DEFINE microevolution
DEFINE exaptation
STATE the most likely first genetic material
LIST 5 requirements that a population must maintain to be in Hardy-Weinberg Equilibrium
LIST products formed as a result of Miller and Urey's experiment
OUTLINE punctuated equilibrium
OUTLINE how genotypic frequencies can change as a result of natural selection
OUTLINE homozygous genotypes and heterozygous genotypes
OUTLINE the bottleneck effect
OUTLINE the likelihood of a mutation occurring in an individual
OUTLINE the likelihood of a mutation occurring in a specific gene locus
OUTLINE evolutionary or Darwinian fitness
OUTLINE sexual selection
DESCRIBE Miller and Urey's experiment
CALCULATE allele and/or genotypic frequencies in a population using the Hardy-Weinberg Equilibrium
IDENTIFY the greatest threat to global biodiversity in particular
IDENTIFY reasons why some believe we are in a biodiversity crisis on this planet
IDENTIFY traits in organisms that make fossilization more or less likely
IDENTIFY evidence that can be used to develop evolutionary trees
IDENTIFY the most important sources of genetic variation in humans both in the short term and long term
IDENTIFY directional, stabilizing or disruptive selection from a given example
IDENTIFY behavioral, gametic, habitat, temporal or mechanical reproductive isolation from a given example
COMPARE divergent and convergent evolution
COMPARE allopatric speciation and sympatric speciation
COMPARE reproductive isolation and habitat isolation
COMPARE prezygotic and postzygotic reproductive barriers
COMPARE prokaryotic and eukaryotic cells
COMPARE plant and animal cells
SUGGEST why life's genetic material may have switched from RNA to DNA
SUGGEST a solution to save a population that finds itself in the extinction vortex
DISCUSS why science believes that prokaryotes preceded eukaryotes
DISCUSS why science believes that glycolysis may have been one of the earliest metabolic pathways in living organisms
DISCUSS the universal nature of the genetic code
EXPLAIN natural selection
EXPLAIN pesticide or antibiotic resistance
EXPLAIN genetic drift
EXPLAIN how the Hawaiian archipelago became so biodiverse
EXPLAIN the formation of fossils
EXPLAIN adaptive radiation
EXPLAIN why small populations are a concern to conservation biologists

PREDICT the results in a population's trait due to natural selection given a description of its habitat before and after change in habitat occurs

DEDUCE which population is subject to the bottleneck effect given certain data

DEDUCE evolutionary relationship(s) from a table of molecular data

DEDUCE amino acid sequences when given either the DNA coding strand, DNA template strand or mRNA strand

DEDUCE the DNA coding strand, DNA template strand or mRNA strand when given a particular amino acid sequence

ANALYZE a phylogenetic tree, for relatedness, common ancestry, extinction, etc