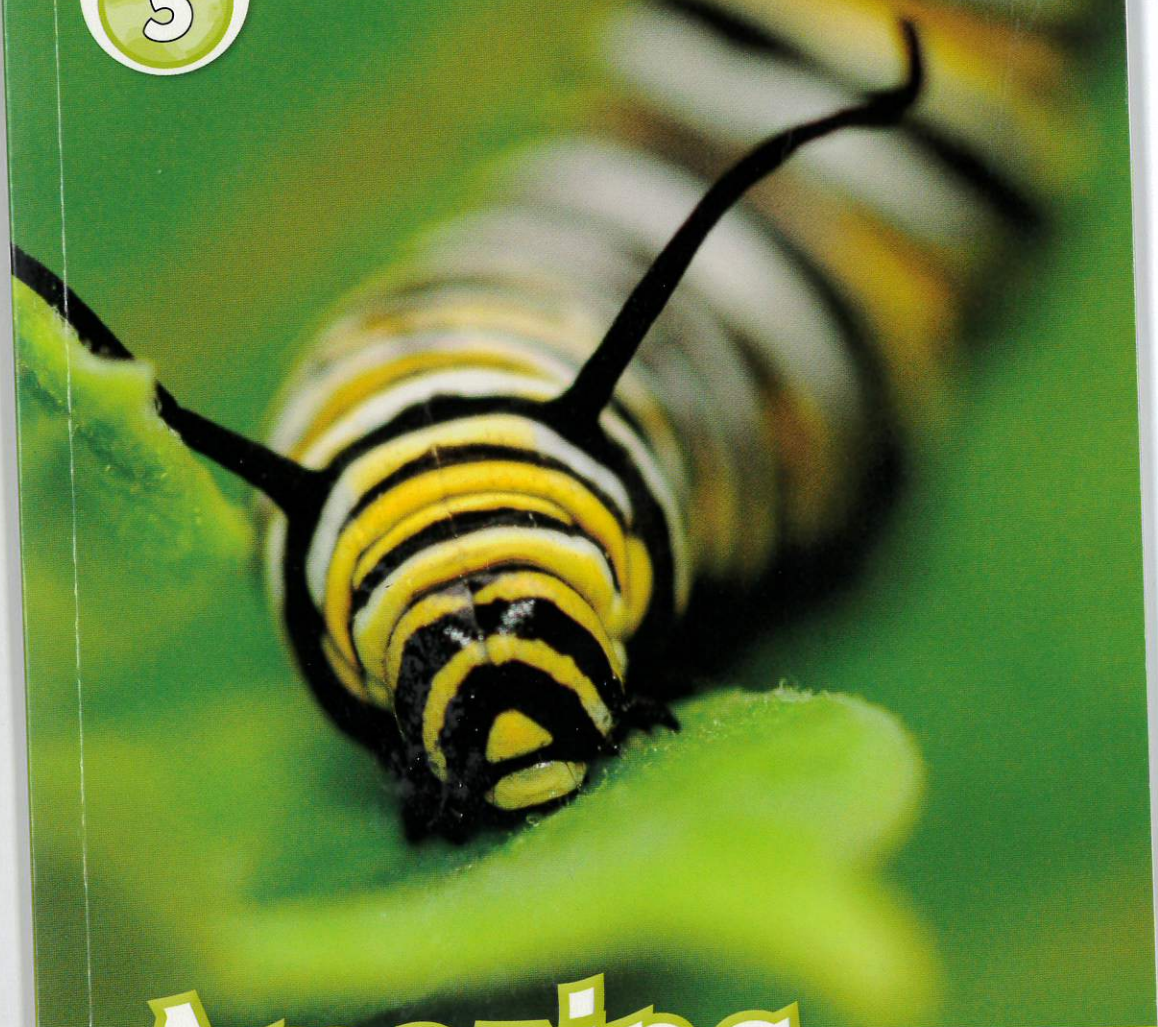




Oxford Read and Discover



Amazing Minibeasts

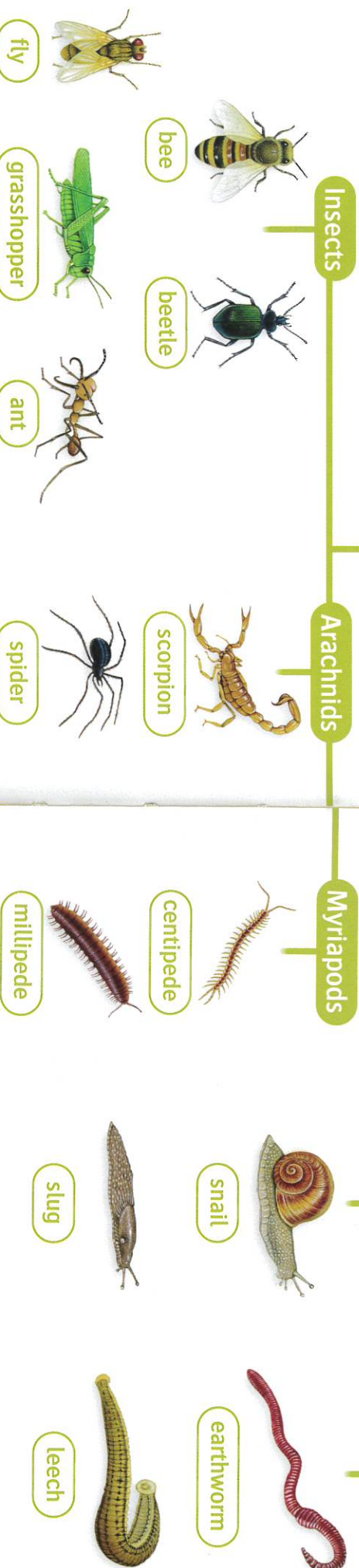
Minibeasts

A minibeast is a small animal with no backbone. It's an invertebrate. There are many different types of minibeast. Scientists put them into different groups.

The biggest group is the arthropods.

Arthropods have six or more legs. Some arthropods are insects. Insects have six legs. There are more than one million types of insect. Some examples are bees, beetles, ants, flies, and grasshoppers.

Types of Minibeast



Some arthropods are arachnids. Arachnids have eight legs. Scorpions and spiders are arachnids.

Some arthropods are myriapods. They have lots of legs. Centipedes and millipedes are myriapods. Centipedes have two legs on each body section. Millipedes have four legs on each body section.

Some minibeasts don't have legs. Snails and slugs don't have legs. They are mollusks. Earthworms and leeches don't have legs. Their bodies have lots of sections. They are annelids. Which minibeasts do you know?

