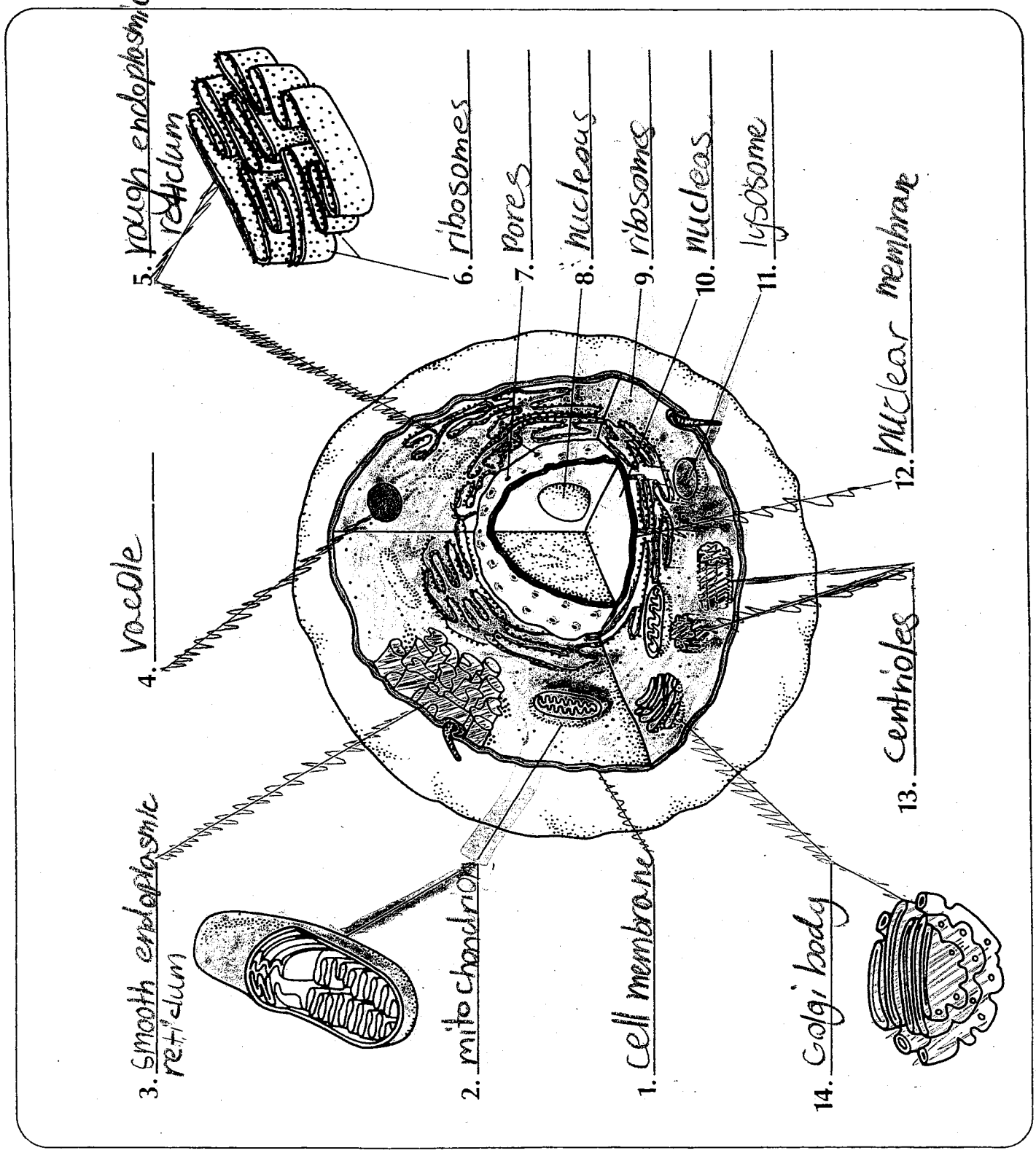
NAME _____ CLASS _____ DATE _____

CHAPTER

5

OVERHEAD TRANSPARENCY MASTER

