

6th Grade Science

Blizzard Bag #2

Cells Review

Name _____

Due Date _____

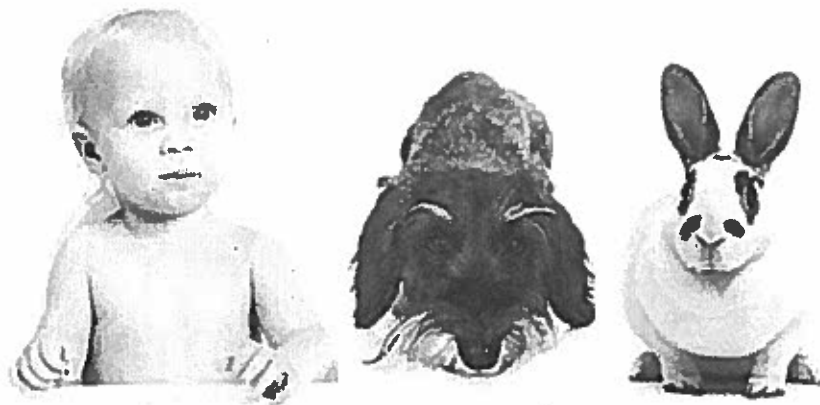
Reproduction in Cells & Organisms

1. The process of mitosis occurs as multicellular organisms develop. Which of the following best explains what happens when mitosis occurs?

- A. One cell divides and creates two identical cells.
- B. One cell invades another cell and changes its function.
- C. One cell differentiates into a different type of cell.
- D. One cell dies and is replaced by a new identical cell.

Organization in Organisms

2. Only one plane divides the bodies of humans, dogs, and rabbits into roughly symmetrical "left" and "right" halves.



What type of symmetry to these organisms have?

- A. bilateral
 - B. rotational
 - C. radial
 - D. orbital
-

Cell Theory & Structure

3. Which of the following cell structures is found in plant cells but not in animal cells?

- A. chloroplast
 - B. ribosome
 - C. cell membrane
 - D. cytoplasm
-

Cell Processes

4. All living organisms must be able to acquire and release energy in order to survive.

Plants take in energy from the Sun and use that energy to make sugar and oxygen from carbon dioxide and water. Euglena, a type of protist, can also take in energy from the Sun and make sugar and oxygen.



plant



euglena

Which of the following statements is true given the above information?

- A. Different organisms can carry out their life functions in similar ways.
- B. Protists are not similar to plants in any way.

- C. All organisms carry out their life functions in different ways.
 - D. Only plants and euglena can use light energy from the Sun.
-

Reproduction in Cells & Organisms

5. When an organism is finished growing, which of the following best describes what happens on the cellular level?

- A. Its cells stop growing.
 - B. Its cells grow and shrink at the same rate.
 - C. Its cells stop reproducing.
 - D. Its cells reproduce and die at the same rate.
-

Cell Theory & Structure

6. All living organisms are composed of

- A. at least 100 cells.
 - B. at least three cells.
 - C. only one cell.
 - D. one or more cells.
-

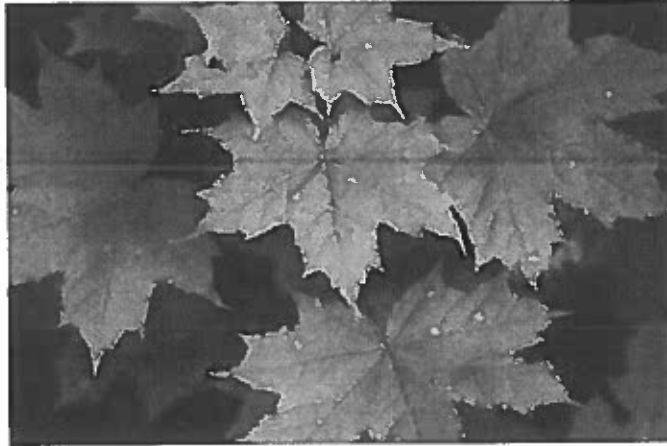
Organization in Organism

7. Conifers are trees that are able to live in extremely cold environments.



These trees tend to have thin, waxy needles, so they can better preserve moisture and avoid damaging winds, they tend to be triangular in shape, so snow can more easily slide off their branches, and they tend to keep their leaves, rather than lose them in the fall, so they can more quickly resume food production when there is more sunlight and warm weather.

Deciduous trees live in more moderate climates.



These trees have broader leaves, so they can absorb more Sun during the summer to make food that can be stored during the winter, when they shed their leaves.

Even though both of the above trees can be classified as plants, why are their structures so different?

- A. to help them survive in different environments
 - B. to help them develop and grow in foreign environments
 - C. to increase the rate of extinction
 - D. to decrease individuality and uniqueness
-

Reproduction in Cells & Organisms

8. The genetic information of a cell is duplicated and split to form two daughter cells during which of the following processes?

