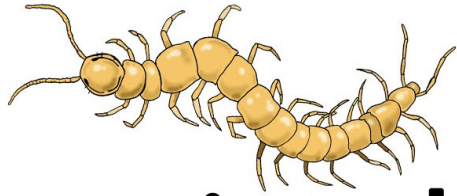
WOODLOUSE
WORM



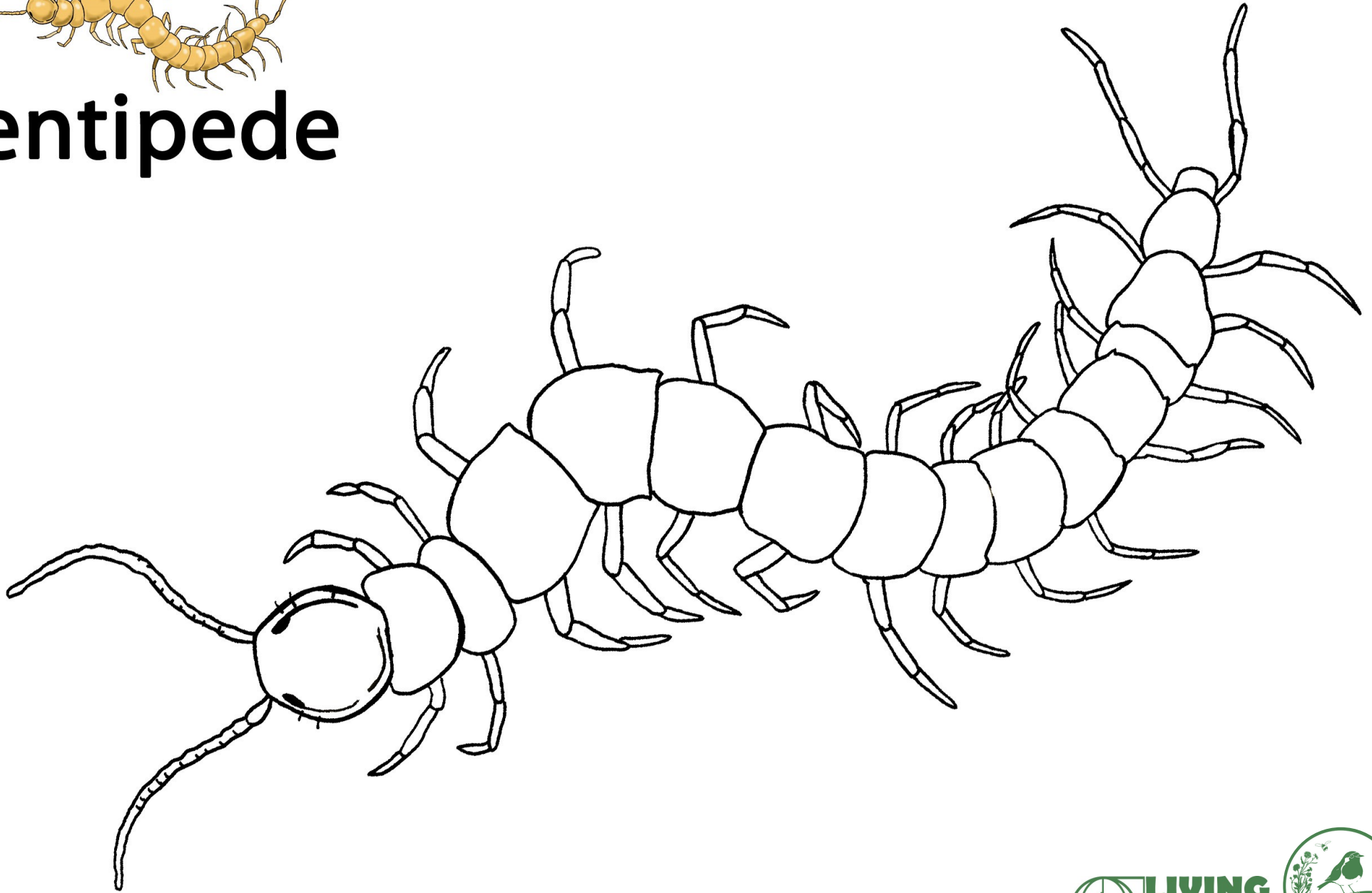


