

Amazing Arthropods

There are more **arthropods** on the earth than any other kind of creature and, in fact, two out of three known organisms belong to this group. Although there are many different kinds of arthropods, three main characteristics are common to them all.

- a) **segmented bodies**
- b) **jointed appendages**
- c) **hard exoskeleton.**

Segmented bodies allow arthropods to use different parts of their body to serve different functions; the **jointed appendages** can be used for different tasks like walking, feeding, or as a means of defense; and the **hard exoskeleton**, made of a material called **chitin**, provides support and protection for the outside of their bodies.

Exoskeletons are very different from internal skeletons like the ones that humans have. Because arthropods' skeletons are on the outside of their bodies, they have to shed them as they grow bigger, and a new skeleton must be formed. This process is called **molting**, and during this time, arthropods are very vulnerable to attack by predators.

Arthropods can be divided into several different groups. One large group called **Arachnids** contains spiders, scorpions and ticks, and another is made up of centipedes, millipedes, and insects. A group of arthropods called **Crustaceans**, lives primarily in the water and contains such creatures as crabs, lobsters, and shrimp.

All spiders share some common characteristics:

- a) a body called a **cephalothorax**;
- b) a pair of appendages called **pedipalps**, used for sensing prey and feeding;
- c) **four pairs** of legs.

Spiders catch a meal by using structures called **chelicerae**, which are a lot like fangs with poison glands. As spiders use their chelicerae to chew their prey, they spill digestive juices which turn the prey into a liquid meal they can suck up.

Spiders also have the ability to produce silk made of protein which they can string it into a web to catch flying insects. The silk is spun by organs called **spinnerets**. Some spiders also use their silk as a drop line to escape rapidly, like a person using a rope to rappel off of a tall building or mountain.

The unique traits of arthropods have allowed this group of animals to be incredibly successful.

Name _____

Date _____

Amazing Arthropods Questions

1. True or False. There are more arthropods living on earth than any other group of organism.
2. All arthropods have _____ bodies, jointed _____, and a hard _____.
3. What do arthropods use for walking?
 - a. segmented bodies
 - b. exoskeleton
 - c. appendages
 - d. none of the above
4. _____ is the process of shedding an exoskeleton to create a larger one.
5. _____ are the group of arthropods that live in the water.
 - a. spiders
 - b. crustaceans
 - c. ticks
 - d. insects
6. Give an example of a crustacean.
7. True or False. Spiders are arachnids.
8. How many legs do spiders have?
9. What are the structures spiders have that are similar to fangs?
 - a. chelicerae
 - b. pedipalps
 - c. cephalothorax
 - d. spinnerets
10. What are spinnerets used for?

Name _____

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Amazing Arthropods Answers

1. **True** or False. There are more arthropods living on earth than any other group of organism.
2. All arthropods have **segmented** bodies, jointed **appendages**, and a hard **exoskeleton**.
3. What do arthropods use for walking?
 - a. segmented bodies
 - b. exoskeleton
 - c. appendages**
 - d. none of the above
4. **Molting** is the process of shedding an exoskeleton to create a larger one.
5. _____ are the group of arthropods that live in the water.
 - a. spiders
 - b. crustaceans**
 - c. ticks
 - d. insects
6. Give an example of a crustacean.
Shrimp, lobster, crab
7. **True** or False. Spiders are arachnids.
8. How many legs do spiders have? **8 (or 4 pair)**
9. What are the structures spiders have that are similar to fangs?
 - a. chelicerae**
 - b. pedipalps
 - c. cephalothorax
 - d. spinnerets
10. What are spinnerets used for? **Making spider silk**