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Let's Learn About: Insects



Grades PreK-5th






Name: _____



Insects



Did you know we share our planet with over 1 million species of insects? That's a lot of bugs! Scientists are discovering more insects every day. Insects are also called arthropods. Some have wings, and some don't, but they all have a few things in common.
Insects have a three-part body: a head, thorax, and abdomen. They also sport six legs, which makes them easy to recognize. Unlike us, they don't have bones or a backbone; instead, they have a hard exoskeleton (like a protective shell) on the outside of their bodies. Insects are the most diverse group of animals on Earth, with over one million described species. They play crucial roles in ecosystems as pollinators, decomposers, and food sources for other animals. However, some species can also be pests and transmit diseases to humans and other animals.All insects go through the same life cycle. It begins as an egg, then transforms into a pupa, and finally, an adult insect emerges.

- What is the scientific name for insect, and do they all have wings?

_____

_____

- What are the 3 parts of the insects body?

_____

_____

- What is an exoskeleton?

_____

_____

- What are the 3 jobs that insects do on earth?

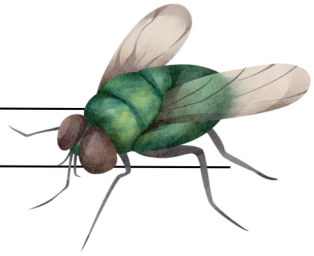
_____

_____

- What is the insects life cycle?

_____

_____



Name: _____



Firefly

A firefly, also known as a lightning bug, is a type of insect that is known for its ability to produce light. A firefly makes light when a chemical reaction takes place in its abdomen. They use this light to attract mates, communicate with other fireflies, and deter predators. Fireflies are found in many parts of the world, especially in humid and tropical environments. They are most commonly seen at night during the summer when they come out to mate and feed. Some species of fireflies are also known for their synchronized flashing, where thousands of individuals flash in unison, creating a spectacular light show.

- What is a firefly? What else are fireflies called?

_____

_____

- What is special about a firefly?

_____

_____

- Why do fireflies produce light?

_____

_____

- How do fireflies product light?

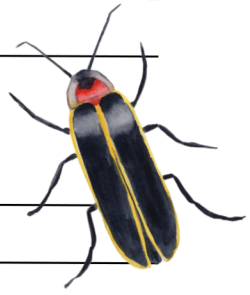
_____

_____

- What does the word "synchronized" mean in the last sentence?

_____

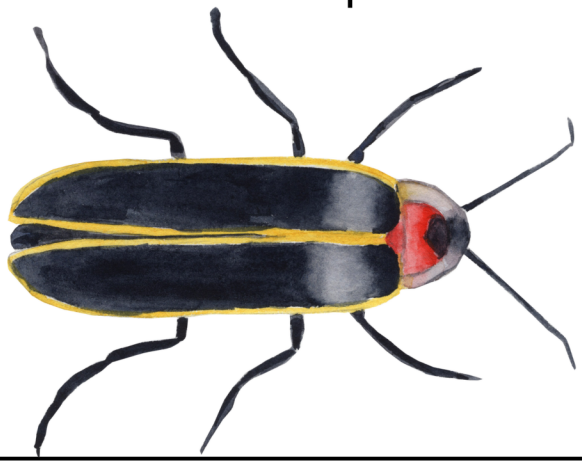
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Name: _____

What is the insect?

Label its parts

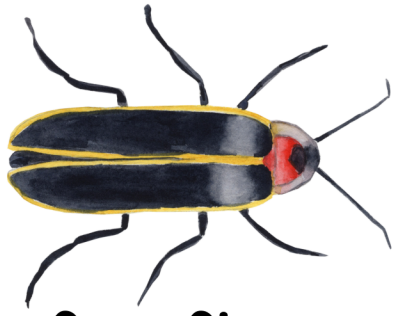


Where does it live? What does it eat?

Describe what you see in words

What is it?

Ff



firefly

Practice writing letter Ff below.

f

f

Ff

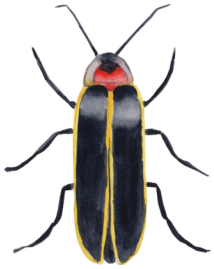
Trace the words that begin with letter f.



