

Ch 3/4 Cells

1. describe the following cell structures and their functions:

- cell membrane
- mitochondria
- smooth and rough endoplasmic reticulum
- ribosomes
- Golgi bodies
- vesicles
- vacuoles
- lysosomes
- nuclear envelope
- nucleus
- nucleolus
- chromosomes

2. identify the functional interrelationships of cell structures

3. identify the cell structures in diagrams and electron micrographs **DRAW**

4. apply knowledge of organic molecules to explain the structure and function of the fluid-mosaic membrane model **DRAW**

5. explain why the cell membrane is described as "selectively permeable"

6. compare and contrast the following: diffusion, facilitated transport, osmosis, active transport

7. predict the effects of hypertonic, isotonic, and hypotonic environments on animal cells

8. demonstrate an understanding of the relationship and significance of surface area to volume; with reference to cell size

9. describe how the polarity of the water molecule results in hydrogen bonding

10. distinguish among acids, bases, and buffers, and indicate the importance of pH to biological systems