

EXAM EXPECTATIONS
AP Biology
“Unit 10 DNA & Molecular Genetics”

OUTLINE Rflps
OUTLINE ways in which a DNA profile might be more specific
OUTLINE plasmids
OUTLINE how we identify recombinant bacteria
OUTLINE 3 characteristics of the genetic code
OUTLINE thymine dimers
OUTLINE Okazaki fragments
OUTLINE how two members of a homologous pair of chromosomes differ from each other
OUTLINE gel electrophoresis and its roles in biotechnology
OUTLINE the role of DNA probes
OUTLINE PCR (polymerase chain reaction)
OUTLINE a cloning vector
OUTLINE histone acetylation
OUTLINE DNA methylation
OUTLINE genomic imprinting
OUTLINE epigenetic inheritance
OUTLINE the role of histones
OUTLINE polyribosomes
OUTLINE the location and role of an anticodon
OUTLINE a ribozyme
OUTLINE the enzymes involved in DNA replication and their roles
DESCRIBE DNA replication
DESCRIBE protein synthesis (transcription, RNA processing and translation)
DESCRIBE the different levels of DNA folding
DESCRIBE the sequence of steps in inserting foreign DNA into a bacterium
IDENTIFY exergonic and endergonic reactions
IDENTIFY the primary role of oxygen in aerobic cellular respiration
IDENTIFY a model of a molecule that has been cut by restriction enzymes
IDENTIFY variables that would effect the rate at which a molecule moves through the gel in electrophoresis
COMPARE prokaryotic and eukaryotic chromosomes
COMPARE prokaryotic and eukaryotic DNA replication
COMPARE prokaryotic and eukaryotic mRNA
COMPARE prokaryotic and eukaryotic gene expression
COMPARE leading and lagging strands
COMPARE codons and anticodons
COMPARE euchromatic and heterochromatic DNA