

- 2. <u>AFTER</u> reading 4.1  $\rightarrow$  4.22, indicate whether each statement below is TRUE or FALSE
- 3. Indicate in the last table column what textbook page you read to learn the correct answer for each statement.

	<u>Before</u> reading <b>T/F</b>	Cell Tour Statements	<u>After</u> reading <b>T/F</b>	Textbook page
1		Many details of cell surface structures were discovered using the transmission electron microscope (TEM)		
2		Light microscopes are the only microscopes that can be used by biologists to study living specimens.		
3		An electron microscope can see cell details that are 100,000 times smaller than what a light microscope can see.		
4		Living cells have to remain tiny because the cell's surface area grows faster than the cell's volume which limits how many nutrients they can obtain.		
5		Viruses are much smaller in size than bacteria cells.		
6		Prokaryotic cells are different from eukaryotic cells because prokaryotes have a membrane-wrapped nucleus and many different membrane-enclosed organelles.		
7		The cell membrane is a two-layer sheet of phospholipids with the hydrophilic polar heads of the molecules facing inward and the hydrophobic tails facing outward		
8		The Smooth Endoplasmic Reticulum (SER) functions include synthesizing lipids and hormones as well as detoxifying substances harmful to the cell.		
9		The Golgi apparatus is a series of flattened membrane sacs that store digestive enzymes for breaking down cellular foods and wastes.		
10		Plant cells have a large central vacuole that can store cell waste and sometimes poisons used against predators.		
11		The cytoskeleton is a rigid and inflexible carbohydrate inner frame for the cell that protects the cell from being crushed		
12		Centrioles function to build microtubules which serve as tracks for the movement of organelles across the cell as well as helping chromosomes move during cell division.		

## EOR#4

## Chapter 4 (Eukaryotic Cell Features)

## **Directions**:

1. Read Chapter  $4.1 \rightarrow 4.22$ 

- 2. Fill out the TABLE below with the following information for each organelle:
  - Summarize the FUNCTION
  - Draw a diagram of the organelle indicating its key structural features

Cell Organelle	FUNCTION	Diagram of SHAPE
Nucleus		
Nucleolus		
Chromatin		
Rough ER		
Smoth ER		
Golgi Apparatus		
Vesicle		
Lysosome		
Vacuole		
Chloroplast		
Mitochondria		
Cytoskeleton		
Cell Wall		