

Name _____

Unwelcome Guests: Understanding Parasites

Open-Ended Response Answer Key

1. Parasites differ from other organisms in that they live on or inside another organism, known as the host, and benefit at the host's expense, often causing harm or discomfort. In contrast, other organisms may have mutualistic or commensal relationships with their hosts, providing benefits or coexisting without harming the host.
2. Examples of diseases caused by parasites include malaria, caused by the Plasmodium parasite, and schistosomiasis, caused by parasitic worms of the genus Schistosoma. These diseases can cause symptoms such as fever, fatigue, organ damage, and in severe cases, death, impacting the health and well-being of infected individuals.
3. Researchers are studying certain parasites for their potential medical applications, such as in cancer treatment or drug development. For example, parasitic worms have been investigated for their ability to modulate the immune system and reduce inflammation, which could be beneficial in treating autoimmune diseases or allergies.
4. Parasites contribute to the complexity and diversity of ecosystems by influencing the dynamics of host populations, contributing to energy flow and nutrient cycling, and serving as food sources for predators. By regulating host populations and controlling species interactions, parasites contribute to the overall balance and stability of ecosystems.

