

## Quiz: Organisms: Cells to Body Systems

Read each question. Circle the letter of the correct answer.

1. Which of these shows the greatest degree of hierarchical structural organization?
  - A. viruses
  - B. bacteria
  - C. unicellular life
  - D. multicellular life
2. The structure of a human skin cell differs from that of a human muscle cell. The two cells most likely have different \_\_\_\_\_.
  - A. genes
  - B. functions
  - C. life processes
  - D. ways of dividing
3. What is the function of epithelial tissue in the human stomach?
  - A. support and bind other tissues together
  - B. contract to allow for movement of the stomach
  - C. provide protection and allow secretion and absorption
  - D. receive and transmit impulses and process information
4. What are the main differences between plant and animal cells?
  - A. Plant cells are eukaryotes and animal cells are not.
  - B. Animal cells are eukaryotes and plant cells are not.
  - C. Plant cells have cell walls and chloroplasts; animal cells do not.
  - D. Animal cells have cell walls and chloroplasts; plant cells do not.
5. Which of these organelles can be found in the cytoplasm and on the surface of the endoplasmic reticulum?
  - A. centrioles
  - B. ribosomes
  - C. centrosomes
  - D. mitochondria
6. Specialized structures that work together inside a cell are called \_\_\_\_\_.
  - A. nuclei
  - B. organelles
  - C. eukaryotes
  - D. prokaryotes
7. Which of these best explains the difference between eukaryotes and prokaryotes?
  - A. Eukaryotes have simpler cells and can only be unicellular.
  - B. Eukaryotes have simpler cells and can be either unicellular or multicellular.
  - C. Eukaryotes have more complicated cells and can only be multicellular.
  - D. Eukaryotes have more complex cells and can be either unicellular or multicellular.
8. A membrane-bound sac used to transport substances into and out of cells is a \_\_\_\_\_.
  - A. pump
  - B. vesicle
  - C. lysosome
  - D. macrophage

9. Which of these best describes the nuclear membrane.
- A. It is rigid and impermeable.
  - B. It is identical in composition to the cell membrane.
  - C. It allows all molecules to pass across it into the nucleus.
  - D. It contains pores that allow only certain molecules to pass.
10. The specialized structures of different types of cells are related to the cell's \_\_\_\_\_.  
A. energy  
B. function  
C. equilibrium  
D. homeostasis

**Read each statement. Write your answer on the lines.**

11. Where do human cells get most of the energy they need for metabolism?

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12. A certain toxin prevents the mitochondria from functioning properly. Describe the immediate effect that this toxin would have on a cell. Enter your answer in the space provided.

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13. Briefly explain the relationship between cells, organs, and tissues.

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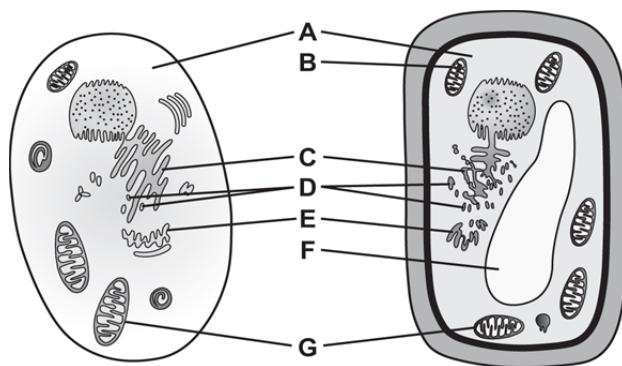
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14. The diagram shows two cells.



Identify structures C, D, and E and explain how they work together to perform a specific process within the cell.

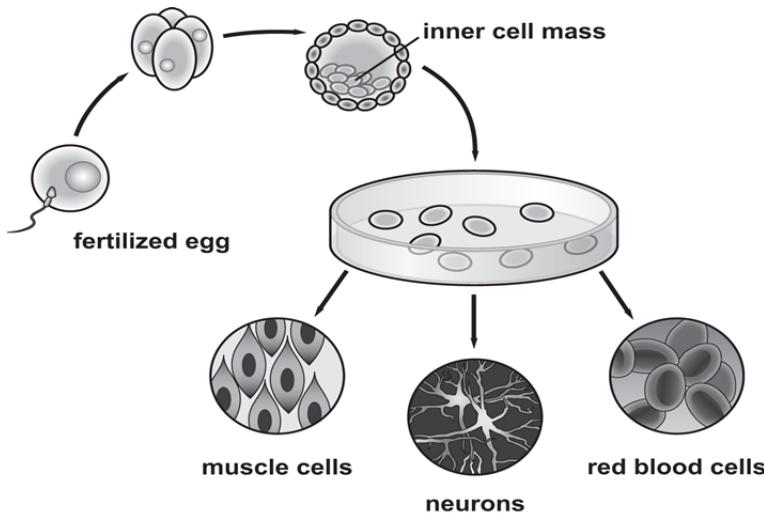
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15. A researcher is studying a cell process. The diagram shows the process.



Identify the process shown in the diagram and explain why it is important in multicellular organisms.

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