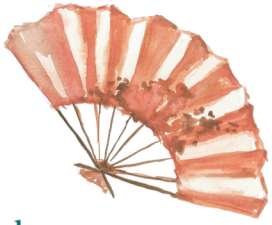
fish



fox



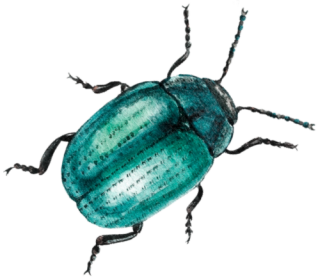
firefly



fan

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Name: _____



Beetles

Beetles, like all insects, have a three-part body structure: the head, thorax, and abdomen. The head houses the brain, compound eyes, mouthparts, and two segmented antennae. Mandibles serve as large pincers for grasping and chewing food. Beetles often have ocelli, simple eyes located on the upper surface of the head, which help detect light changes. Antennae are specialized sensory organs for detecting smells, tastes, and vibrations in the environment. The thorax is the middle part of the beetle, where legs and wings attach. Beetles have six jointed legs (femur, tibia, and tarsus) with tarsal claws at the end. The abdomen contains the segmented tail end and vital organs like the heart, reproductive organs, and most of the digestive system. Beetles possess two faceted compound eyes, made up of hexagonal lenses. Beetles exhibit remarkable diversity in their adaptations and body structures, allowing them to thrive in various habitats and ecological roles

- What do we find on a beetles head?

  _____

  _____

- What are ocelli?

  _____

  _____

- What is the thorax and what parts are attached there?

  _____

  _____

- What are the three parts of a beetles' leg?

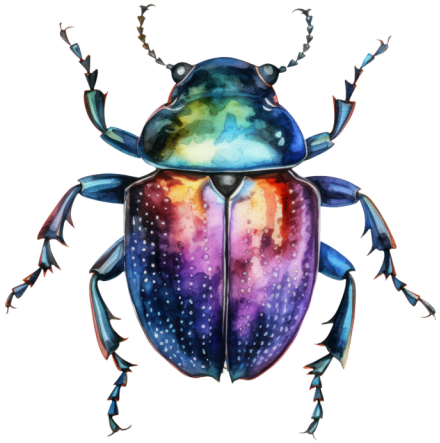
  _____

  _____

Name: _____

What is the insect?

Label its parts

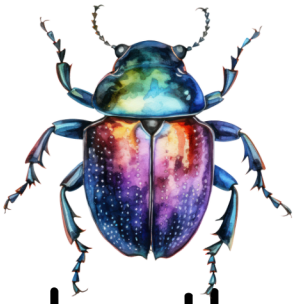


Where does it live? What does it eat?

Describe what you see in words

What is it?

Bb



beetle

Practice writing letter Bb below.

B

b

Bb

Trace the words that begin with letter b.



book



ball



beetle



bus

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Name: _____



Ants

Ants are fascinating insects with intricate anatomy and specialized body parts.The ant's head contains powerful mandibles (jaws) used for eating, chewing, and defending against attacks. Ants also have compound eyes that can contain hundreds of lenses, allowing them to sense their environment. Attached to the thorax are six legs, each designed for running. Ants can move quickly relative to their size. At the end of each leg, there's a hooked claw for climbing and gripping surfaces.The abdomen houses the ant's vital organs. It contains the heart, digestive system, and sometimes a stinger. Some ants inject venom using their stingers, while others spray acid for defense or prey capture. The entire ant body is covered by a hard exoskeleton, providing support, protection, and preventing water loss. Ants use their antennae to sense and communicate with their environment. The antennae constantly move, touching, tasting, and smelling everything within reach.

- What are an ant's mandibles used for?

_____

_____

- How many lenses does each ant eye have?

_____

_____

- How many legs does an ant have and what are they designed for?

_____

_____

- Describe the organs that are contained in the ant's abdomen.

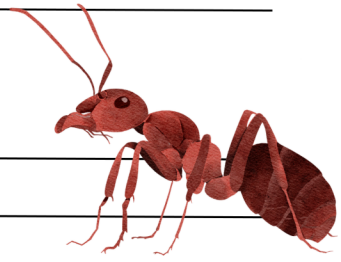
_____

_____

- Why does an ant have an exoskeleton?

