



INSECTS

ACTIVITY BOOK



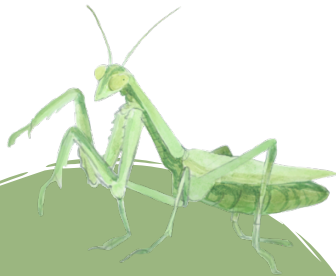
THE HOMESCHOOL
COMPASS



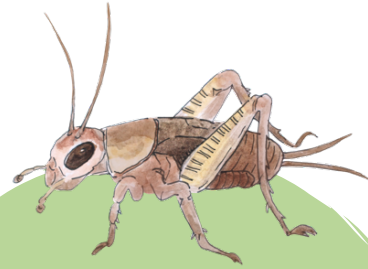
WHAT IS AN INSECT?

Insects are one of the most common types of invertebrates on planet Earth. Scientists estimate that there are over 1 million billion insects alive on Earth right now. That's about 200 million insects for every human being!

There are several characteristics common to insects:



Insects do not have a backbone or skeleton inside them. Their bodies have a hard outer casing or exoskeleton.



Insect bodies have 3 sections: the head, the thorax, and the abdomen.

Insects have 6 legs that attach to their thorax, three on each side.



Most insects have 2 antennae on their head.

TYPES OF BEES

Bees are a type of insect we frequently encounter during the summer months. Here's a look at the three type of bees you'll find within a beehive.

QUEEN BEE



Each beehive has one fertile female - the queen. She is the ruler of the hive and lays all the eggs. During the spring, she can lay up to 2,000 eggs a day! If a queen no longer lays enough eggs or dies - the worker bees will feed a new larva on a diet of royal jelly in order to create a new queen. You can recognize a queen as she will be longer and larger than other bees.

WORKER BEE



Worker bees are female but not capable of reproducing. They are crucial in the colony as they do all of the work within the hive. They are responsible for tasks such as feeding the queen, drones and larvae as well as collecting pollen, nectar, making wax and guarding the hive! The typical worker bee lives for just six weeks. In appearance, they are slender and shorter than drones and the queen. Like the queen, worker bees have stingers.

DRONES



Drones are male bees and their only purpose is to mate with the queen. Drones usually live for about eight weeks and during that time the worker bees will look after them. In appearance, drones are fatter and longer than worker bees. They do not have a stinger.

BEE LIFE CYCLE

Let's take a look at the life cycle of a bee!

EGG



The Queen lays eggs in cells made of beeswax within the hive. The queen determines the gender of the bee before she lays it. If the egg is fertilized, it will be female. If it is unfertilized it will be male.

LARVA



The worker bees ensure the larvae are fed and looked after. During this period, larva will grow more than 1,500 times their original size. Once the larvae reach full size and stretch upright in their cells, the cell is sealed with beeswax in preparation for pupation.

PUPA



During this stage, larvae begin to shed their skins. Its eyes, legs, and wings will develop along with the tiny hairs that cover the body.

