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**Cells Test Study Guide**

**Directions: Pick *25* questions to answer.**

1. What do all cells have in common? *All cells have cytoplasm.*
2. The smallest form of life and the most basic unit of all living organisms is the *cell.*
3. State the three most important parts of the cell theory.

* *Cells are the basic unit of all living organisms.*
* *All cells come from pre-existing cells.*
* *All organisms (living things) are made up of one or more cells.*

1. What is next in this series? Cells -> Tissues -> Organs -> ? *Organ Systems*
2. A cell membrane is described as selectively permeable. What does this mean?
   1. Will not allow any materials in or out of the cell
   2. Will only allow water in or out of the cell
   3. *Will allow some materials in or out of the cell but will not allow other materials*
   4. Will allow all materials in or out of the cell
3. It is important for materials to be able to move around the inside of a cell. Which organelle acts as a transportation system for these materials? *Endoplasmic Reticulum*
4. E. coli is a dangerous bacteria that is one-celled and doesn’t have a nucleus. What kind of organism is E. coli? *Prokaryotic*
5. Complete the analogy: Rolesville MS is to a cell as lockers are to *Vacuoles*
6. A plant’s green color and its ability to make its own food by converting sunlight into energy are due to the presence of which organelle? *Chloroplasts*
7. Which organelle is responsible for directing all of the activities of the cell? *Nucleus*
8. This organelle is a lot like a post office because it packages proteins and gets them ready to be delivered to other parts of the cell. *Golgi Body or Golgi Apparatus*
9. Which organelle is most likely to assist in secretion or getting rid of materials? *Lysosome*
10. What material helps keeps the organelles in place inside of the cell? *Cytoplasm*
11. In order to find food and move from one location to another, the euglena uses a tail-like structure called a *flagellum.*
12. Which part of a cell determines the traits and ‘writes the laws’ of the cell? *Chromatin*
13. Which of the following is true about bacteria?
    1. They all cause disease
    2. They cannot be treated by antibiotics
    3. They are multi-celled
    4. *They are prokaryotic*
14. Cells need energy in order to do their jobs. Which organelle is responsible for breaking down glucose (sugar) to release energy for the cell? *Mitochondria*
15. Besides water, other materials such as salt, wastes, and oxygen need to move through the cell membrane. What process allows materials to move across the membrane? *Diffusion*
16. Food cannot pass through the cell membrane until it has been completely broken down into a usable form. What is the usable form of food needed for energy?
    1. Protein
    2. Lipids
    3. Cellulose
    4. *Glucose*