1

Minibeasts

Read pages 4–5.

1 Complete the chart.

leech grasshopper millipede fly centipede snail
bee ant spider slug earthworm beetle scorpion

Does it have legs?

Yes

No

Does it have six legs?

Yes

No

Insects
grasshopper

Does it have eight legs?

Yes

No

Arachnids

Does its body have sections?

Yes

No

Annelids

Mollusks

Does it have more than eight legs?

Yes

No

Myriapods

Start again!

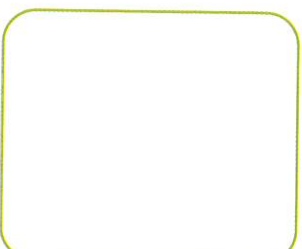
2 Match. Then write the words.

- 1 It has six legs. It has wings.
It's black and yellow.
It's an insect.
- 2 It has eight legs. It has a tail.
It's an arachnid.
- 3 It doesn't have legs.
It has a shell. It's a mollusc.
- 4 It doesn't have legs.
It doesn't have a shell.
It's an annelid.



bee

3 Draw and write about two minibeasts.



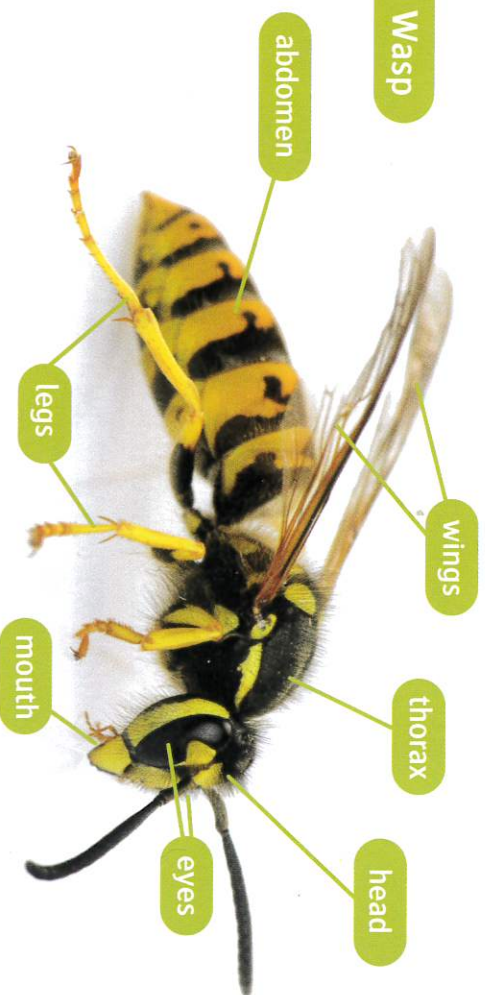
This is a _____
It has _____
It has _____
It's _____
It's _____



2

Insect Bodies

Most insect bodies have three parts: a head, a thorax, and an abdomen. The head has eyes and a mouth. The thorax has legs and wings.



