

1. Which of the following is produced by photosynthesis?

- A. light
  - B. heat
  - C. protein
  - D. sugar
- 

2. Which of these BEST explains how the cell membrane helps animal cells grow and divide?

- A. It transports enzymes.
  - B. It stores genetic information.
  - C. It supplies the cell with energy.
  - D. It controls materials that enter and exit the cell.
- 

3.

Assume a normal body cell continues to repeatedly grow and divide. Which process would not be required for continued growth and division?

- A. mitosis
  - B. evolution
  - C. digestion
  - D. respiration
- 

4.

What type of cell MUST take up carbon dioxide in order to stay alive?

- A. plant cell
  - B. animal cell
  - C. fungal cell
  - D. yeast cell
-

5.

All of the processes listed below are necessary for life.

digestion  
mitosis  
photosynthesis  
respiration

All four processes can be classified under the broader heading of

- A. adaptation.
  - B. evolution.
  - C. homeostasis.
  - D. metabolism.
- 

6. When water moves across the cell membrane, the process is called

- A. pollination.
  - B. respiration.
  - C. transfusion.
  - D. osmosis.
- 

7. Which cell structure is responsible for supplying energy in both plant and animal cells?

- A. chloroplast
  - B. mitochondrion
  - C. nucleus
  - D. ribosome
-

8. The cells of green plants are capable of producing relatively large amounts of oxygen and simple sugars. Which cell structure is necessary for most green plants to carry out these processes?

- A. lysosome
  - B. chloroplast
  - C. cell membrane
  - D. nuclear membrane
- 

9.

Suppose there is a town called Cellville. Which building in Cellville would have a purpose similar to the mitochondria of the cell?

- A. the library
  - B. the water tower
  - C. the power plant
  - D. the police station
- 

10.

What pair of cell structures are found in plant cells, function in protecting the cell and making food, and are not found in animal cells?

- A. cell membrane and ribosomes
  - B. cell wall and chloroplasts
  - C. mitochondria and a nucleus
  - D. flagella and Golgi bodies
- 

11.

What is the primary purpose of mitochondria in a cell?

- A. They store genetic information.
  - B. They convert food molecules into energy the cell can use.
  - C. They trap sunlight and use the energy to make food.
  - D. They ship proteins and other substances across the cell membrane.
-

12. In plant cells, chloroplasts —

- A. act as the cell's control center.
- B. enable plant cells to produce their own food.
- C. allow materials to move into and out of the cell.
- D. support and protect the cell.

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13. A certain kind of cell produces a substance that breaks down proteins so they can be absorbed by the body. What body system is the cell MOST LIKELY a part of?

- A. the skeletal system
  - B. the nervous system
  - C. the digestive system
  - D. the circulatory system
- 

14. Which of these tissues would MOST LIKELY be a part of the muscular and skeletal systems?

- A. a tissue that produces antibodies to fight infections
  - B. a tissue that sends and receives sensory information
  - C. a tissue that digests nutrients and absorbs them into the body
  - D. a tissue that connects moving parts and provides structural support
-

15. Which picture shows the smallest building block of a living thing?



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16. What true statement can be made about all of the organisms shown below?



- A. RNA is the basic unit of all organisms.
- B. The cell is the basic unit of all organisms.
- C. All organisms have the same types of cells.
- D. All organisms have the same number of cells.

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17.



The picture above shows the liver, stomach, small intestine, and large intestine. What is the only level of organization that is not visible in the picture?

- A. cells
  - B. organs
  - C. tissues
  - D. organ system
-

18.

Place the levels of biological organization in the correct order.

- A. cell → organelle → tissue → organ
- B. cell → tissue → organelle → organ
- C. organelle → cell → organ → tissue
- D. organelle → cell → tissue → organ

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**Cells → Tissues → Organs → ?**

19.

**What is next in this series?**

- A. Habitats
- B. Organisms
- C. Systems
- D. Organelles

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20. What happens to blood in the kidney?

- A. It changes from red to blue.
- B. It receives oxygen.
- C. It is pumped to move faster.
- D. It has waste removed.

## Answer Key

1. D) sugar
2. D) It controls materials that enter and exit the cell.
3. B) evolution
4. A) plant cell
5. D) metabolism.
6. D) osmosis.
7. B) mitochondrion
8. B) chloroplast
9. C) the power plant
10. B) cell wall and chloroplasts
11. B) They convert food molecules into energy the cell can use.
12. B) enable plant cells to produce their own food.
13. C) the digestive system
14. D) a tissue that connects moving parts and provides structural support
15. A) 
16. B) The cell is the basic unit of all organisms.
17. A) cells
18. D) organelle → cell → tissue → organ
19. C) Systems
20. D) It has waste removed.