Generalized Structure of an Animal Cell



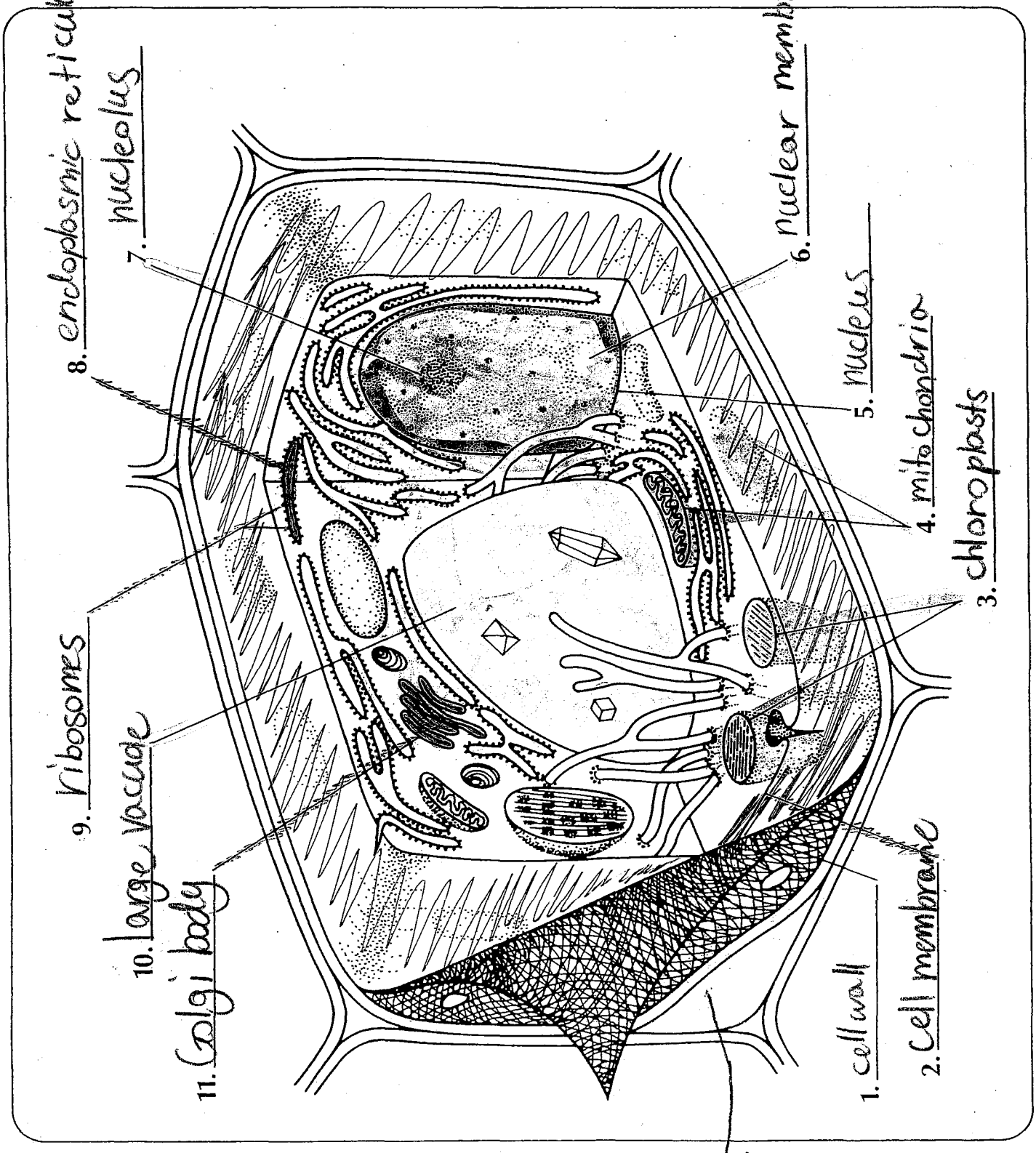
NAME Olivia Carlino CLASS Period 4 DATE 10/1/18