violet ground
beetle



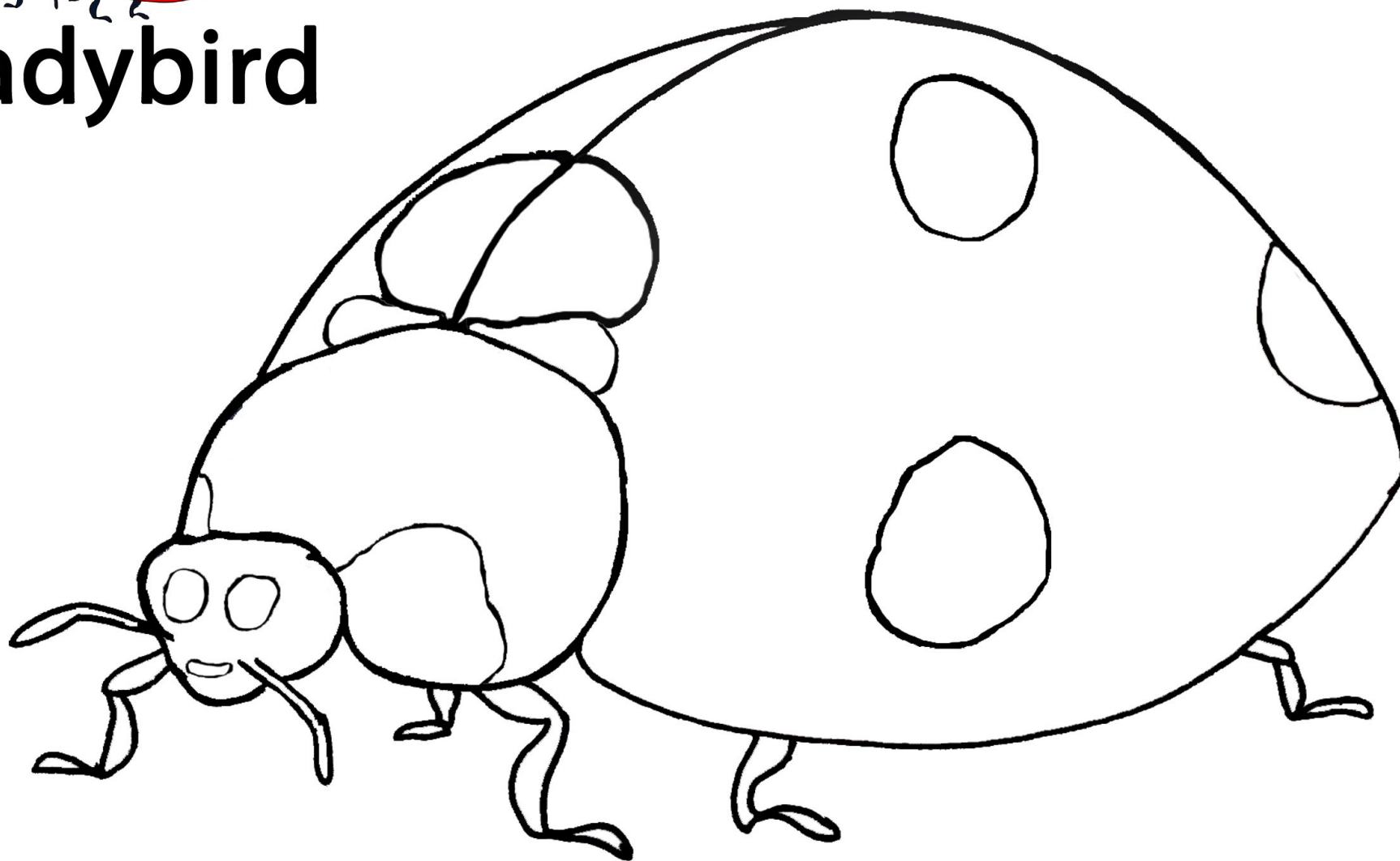