_____

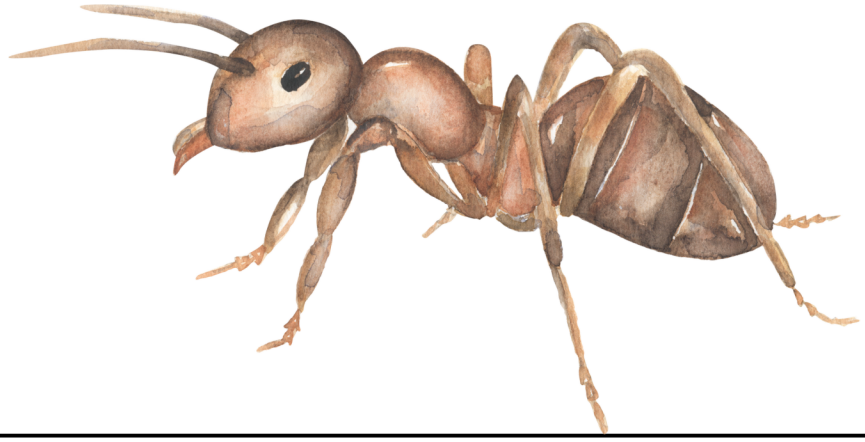
_____



Name: _____

What is the insect?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?

Aa



ant

Practice writing letter Aa below.

A

a

Aa

Trace the words that begin with letter a.



ant



avocado



alligator



axe

Name: _____



Praying Mantis

The praying mantis (Mantis religiosa), also known as the European mantis, is a fascinating insect with unique features and behaviors. Praying mantises have a triangular head atop a long neck. Their most distinctive feature is how they hold their front legs, which appear as if they're in a prayer position. However, these legs are adapted for hunting rather than praying. The lifespan of praying mantises varies: females live around 11-12 months, while males live 7-8 months. Coloration varies, including shades of yellow, brown, green, and black. Praying mantises are amazing predators. When an insect ventures close, they strike with lightning speed, using their strong front arms. Larger mantis species have even been observed hunting small mammals or birds. They can rotate their heads 180 degrees, providing an excellent range of vision for hunting. Their single ear, located on the underside of the stomach, can hear ultrasound. This helps them escape from bats by diving to the ground. The praying mantis combines stealth, agility, and unique adaptations to thrive in its diverse habitats.

- What is the praying mantis most distinct feature?

  _____

  _____

- How long do praying mantis typically live?

  _____

  _____

- What intersting fact did you learn about the larger mantis species?

  _____

  _____

- Where is the praying mantis ear and what amazing function does it have?

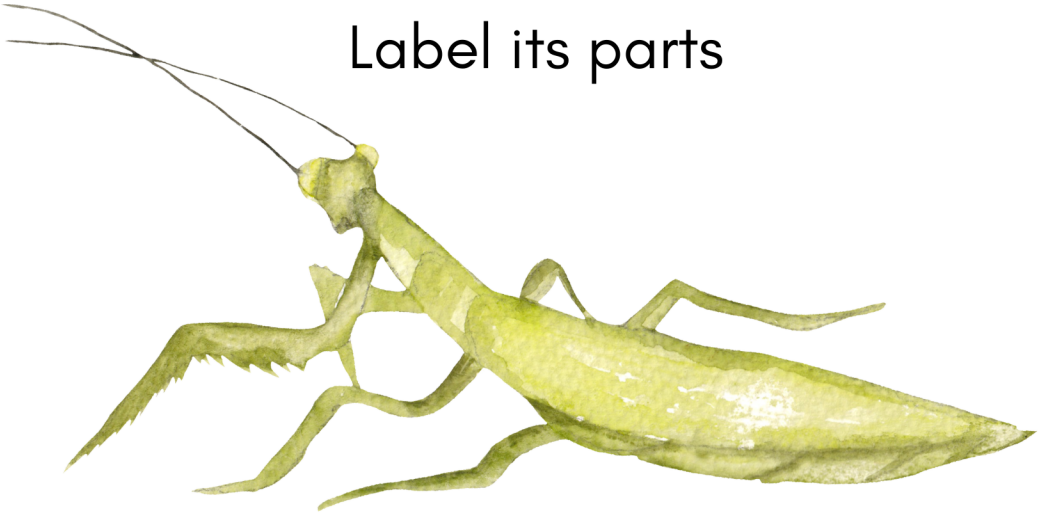
  _____

  _____

Name: _____

What is the insect?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?

Mm



mantis

Practice writing letter Mm below.

M

m

Mm

Trace the words that begin with letter n.



milk



mom



mantis



mud

Name: _____



Lady Bug

Ladybugs, also known as ladybirds or lady beetles, are fascinating insects with a host of interesting features. The most familiar in North America is the seven-spotted ladybug, with its shiny, red-and-black body. Ladybugs come in various colors and patterns, but their vibrant appearance serves a purpose: it warns predators that they taste terrible! When threatened, ladybugs secrete an oily, foul-tasting fluid from their leg joints, deterring potential attackers. Farmers adore ladybugs because they are natural pest controllers. A single ladybug can consume up to 5,000 insects during its lifetime. Ladybugs lay their eggs in clusters or rows on the underside of leaves, often where aphids have gathered. The larvae emerge from these eggs, varying in shape and color based on the species. During colder weather, ladybugs seek warm, secluded spots for hibernation, such as rotting logs, rocks, or even inside houses. Remarkably, hibernating ladybug colonies can contain thousands of individuals

- What are some other names for the lady bug?