A Wasp

Insects don't have any bones, but they have a hard cover. This hard cover is called an exoskeleton. Insects grow, but their exoskeleton can't grow. When an exoskeleton is too small, it comes off. Then the insect grows a new, bigger exoskeleton.

small cicada



exoskeleton



bigger cicada



Insects can use their bodies to hide from birds and other animals. They don't want the other animals to eat them. This is called camouflage.

A Camouflaged Leaf Insect



Some insects have bright colors. Animals don't eat any insect that is black, white, and red. It isn't usually good to eat. Sometimes it's poisonous.



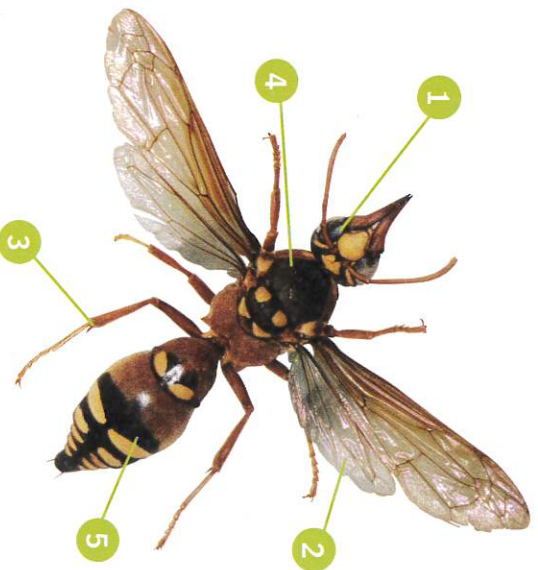
2 Insect Bodies

← Read pages 6–7.

1 Write the words.

head
thorax
abdomen
leg
wing

- 1 head
- 2 _____
- 3 _____
- 4 _____
- 5 _____



2 Complete the sentences.

cover small new bones grow

Insects don't have any bones. They have a hard _____ called an exoskeleton. Insects _____, but their exoskeletons can't grow. When an exoskeleton is too _____, it comes off. Then the insect grows a _____, bigger exoskeleton.

3 Circle the correct words.

- 1 Insects can / can't use their body to hide.
- 2 Insects want / don't want other animals to eat them.
- 3 Some / All insect bodies are camouflaged.
- 4 An insect that is black, white, and red is / isn't good to eat.
- 5 Insects are sometimes / never poisonous.
- 6 An exoskeleton can / can't grow.

4 Answer the questions.

- 1 What color are insects that are not good to eat?
They are black, white, and red.
- 2 How many parts do most insects have?

- 3 What are the names of the insect parts?

- 4 What happens when an exoskeleton is too small?

- 5 How do insects hide from other animals?

Insect Senses

Most insects have two very big eyes. They can't see clearly, but they can see things move very well. Some insects have extra eyes that can only see light and dark.

A Hornet



Some minibeasts have antennae on their head. They use their antennae to feel and touch things. They can also smell food and other minibeasts with their antennae.

Butterflies have a very long tongue called a proboscis. They use their tongue to taste and drink nectar in flowers. Butterflies can also taste with their feet!

A Butterfly



Most insects don't have ears on their head. Do you know where they are? They have ears on their body or their legs!



Crickets have ears on their front legs.

ears



3

Insect Senses

← Read pages 8–9.

1 Write *true* or *false*.

- 1 All insects have only two eyes. false
- 2 Some insects have more than two eyes. _____
- 3 Insects can see very clearly. _____
- 4 Insects can see things move. _____
- 5 All insects see light and dark. _____
- 6 Most insects have ears on their head. _____

2 Write the sentences.

These are antennae.
These eyes can see things move.
These eyes can see light and dark.

