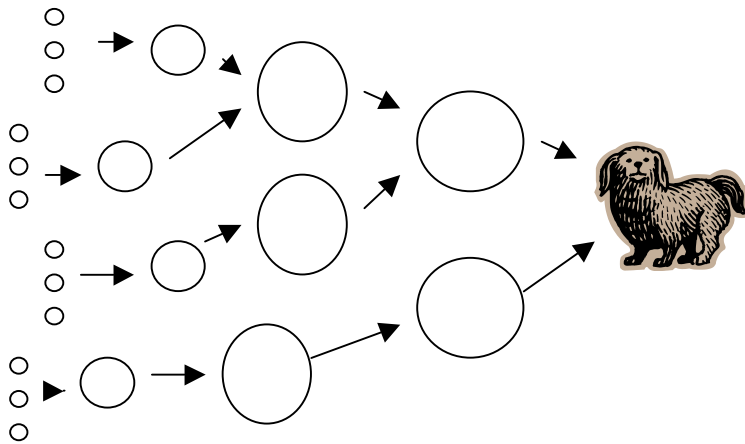


## Cells Test Study Guide

1. Write the levels of organization from simple to complex. (There are five levels)
2. Define each of the levels of organization.
3. Label the level of organization of each of the following:
  1. Heart
  2. Cactus
  3. Muscle
  4. Blood (consisting of white blood cells, red blood cells and platelets)
  5. Stomach, intestines, kidneys, liver all working together
  6. Bone
  7. Brain
  8. Bacteria
  9. Skin cell
  10. Red blood cell
4. What is the main function of the following organs?
  1. Lungs
  2. Kidneys
  3. Liver
  4. Small intestine
  5. Large intestine
  6. Pancreas
  7. Heart
5. What is the function of each of these systems? Be as specific as you can.
  1. Endocrine system
  2. Digestive system
  3. Respiratory system

6. Identify which organ systems help perform the following life functions (there can be more than one):
  1. Getting energy
  2. Getting rid of waste
  3. Regulating bodily functions
7. How do the respiratory system and the digestive system depend on each other? How do they both depend on the nervous system?

8. This diagram represents the levels of organization. Label each level.



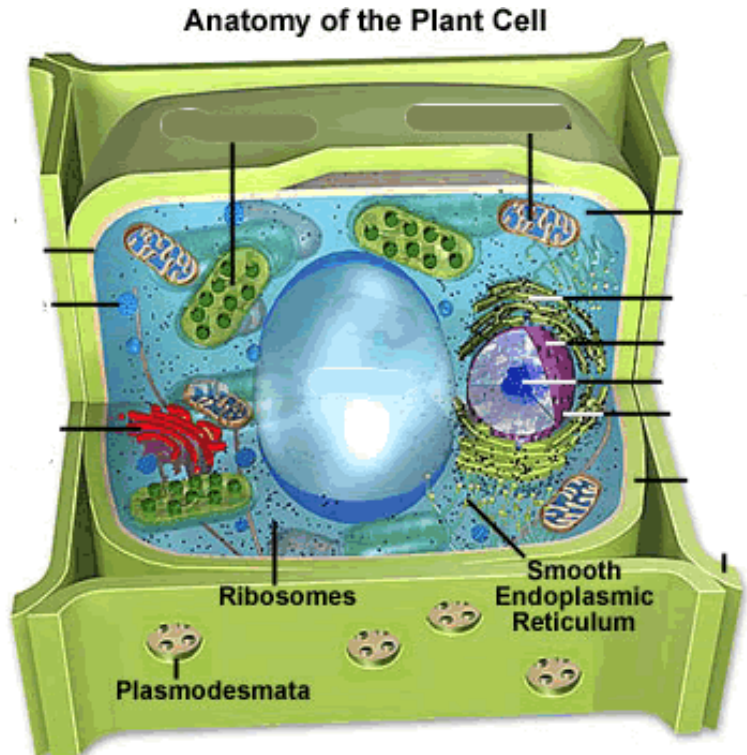
9. What is the basic unit of structure in living things?
10. What is an organelle?
11. Write what part of the cell performs the following functions:
  1. Is very rigid and provides support and protection for a plant cell \_\_\_\_\_
  2. Contains information about how to build things in the cell \_\_\_\_\_
  3. Takes sunlight and turns it into food in plant cells \_\_\_\_\_
  4. Allows substances such as food, water, oxygen and waste to enter and leave the cell \_\_\_\_\_
  5. This substance is a thick substance that fills the cell. All organelles are floating in this substance. \_\_\_\_\_
  6. Stores food, water and waste \_\_\_\_\_
  7. Builds proteins \_\_\_\_\_
12. What part of the cell is most responsible for
  1. Producing food (sugar) \_\_\_\_\_
  2. Extracting energy from food (turning food into energy)? \_\_\_\_\_
13. How are plant cells different from animal cells?

14. Label the cell wall, the cell membrane, the chloroplasts, the nucleus, the cytoplasm and the mitochondria of the plant cell.

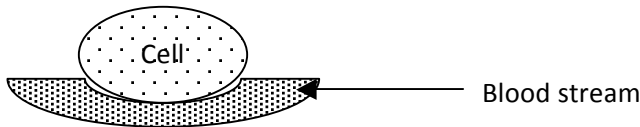
15. What is the difference between living, dead, and non-living?

16. Where is your genetic material found?

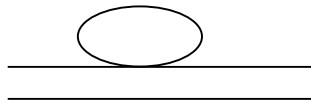
17. What is your genetic material for?



18. This picture represents a cell in your body and your blood stream. The dots represent food molecules. Every cell in our body needs food to survive. Food is pumped throughout our body by the heart, but food molecules actually enter the cell by \_\_\_\_\_. Which way will the food molecules move? Draw an arrow or explain.

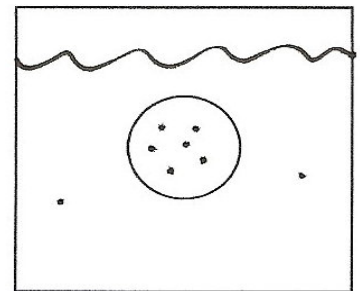


19. The picture below represents the blood stream and a lung cell. Use dots to represent oxygen molecules ( $O_2$ ). Draw how many oxygen molecules will be in the lung cell and blood stream and then show which way the oxygen molecules will move.



20. If you put a potato in salt water what will happen? Why?

21. Which way will the water move in this example? The dots represent salt molecules.



22. You take an amoeba that normally lives in fresh water and you place it in salt water. Label the diagram with high concentration of water and low concentration of water. Then draw an arrow showing which way the water will move. What is this process called?