  _____

  _____

- Why do farmers love lady bugs?

  _____

  _____

- How do lady bugs defend themselves?

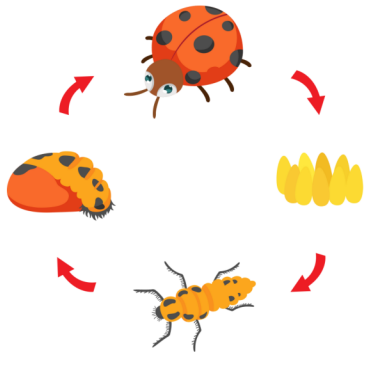
  _____

  _____

- Where do lady bugs go in cold weather?

  _____

  _____



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Name: _____

What is the insect?

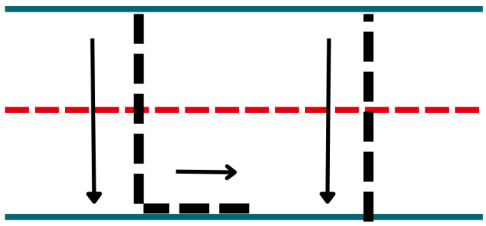
Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?





ladybug

Practice writing letter Ll below.



Trace the words that begin with letter l.



leaf



log



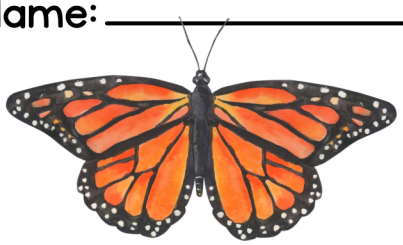
lion



ladybug

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Name: _____



Butterfly

Butterflies go through four stages in their life: egg, larva (also known as a caterpillar), pupa (which is like a chrysalis), and finally, the adult butterfly. It's like a magical transformation! Butterflies can see colors like green, red, and yellow. This helps them find beautiful flowers to feed on. They have two antennae on their heads that help them smell things. Their compound eyes allow them to see the world around them. Butterflies have four wings: two in front called forewings and two in the back called hindwings. These wings are covered in tiny scales, making them look smooth and silky. Butterflies are cold-blooded, which means they need sunshine to warm up and move. You'll often find them resting in sunny spots. They eat using a long, tube-like tongue called a proboscis. It helps them sip nectar from flowers. Some butterflies, like skippers, can zip through the air at speeds of up to 37 miles per hour!Butterflies play an essential role as pollinators. They help flowers reproduce by transferring pollen from one flower to another.

- What is another name for the butterfly's pupa stage?

  _____

  _____

- Why do butterflies see color?

  _____

  _____

- How many wings do butterflies have and what are they called?

  _____

  _____

- What is their proboscis for?

  _____

  _____

Name: _____

What is the insect?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?

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Name: _____



House Fly

Houseflies are common insects that you might see buzzing around your home. They have gray or black bodies covered in short hairs. Their most distinctive feature is their red eyes. House flies are like little world travelers! They live almost everywhere people do—except maybe in Antarctica and a few far-off islands. As humans explore new lands, house flies tag along. If we disappeared, they might face the same fate! House flies buzz around with their super-fast wings, beating up to 1,000 times per minute! But guess what? Despite their speedy wings, they're actually slow fliers, cruising at about 4.5 miles per hour. In cities, they stick close to home, but in the countryside, they can roam up to 7 miles! The longest flight ever recorded for a house fly was a whopping 20 miles! House flies might seem icky because they hang out in garbage, animal dung, and other yucky stuff. But here's the twist: They're nature's cleanup crew! They gobble up things we find gross, like mosquitoes, and help keep our world tidy. These flies have sucking mouthparts, which means they don't bite. Instead, they feed by sponging up liquids. Plus, they can taste food using their feet—just like tiny food detectives!

- Why are house flies considered world travelers?

  _____

  _____

- How fast do fly's wings beat? and how slow do they actually fly?

  _____

  _____

- What color eyes do house flies have?

  _____

  _____

- Explain why these flies can't bite.