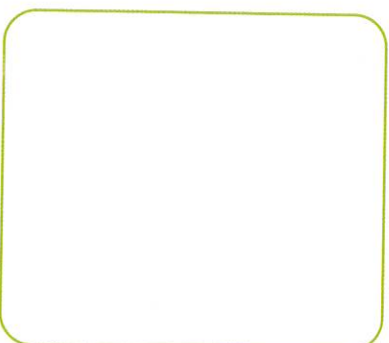


- 1 _____
- 2 _____
- 3 _____

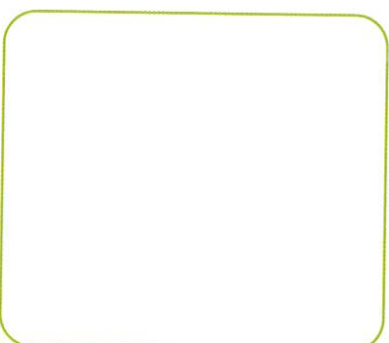
3 Write *People*, *Insects*, or *People and insects*.

- 1 _____ Insects _____ smell with their antennae.
- 2 _____ touch with their antennae.
- 3 _____ touch with their hands.
- 4 _____ taste with their feet.
- 5 _____ hear with their legs.
- 6 _____ see with their eyes.

4 Draw and write about two insects.



This is a _____
It has _____
It can _____
It can _____



Communication

Most male and female minibeasts

communicate with each other because they need to make new, baby minibeasts!

Some minibeasts communicate with sound.

Grasshoppers can sing. They move their legs up and down to make a singing sound.

Some minibeasts communicate with smell.

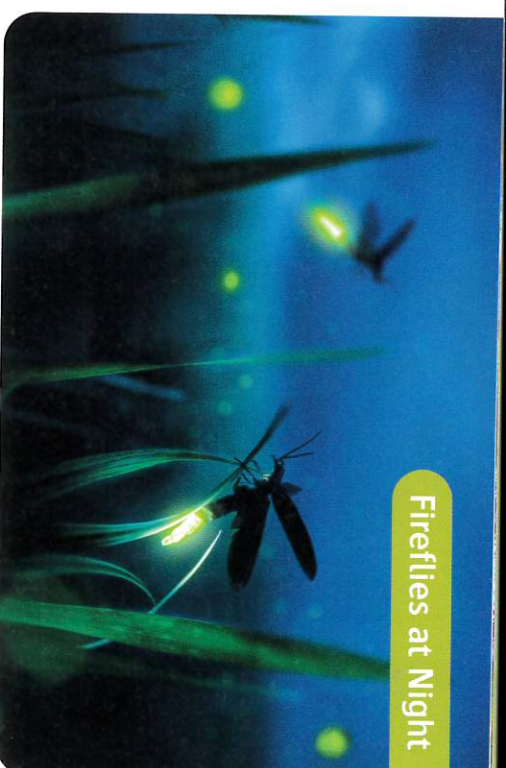
The female moth makes strong smells called pheromones. The male moth can smell the female with its antennae.

A Male Emperor Moth

antennae



The male emperor moth can smell a female 10 kilometers away!

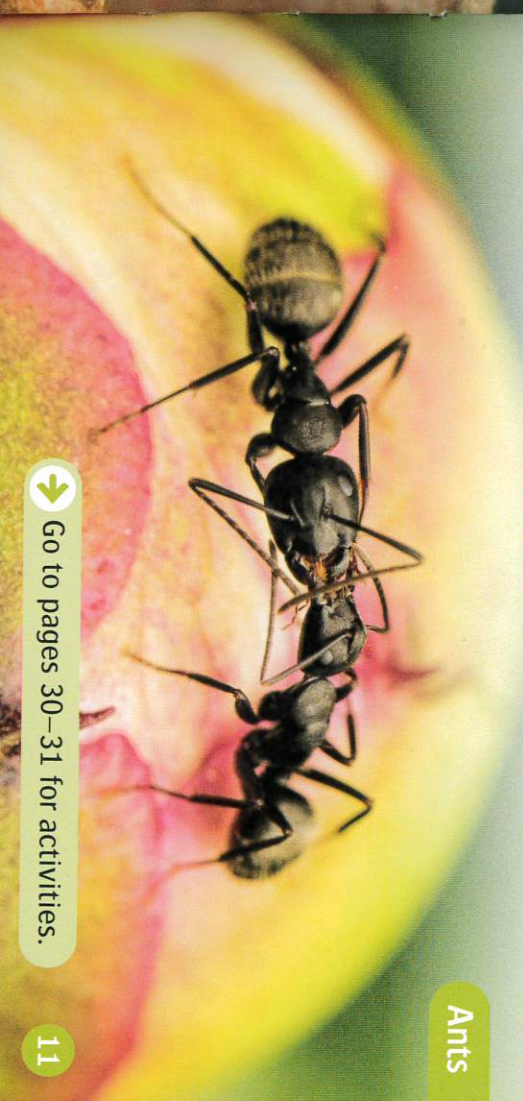


Fireflies at Night

Some minibeasts communicate with light. Fireflies can make light with their abdomen. Male and female fireflies flash their lights to each other.

