

Cells Test Study Guide Answers

1. What can living things do that non-living things can't do? List 6 things.

Living things can reproduce, use energy, repair themselves, move, respond to their environment, get rid of waste, and grow

2. If you looked at a microscopic view of a rock and a tree leaf, how would they be different?

The leaf would be made of cells and the rock wouldn't.

3. How are the cells of unicellular organisms different than the cells of multicellular organisms?

Unicellular – they can do everything on their own.

Multicellular – they have specialized cells that do just one function so they have to rely on other cells to live

4. What is a system? Is a cell a system? Why or why not?

A system is made up of smaller parts that work together to do something. Cells are systems because they are made up of smaller parts (organelles) that work together

5. What are the functions of each of these cell organelles? How do they work together to meet the needs of cells?

a. Mitochondria – They produce energy from food.

b. Chloroplasts – They produce food from sunlight.

The chloroplasts produce the food and the mitochondria make the energy from that food.

6. What are the functions of each of these cell organelles?

a. Cell wall – It protects the cell and gives it structure

b. Cell membrane – It allows things to come in and out of the cell

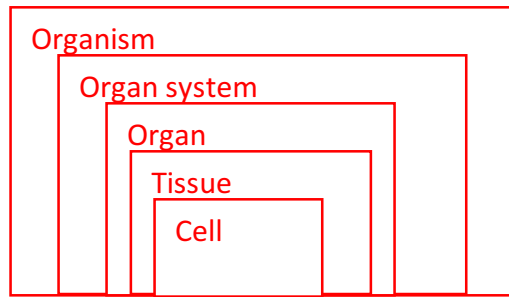
7. What is the function of the nucleus?

It contains information (DNA) for building things in the cell

8. What are the 5 levels of organization?

Cells, tissues, organs, organ systems, organisms

9. Draw a diagram that shows how the levels of organization relate to each other.



10. What is the function of each of these systems?

a. Circulatory

To move stuff (food, oxygen, and waste) around the body

b. Respiratory

To bring oxygen into the body

c. Digestive

To break down food and absorb it into the body

d. Urinary

To get rid of waste

e. Nervous

To sense our surroundings and to control everything in our body

f. Skeletal

To give us structure and protection

g. Muscular

To move our body and things inside our body

11. Give two examples of how one system depends on another system.

The digestive system depends on the respiratory system for oxygen

The skeletal system depends on the digestive system to get food for energy

The muscular system depends on the nervous system to tell it when to move

The urinary system depends on the circulatory system to move waste around the body

12. All cells need food and oxygen. Describe how the circulatory, respiratory, digestive, and nervous systems get food and oxygen to all of our cells.

Circulatory system – it moves the food and oxygen around the body

Respiratory system – it brings the oxygen into the blood stream

Digestive system – it brings the food into the blood stream

Nervous system – it controls the contraction of the heart, lungs, stomach and intestines