EXAM EXPECTATIONS
MYP Biology Exam
"Unit 9 Cell Structure & Function"

STATE that the cytoskeleton is dynamic, it is continually breaking and reforming
STATE that the cytoskeleton is required for amoeboid movement and cytoplasmic streaming
STATE the role of ATP in cells
STATE that proteins are responsible for most functions performed by plasma membranes
STATE the endosymbiotic theory
STATE the cell theory
STATE the functions of each cellular organelle (limited to those in the powerpoint)
DEFINE autopsy
DEFINE chronic
DEFINE permeable
DEFINE hydrophilic, hydrophobic
DEFINE nonpolar molecules, polar molecules
DEFINE concentration gradient
DEFINE lysis
DEFINE protozoans
DEFINE fatty acids, glycerol
LIST traits of substances or molecules that allow them to pass freely through a plasma membrane
LIST some common molecules that pass freely through a plasma membrane
LIST traits common to all cells
LIST the organelles that belong to the endomembrane system
LIST three types of protein fibers that make up the cytoskeleton
LIST the following cells in order from smallest to largest: frog egg, ostrich egg, human muscle cell, human red blood cell and a bacteria
IDENTIFY the route that a protein would travel as it moves through the endomembrane system
IDENTIFY the roles of the cytoskeleton
OUTLINE how white blood cells eat bacteria
OUTLINE roles performed by proteins embedded in the plasma membrane
OUTLINE the role of cholesterol in membranes
OUTLINE the location and role(s) of plasmodesmata
OUTLINE the fluid mosaic model
OUTLINE transcription and translation (protein synthesis)
OUTLINE the role(s) of the extracellular matrix
OUTLINE the relationship between surface and volume in a cell
OUTLINE endocytosis and exocytosis
COMPARE eukaryotic and prokaryotic cells
COMPARE plant and animal cells
COMPARE mitochondria and chloroplasts
COMPARE phagocytosis and pinocytosis
COMPARE diffusion and facilitated diffusion
COMPARE passive and active transport
COMPARE the different cellular junctions in animal cells
COMPARE nucleus and nucleolus
EXPLAIN diffusion, osmosis
EXPLAIN why cells are small
EXPLAIN the importance of membrane bound organelles
PREDICT the movement of water across a membrane when given solute concentrations on both sides
DISCUSS the meaning or usefulness of the terms: hypotonic, hypertonic and isotonic
DISCUSS the effect(s) of hypotonic, hypertonic and isotonic solutions on plant and animal cells