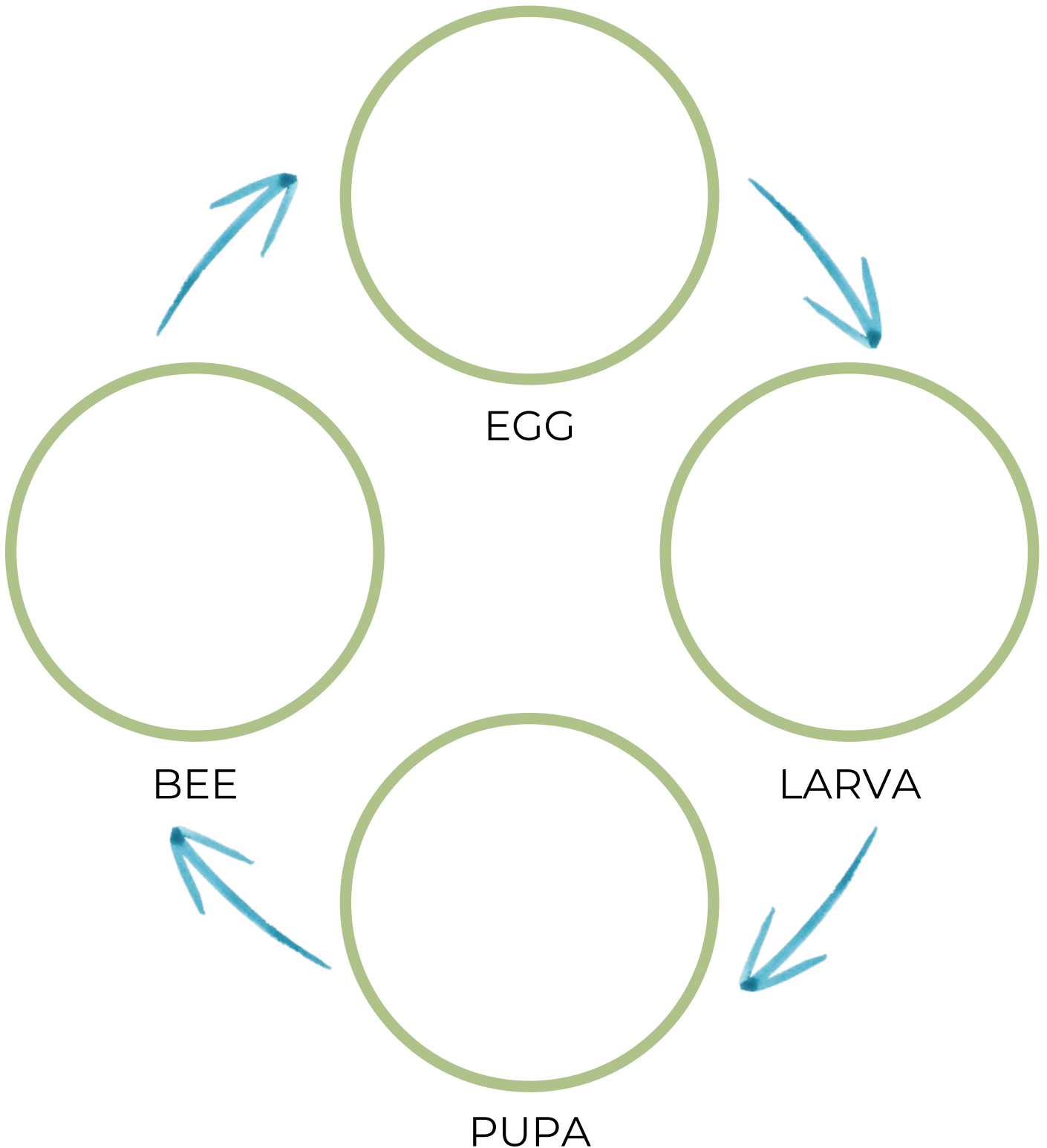
BEE



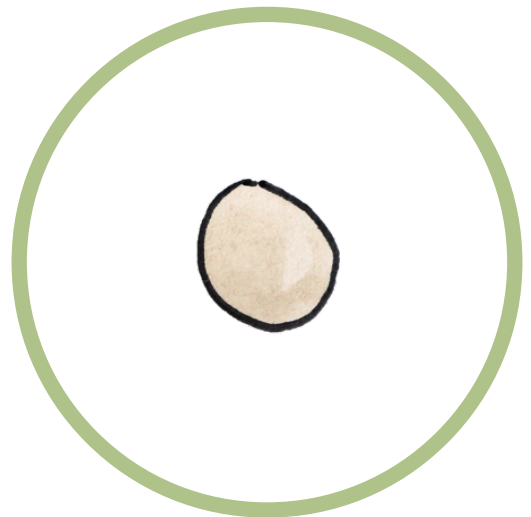
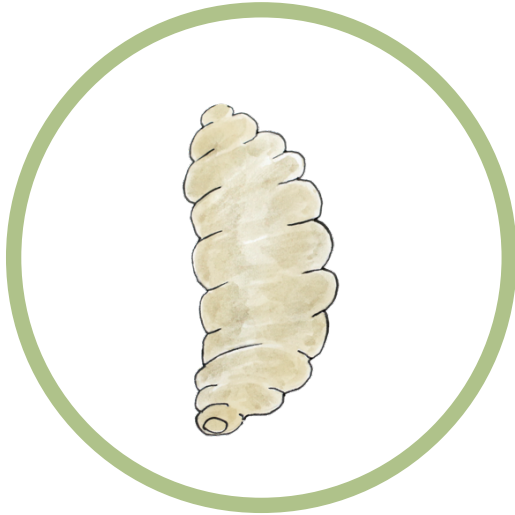
On average, queen bees emerge in 16 days, workers in 21 days, and drones in 24 days. After emerging, queen bees will fight among themselves until only one is left in the hive.

BEE LIFE CYCLE

Cut out the stages of a bee on the next page and paste them in the corresponding space below!



BEE LIFE CYCLE



BUTTERFLY LIFE CYCLE

Let's take a look at how a caterpillar becomes... a butterfly!



EGG

A female butterfly lays her eggs on leaves or stems of plants. Some eggs will hatch in a few days, while others may take months.



CATERPILLAR

When it's ready, the caterpillar will eat its way out of the egg! Caterpillars have very big appetites and immediately start feeding on the plant they were laid on. As it grows, the caterpillar will shed its skin 4-5 times.



PUPA

Once the caterpillar is fully grown, it will find a safe place and form itself into a pupa - or chrysalis. The pupa stage usually lasts from a few weeks to several months depending on the species.

