



Smart READING

6.3

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Unit

1

Invertebrates



Reach behind your head and touch the top of your back below your neck. Can you feel your backbone? You might not believe it, but most animals do not have a backbone. They rely on different materials to shape their bodies. Can you think of some animals with no backbone?

Unit

2

Head-Footed Animals



Invertebrates



Which animal has a backbone, the tiger or the caterpillar?

Key Words



- Listen and repeat the highlighted words. Then choose the correct definitions.

1. A **backbone** helps hold your head up.

- Ⓐ the bone behind a bone
- Ⓑ the line of bones down the center of the back

2. Words **make up** sentences.

- Ⓐ to become something smaller
- Ⓑ to combine to form something larger

3. A straw is a thin **tube** used for drinking.

- Ⓐ a long, round object
- Ⓑ a short, flat object

4. A bicycle seat is usually **firm**. It does not have much cushioning.

- Ⓐ very soft
- Ⓑ fairly hard



Can you guess which animals do not have a backbone?

5. The boat has a transparent glass floor. We can see fish under the boat.

- (a) clear or see-through (b) cloudy or dark

6. The girl let her long hair hang down her back.

- (a) to pull one end of something (b) to drop into a lower position

7. If you try to hit a bee, it might sting you.

- (a) to make a painful hole in the skin
(b) to heal a part of the skin

8. You should be careful with a sharp pencil.

- (a) round (b) pointy

Invertebrates

While You Read

What do invertebrates not have in their body?

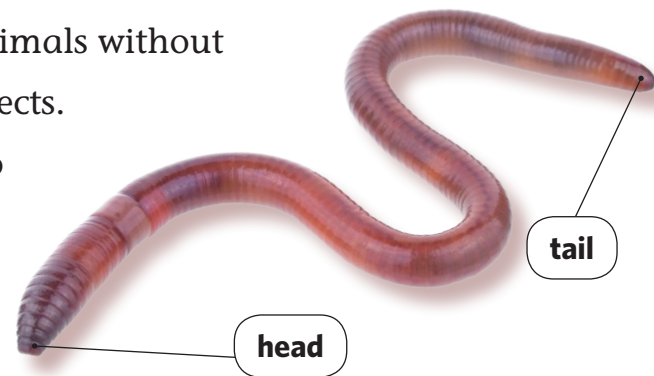
03

In the animal kingdom, there are two types of animals: vertebrates and invertebrates. Vertebrates are animals with a **backbone**, such as mammals, birds, and fish. Invertebrates are animals without a backbone, such as worms and insects.

Surprisingly, invertebrates **make up** about 97% of our animal kingdom.

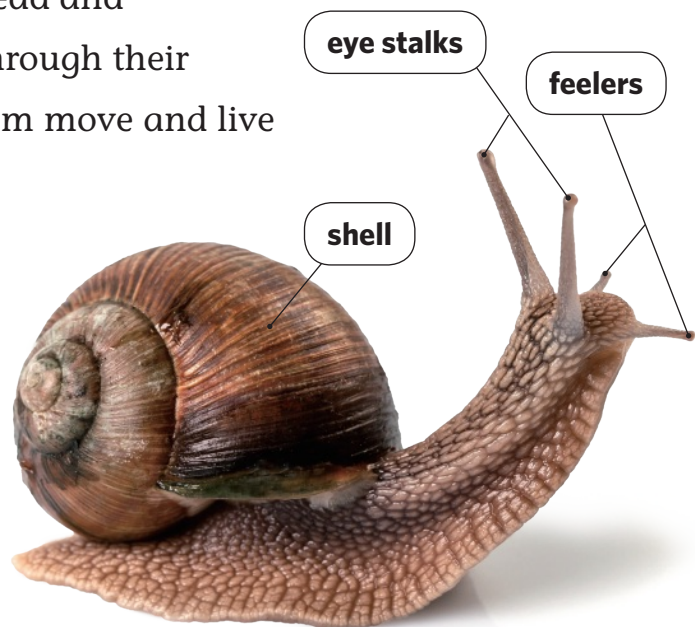
There are many different types.

Let's take a look at some!



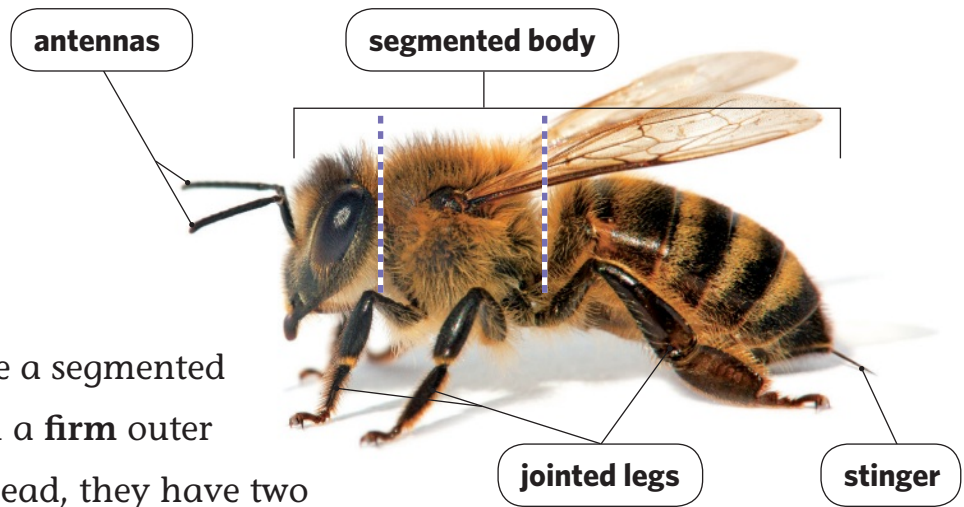
Earthworms have a long, soft body shaped like a **tube**. They have a head and a tail with no legs. They breathe through their skin. **Their** flexible body helps them move and live underground in the soil.