CHAPTER

5

OVERHEAD TRANSPARENCY MASTER

Generalized Structure of a Plant Cell



Name: Answer Key

Organelle Practice Q's

Plant vs. Animal C

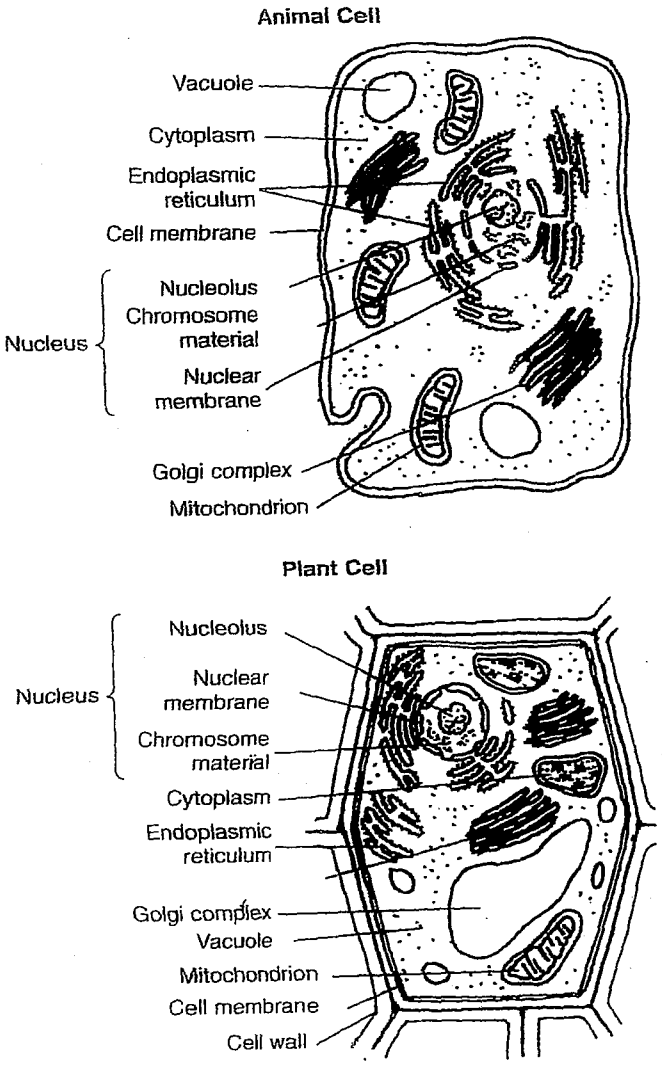


Figure 1-1. Generalized animal and plant cells.

QUESTIONS

1. The term "semipermeable" is used in reference to the (1) nucleolus (2) cell wall (3) cytoplasm (4) cell membrane
2. The canals that connect the cell membrane with the nuclear membrane are the (1) ribosomes (2) lysosomes (3) endoplasmic reticulum (4) nuclei
3. The part of a cell that is in most direct contact with the environment is the (1) nucleus (2) cell membrane (3) mitochondrion (4) centrioles
4. Plant cell organelles that contain photosynthetic pigments are (1) chloroplasts (2) centrioles (3) chromosomes (4) cell walls
5. A student could tell the difference between onion skin cells and cheek cells because the onion skin cells have a (1) cell membrane (2) nucleus (3) centriole (4) cell wall
6. The sites of protein synthesis in the cytoplasm are the (1) ribosomes (2) lysosomes (3) nuclei (4) centrioles
7. The watery environment in which most life activities of a cell take place is the (1) cell membrane (2) chloroplast (3) cytoplasm (4) vacuole
8. Intracellular transport of materials is most closely associated with which cell organelle? (1) cell membrane (2) cell wall (3) ribosome (4) endoplasmic reticulum
9. Centrioles are normally present in the (1) cytoplasm of onion cells (2) cytoplasm of cheek cells (3) nuclei of liver cells (4) nuclei of bean cells
10. Which organelle contains hereditary material and controls most cell activities? (1) nucleus (2) cell membrane (3) vacuole (4) endoplasmic reticulum
11. Centrioles are cell structures involved primarily in (1) cell division (2) storage of fats (3) enzyme production (4) cellular respiration
12. The cell organelles that are the sites of aerobic cellular respiration in both plant and animal cells are (1) mitochondria (2) centrioles (3) chloroplasts (4) nuclei
13. An increase in the concentration of ATP in a muscle cell is a direct result of which life function? (1) respiration (2) reproduction (3) digestion (4) excretion
14. An organelle found within the cell nucleus is a (1) centriole (2) nucleolus (3) chloroplast (4) mitochondrion
15. An organelle that is present in the cells of a mouse but *not* present in the cells of a bean plant is a (1) cell wall (2) chloroplast (3) cell membrane (4) centriole
16. A nonliving cell structure is a (1) cell membrane (2) nucleus (3) cell wall (4) Golgi complex

