Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_

**DUE on TEST DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Nature of Science

**Nature of Science**

1. What is a variable ?
2. What is the dependent variable ?
3. What is the independent variable ?
4. What is a control group ?
5. What are constants ?
6. List the steps of the scientific Method
7. What is an observation?
8. What is the difference between a qualitative and quantitative observation ?
9. What is an inference?

Topic 8 Part

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| 1. What are the 3 components of cell theory?   1.  2.  3. |
| 1. What is an organelle? |
| 1. Name the organelle that Plants and Animal cells BOTH have.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: controls all the activities of the cell (largest organelle)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: makes ribosomes  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: gelatin-like material inside the cell membrane  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: (has ribosomes) – site of protein production / carries materials through the cell  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: (no ribosomes) – makes lipids and helps remove harmful substances  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: where the energy in food is stored/ produces energy through cellular respiration  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: flattened membranes that prepare proteins for specific jobs  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: create proteins  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: protective layer around all cells.  Controls what enters and leaves the cell. |
| 1. What organelles do PLANT CELLS have, but ANIMAL cells Do Not???   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: the cells of plants  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: green organelles that use light energy and make food by photosynthesis  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: stores food, water, and waste |
| 1. What organelles do ANIMAL CELLS have, PLANT cells do not???   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: breaks down food materials, wastes, and old cells  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: a network of threadlike proteins that are joined together |
| 1. What is passive transport? |
| 1. Describe the 2 types of passive transport.   Diffusion –  Osmosis – |
| 1. What is active transport? |
| 1. What are the 2 types of active transport?   Endocytosis –  Exocytosis – |

1. Give the function of each body system
   1. Muscular
   2. Nervous
   3. Skeletal
   4. Respiratory
   5. Circulatory
2. What is the importance of the skeletal system?
3. What is the definition of homeostasis?

1. What function of the skeletal system keeps the lungs from getting damaged?
2. What two systems work together to allow our bodies to move?
3. What 3 things can the nervous system perform?
4. How does the nervous system take on information?
5. List your 5 senses
6. What are 3 types of muscle cells and where can they be found?
7. What is the first line of defense of the human body?
8. Where does digesting food begin and where does it end ?
9. What role does the liver play in the human body? (digestive and excretory)
10. List the organs that make up the respiratory system