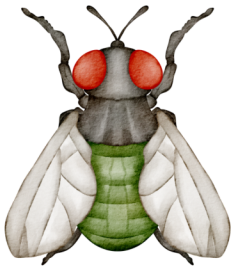
  _____

  _____

Name: _____

What is the insect?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?

Hh



housefly

Practice writing letter Ff below.

H

h

Hh

Trace the words that begin with letter f.



hand



hat



housefly



hot

Name: _____



Dragon Fly

Dragonflies have been found in fossils with the dinosaurs! Modern dragonflies may seem small, with wingspans of only two to five inches, but their ancient relatives were true giants. Fossil dragonflies had wingspans of up to two feet! That's like having a dragonfly as big as your backpack. When dragonflies are babies (called larvae), they live underwater for up to two years. They're like little aquatic superheroes, gobbling up tadpoles, mosquitoes, and even each other! As they grow up, dragonfly larvae crawl out of the water. Their exoskeleton cracks open, and their four wings unfold. These wings dry and harden, turning them into graceful fliers. Most of a dragonfly's head is eye! Their incredible vision covers almost every angle except right behind them. They see the world like superheroes with multifaceted eyes. Dragonflies are our natural allies against pesky mosquitoes. A single dragonfly can gobble up 30 to hundreds of mosquitoes in a day. Talk about bug control! Sometimes hundreds of dragonflies gather in swarms. Scientists are still figuring out why they do this, but it's like a dragonfly party in the sky!

- Why were the fossilized dragon flies so interesting?

  _____

  _____

- How do the larvae of dragon flies live?

  _____

  _____

- What makes up most of the dragon fliy's head?

  _____

  _____

- Why are dragon flies a pest control?

  _____

  _____

Name: _____

What is the insect?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

What is it?

Dd



dragonfly

Practice writing letter Dd below.

D

d

Dd

Trace the words that begin with letter d.



duck



deer



dragonfly



drum

Name: _____



Honey Bee

Honeybees are remarkable insects that play an essential role in our environment. Honeybees live together in nests or hives. They're like a big family! Inside the hive, you'll find different types of bees: the queen, the worker bees, and the drones. Honeybees have a striped abdomen that alternates between yellow and black. Their bodies are covered in dense hair, which can sometimes branch or fork. Like most insects, honeybees have three main body parts: the head, the thorax, and the abdomen. They have a pair of antennae attached to their heads. These antennae help them sense their surroundings. Honeybees have three pairs of legs that they use for walking and exploring flowers. They also have two pairs of wings that allow them to fly and collect nectar from flowers. Honeybees are pollinators and are essential for plant flower growth. They use the pollen they collect and make delicious honey with it. And here's something really cool: When honeybees find a delicious food source, they perform a special dance inside the hive to tell their friends where to find it! They wiggle and twirl to communicate the location, distance, size, and quality of the food. So next time you see a honeybee buzzing around, remember how important they are for our planet! They help pollinate flowers and make sweet, golden honey.

- What are the three types of bees in the hive?

_____

_____

- Why are bees so important to flowers and plant growth?

_____

_____

Name: _____

Bee: Reading Comprehension



Check the true statements and cross out the false ones.

1. Bees collect honey from flowers. ☐
2. Flowers need humans to survive. ☐
3. Bees are important to the balance of nature. ☐
4. Bees make nectar in their hive. ☐

5. Complete the phrases with words from the story.

Bees tell the hive where the food is by _____

Bees create an amazing golden liquid called _____

6. Answer the question below using complete sentences.

Describe in your own words the important role of bees in nature.

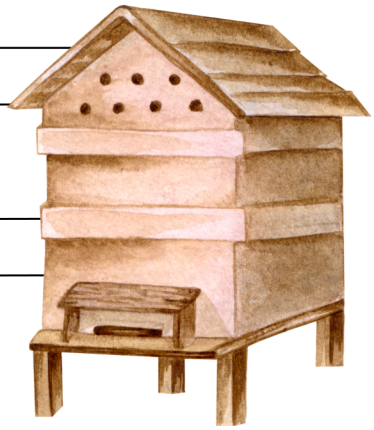
_____

_____

What do you think the world would look like without bees?

_____

_____



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Name: _____

What is it?

Label its parts



Where does it live? What does it eat?

