

Molecular Genetics Key Definitions

Print out these sheets, then fold the page over on the dotted line to hide the answers, fill in your answers and then open it up to mark your work. Good luck.

Definition	Word	Answer
DNA strand made in short sections of Okazaki fragments during DNA replication		Lagging
Consists of the structural genes, promoter and operator site		Operon
Binds to the repressor altering its shape		Inducer
Molecule which binds to the operator site and suppresses it's activity		Repressor
The place where an active repressor molecule will bind, stopping mRNA synthesis		Operator
The view that nucleic acids determine protein structure is known as the ...		Central Dogma
The set of genes after the operator which code for an enzyme needed in a metabolic pathway		Structural genes
Section of DNA which is translated into proteins		Exons
The monomers of proteins		Amino Acids
The enzyme which extends RNA primer with short lengths of complimentary DNA		DNA polymerase III
The equivalent of the triplet on the mRNA. This codes for an amino acid		Codon
This occurs when genes are switched on by an inducer		Gene induction
The word that means there maybe more than one codon for each amino acid		Degeneracy
The enzyme which breaks the hydrogen bonds between nitrogenous bases during DNA replication		Helicase
DNA strand made in one lengthy section during DNA replication		Leading

Definition	Word	Answer
Direction in which nucleotides are added along the leading strand		5' to 3' end
The enzyme which creates a short RNA primer		RNA polymerase
The enzyme which joins the short Okazaki fragments together		DNA ligase
Activators which bind to the enhancers in Eukaryotes		Transcription factors
Production of mRNA copy from a strand of DNA		Transcription
Group of three bases complimentary to mRNA		Anticodon
Section of DNA that is not translated into proteins		Introns
Enzyme which transcribes one of the two DNA strands into mRNA		RNA polymerase
Nucleic acid which brings amino acids to ribosome		tRNA
Using the information on mRNA to produce amino acid chain		Translation
A piece of DNA which codes for the making of a protein		Gene
The site where the RNA polymerase first attaches itself to the DNA to begin the synthesis of mRNA		Promoter
The enzyme which digests the RNA primers on the lagging strand		DNA polymerase I
The enzyme which produces the swivel points on the DNA strand to release tension		DNA gyrase

