

Name: \_\_\_\_\_ KEY \_\_\_\_\_ Block: \_\_\_\_\_ Date: \_\_\_\_\_

**Biology 12 - The Cell**

Part A: In **ONE** sentence, in the space provided, describe the function of the following organelles. **Use point form.** Use your own words. **Paraphrase** and **condense** the textbook definitions. **DO NOT** copy any definition or part of a definition. In the box to the left of each definition, make a **sketch** of the organelle.

SEE NOTES	1. cell membrane: <i>control what goes in and out of cell, forms barrier with outside environment</i>
	2. cell wall: <i>structural support in plant cells.</i>
	3. centriole: <i>in animals, function in cell division</i>
	4. chloroplast: <i>in plants, contain photosynthetic pigments that turn light, CO<sub>2</sub> and H<sub>2</sub>O into glucose</i>
	5. chromosome: <i>packaging of DNA in nucleus. Functions in cell division</i>
	6. cilia: <i>on outside of cell, move materials past cells (e.g. in bronchi and kidney tubules) or used in locomotion.</i>
	7. cytoskeleton: <i>internal framework of m.t. and m.f. that move substances in cell and anchor organelles.</i>
	8. flagella: <i>used for locomotion in sperm cells and some single celled organisms</i>
	9. Golgi body: <i>for packaging, modification, secretion of substances for export inside and outside the cell.</i>
	10. lysosomes: <i>contain hydrolytic enzymes for digesting foods, destroy wastes, autodigestion</i>
	11. microfilament: <i>fibrous protein filaments used for structural support (e.g. cytoskeleton) and anchoring.</i>
	12. microtubule: <i>tubes of protein monomers used in cilia, flagella, cytoskeleton</i>
	13. mitochondria: <i>make energy for the cell by converting O<sub>2</sub> and glucose to CO<sub>2</sub>, H<sub>2</sub>O and ATP</i>
	14. nucleolus: <i>site of rRNA production and ribosomal subunit assembly in nucleus.</i>
	15. nucleus: <i>contains DNA, controls cell activities including cell division.</i>
	16. plastids: <i>pigment containing vesicles in plants that function in photosynthesis. Most famous plastid is the chloroplast.</i>
	17. ribosome: <i>site of protein synthesis</i>
	18. rough endoplasmic reticulum: <i>anchors ribosomes in protein synthesis, accepts and modifies newly transcribed proteins and sends to Golgi apparatus</i>
	19. smooth endoplasmic reticulum: <i>lipid synthesis, modification</i>
	20. vacuoles: <i>large vesicles. In plants, function to store water and nutrients, help support plant due to Turgor pressure</i>
	21. vesicle: <i>membrane-bound sacs for transporting materials in, around, and out of the cell, also used for storage of various materials.</i>

**Part B: Mix and Match! Each definition has only one correct matching answer**

G	1. internal framework that anchors organelles, gives shape	A) cell membrane
L	2. cellular "ropes" made of repeating units of the protein <i>actin</i>	B) cell wall
K	3. hollow tubes for transport, movement, made of actin & tubulin proteins	C) centriole
I	4. vesicles pinch off these structures; proteins modified and packaged here	D) chloroplast
J	5. cellular "stomach"	E) chromosome
A	6. selectively permeable "doorman"	F) cilia
D	7. the most important plastid, turns CO <sub>2</sub> , H <sub>2</sub> O, sunlight into glucose	G) cytoskeleton
T	8. membrane-bound spheres that store water & dissolved materials. Membrane surrounding it is called a <i>tonoplast</i> . Plants have a large, central one.	H) flagella
N	9. site of rRNA production in nucleus	I) Golgi body