

NAME _____ HOUR _____ DATE _____

CELLS ALIVE

http://cellsalive.com/cells/cell_model.htm

Instructions: Go to the website above. Click on Animal Cell, locate the organelle in the picture that corresponds to the question, read the information, then answer each question.

1. **Nucleus:**

- a. What is found in the nucleus that is responsible for providing the cell with its unique characteristics?

- b. Some genes may be turned on or off in this structure that is found in the nucleus. Name this structure and explain why this occurs?

- c. What happens to the nuclear chromatin when a cell divides?

2. **Nucleolus:**

- a. What is the purpose of the nucleolus?

- b. Where do the structures go that are made by the nucleolus?

3. **Cytosol:**

- a. List 2 reasons why the cytosol is important:
 - 1.
 - 2.

- b. What is the difference in the cytosol and the cytoplasm?

4. **Centrosomes:**

a. What are centrosomes?

b. How are they used?

5. **Golgi Apparatus:**

a. What is it?

b. What is its function?

6. **Lysosomes:**

a. What do they contain and how is it used?

7. **Cell Membrane:**

a. How many layers of phospholipids are there and what are they called?

b. The heads of the bi-layer are water loving. What term means “water loving”?

c. The term hydrophobic is used for the hidden tails of the cell membrane bi-layer. What does this term mean?

d. The cell membrane contains protein receptors. What is their function?

8. **Mitochondrion:**

- a. What is the function of the mitochondrion?

- b. The inner membrane of the mitochondrion increases the surface area which enable food to combine with oxygen to produce what substance?

- c. What is this inner surface area called?

9. **Vacuole:**

- a. What is the role of the vacuole?

10. **Smooth & Rough Endoplasmic Reticulum** (2 different pages):

- a. Explain the difference between the smooth and rough endoplasmic reticulum.

-Rough:

-Smooth:

- b. What is the function of the smooth endoplasmic reticulum?

- c. What happens to the proteins produced in the ribosomes on the rough endoplasmic reticulum?

11. **Ribosomes:**

- a. Ribosomes are the site for _____.

12. Cytoskeleton:

a. Name 2 functions of the cytoskeleton:

1.

2.

b. What are the 3 primary protein filaments:

1.

2.

3.