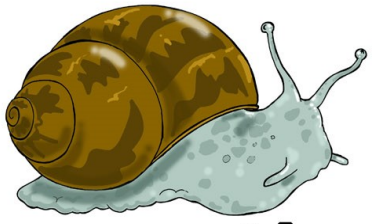
centipede



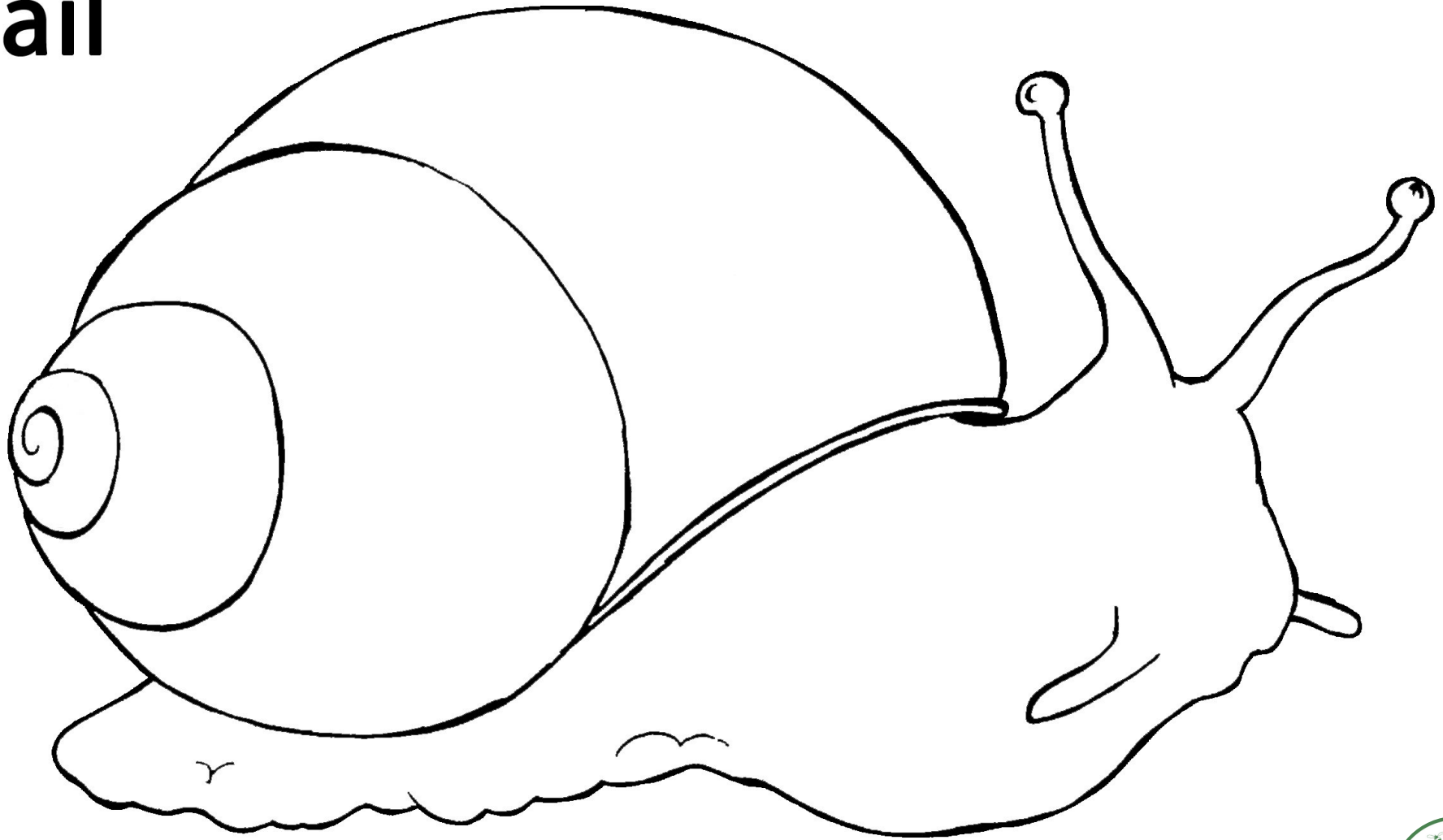