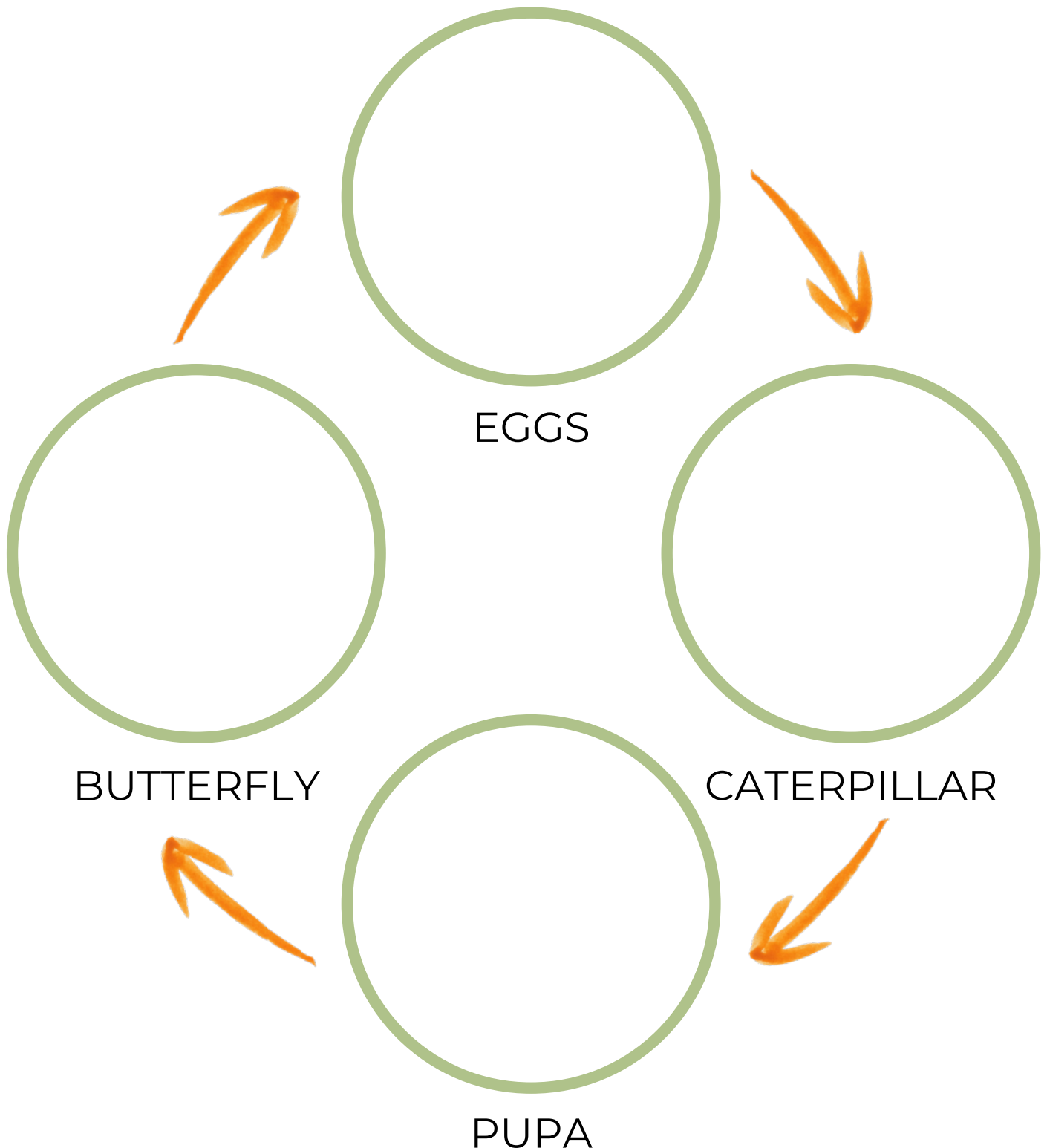


BUTTERFLY

When metamorphosis is complete and the butterfly is ready to emerge, the pupa will split open. Once its wings have stiffened and dried, the butterfly takes flight in search of flowers to feed on and a mate to reproduce with.

BUTTERFLY LIFE CYCLE

Cut out the stages of a butterfly on the next page and paste them in the corresponding space below!

