DEFINE hydrolytic enzymes
LIST all places in a eukaryotic cell where you might find ribosomes
LIST five requirements for the maintenance of the Hardy-Weinberg equilibrium
OUTLINE the concept of compartmentalization and its importance to cells
OUTLINE the four levels of protein structure
OUTLINE allosteric regulation
OUTLINE evolutionary fitness
OUTLINE introns and exons
OUTLINE competitive exclusion principle
OUTLINE exon shuffling
OUTLINE why agricultural lands today often require nutritional supplementation
OUTLINE resource partitioning
OUTLINE what it means when we say “genes are highly conserved”
OUTLINE transposition
OUTLINE ecological succession
OUTLINE the role(s) of cellular organelles (limited to those in the ppt)
OUTLINE how enzymes are able to speed up chemical reactions
OUTLINE the Island Equilibrium Model
OUTLINE what it means when we say a disease is multifactorial
OUTLINE the roles of competition, keystone species, disturbances, migration and patchy environments on overall species diversity
DESCRIBE the active site of an enzymes (in general)
DESCRIBE the workings of the endomembrane system
DESCRIBE sickle cell anemia
DESCRIBE the Hubbard Brook Experiment (limited to depth of the textbook)
DESCRIBE the theory of evolution in one sentence
CALCULATE allele or genotypic frequencies using the Hardy-Weinberg equation
IDENTIFY examples of ecosystem services from a list of choices
IDENTIFY threats to biodiversity from a list of choices
COMPARE the structure of starch, cellulose and glycogen
COMPARE the different types of chromosomal mutations (mechanisms, not effects)
COMPARE competitive and non-competitive inhibition of enzyme activity
COMPARE cofactors and coenzymes
COMPARE species richness and abundance
COMPARE ecological stability and resistance
COMPARE sympatric and allopatric populations
SUGGEST the levels of protein structure that could be altered to effect its function(s)
SUGGEST how well adapted structures originate in a population
SUGGEST likely outcomes from the convergence of two continental land masses
SUGGEST a strategy for saving a species from the extinction vortex
SUGGEST likely outcomes from deforestation
DISCUSS the consequences that the production of oxygen had on earth & organisms
DISCUSS the biogeographical aspects of diversity
DISCUSS how the biodiversity crisis relates to ecosystem services that benefit humans
EXPLAIN why humans can digest starch but cellulose
EXPLAIN gene duplication

EXPLAIN why ecosystem services are rarely included in economic analysis
EXPLAIN inducible and repressible operons
EXPLAIN the sources of variations for evolution to work with
EXPLAIN how habitat fragmentation relates to extinction
EXPLAIN why evolution is unable to produce perfect structures or organisms
EXPLAIN interactions that take place between the respiratory and circulatory systems
DEDUCE the location of a proteins synthesis given its final destination/use
DEDUCE evolutionary fitness based upon changing gene frequencies in a population
PREDICT the outcome of an accident on populations with differing diversities
PREDICT which scenario would most likely lead to resource partitioning