ladybird

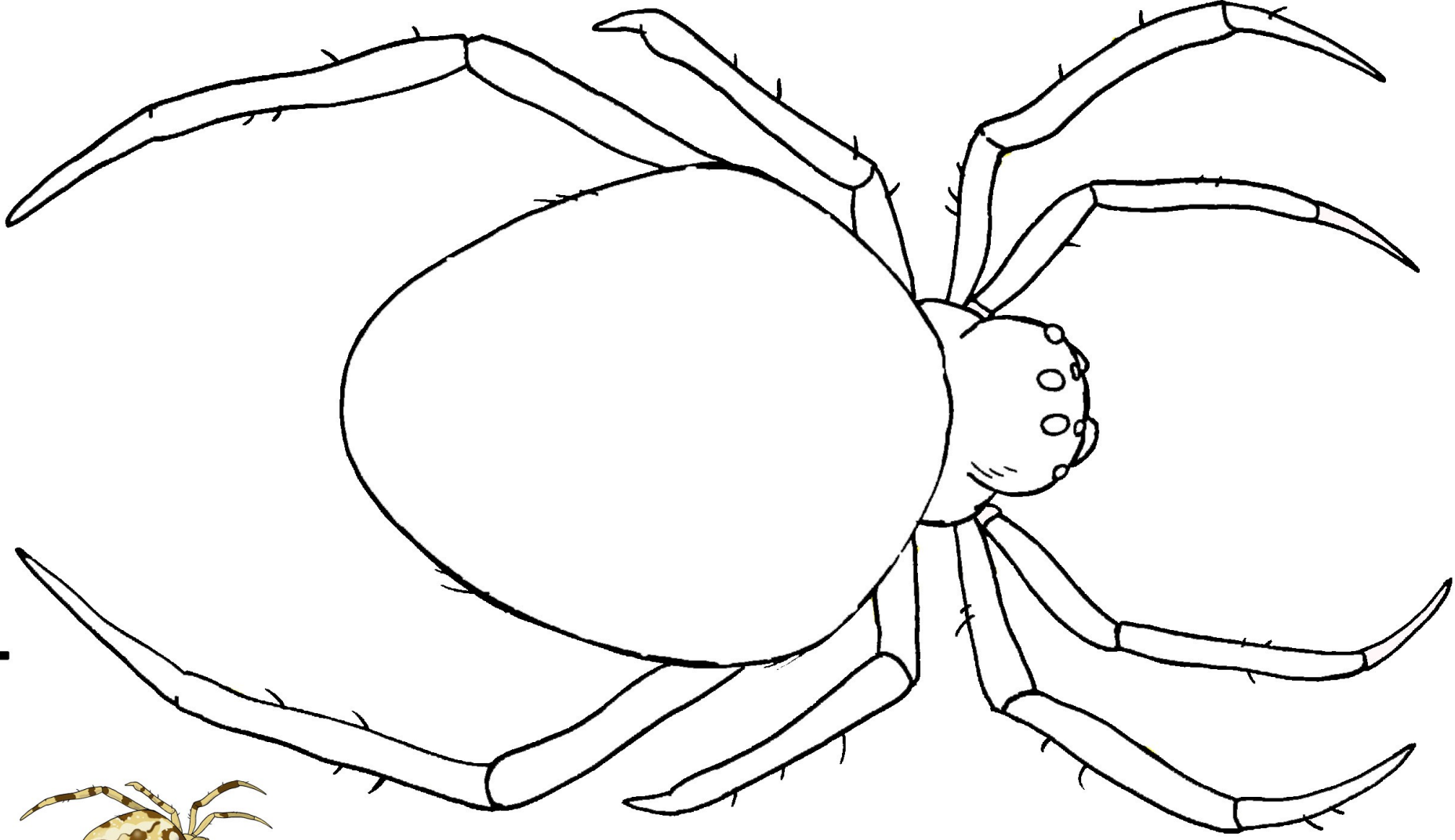
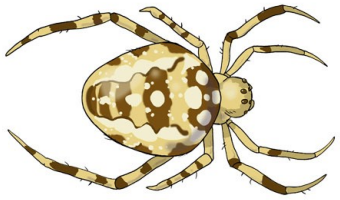


