

EXAM EXPECTATIONS

AP Biology

“Unit 5 C-Level”

STATE the basis of Linnaeus’s classification system
STATE the prevailing notion of the earth’s age and species at the time of Darwin
STATE what set Darwin apart from other evolutionary naturalists before him
STATE the names of the four bases that make up DNA
STATE that evolution is the core theme in biology
STATE that all cells use DNA as their genetic material
STATE what the lac operon model attempts to explain
STATE the type of chemical bond found between bases in DNA
STATE the location where fertilization takes place in humans
STATE functions of structures of female or male human reproductive system
STATE a feature common in all gas exchange systems
STATE the subunits of DNA, of a nucleotide
STATE why DNA has a uniform diameter
STATE Chargaff’s observations that eventually led to his “rules”
STATE how Darwinian fitness is measured
STATE that genetic drift, sexual recombination and mutation are chance events
STATE that natural selection does not occur via chance
STATE the most important mechanism that generates variation in human populations
STATE the general probability of gene at a particular locus, or in a particular individual
STATE that much the knowledge of genetics was unknown when Darwin proposed his theory
STATE the single most compelling line of evidence that supports a universal common ancestor
STATE the smallest unit of evolution
DEFINE morphology
DEFINE purines and pyrimidines
DEFINE codon
DEFINE antigens
DEFINE allele
DEFINE polymorphism
DEFINE clines
DEFINE neutral variation
LIST basic tenets of natural selection
LIST 5 requirements for Hardy-Weinberg equilibrium
LIST mechanisms that generate variation in populations
LIST the contributions of the following scientists in chronological order: Griffith, Chargaff, Hershey & Chase, Avery, McCarty & Mcleod, Meselson & Stahl, Watson & Crick
LIST the genetic components that make up an operon