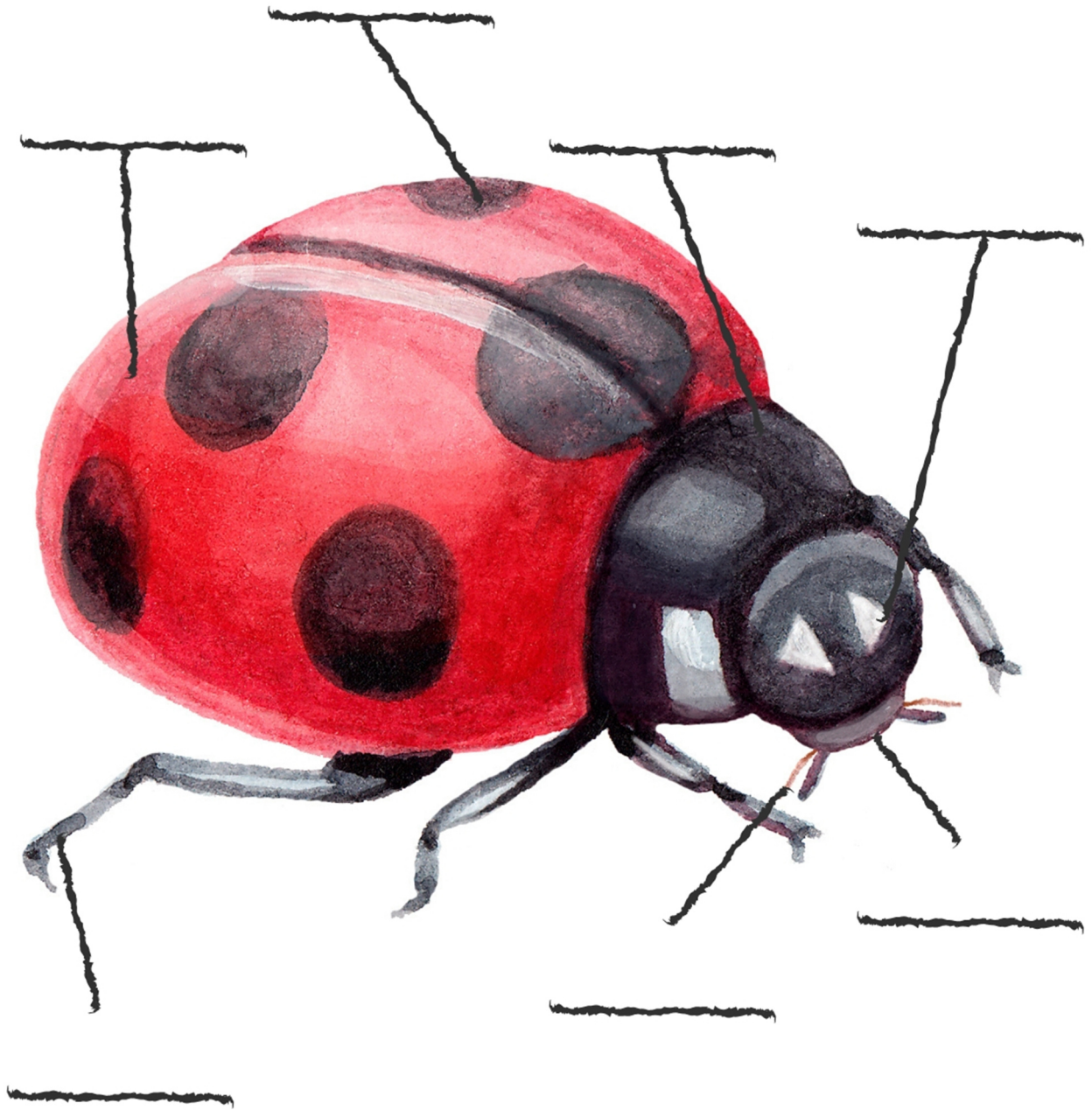


BUTTERFLY LIFE CYCLE



PARTS OF A LADYBUG

Use the words below to fill in the blank spaces and label the parts of a ladybug.



SPOT LEG ANTENNAE HEAD
ELYTRA PRONOTUM EYE

PARTS OF A BEE

Use the words below to fill in the blank spaces and label the parts of a bee.

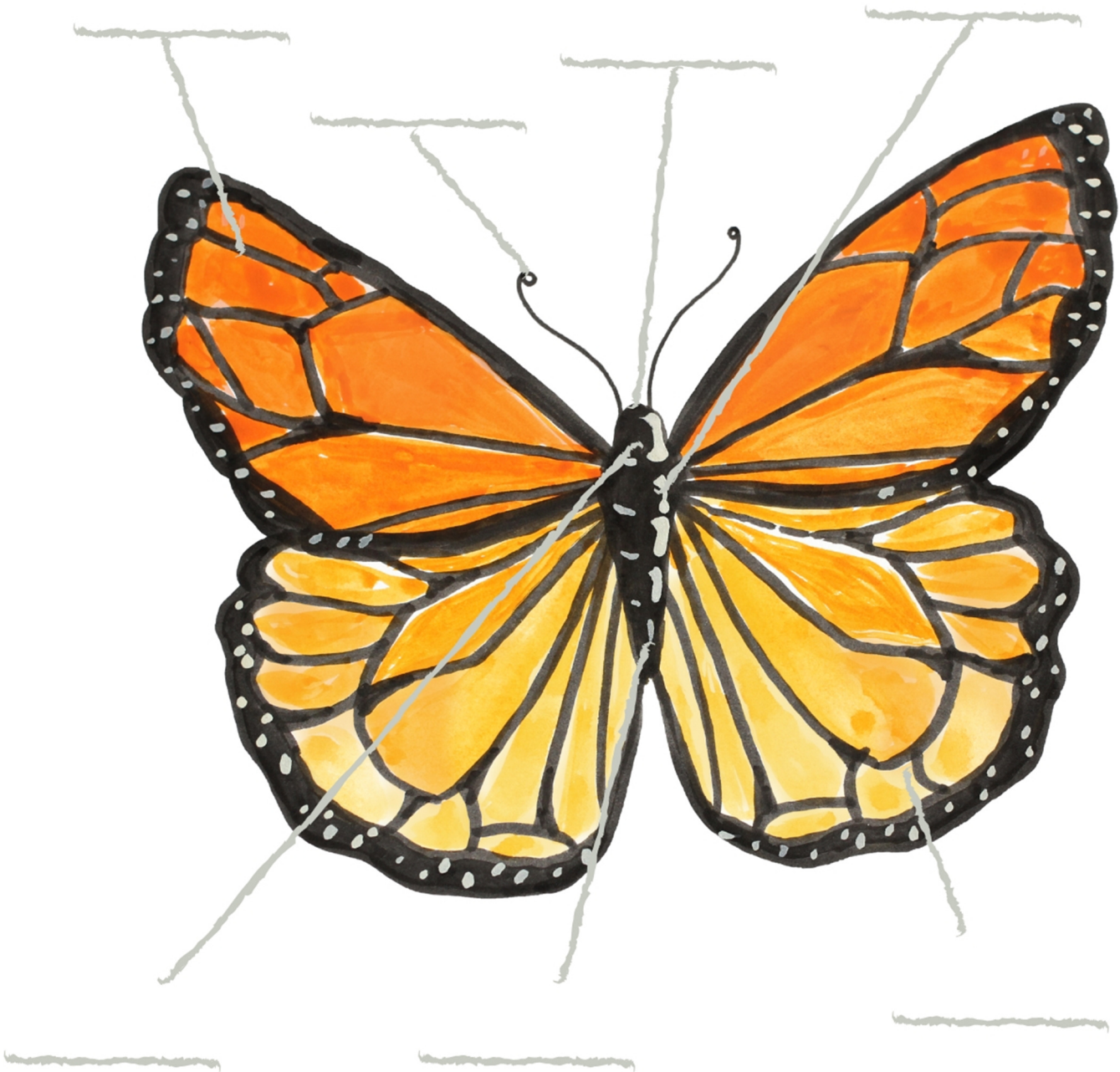


ANTENNA ABDOMEN WING EYE

THORAX HEAD STINGER LEG

PARTS OF A BUTTERFLY

Use the words below to fill in the blank spaces and label the parts of a butterfly.

