

EXAM EXPECTATIONS
MYP Biology EXAM
“Unit 3- Common Challenges: Nutrition & Thermoregulation”

STATE that plant cells do both cellular respiration and photosynthesis
STATE the organelle in which photosynthesis occurs
STATE the organelle in which cellular respiration occurs
STATE the charge of *H* and *K* ions
STATE that opposite charges attract
STATE where bile is produced, where it is stored
DEFINE digestion
DEFINE endotherms, ectotherms
DEFINE thermoregulation
DEFINE aerophiles
DEFINE hibernation
DEFINE colonialism
DEFINE symbiosis
DEFINE mutualism
DEFINE rabies
DEFINE estivation
DEFINE cilia, flagella
DEFINE rugae
DEFINE mold
DEFINE sporangia
DEFINE ecosystem
DEFINE chemiosmosis
DEFINE anaerobic respiration
DEFINE glycolysis
DEFINE digestive enzymes
DEFINE septic tank
LIST physiological responses that occur when the body becomes overheated
LIST the order of stages that occur during food processing
LIST the three most common macronutrients found in commercial fertilizers
LIST the most important decomposers of organic material
LABEL incisors, canines and molars from a model of a mouth/teeth
IDENTIFY conduction from a model of heat transfers
IDENTIFY a macronutrient that plants derive from the air
IDENTIFY an autotroph from a list of living organisms
IDENTIFY the chemical reaction for cell respiration from a list of possibilities
IDENTIFY an organism that has a gastrovascular cavity from a list of living organisms
IDENTIFY the pancreas, liver, stomach and gall bladder from a model
OUTLINE torpor
OUTLINE hibernation
OUTLINE the role of the large intestine/colon
OUTLINE the roles of each part of the human digestive tract and its accessory organs
OUTLINE the role of NADPH in photosynthesis
OUTLINE essential nutrients
OUTLINE homeostasis
OUTLINE carnivorous plants
OUTLINE where most of a plant's mass is derived from
OUTLINE root hairs
OUTLINE convection, conduction, evaporation, induction and radiation
OUTLINE the stages of food processing
OUTLINE a greenhouse
OUTLINE a gizzard
OUTLINE the contents a commercial potting mix (in general)
OUTLINE how cells capture and release energy during cell respiration

OUTLINE mycorrhizae
OUTLINE nitrogen fixation
DESCRIBE an adaptation found in Koala bears that help them to better digest plant material
DESCRIBE the location(s) and function(s) of villi/microvilli in the digestive system
DESCRIBE why plants make glucose
COMPARE carnivores, herbivores, and omnivores
COMPARE substrate feeding, fluid feeding, filter feeding and bulk feeding
COMPARE the light reactions and the calvin cycle in photosynthesis (keep it general)
COMPARE hyphae and mycelia
COMPARE convection, conduction, evaporation, induction and radiation
COMPARE micronutrients and macronutrients
COMPARE chemoautotrophs, photoautotrophs, chemoheterotrophs, photoheterotrophs
EXPLAIN carbon fixation
EXPLAIN the energy transfer(s) that occur in the mitochondria, the chloroplasts
EXPLAIN why digestion must take place in specialized compartments
DEDUCE a conclusion from experimental data (from van Helmont's experiment)
DEDUCE convection, conduction, evaporation, induction and radiation from a given scenario
DEDUCE the tonicity (hypertonic, hypotonic or isotonic) of a surrounding solution from the direction of water movement depicted in a model
DISCUSS van Helmont's experiment with Willow seedlings
DISCUSS why the nitrogen fixing ability of plants is important in agricultural research
DISCUSS why salty soils are so detrimental to plants
SUGGEST reasons why mutualistic relationships between plants and other organisms may have evolved
SUGGEST the consequences of killing all the fungi in a given ecosystem
ANALYZE a model to determine to charge of a soil particle
ANALYZE a model of nitrogen fixation to identify the nitrogen fixing bacteria