## 6th Grade Review –Organization of Life (SC.6.P.14.1-4)

1.) Sketch a triangle to create a diagram showing how life is organized from LEAST complex (top of pyramid) to MOST complex (bottom of pyramid). Put the following terms in the correct order within your pyramid: ***TISSUES, ORGANISM, CELLS, ATOMS, ORGAN SYSTEM,***

 ***MOLECULES (COMPOUNDS)*, *ORGANELLES, ORGANS*.** *(can also sketch pyramid upside down)*

 2.) What is the missing structure in the sequence of pictures below? Label pictures using

 vocabulary terms above.

3.) What type of cell is shown to the right? How is this cell **different** than a plant cell? *(provide 2 reasons)*

4.) What are the **3** major components of **cell theory**?

5.) What is homeostasis?

6.) List **3** examples of how cells within the body perform **homeostasis**.

7.) Examine the diagram to the left showing cellular respiration and photosynthesis. In **2-3 sentences**, describe how **homeostasis is related** to these two important processes.

**It is important to remember that PS and CR both happen in plants (plants have mitochondria too!), but only CR happens in animals. Animals cannot make their own glucose like plants do during PS.**

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 Snail Fungi Euglena Cactus Butterfly

Which of the following statements describes how the organisms above are an example of cell theory?

**A**. The organisms have cells and lack a nucleus.

**B**. The organisms are made of one or more cells.

**C**. The cells of the organisms undergo photosynthesis.

**D**. The cells are all identical to each other.

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9.) **T/F** Some organisms, like bacteria, are made of only 1 cell (unicellular), while other organisms, such as humans, are multicellular.

10.) **T/F** Some cells do not have a nucleus, therefore the DNA is floating around in the cytoplasm.

11.) *Complete table below regarding cell organelles*:

|  |  |
| --- | --- |
| **ORGANELLE** | **FUNCTION** |
| CELL WALL |   |
| CELL MEMBRANE |  |
| NUCLEUS |  |
| CYTOPLASM |  |
| CHLOROPLASTS |  |
| MITOCHONDRIA |  |
| VACUOLES |  |

12.) Why do plant cells have a cell wall, but animal cells do not?

13.) How is cell theory related to mitosis and meiosis?

14.) Why is it necessary for plant cells to have a larger vacuole than animal cells? *(Hint: think about the function of a vacuole!)*

15.) In which organelle does (**A)** photosynthesis and (**B**) cellular respiration take place?