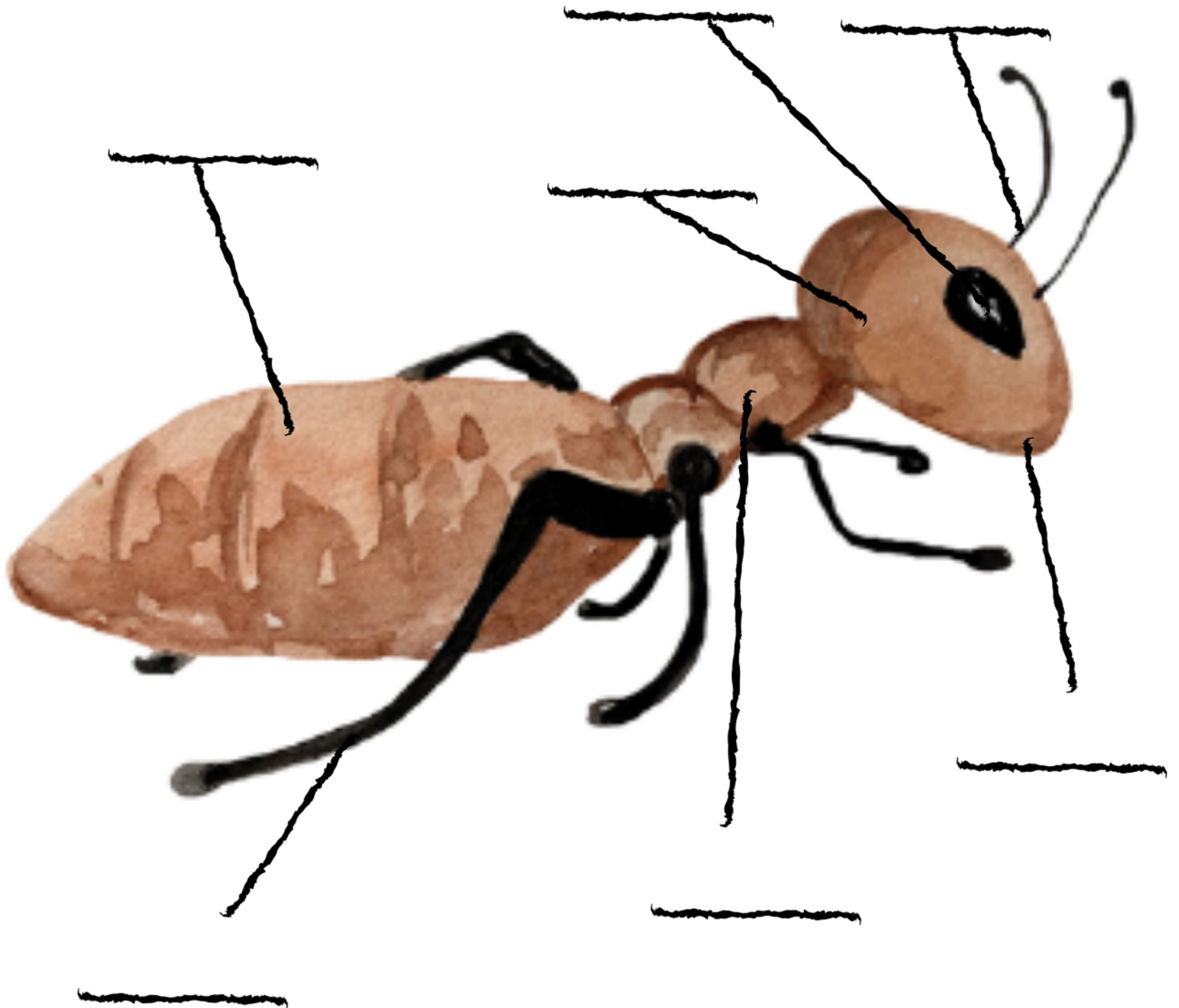


THORAX ANTENNA HINDWING HEAD

ABDOMEN FOREWING PROBOSCIS

PARTS OF AN ANT

Use the words below to fill in the blank spaces and label the parts of a ant.



HEAD

MANDIBLES

THORAX

ABDOMEN

ANTENNA

LEG

EYE

INSECT WORD SEARCH

Find the words listed below hidden in this puzzle!

Words are hidden → ↓ and ↘



Q M I V W I N G W V G Y Z X I
L A R V A R J C I K P E P A N
E S M S V K G H O S W G O N S
A X N E P H V K N C O G L T E
C X O D T E A O C C O N L E C
H L V S W A C B M K Y O E N T
R B E X K W M I I N V P N N S
Y P K A N E W O E T E W F A C
S S U R F B L F R S A C A E Z
A I I P B C P E J P M T T L T
L M L H A V U L T T H O R A X
I P W T L D G U A O P O C N R
S B F D S C L A Y N N T S Z C
D A R T H R O P O D T I I I S
Q B E E H I V E P C M S N M S