Some minibeasts communicate to give each other information. Bees dance to tell other bees where there is food. Ants touch each other's antennae or head to give information about food or danger.

Ants



Go to pages 30–31 for activities.

4 Communication

Read pages 10–11.

1 Find and write the minibeasts. Then draw them.

1 _____ *moths* _____

2 _____

s	o	s	t	m	o	t	h	s	a	n	f
i	r	e	i	o	s	h	b	a	r	i	i
t	i	a	n	t	s	n	e	g	e	b	r
e	f	d	s	j	e	e	e	u	m	e	e
n	r	a	p	p	l	s	s	r	a	g	f
t	o	d	a	s	h	i	p	e	r	b	l
i	h	e	s	b	v	o	i	r	u	l	i
r	i	m	m	l	o	r	z	a	z	o	e
g	r	a	s	s	h	o	p	p	e	r	s

3 _____

4 _____ 5 _____

2 Write *male* or *female*.

The _____ moth makes strong smells called pheromones. The _____ moth can smell the _____ moth with its antennae. The _____ emperor moth can smell a _____ moth 10 kilometers away!

3 Find and write the words.



1 *touch* _____ 2 _____ 3 _____
4 _____ 5 _____ 6 _____

4 Complete the sentences.

Bees Ants Grasshoppers Moths Fireflies

- _____ communicate with smell.
- _____ communicate with light.
- _____ communicate with dance.
- _____ communicate with sound.
- _____ communicate with touch.

5 Answer the questions.

- How do grasshoppers communicate?

- How do fireflies communicate?

- How do bees communicate?

Baby Minibeasts

Most baby minibeasts come from eggs.

Some minibeasts, like slugs and earthworms, lay their eggs in soil. Other minibeasts, like butterflies and beetles, lay their eggs on plants.

Scorpions don't lay eggs. They have live babies. The baby scorpions travel on their mother's back.