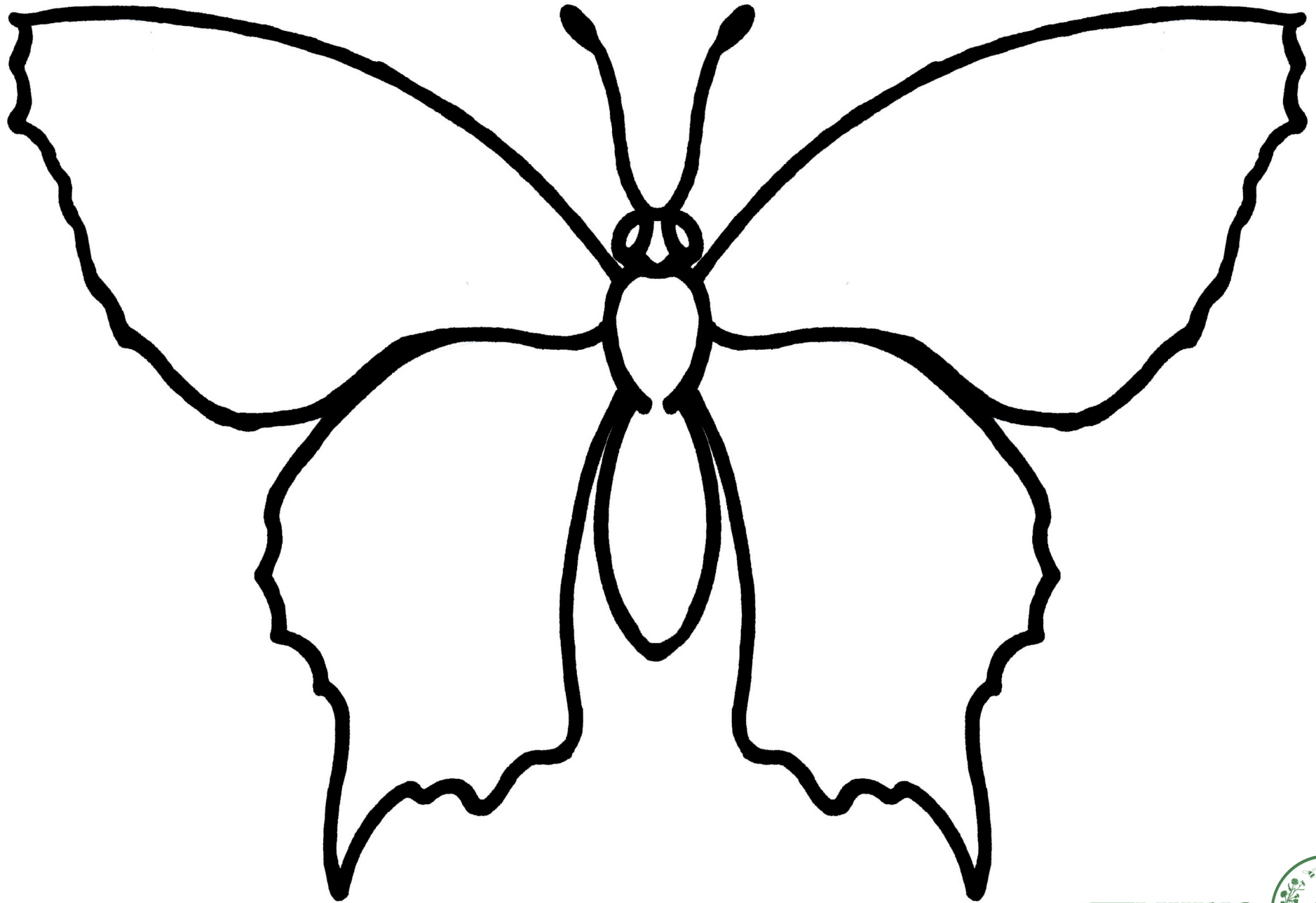


snail



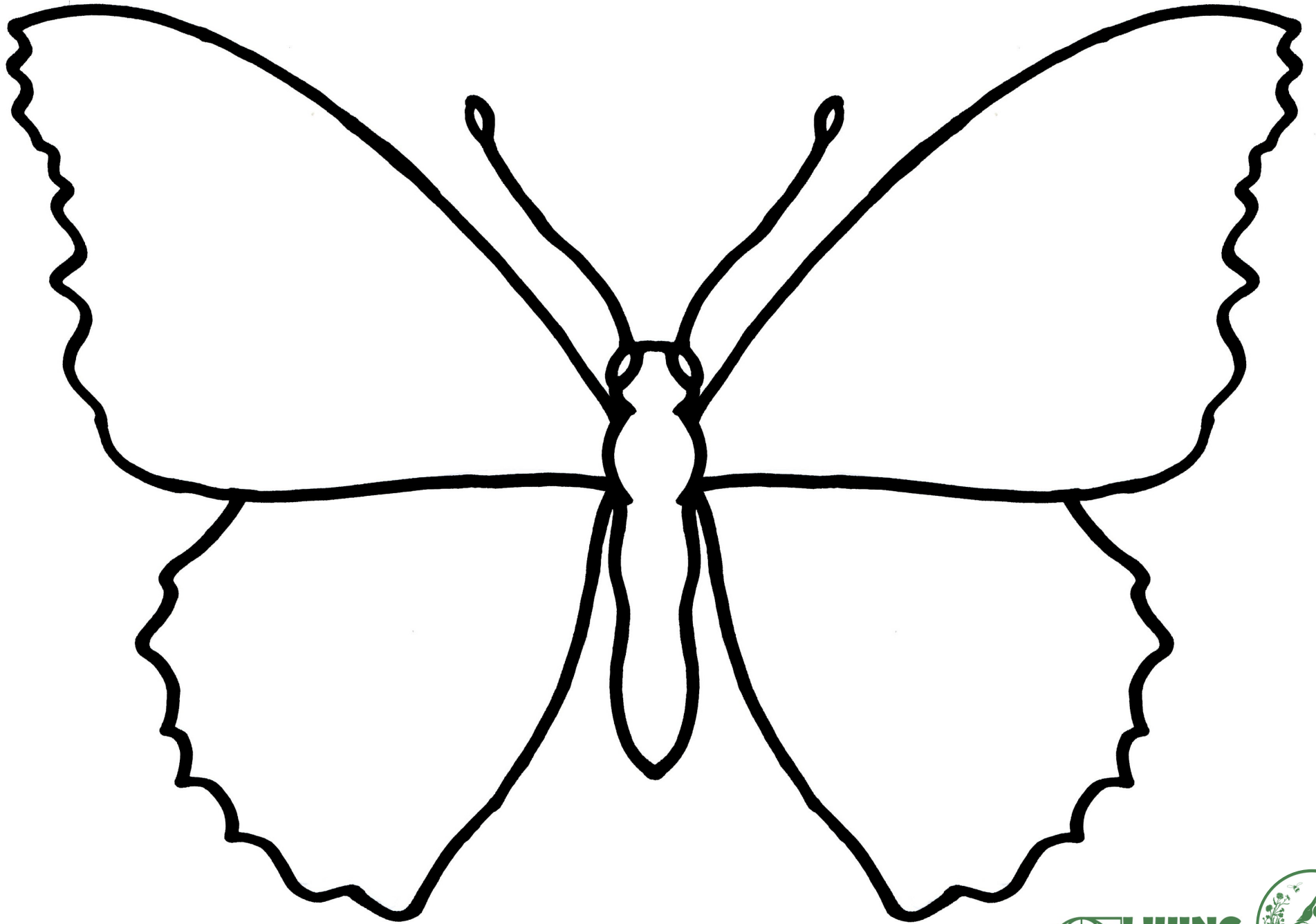
garden spider





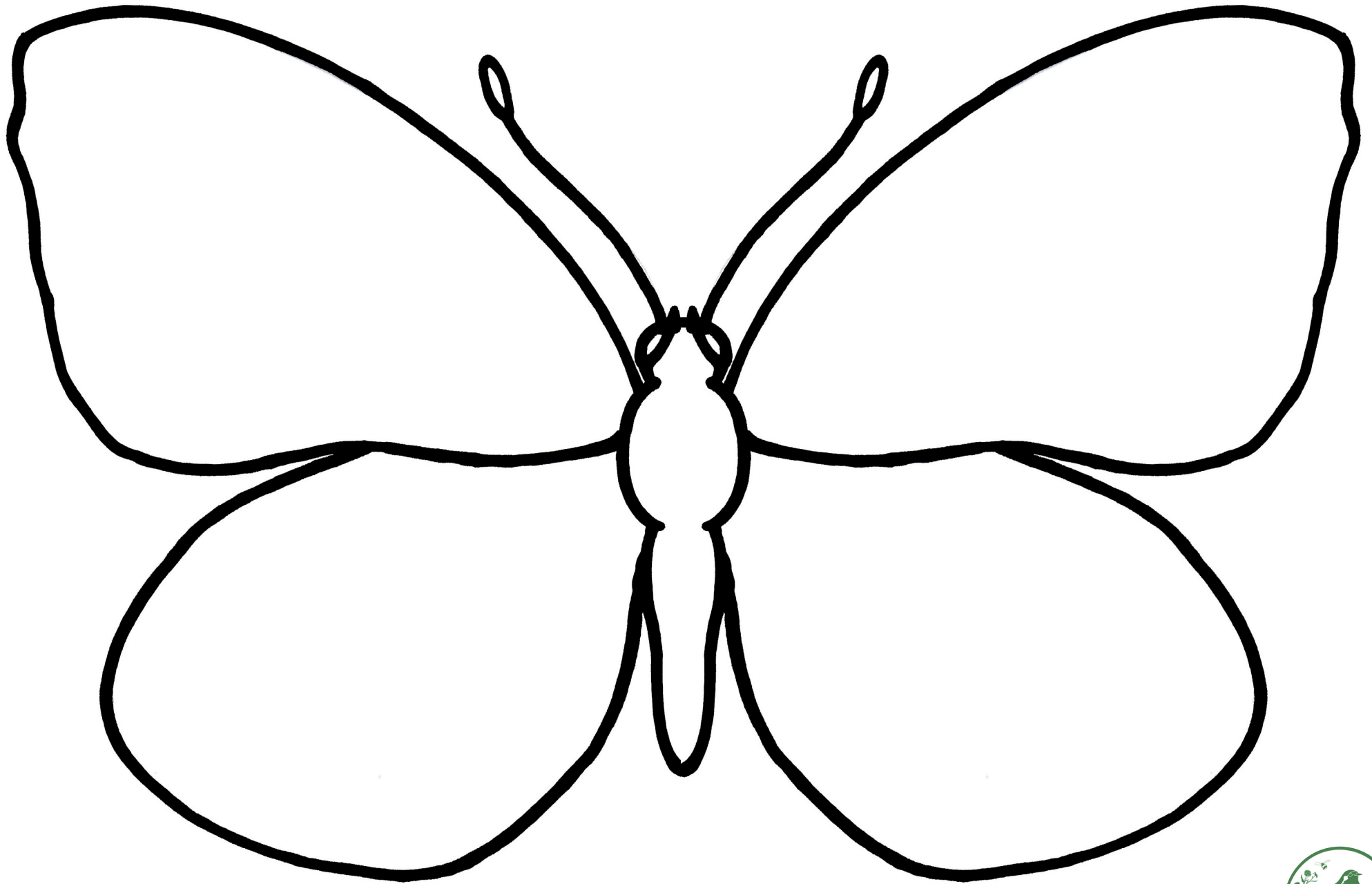
Colour as you like, or add paint to one side and fold to create a stunning symmetrical piece of animal art!





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Colour as you like, or add paint to one side and fold to create a stunning symmetrical piece of animal art!





Certificate of Achievement

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

Awarded to

SIGNED _____

DATE _____



Wildlife Garden Project

