

Standardized Test Prep

Test-Taking Tip

If you are taking a long time to answer a question, consider coming back to it later. As you answer the other questions, you may remember the information you needed to answer the skipped question.

Directions: Choose the letter that best answers the question or completes the statement.

- Mites and ticks are examples of
(A) crustaceans. (D) chelicerae.
(B) swimmerets. (E) uniramians.
(C) arachnids.
- In spiders, the organs that contain the silk glands are called
(A) carapaces. (D) madreporites.
(B) spinnerets. (E) tube feet.
(C) swimmerets.
- Which of these is NOT a characteristic of an echinoderm?
(A) five-part radial symmetry
(B) a pair of antennae
(C) tube feet
(D) a water vascular system
(E) an internal skeleton

Questions 4–8 Each of the lettered choices below refers to the following numbered statements. Select the best lettered choice. A choice may be used once, more than once, or not at all.

- Trilobites
 - Pedipalps
 - Arachnids
 - Pheromones
 - Sea stars
- Types of animals that have four pairs of walking legs
 - Chemical messengers that affect the behavior or development of other individuals of the same species
 - Group containing spiders, scorpions, ticks, and mites
 - Carnivorous echinoderms that move by creeping slowly along the ocean floor
 - Extinct group of marine arthropods that were abundant more than 500 million years ago

Questions 9–10

A biology student is investigating the relationship between cricket chirps and temperature. She catches a cricket and places it in a jar. She leaves the jar outside, and each day she measures the number of chirps during a 15-second period. At the same time, she records the outside temperature near the cricket. Her data for a 5-day period are shown below.

Relationship Between Temperature and Cricket Chirping

Day	Number of Chirps in 15 Seconds	Outside Temperature (°C)
Monday	31	23
Tuesday	20	16
Wednesday	12	11
Thursday	29	21
Friday	25	19

- At which of the following temperatures would a cricket be most likely to chirp 9 times in 15 seconds?
(A) 2°C
(B) 10°C
(C) 18°C
(D) 0°C
(E) 25°C
- What can the student conclude from this experiment?
(A) Crickets cannot chirp more than 31 times in 15 seconds.
(B) The number of chirps decreases when the temperature decreases.
(C) Crickets never chirp more than 31 times every 15 seconds.
(D) The number of chirps increases when the temperature decreases.
(E) There is no relationship between the number of cricket chirps and temperature.

Standardized Test Prep

- C
- B
- B
- C
- D
- C
- E
- A
- B
- B

Writing in Science

Students should explain that arthropods undergo periods of molting when they outgrow their exoskeletons. During molting, an arthropod sheds its entire exoskeleton and manufactures a larger one to take its place. Molting is controlled by an arthropod's endocrine system. Skin glands digest the inner part of the exoskeleton, and other glands secrete a new skeleton. To protect themselves, arthropods typically hide during the molting period or molt at night. While the new exoskeleton is soft, the animal fills with air or fluids to allow room for growth before the next molting.

Performance-Based Assessment

Student displays should reflect an understanding of the diversity of arthropods as well as the ability to identify the characteristics that place the different groups in the same phylum.

Go Online
PHSchool.com

Your students can independently test their knowledge of the chapter and print out their test results for your files.