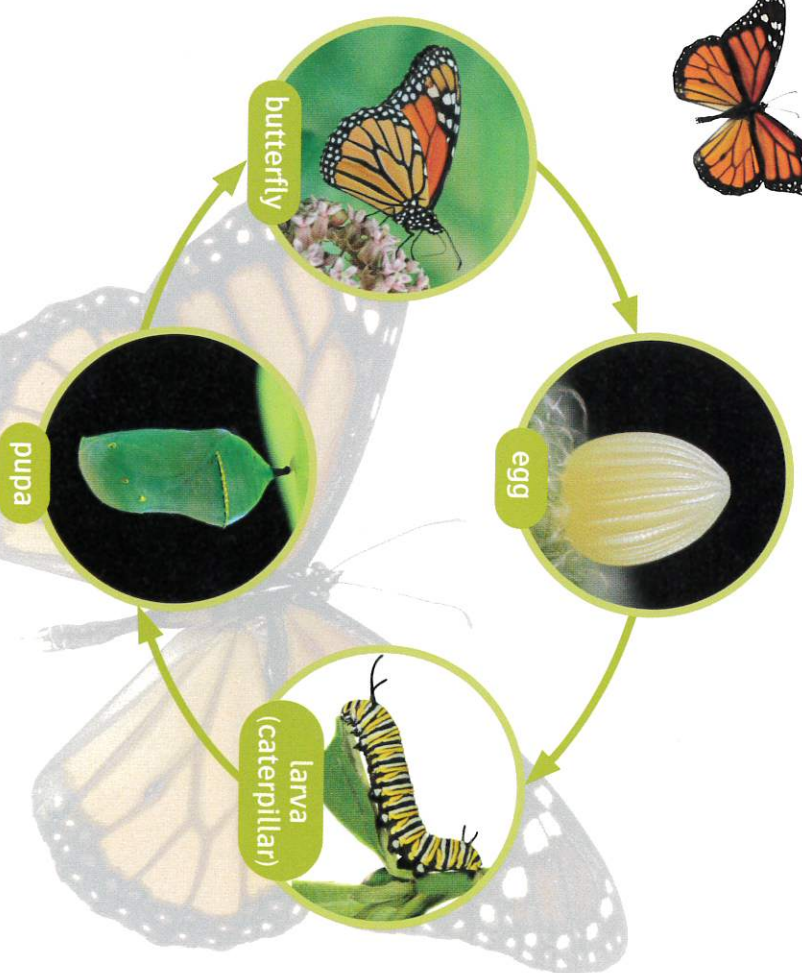
A Female Scorpion and Babies



The babies of some flying insects look like their parents, but they don't have any wings. Baby grasshoppers don't have any wings. They grow wings when they get bigger.

Some babies are larvae. Beetle, butterfly, and bee babies are larvae. After a few weeks, they become pupae. Then they become insects with wings, like their parents.

The Life Cycle of a Butterfly



6

Working Insects

Some insects work together in groups. Leafcutter ants work together. First they find leaves. They carry the leaves to their nest. Fungus grows from the leaves, and then the ants eat the fungus.

Leafcutter Ants



Leafcutter ants are very strong. They can carry leaves that are about 50 times heavier than their bodies!



Inside a Honeybee Hive

Honeybees work together, too. One queen bee lays all the eggs. Then the female worker bees care for the bee larvae. They look for food, they make honey from nectar, and they give honey to the bee larvae. They keep the honey in honeycombs inside the hive. The worker bees also clean the hive.

Working Insects

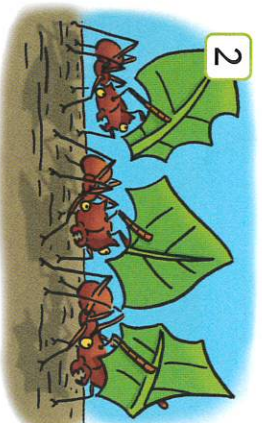
 Read pages 14–15.

1 Number the sentences in order. Then write.

- ☐ Fungus grows.
- ☐ They carry the leaves to their nest.
- ☒ The leafcutter ants find leaves.
- ☐ They eat the fungus.



1



2

The leafcutter ants
find leaves.

 ω 

4

2 Write true or false.

- 1 Two queen bees lay the eggs. _____
- 2 The workers are male. _____
- 3 The workers care for the bee larvae. _____
- 4 Bees make honey from nectar. _____
- 5 Bees keep the honey in honeycombs. _____

3 Complete the chart.

They live in a hive.	They are insects.
They carry leaves.	They keep honey in honeycombs.
They make honey.	They eat fungus.
They find leaves.	They work together in groups.

Leafcutter ants

Honeybees

Leafcutter ants and honeybees

Minibeast Homes



A Dragonfly

Some minibeasts, like earthworms and ants, live underground, and others live in water. Dragonflies lay their eggs on leaves in the water. Their larvae live underwater.



A Snail

Snails carry their home on their back. They live in many different places. Land snails live in forests, mountains, and gardens. Marine snails live in the ocean.

Lots of minibeasts make nests. Some wasps make nests from wasp paper. They make the paper from wood and saliva. The queen wasp lays eggs in the nest. The nest has lots of small rooms for the wasp larvae. Wasps attack other animals to protect their nest.



A Wasp Nest



A wasp nest can have about 10,000 wasps inside!

7

Minibeast Homes

Read pages 16–17.

1 Use the code to write the minibeasts. Then write the numbers.

a	d	e	f	g	h	i	l	m	n	o	p	r	s	t	w	y
★	⋈	☉	←	⇄	◆	⊞	❖	ℙ	⊗	↘	⊙	□	☒	◆	+	○

1

⋈	□	★	⇄	↘	⊗	←	❖	○
d	r	a	g	o	n	f	l	y

2

+	★	☒	⊙





3

☉	★	□	◆	◆	+	↘	□	ℙ

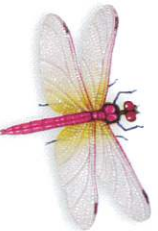
4

☒	⊗	★	⊞	❖



5

★	⊗	◆



2 Write the words.

snail dragonfly ant wasp

- 1 It's an insect that lives underground. _____
- 2 Its larvae live underwater. _____
- 3 It carries its home on its back. _____
- 4 It makes fantastic nests. _____

3 Complete the sentences.

paper nests queen larvae saliva

- 1 Lots of minibeasts make _____.
- 2 Some wasps make nests from _____.
- 3 Wasps make the paper from wood and _____.
- 4 The _____ wasp lays eggs in the nest.
- 5 The wasp nest has lots of small rooms for the wasp _____.

