

Structure and Function in Living Systems

Name:

From Cells to Organisms

Period:

Use Chapter 4, Section 3 of your textbook to answer the questions below.

From Cells to Organisms (p.130)

1. If an organism is multicellular, its cells work _____ .
- _____ 2. What are the four levels of organization for a multicellular organism?
- | | |
|---|--|
| a. cells, tissues, organs, bodies | c. cells, tissues, organ systems, bodies |
| b. cells, organs, organ systems, bodies | d. cells, tissues, organs, organ systems |

Cells: The First Level of Organization (p.130)

3. If a cell is specialized, that means it does a _____ job (function).
4. The job or activity that a cell does is called its _____ .
5. The way a cell is put together or arranged is called its _____ .
- _____ 6. Look at Figure 2. This shows part of a ...
- | | | | |
|---------|-----------|----------|-----------------|
| a. cell | b. tissue | c. organ | d. organ system |
|---------|-----------|----------|-----------------|

7. What do heart muscle cells make the heart do?

- _____ 8. Look at Figure 3. This shows some ...
- | | | | |
|----------|------------|-----------|------------------|
| a. cells | b. tissues | c. organs | d. organ systems |
|----------|------------|-----------|------------------|

9. What is the function of the guard cells shown in Figure 3?



Tissues: The Second Level of Organization (p.131)

10. A group of cells that work together is called a _____ .
- _____ 11. Look at Figure 4. This shows ...
- | | | | |
|-----------|----------------|-------------|--------------------|
| a. a cell | b. some tissue | c. an organ | d. an organ system |
|-----------|----------------|-------------|--------------------|
- _____ 12. What are the four kinds of tissues that animals have?
- | | |
|--|---|
| a. transport, protective, ground, nerve | c. cardiac, digestive, brain, respiratory |
| b. nerve, muscle, connective, protective | d. cell, tissue, organ, organ system |
13. The function of _____ tissue is to move water and food through a plant
14. The function of _____ tissue is to cover and protect a plant
15. _____ tissue is where photosynthesis takes place in a plant

turn this page over for more questions

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Organs: The Third Level of Organization (p.131)

16. A group of tissues that work together is called an _____ .
17. The _____ is an organ is made of cardiac, nerve, and blood vessel tissues.
18. Your stomach contains several types of _____ .
19. The _____ is a plant organ which has tissue that traps sunlight energy to make food.

Organ Systems: The Fourth Level of Organization (p.132)

20. Any group of organs that work together is called an _____ .
21. The organs of the _____ system work together to move blood through the body.
22. Your book mentions two different organs that are part of your digestive system: your _____ and your _____ .
- _____ 22. What are three organ systems in plants?
a. leaf, root, stem
b. respiratory, cardiovascular, digestive
c. transport, protective, ground
d. membrane, chloroplast, lysosome

Organisms (p.132)

23. The first level of organization in a multicellular organism is a _____ .
24. A group of cells that do a special job is called a _____ .
25. A group of tissues working together are an _____ .
26. Groups of organs that work together to perform a specific function are an _____ .
27. Organ systems make up an _____ .

Unicellular Organization (p.133)

28. A human is a unicellular organism (True / False) _____
- _____ 29. How does a unicellular organism live?
a. Many cells do many things.
b. Many cells do one thing.
c. Each cell does everything.
d. Each cell does one thing.
30. Is the organism in Figure 7 unicellular or multicellular? _____