Describe what you see in words

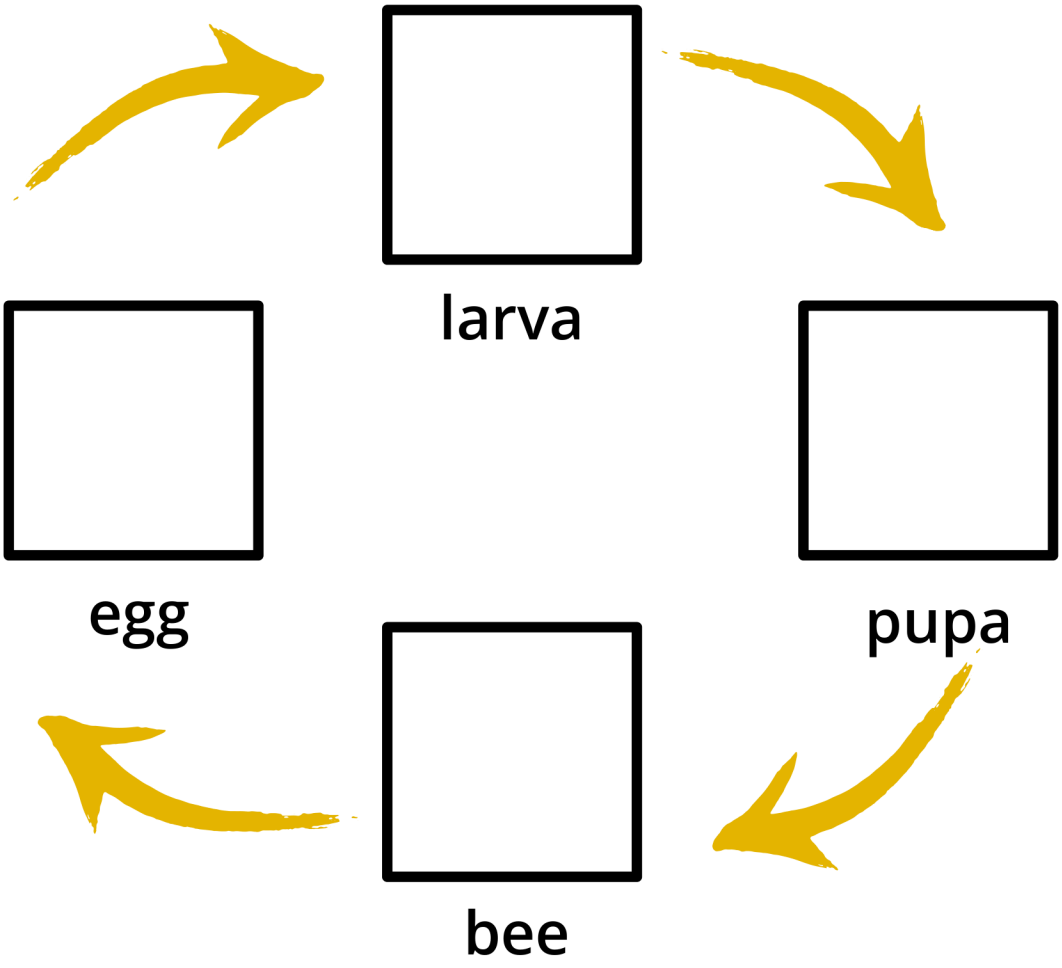
What is it?

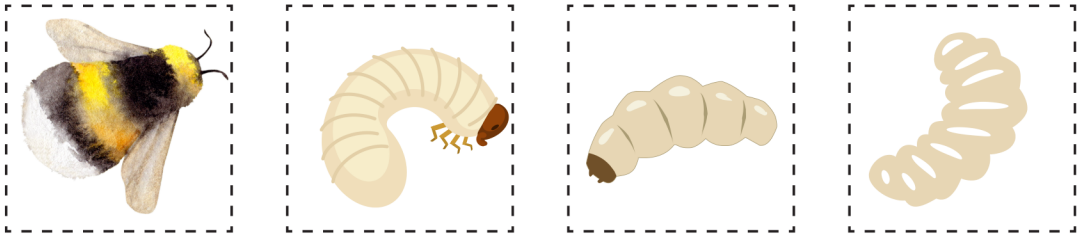
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Name: _____

Life Cycle of a Bee

Cut and paste the pictures on the correct box.





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Name: _____

K-W-L Chart

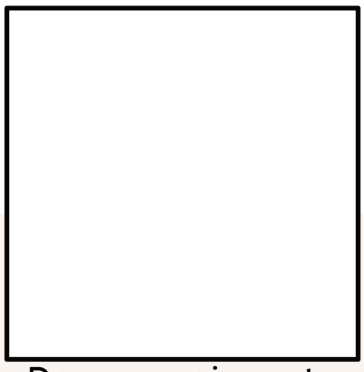
Parent: print one for each insect study

Spend a few minutes before reading the insect information pages and list what you know, want to know, and then once you've read list what you learned!