- A. cell respiration
- B. cell division
- C. cell growth
- D. cell metabolism

Reproduction in Cells & Organisms

9. The main purpose of cell division is

- A. to remove cellular waste.
 - B. to absorb nutrients.
 - C. to produce more cells.
 - D. to produce cellular energy.
-

Organization in Organisms

10. In a living organism, what is an **organ**?

- A. a structure composed of a number of tissues that work together to perform a specific task
 - B. a functional unit, or building block, of all organisms; smallest unit that can carry on the activities of life
 - C. a group of similar cells that perform a common function
 - D. the shell or skin of an organism
-

Organization in Organisms

11. Radial symmetry is a type of symmetry in which several planes divide an organism into roughly identical pieces from the top down. These organisms have no "left" or "right" sides, but they do have a "top" and a "bottom".

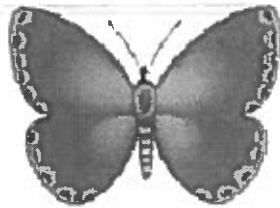
Which of the following has radial symmetry?



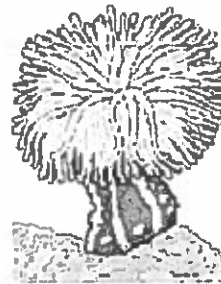
W.



X.



Y.



Z.

- A. Z
- B. X
- C. Y
- D. W

Organization in Organisms

12. Some plants have specialized tube-like structures that transport nutrients, minerals, and water. Water and dissolved ions are transported by xylem tubes. Phloem tubes transport nutrients.

The picture below is a cross section of a plant stem, with the xylem and phloem bundles labeled.

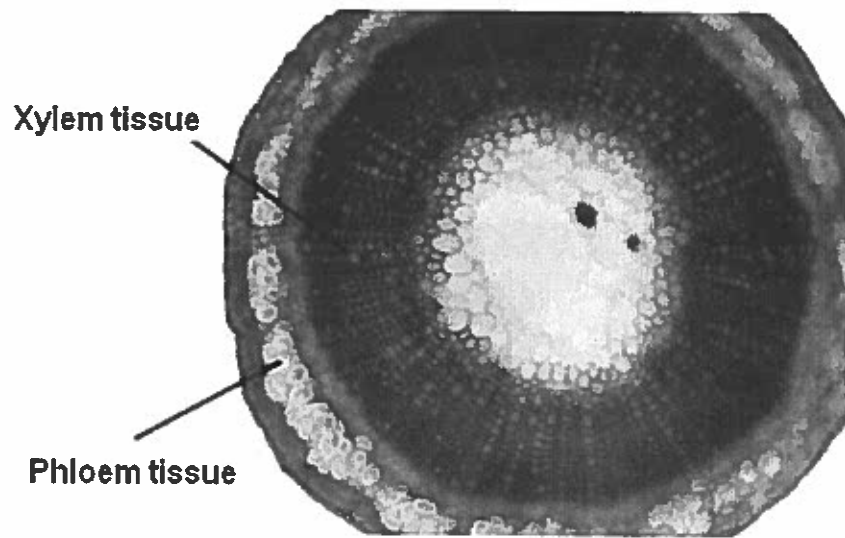


Image courtesy of Wikipedia.

Which structures in animals are similar to xylem and phloem in plants?

- A. gills or lungs
 - B. blood vessels
 - C. muscles
 - D. skin cells
-

Organization in Organisms

13. Plants are able to support themselves in an upright position due to turgor pressure. Water maintains the turgor pressure in stems like air inflates a balloon. Which of the following body systems helps humans to support themselves?

- A. skeletal
 - B. circulatory
 - C. lymphatic
 - D. digestive
-

Cell Processes

14. Every cell contains certain structures that perform specialized functions for the cell. What are these structures called?

- A. cells

- B. tissues
 - C. organs
 - D. organelles
-

Cell Theory & Structure

15. Which of the following statements is part of the cell theory?

- A. All cells come from pre-existing cells.
 - B. All living things are made up of one or more cells.
 - C. Cells are the basic units of living things.
 - D. all of these
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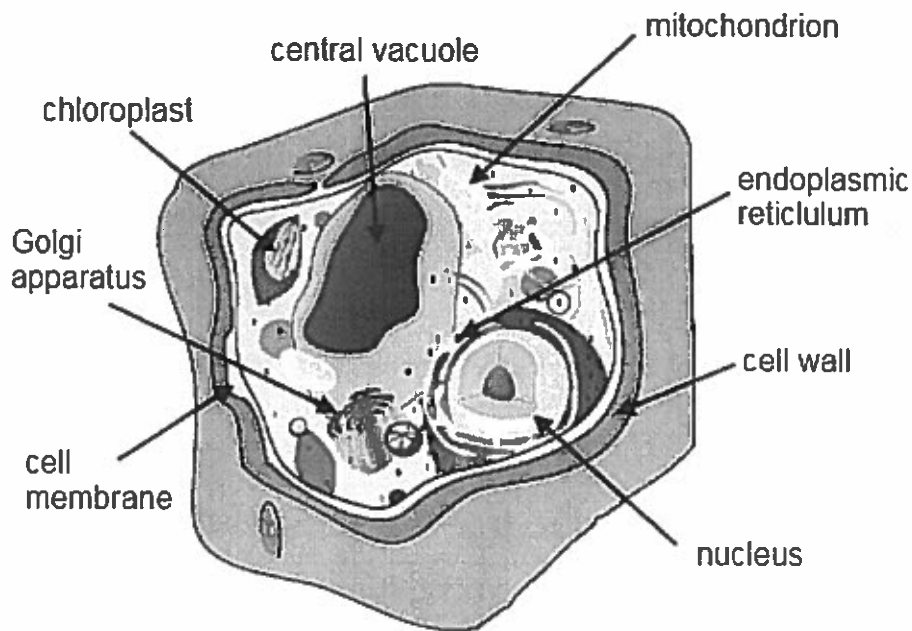
Reproduction in Cells & Organisms