4 Answer the questions.

- 1 Which minibeasts live underground?

- 2 Where do dragonflies lay their eggs?

- 3 Where do wasps live?

Spiders

Spiders have two body parts and eight legs. They have six or eight eyes.

All spiders can make silk. Some spiders use the silk to make webs. Insects fly into the web. Then the spider eats the insects.

Some spiders hunt. The wolf spider hides in leaves. Then it jumps out and catches insects, mice, and frogs.

A Wolf Spider



A spider can only eat liquid food. It bites an animal with a poison that makes the animal liquid inside. Then the spider drinks the liquid.

Female spiders are often much bigger than male spiders.

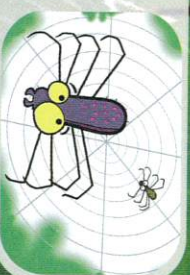
A Spider Eating an Insect in a Web



web



The Golden Orb female spider can have a body up to ten times bigger than the male!



8 Spiders

Read pages 18–19.

1 Write the words.

spider web leaves
poison mice liquid



1 _____ 2 _____



3 _____



4 _____ 5 _____



6 _____



2 Write the words in order. Then write *true* or *false*.

1 spiders / silk. / All / make / can

All spiders can make silk.

2 webs. / spiders / make / All

3 hunt. / spiders / All

4 spider / makes / a / The / web. / wolf

5 wolf / mice. / The / eats / spider

3 Complete the chart.

	Spiders	Insects
How many body parts?	_____	_____
How many legs?	_____	_____
How many eyes?	_____	<u>Some have two eyes</u> <u>and some also have</u> <u>extra eyes.</u>
What food do they eat?	_____	_____
What can they make?	_____	_____

4 Draw and write about spiders.

Spiders have _____

They can _____



Problems with Minibeasts

Some minibeasts can sting. The part that can sting is called a stinger. A wasp and an ant can sting again and again. A bee can only sting once. Then it dies.

A Conga Ant



stinger

Other minibeasts can bite. Some spiders have a poisonous bite, and other animals can die from this poison. A person can die from the bite of a black widow spider.



Only female mosquitoes bite.

Minibeasts can also make people sick. They can bite people and give them diseases. Mosquitoes can give people a very bad disease called malaria.

Some minibeasts make problems for farmers. Locusts are a type of grasshopper. They eat a lot of food crops. Other minibeasts make problems in our homes. Some moths eat clothes, and some beetles eat wood.

A Mosquito Biting a Person

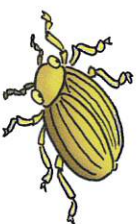
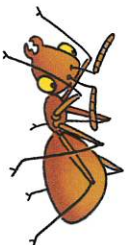
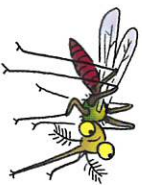


Problems with Minibeasts

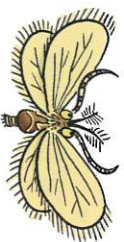
Read pages 20–21.

1 Write the words.

ant mosquito locust
beetle moth



1 _____ 2 _____ 3 _____



4 _____ 5 _____

2 Circle the correct words.

- 1 A wasp can sting again and again / only once.
- 2 All / Some spiders have a poisonous bite.
- 3 A person can / can't die from the bite of a black widow spider.
- 4 Spiders / Mosquitoes give people malaria.
- 5 Male / Female mosquitoes bite.
- 6 Locusts eat food crops / clothes.

3 Find and write the minibeast.

It doesn't eat food crops.

It doesn't eat clothes.

It doesn't eat furniture.

It doesn't have eight legs.

It doesn't sting and then die.