PUPA

LARVA

SPECIES

ANTENNAE

NECTAR

THORAX

METAMORPHOSIS

WING

CHRYSA LIS

PLANTS

WEB

HABITAT

COCOON

POLLEN

LEAF

INSECTS

EGG

ARTHROPOD

EXOSKELETON

BEEHIVE

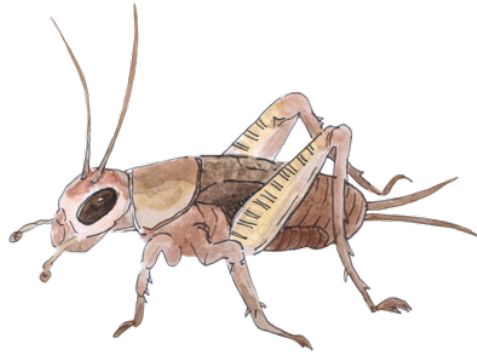


INSECT SCAVENGER HUNT

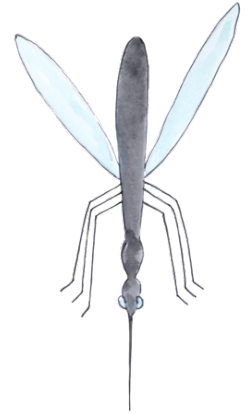
Head outdoors and look for these insects!



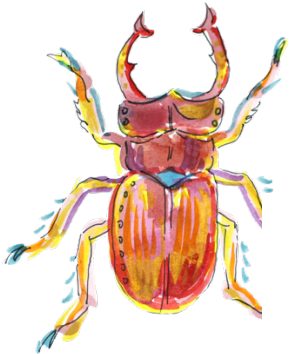
BEE



CRICKET



MOSQUITO



BEETLE



DRAGONFLY



LADYBUG



FLY



GRASSHOPPER



BUTTERFLY



MOTH



ANT



MANTIS



HORNET

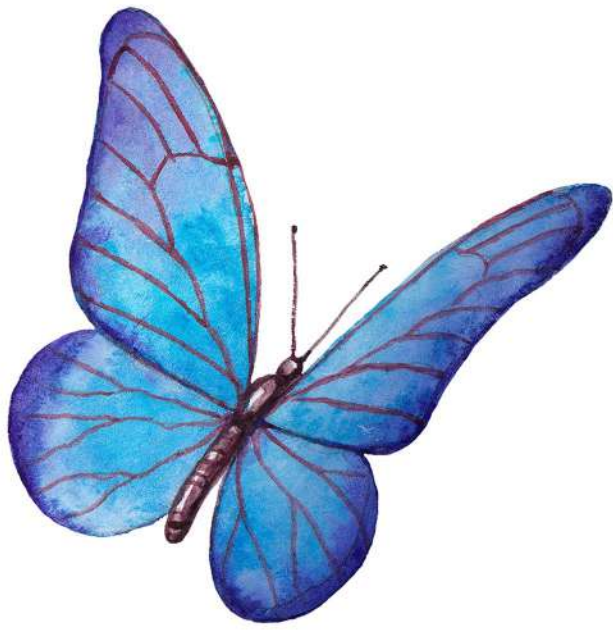


CATERPILLAR

The image features a white background with decorative green leafy branches in the corners. The top-left and bottom-left corners have branches extending towards the center. The top-right corner has a branch extending from the right edge. The bottom-right corner has a branch extending from the right edge. The text is centered in the middle of the page.