16. Which cellular process most directly ensures the formation, growth, and repair of specialized tissues in multicellular organisms?

- A. division and growth of cells
 - B. making energy in cells
 - C. exchange of gases in cells
 - D. storing of wastes in cells
-

Cell Theory & Structure

17. Examine the diagram of the cell below.



Adapted from image courtesy of Wikipedia

What can you conclude about this cell?

- A. The cell is most likely a bacterium cell.
- B. The cell is most likely a human cell.
- C. The cell is most likely a plant cell.
- D. The cell is most likely an animal cell.

Reproduction in Cells & Organisms

18. How does growth compare between plants and fungi?

The growth of both a plant and a fungus occur as specialized cells repeatedly divide to

A. form new cells for the organism.

The growth of both a fungus and a plant occur as the enlargement of a single cell to a

B. certain size.

A plant's growth occurs as the enlargement of a single cell to a certain size; a fungus'

C. growth occurs as specialized cells repeatedly divide to form new cells for the fungus.

A fungus' growth occurs as the enlargement of a single cell to a certain size; a plant's

D. growth occurs as specialized cells repeatedly divide to form new cells for the plant.

Cell Processes

19. Technology Enhanced Questions are not available in Word format.

Cell Processes

20. Waste products in the cell accumulate and are eventually

- A. moved out of the cell and eliminated.
 - B. taken to the mitochondria and used as energy.
 - C. brought to the nucleus and made into DNA.
 - D. released into the cytoplasm of the cell.
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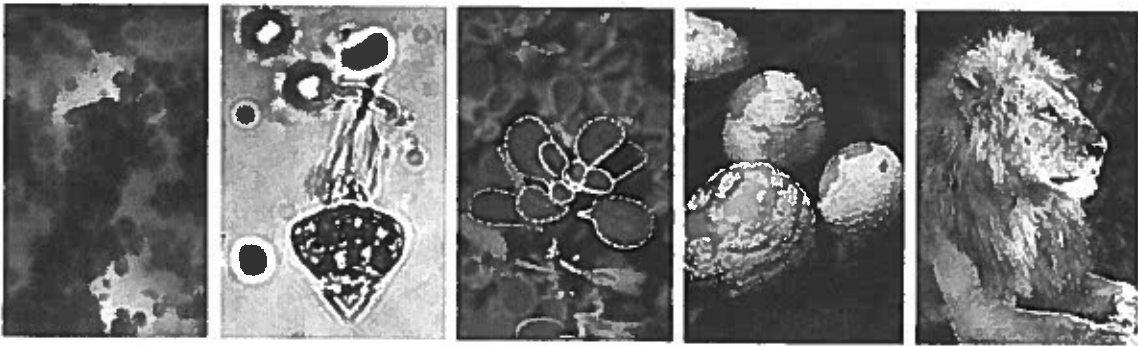
Cell Theory & Structure

21. Different plant and animal species have a great variety of body structures that help them survive and reproduce. Which of the following is also true?

- A. The individual cells of plants and animals function in very similar ways.
 - B. The individual cells of plants and animals do not contain genetic information.
 - C. The individual cells of plants and animals cannot perform specialized functions.
 - D. The individual cells of plants and animals do not share any similarities.
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Organization in Organisms

22. The pictures below show some of the organisms that live on Earth.



Which of the following statements is true based on these pictures?

- A. The organisms on Earth are similar in size.
 - B. There is only one way in which organisms are able to get nutrients.
 - C. There is a wide diversity of organisms that live on Earth.
 - D. All organisms on Earth have the same structures and functions.
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Cell Processes

23. In a cell, what is the function of the cell membrane?

- A. It generates energy for the cell.
 - B. It removes waste and stores ingested food.
 - C. It controls the entry and exit of substances.
 - D. It only maintains the cell shape.
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Cell Processes

24. Cells perform many functions in living organisms. Which of the following processes occur in cells?

- A. energy extraction
 - B. nutrient acquisition
 - C. excretion of wastes
 - D. all of these
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