7th Grade Life Science Review

**Cell Structure and Function**

What are the 6 characteristics of life? What are the needs of a living thing?

1. Made of 1.W
2. Re 2. L
3. Re 3. H
4. G 4. E
5. Made of
6. Use
7. What is the difference between unicellular and multicellular organisms?
8. What is a cell
9. These structures in the cell perform specific functions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. \_\_\_\_Controls what enters and leaves a cell
11. \_\_\_\_Makes proteins.
12. \_\_\_\_ The area between the nucleus and the cell membrane.
13. \_\_\_\_Powerhouses of the cell; produce energy the cell can use.
14. \_\_\_\_Control center of a cell.
    1. Nucleus
    2. Cell Membrane
    3. Ribosomes
    4. Mitochondria
    5. Cytoplasm

**Growth and Development**

1. Complete the chart below on the levels of organization

|  |  |  |
| --- | --- | --- |
| Level | Definition | Example |
|  | The basic unit of structure and function in an organism |  |
|  | A group of similar cells that work together to do a task |  |
|  | A group of tissues working together to perform an essential function for the body |  |
|  | Group of organs working together to perform a major function for an organism |  |
|  | A complete living thing |  |

1. Complete the table below on the tissues of the body

|  |  |  |
| --- | --- | --- |
| Name of Tissue | Function of the Tissue Type | Example |
|  | Connects and supports the parts of the body | Blood |
|  | Allows movement | Skeletal muscle tissue |
|  | Covers and protects the surfaces of the body inside and out | Digestive system lining |
|  | Sends messages through the body | Nerve fibers |

1. What happens during photosynthesis?
   1. What kinds of organisms undergo photosynthesis?
   2. What is the purpose of photosynthesis?
   3. Where does the energy for photosynthesis come from?
   4. What is the photosynthesis equation?
2. What happens during cellular respiration?
   1. What kinds of organisms perform cellular respiration?
   2. What is the purpose of cellular respiration?
   3. Where does the food used in cellular respiration come from?
   4. What is the respiration equation?
   5. How are photosynthesis and respiration related?

**Human Response**

1. Messages are transported through the nervous system by cells called
2. What is a nerve impulse?
3. What are the three different kinds of neurons and what do they do?
   1. \_ – receives stimuli from a sensory receptor and converts it to an impulse
   2. – transmits impulses from one neuron to another
   3. – transmits messages to a nerve or gland, causing a reaction
4. The **central nervous system** consists of two main parts. What are they?  **\_\_\_\_\_\_**
5. What part of the brain coverts short term memories to long term memories?

**Genetics**

1. What are genes and where are they located?
2. All of your traits are coded in your: Offspring get their traits from their:
3. What is a mutation?
4. Which types of characteristics can be inherited?
5. If you cross BB with Bb (B= brown, b= blue), what would be the possible genotypes of the offspring?
6. If “B” stands for the dominant form of the gene (brown eyes), and “b” stands for the recessive form of the gene (blue eyes), what phenotype would a person with the genotype Bb have?
7. Offspring get \_\_\_\_\_% of their DNA from each of their parents in sexual reproduction.
8. Offspring get \_\_\_\_\_% of their DNA from their parents in asexual reproduction.

BrainPOP:

www.brainpop.com

Log-in

Username: ncms08

Password: panther

Feel free to log in to BrainPOP and watch episodes of interest to you. Especially look at the videos under the Science tabs, and the Health tab. Many of them relate to topics we’ve learned this year.

Our next unit of study will be Plants. Feel free to watch any episodes related to plants.

You may email me with questions during our absence from school.

[acthomp@carrollk12.org](mailto:acthomp@carrollk12.org)