

1. Be able to identify name and function of each structure in the animal cell diagram above.
2. Know the following terms and how they relate to the cell and its organelles: aerobic, ATP, enzyme, phagocytosis, exocytosis, mitotic spindle, lipid, steroid, cell division, synthesis, and autolysis.
3. Know the structure and function of each of the following organelles: nucleus, mitochondria, lysosomes, ribosome, plasma (cell) membrane, rough endoplasmic reticulum, smooth endoplasmic reticulum, vesicle, nucleolus, flagella, cilia, microtubules, microfilaments, centrioles, flagella, cilia, microvilli and nuclear membrane (envelope).
4. Distinguish between a cell inclusion and a cell organelle.



1. Be able to identify name and function of each structure in the fluid mosaic model above.
2. Know the following terms and how they relate to the membrane transport: hydrophilic heads, hydrophobic tails, glycocalyx, nonpolar regions, polar region, identification “tags”, peripheral proteins, and integral proteins.
3. Distinguish between passive and active transport.
4. Know the three (3) tenets of the cell theory.
5. Be able to compare and contrast the structure and function of desmosomes, tight junctions, and gap junctions.
6. What are the steps of protein synthesis?
7. Where in the cell does each step of protein synthesis take place?
8. What role does each of the following play in protein synthesis? Messenger RNA, ATP, ribosomal RNA, transfer RNA, and synthetase enzymes.
9. Sketch and label the phase of the Cell Cycle and Mitosis.
10. Be able to identify the description of interphase, prophase (late vs. early), metaphase, anaphase, and telophase.
11. What happens to a human red blood cell placed in a hypotonic, isotonic, and hypertonic solutions?