What I Know	What I Want to Know	What I Learned

Name: _____

All About _____



Draw your insect.

What are _____?

Where do they live?

What do they eat?

Name: _____

Life Cycle of a _____

Paste a picture of the life cycle of your insect.

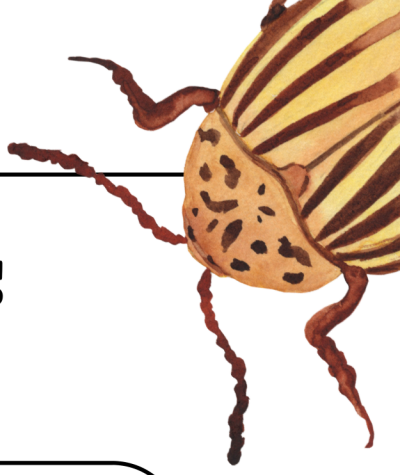
Describe the life cycle of your insect.



Name: _____

My Favorite Bugs

Draw your favorite bugs and label them



Name: _____

Insects

Write the correct answer!



1. _____



2. _____



3. _____



4. _____



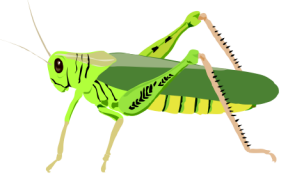
5. _____



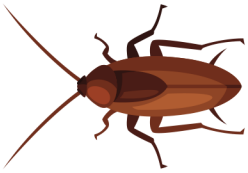
6. _____



7. _____



8. _____



9. _____



10. _____



11. _____



12. _____

Butterfly	Cockroach	Flea	Bee
Grasshopper	Ladybugs	Dragonfly	Moth
Mosquito	Caterpillar	Ant	Fly

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OBSERVING INSECTS

Do your research and complete.



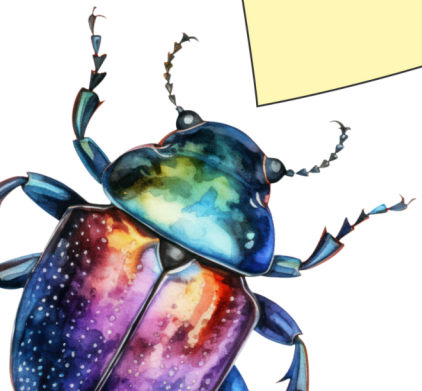
This insect is .....

Draw me or stick my photo



FUN FACTS

WHERE IT LIVES AND WHAT IT EATS





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INSECTS
Word Search



Can you find the words hidden in the puzzle?

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

FLEA	LADYBUG	BUTTERFLY	ANT
MOTH	BEETLE	MOSQUITO	FLY
WORM	CRICKET	CATERPILLAR	BEE

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Name: _____

BUGS AND FRIENDS

SCAVENGER HUNT

Go on a hunt to find and identify real bugs and other tiny creatures. Draw and label the ones you find during the hunt.



Name: _____



BUGS AND FRIENDS

Read the riddles and try to guess which tiny creature is being described. Write your answers in the blanks provided

1. I'm small and like to buzz around flowers. I have colorful wings and make honey. What am I? _____

2. I'm red with black spots and I can fly. I like to land on leaves and eat aphids. What am I? _____

3. I have long, thin legs and I like to build webs to catch my dinner. What am I? _____

4. I'm a small, colorful insect that likes to flutter in the garden. People often chase me with nets. What am I? _____

5. I'm a long, wiggly creature that lives in the ground. Birds like to eat me, and fishermen use me as bait. What am I? _____

6. I'm a small, black insect that crawls and carries food in lines. I work with many friends in my colony. What am I? _____

7. I'm a green insect that hops around and makes a chirping sound at night. What am I? _____

8. I'm a tiny, shiny insect that lights up at night. I often fly around in the dark. What am I? _____

ANSWER KEY

BUGS AND FRIENDS

Read the riddles and try to guess which tiny creature is being described. Write your answers in the blanks provided

1. I'm small and like to buzz around flowers. I have colorful wings and make honey. What am I? BEE

2. I'm red with black spots and I can fly. I like to land on leaves and eat aphids. What am I? LADYBUG

3. I have long, thin legs and I like to build webs to catch my dinner. What am I? SPIDER

4. I'm a small, colorful insect that likes to flutter in the garden. People often chase me with nets. What am I? BUTTERFLY