INSECT

FLASHCARDS



BUTTERFLY



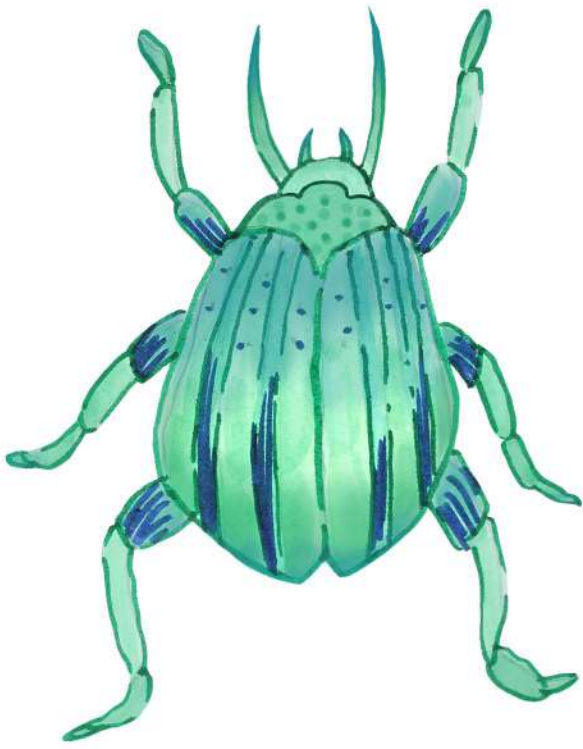
DRAGONFLY



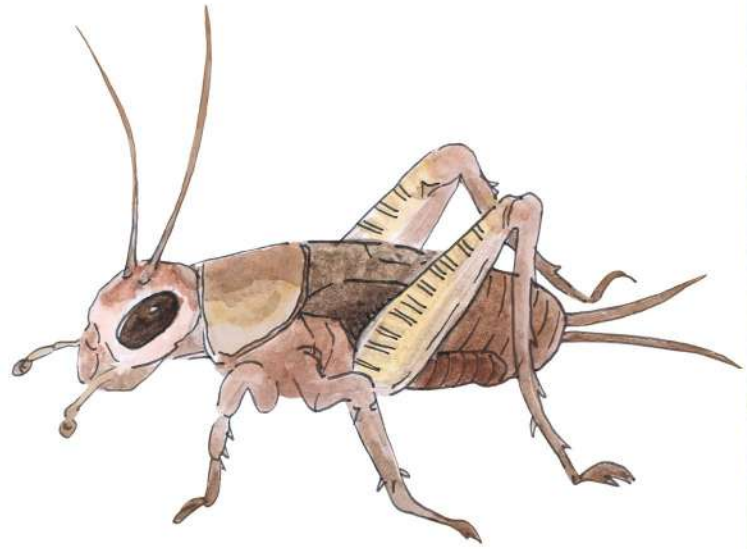
LADYBUG



BEE



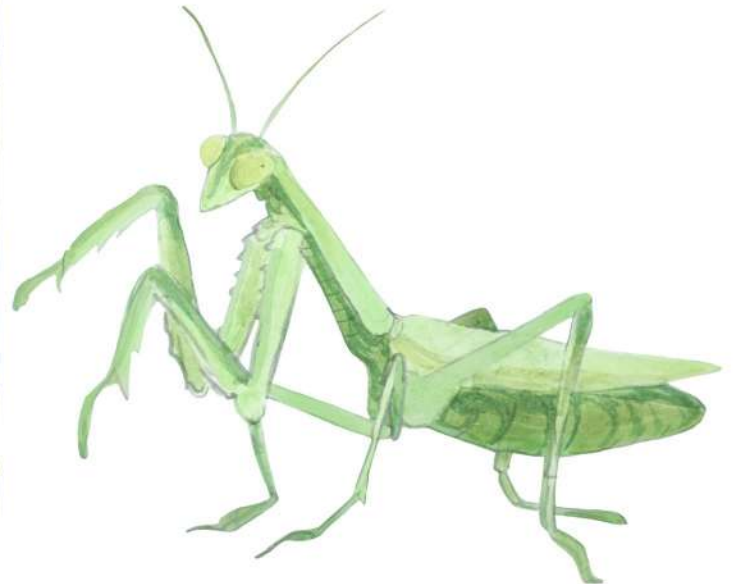
BEETLE



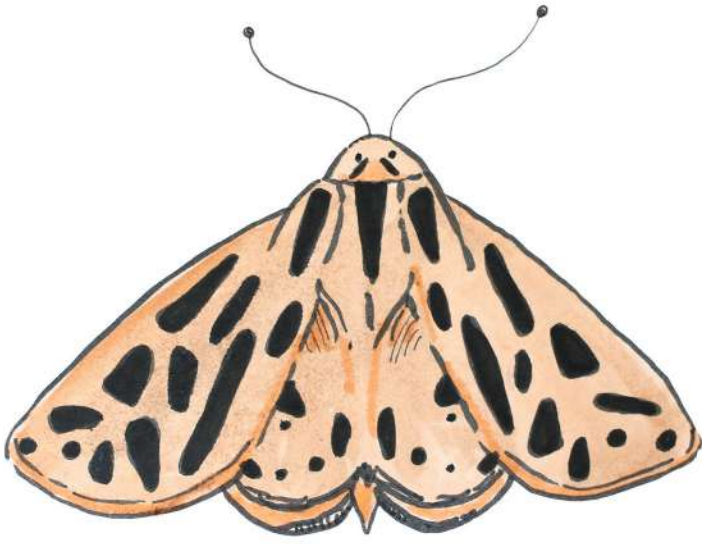
CRICKET



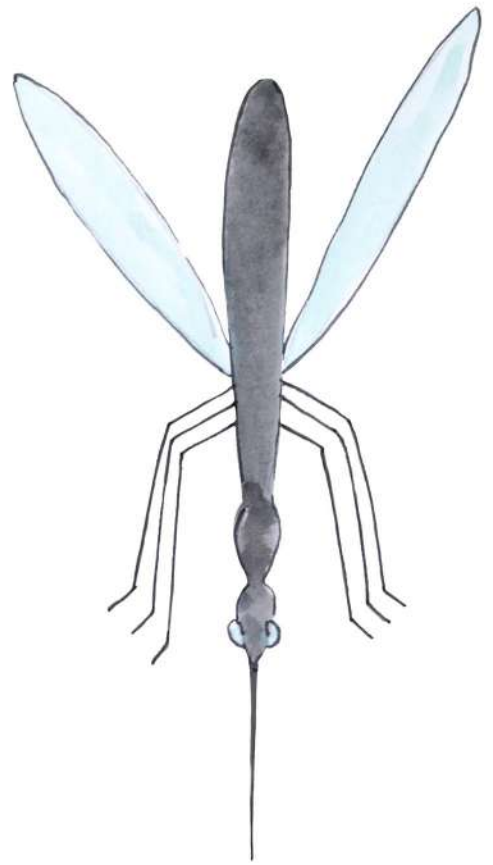
GRASSHOPPER



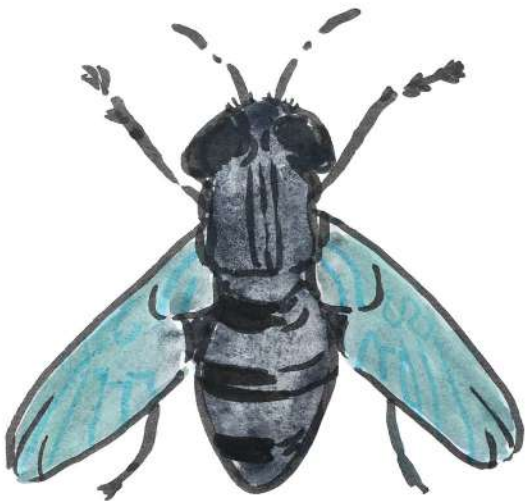
MANTIS



MOTH



MOSQUITO



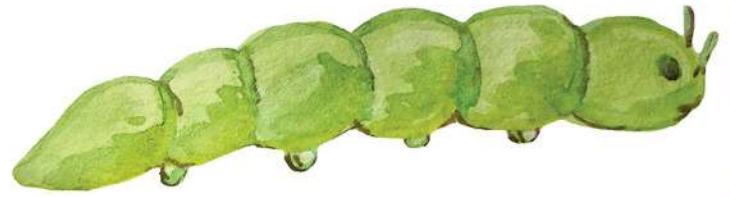
FLY



HORNET



ANT



CATERPILLAR

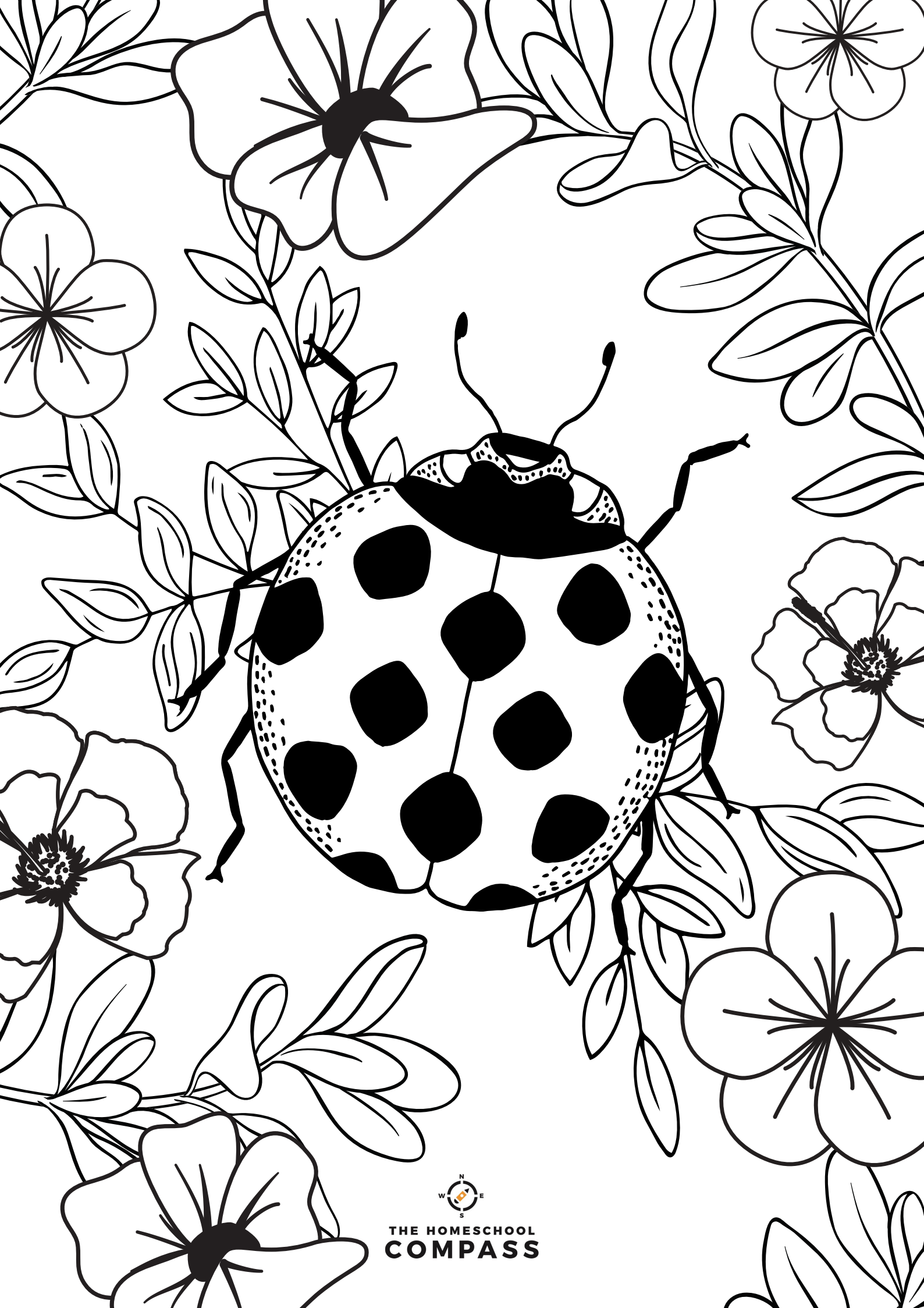


**INSECT
FLASHCARDS**



The image features a white background with decorative green leaves in the corners. The leaves are rendered in a soft, watercolor style, with varying shades of green and visible veins. They are positioned in the top-left, top-right, and bottom-right corners, framing the central text.

COLORING PAGES



THE HOMESCHOOL
COMPASS



THE HOMESCHOOL
COMPASS



THE HOMESCHOOL
COMPASS

INSECT GLOSSARY

Here are some common words relating to insects you might find helpful.

Metamorphosis:
the changes that take place during an insect's life as it turns from a young animal to an adult.

Entomology:
the study of insects.

Thorax:
the middle part of the insect body - the legs and wings are always attached to the thorax.

Abdomen:
the body of the insect.

Pupa:
the third stage of the life of butterflies and other insects undergoing metamorphosis.
Also called 'Chrysalis'.

Exoskeleton:
the hard, rigid external covering that supports and protects the body of an insect.

Invertebrate:
an animal without a backbone.

Larva:
the juvenile form of an insect.

Antennae:
long feelers situated on the head, near to the eyes. Used for sensory purposes.

ANSWER KEY