Snails have a soft body with a hard, spiral shell on their back. Their shell helps them hide from predators. On their head, they have two feelers and two long, flexible eye stalks.



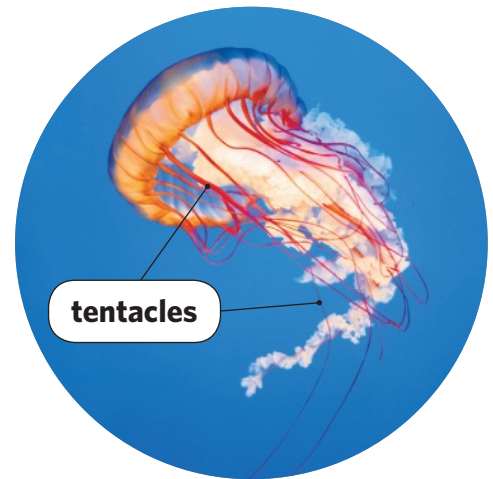
flexible can bend easily

spiral curly; twisting

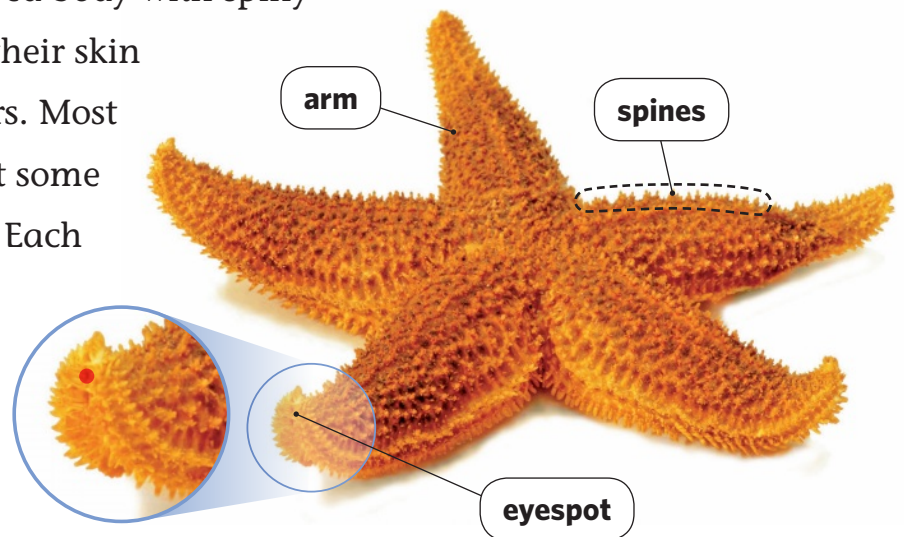


Honeybees have a segmented body covered with a **firm** outer casing. On their head, they have two antennae. In the middle of their body, they have three pairs of jointed legs. At the end of their body, they have a stinger.

Jellyfish have a smooth, dome-shaped body. Their body is **transparent**. They have long tentacles with sting cells. Their tentacles **hang down** from their body and **sting** their predators or prey.



Starfish have a star-shaped body with spiny skin. The **sharp** spines on their skin protect them from predators. Most starfish have five arms, but some have 10, 20, or even more. Each arm has one eyespot on it.



segmented broken up into parts
casing an outside layer or covering

tentacle a long, flexible arm of a sea animal

Comprehension Check

• Choose or write the correct answers.

1. What is the passage mainly about?

- Ⓐ the many types of animals
- Ⓑ the many types of vertebrates
- Ⓒ the many types of invertebrates

2. What do snails, honeybees, and jellyfish all have in common?

- Ⓐ They do not have a backbone.
- Ⓑ They do not have shells.
- Ⓒ They do not have legs.

3. Honeybees have three jointed legs.

True False

4. Starfish can have more than five arms.

True False

5. What is the difference between vertebrates and invertebrates?

➔ Vertebrates have a _____, but _____ do not.

6. What is surprising about invertebrates?

➔ They _____ about 97% of the animal kingdom.

BACK TO THE PASSAGE

7. What does **Their** refer to in the passage?

- Ⓐ vertebrates' Ⓑ earthworms' Ⓒ invertebrates'

8. Starfish have spiny skin and a body shaped like a star.

= Starfish have a _____ body with spiny skin.

Points to Remember

A Complete the chart.

Different Invertebrates

_____	<ul style="list-style-type: none"> • have a long, soft body shaped like a tube • breathe through their _____
Snails	<ul style="list-style-type: none"> • have two feelers and two long, flexible eye stalks • hide from predators in their _____
Honeybees	<ul style="list-style-type: none"> • have a _____ body with a firm outer casing • have three pairs of jointed legs
Jellyfish	<ul style="list-style-type: none"> • have a t _____ body • sting predators or prey with their tentacles
Starfish	<ul style="list-style-type: none"> • have sharp _____ on their skin • have one eyespot on each arm

B Complete the sentences.

Invertebrates

- There are two types of _____: vertebrates and invertebrates.
- Invertebrates are animals that do not have a _____.
- Unlike invertebrates, _____ have a backbone.
- _____ make up about 97% of our animal kingdom.
- There are many different _____ of invertebrates.
- Some invertebrates include earthworms, snails, _____, jellyfish, and starfish.

types vertebrates animals invertebrates honeybees backbone