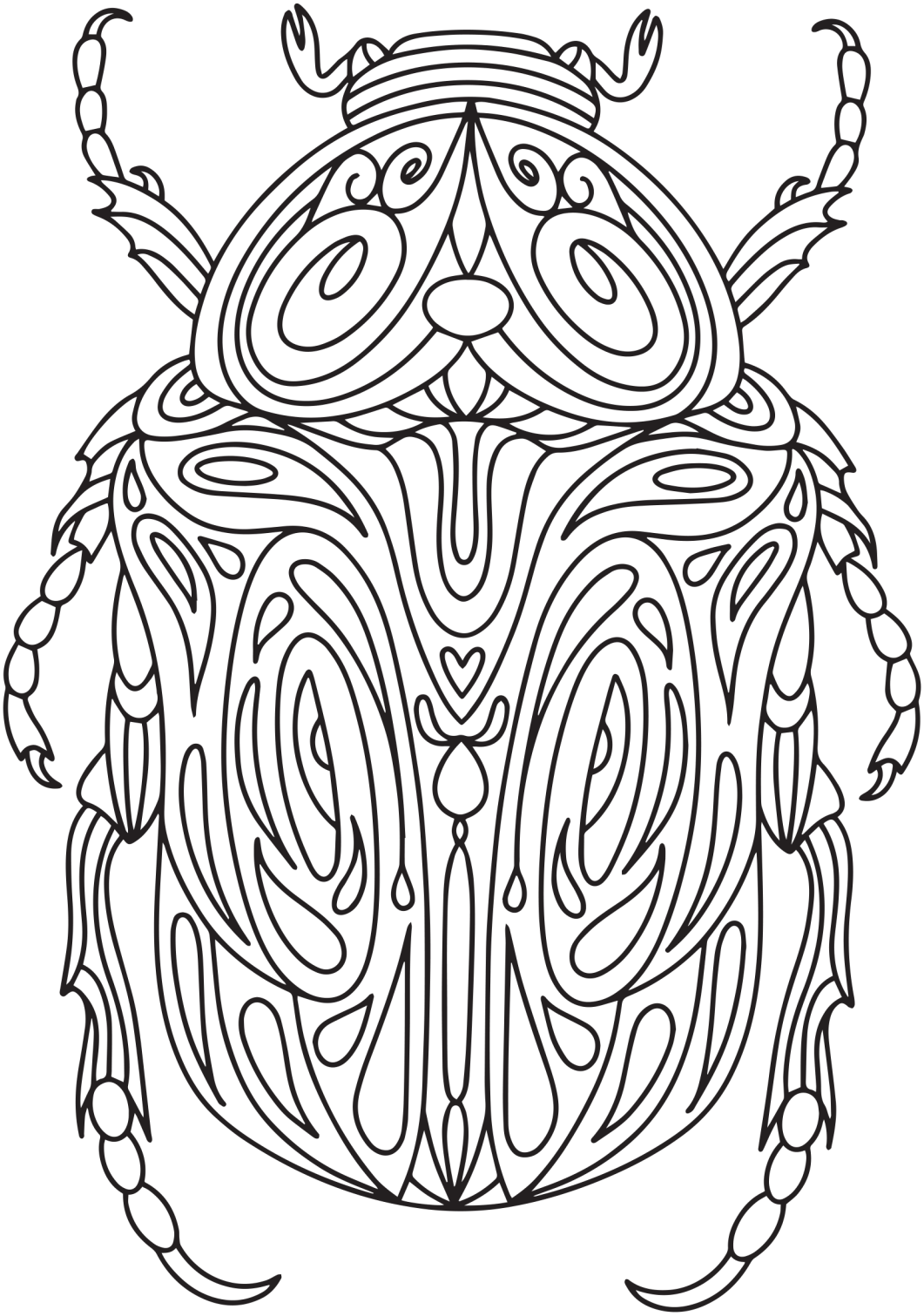
5. I'm a long, wiggly creature that lives in the ground. Birds like to eat me, and fishermen use me as bait. What am I? WORM

6. I'm a small, black insect that crawls and carries food in lines. I work with many friends in my colony. What am I? ANT

7. I'm a green insect that hops around and makes a chirping sound at night. What am I? CRICKET

8. I'm a tiny, shiny insect that lights up at night. I often fly around in the dark. What am I? FIREFLY

Name: _____



Name: _____