Questions

Multiple Choice

11. The unit of structure and function of all living things is (1) an organ (2) an atom (3) a cell (4) a nucleolus

12. According to the cell theory, which statement is correct? (1) Viruses are true living cells. (2) All cells are basically unalike in structure. (3) Mitochondria are found only in plant cells. (4) All cells come from preexisting cells.

13. Chloroplasts and mitochondria are examples of (1) cells (2) tissue (3) organelles (4) organs

14. The term "selectively permeable" is used in reference to the (1) nucleus (2) cell wall (3) cytoplasm (4) cell membrane

15. The part of a cell that is in most direct contact with the environment is the (1) nucleus (2) cell membrane (3) mitochondrion (4) vacuole

16. Plant cell organelles that contain photosynthetic pigments are (1) chloroplasts (2) ribosomes (3) chromosomes (4) cell walls

17. An observable difference between onion skin cells and cheek cells is that the onion skin cells have a (1) cell membrane (2) nucleus (3) vacuole (4) cell wall

18. The sites of protein synthesis in the cytoplasm are the (1) ribosomes (2) chromosomes (3) nuclei (4) vacuoles

19. The watery environment in which most life activities of a cell take place is the (1) cell membrane (2) chloroplast (3) cytoplasm (4) vacuole

20. Transport of materials into and out of a cell is most closely associated with the (1) nucleus (2) cell wall (3) ribosome (4) cell membrane

21. Which organelle contains genetic material and controls most cell activities? (1) nucleus (2) cell membrane (3) vacuole (4) endoplasmic reticulum

Cell City Analogy

In a far away city called Grant City, the main export and production product is the steel widget. Everyone in the town has something to do with steel widget making and the entire town is designed to ~~build~~ and export widgets. The town hall has the instructions for widget making, widgets come in all shapes and sizes and any citizen of Grant can get the instructions and begin making their own widgets. Widgets are generally produced in small shops around the city, these small shops can be built by the carpenter's union (whose headquarters are in town hall).

After the widget is constructed, they are placed on special carts which can deliver the widget anywhere in the city. In order for a widget to be exported, the carts take the widget to the postal office, where the widgets are packaged and labeled for export. Sometimes widgets don't turn out right, and the "rejects" are sent to the scrap yard where they are broken down for parts or destroyed altogether. The town powers the widget shops and carts from a hydraulic dam that is in the city. The entire city is enclosed by a large wooden fence, only the postal trucks (and citizens with proper passports) are allowed outside the city.

Match the parts of the city (underlined) with the parts of the cell.

1. Mitochondria Hydraulic dam
2. Ribosomes Small Shops
3. Nucleus Town hall
4. Endoplasmic Reticulum Special carts
5. Golgi Apparatus Postal office
6. Protein Widget
7. Cell Membrane Fence
8. Lysosomes Scrapyard
9. Nucleolus Carpenter's union