

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

## Cell Review Worksheet

### Cell Theory

1. What invention was an early step in the discovery of cells? \_\_\_\_\_

2. What are the 3 major principles of the cell theory?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

3. Contrast the characteristics of the 2 major groups of cells:

<b>Prokaryotic</b>	<b>Eukaryotic</b>
Draw a picture of a prokaryotic cell	Draw 2 pictures of eukaryotic cells (animal and plant)
List organelles:	List organelles:
Types of prokaryotic cells: BACTERIA	Types of eukaryotic cells: ANIMAL AND PLANT

4. Contrast the characteristics of the 2 major eukaryotic cells

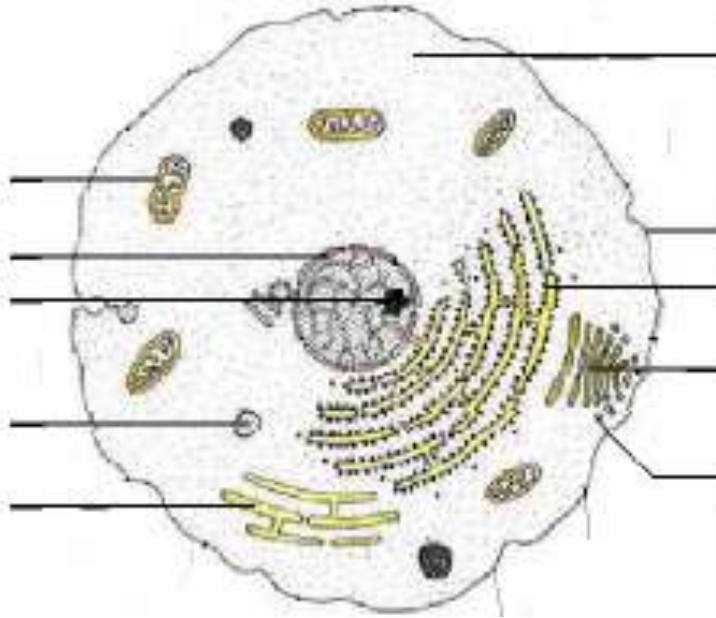
<b>Animal</b>	<b>Plant</b>
Draw an animal cell	Draw a plant cell
List organelles an animal cell has that a plant cell does not have:	List organelles a plant cell has that an animal cell does not have:

## Cell Organelles

5. Use the word bank below to answer the following questions. Some words may be used more than once:

<b>Cytoskeleton</b>	<b>Vesicle</b>	<b>Nucleus</b>	<b>Nucleolus</b>	<b>rough ER</b>	<b>Ribosome</b>	<b>smooth ER</b>
<b>Golgi apparatus (body)</b>		<b>Mitochondria</b>		<b>Vacuole</b>		<b>Lysosome</b>
<b>Cell Membrane</b>	<b>Cytoplasm</b>	<b>Chloroplast</b>		<b>Cell wall</b>		<b>Centrioles</b>

a. What type of cell is this? \_\_\_\_\_ Label the cell parts:



b. Which organelle creates the energy required by cells? \_\_\_\_\_

c. Which organelles create proteins? \_\_\_\_\_

d. Which organelles processes and transports proteins? \_\_\_\_\_

e. Which organelle contains digestive enzymes to break down foreign invaders? \_\_\_\_\_

f. Which organelle is a network of fibers that criss-cross to support a cell from the inside? \_\_\_\_\_

g. Which organelle performs photosynthesis to make sugar? \_\_\_\_\_

h. Which organelle is thought to help with cell division in animal cells? \_\_\_\_\_

i. Which cell part is the internal fluid found in all cells? \_\_\_\_\_

j. Which organelle holds DNA and chromosomes? \_\_\_\_\_

k. Which cell part is made of cellulose that provides rigid support? \_\_\_\_\_

l. Which organelle is studded with ribosomes and is often the site of protein synthesis? \_\_\_\_\_

m. Which organelle breaks down alcohol, and can also break down and make lipids? \_\_\_\_\_

n. Which organelle is responsible for making ribosomes? \_\_\_\_\_

o. Which organelle carries materials from one part of the cell to another? \_\_\_\_\_

p. Which organelle is a sac filled with fluid inside a cell; it stores materials the cell needs? \_\_\_\_\_

6. Macromolecules: List everything that you know about the different macromolecules in each box

<b><u>Lipids</u></b> <ul style="list-style-type: none"><li>• <b><u>NOT SOLUBLE IN WATER</u></b></li><li>• <b><u>USED FOR ENERGY STORAGE</u></b></li><li>• <b><u>COMMUNICATION</u></b></li><li>• <b><u>MAKE UP THE CELL MEMBRANE</u></b></li></ul>	<b><u>Nucleic Acids</u></b> <ul style="list-style-type: none"><li>• <b><u>NUCLEOTIDES</u></b></li><li>• <b><u>CONTAIN DNA AND RNA</u></b></li><li>• <b><u>IN THE NUCLEUS</u></b></li><li>• <b><u>CONTAINS THE THE GENTIC INFO, BLUE PRINTS FOR THE CELL</u></b></li></ul>
<b><u>Carbohydrates</u></b> <ul style="list-style-type: none"><li>• <b><u>LONG CHAINS OF SUGAR MOLECULES</u></b></li><li>• <b><u>STORES ENERGY</u></b></li><li>• <b><u>COMMUNICATION</u></b></li></ul>	<b><u>Proteins</u></b> <ul style="list-style-type: none"><li>• <b><u>AMINO ACID MOLECULES</u></b></li><li>• <b><u>COMMUNICATION</u></b></li><li>• <b><u>STRUCTURE (CYTOSKELETON)</u></b></li><li>• <b><u>CHEMICAL BRAKEDOWN OF SUBSTANCES</u></b></li><li>• <b><u>ENZYME</u></b></li></ul>

List 2 was that each macromolecule is related

- a. Lipids and Carbohydrates \_\_\_\_\_  
\_\_\_\_\_
- b. Lipids and Proteins \_\_\_\_\_  
\_\_\_\_\_
- c. Lipids and Nucleic Acids \_\_\_\_\_  
\_\_\_\_\_
- d. Carbohydrates and Proteins \_\_\_\_\_  
\_\_\_\_\_
- e. Carbohydrates and Nucleic Acids \_\_\_\_\_  
\_\_\_\_\_
- f. Proteins and Nucleic Acids \_\_\_\_\_  
\_\_\_\_\_

7. What are the steps to properly use a microscope? \_\_\_\_\_  
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