EXPERIENCE BIOLOGY

LESSON 12

SAMPLE QUIZ & RESEARCH QUESTIONS

Sample Quiz: Lesson 12

*Students answer quiz questions online, where they are **automatically graded**. The quizzes are designed to help the student test their own knowledge of the material. They should use the weekly comprehension quizzes as an opportunity to see where there are weaknesses in understanding so they can go back and study these areas. There will be four quarterly exams.*

These will be longer and more comprehensive tests, but the course contains study guides to help students study all the important material. The exam grades are final —grades cannot be reset without the parents' request. As a parent, you can log in to your own account dashboard and click on "Student Management" to see the grades for each quiz.

1. Most species of bacteria…
    a. are disease-causing
    b. do not cause disease, but are not beneficial to the environment
    c. none are correct
    d. perform many beneficial functions

2. Archaebacteria and eubacteria differ in what way?
    a. The chemical structure of their cell walls is different
    b. Their gene structure differs
    c. Many archaebacteria have the ability to survive in extreme environments
    d. All are correct

3. Which feature of eukaryotic cells is absent in prokaryotes?
    a. Membrane-bound organelles
    b. Phospholipid cell membranes
    c. Double-stranded DNA
    d. None of the above

4. How do bacteria reproduce?
    a. Via sexual reproduction
    b. Asexually via binary fission
    c. Asexually via mitosis
    d. Asexually via budding

5. The two major groups of prokaryotes are…
    a. eubacteria and archaebacteria
    b. viruses and bacteria
    c. lysosomes and viruses
    d. protozoa and bacteria

6. Vaccinations…
    a. are able to cure a disease after you've gotten sick
    b. are used to destroy viruses
    c. are a treatment done in an attempt to prevent viral infection
    d. are used to destroy bacteria

7. Viruses…
    a. have their own metabolism
    b. are living cells
    c. are comprised of two main parts: nucleic acid core and a protein covering called a capsid
    d. all are correct

8. A capsid is…
    a. the nucleic core of a virus
    b. the protein shell that surrounds a virus
    c. a lipid and protein membrane
    d. an enzyme

9. When a virus is in the lytic cycle, which of the following occurs?
    a. DNA is incorporated into the host cell's DNA
    b. Antiviral defenses of the cell expel the virus
    c. Pathogenic bacteria attacks the cells
    d. The host cell produces many new viruses and then breaks apart

10. When a virus is in the lysogenic cycle, which of the following occurs?
    a. DNA is incorporated into the host cell's DNA
    b. Antiviral defenses of the cell expel the virus
    c. Pathogenic bacteria attacks the cells
    d. The host cell produces many new viruses and then breaks apart

Sample Research Questions:
Lesson 12

Students will typically be assigned homework questions to answer each week. These questions are designed to help them apply the lecture material by practicing equations or reinforcing difficult lecture topics. Your students can use their notes, textbook, other books, or other resources available to them to answer these questions.

The parent is responsible for grading these assignments. You can download an answer key in your parent dashboard that will help you with grading. For each question, we recommend assigning a grade between 0-3. Give your student 3 points if the answer looks accurate, 2 points if the work lacks important details, 1 point if it looks largely inaccurate, and 0 points if the work was incomplete or was hastily completed.

Below is an example of what homework questions for lesson 12 look like, along with the parent answers included in red.

1. Many bacteria are quite resilient when mildly unfavorable conditions arise. Research how bacteria are able to survive when these unfavorable conditions arise. What is an endospore, and what role does it play in the survival of some bacteria?
Many bacteria are able to reduce their activities to preserve their life. In this way, they're able to wait for more favorable conditions to resume normal functioning. This reduced metabolism allows bacteria to survive despite changing temperatures or other unfavorable conditions.
A few bacteria are able to form something called an endospore. This is a small, thick-walled dormant cell. The metabolism of a dormant cell is greatly decreased to such a very low level the bacterium is able to survive without nutrients and in very poor conditions.

2. What is the difference between a virulent virus and a lysogenic virus?
Virulent viruses enter cells, reproduce, and immediately do damage to their host. Lysogenic viruses do not destroy cells immediately, but often lay dormant for long periods of time before being activated by a certain stimulus.