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: *control what goes in and out of cell, forms barrier with outside environment*
	2. cell wall: *structural support in plant cells.*
	3. centriole: *in animals, function in cell division*
	4. chloroplast: *in plants, contain photosynthetic pigments that turn light, CO_2 and H_2O into glucose*
	5. chromosome: *packaging of DNA in nucleus. Functions in cell division*
	6. cilia: *on outside of cell, move materials past cells (e.g. in bronchi and kidney tubules) or used in locomotion.*
	7. cytoskeleton: *internal framework of m.t. and m.f. that move substances in cell and anchor organelles.*
	8. flagella: *used for locomotion in sperm cells and some single celled organisms*
	9. Golgi body: *for packaging, modification, secretion of substances for export inside and outside the cell.*
	10. lysosomes: *contain hydrolytic enzymes for digesting foods, destroy wastes, autodigestion*
	11. microfilament: *fibrous protein filaments used for structural support (e.g. cytoskeleton) and anchoring.*
	12. microtubule: *tubes of protein monomers used in cilia, flagella, cytoskeleton*
	13. mitochondria: *make energy for the cell by converting O_2 and glucose to CO_2, H_2O and ATP*
	14. nucleolus: *site of rRNA production and ribosomal subunit assembly in nucleus.*
	15. nucleus: *contains DNA, controls cell activities including cell division.*
	16. plastids: *pigment containing vesicles in plants that function in photosynthesis. Most famous plastid is the chloroplast.*
	17. ribosome: *site of protein synthesis*
	18. rough endoplasmic reticulum: *anchors ribosomes in protein synthesis, accepts and modifies newly transcribed proteins and sends to Golgi apparatus*
	19. smooth endoplasmic reticulum: *lipid synthesis, modification*
	20. vacuoles: *large vesicles. In plants, function to store water and nutrients, help support plant due to Turgor pressure*
	21. vesicle: *membrane-bound sacs for transporting materials in, around, and out of the cell, also used for storage of various materials.*

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 *actin*	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_2, H_2O, sunlight into glucose	G) cytoskeleton
T	8. membrane-bound spheres that store water & dissolved materials. Membrane surrounding it is called a *tonoplast*. Plants have a large, central one.	H) flagella
N	9. site of rRNA production in nucleus	I) Golgi body