

Name _____

Growth Answer Key

1. Bacteria are prokaryotic organisms, meaning they lack a membrane-bound nucleus and other membrane-bound organelles.
2. Bacteria can obtain nutrients through various means, including absorbing organic matter, photosynthesis, and chemosynthesis.
3. No, viruses do not have the ability to carry out metabolic processes on their own. They rely on host cells for energy and replication.
4. Pili are short, hair-like structures on the surface of bacteria that help them attach to surfaces or other cells.
5. Yes, some bacteria have the ability to produce endospores, which are dormant and highly resistant structures that allow them to survive harsh conditions.
6. No, not all viruses are pathogenic. Some viruses cause diseases in humans, animals, or plants, while others are harmless or even beneficial.
7. Yes, bacteria can exchange genetic material through a process called horizontal gene transfer, which allows them to acquire new traits or antibiotic resistance.
8. Viruses enter host cells by attaching to specific receptors on the cell surface and then injecting their genetic material into the host cell.
9. Yes, some bacteria produce antibiotics as a natural defense mechanism against other bacteria or microorganisms.
10. Yes, viruses can be classified into different groups based on whether they have DNA or RNA as their genetic material, as well as their replication strategies.