It's a _____

bee	beetle
spider	locust
mosquito	moth

4 Write about minibeasts that you like and don't like.

I like _____ because _____

I like _____ because _____

I don't like _____ because _____

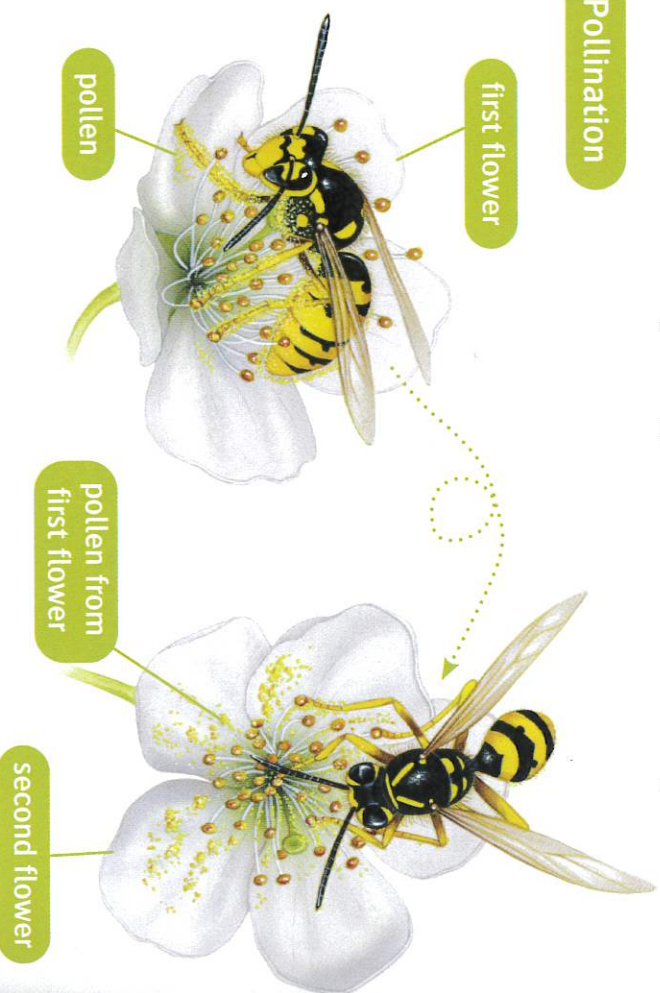
I don't like _____ because _____

Useful Minibeasts

Minibeasts are important food for many other animals. Fish, frogs, bats, and birds eat minibeasts.

Insects help plants grow. Insects visit different flowers to collect food. The pollen from one flower sticks to the body of the insect. When the insect goes to another flower, the pollen falls onto this flower. The flower uses this pollen to make seeds. Then a new plant grows. This is called pollination.

Pollination

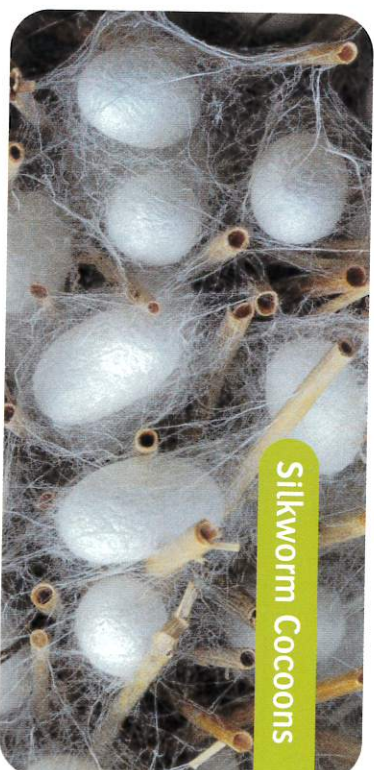


Earthworms help soil and plants. When they move through the soil, they let air and water in. Plant roots need the air and water.



An Earthworm

Bees give us honey and silkworms give us silk. Silkworms make silk cocoons when they become pupae. People use silkworm cocoons to make silk fabric.



Silkworm Cocoons

Minibeasts are amazing. They are also very useful! People, animals, and plants all need minibeasts to live.

← Read pages 22–23.

1 Write the minibeasts and other animals.

g'rɒf

təp

ʃhɪf

1 frog

2

3

kɒrm_wɪls

t_herwɔr_m

e_bē

4

5

6

2 Match. Then write the sentences.

Fish, frogs, and bats

Silkworms

Earthworms

Bees

Insects

let air and water into soil.
eat minibeasts.

give us honey.

give us silk.

move pollen from flower
to flower.1 Fish, frogs, and bats eat minibeasts.

2 _____

3 _____

4 _____

5 _____

3 Write about minibeasts.

Problems with minibeasts:

They can sting.

Good things about minibeasts:

Bees give us honey.

4 Can you remember? Which minibeast is it?

1 It tastes with its feet. _____

2 They communicate with light. _____

3 It carries its home. _____

4 It makes nests with wood and saliva. _____

5 It eats fungus. _____

6 Its larvae live underwater. _____

7 It carries its baby on its back. _____

8 It has four legs on each section. _____

9 It can only eat liquids. _____

10 It can give people malaria. _____