

Name \_\_\_\_\_

## Busting Bug Myths: Separating Fact from Fiction

### Open-Ended Response Answer Key

1. Ladybugs, also known as lady beetles, are beneficial predators that feed on common garden pests like aphids and scale insects. By controlling pest populations, ladybugs help maintain the balance of ecosystems and reduce the need for chemical pesticides in agriculture. For example, in vineyards, ladybugs are released as a natural form of pest control to protect grapevines from aphid infestations.
2. The black widow spider is characterized by its shiny black body with a red hourglass-shaped marking on its abdomen. Its venom contains neurotoxins that can cause symptoms such as severe pain, muscle cramps, and nausea in humans. Treatment for a black widow bite typically involves administering antivenom and managing symptoms like pain and muscle spasms.
3. Ants play important roles in soil aeration and nutrient cycling through their digging activities and interactions with other soil organisms. As ants tunnel through the soil in search of food and nest sites, they create channels that improve soil structure and allow air and water to penetrate deeper into the ground. Additionally, ants break down organic matter like dead plant material and animal carcasses, accelerating the decomposition process and releasing nutrients back into the soil.
4. People's perceptions of bugs as gross or disgusting are shaped by various cultural factors, including historical attitudes, media portrayals, and personal experiences. Throughout history, bugs have often been associated with filth, disease, and decay, leading to negative stereotypes and fear of bugs among some people. Media representations of bugs in horror movies and sensationalized news stories about bug infestations reinforce these negative perceptions. Additionally, personal encounters with bugs, such as being bitten or stung, can further solidify people's aversion to bugs. However, by learning more about bugs and their important ecological roles, people can overcome their fears and develop a greater appreciation for these fascinating creatures.

