

Quiz 1 = DNA + DNA REPLICATION

Quiz 2 = Transcription + Translation (all vocabs included w/ these 2)

Protein Synthesis Vocabulary

adenine	(A) A double-ring nitrogenous base found in DNA and RNA.
anticodon	A specialized base triplet at one end of a tRNA molecule that recognizes a particular complementary codon on an mRNA molecule.
bacteriophage	A virus that infects bacteria; also called a phage. <i>See phage.</i>
codon	A three-nucleotide sequence of DNA or mRNA that specifies a particular amino acid or termination signal; the basic unit of the genetic code.
cytosine	(C) A single-ring nitrogenous base found in DNA and RNA.
DNA ligase	A linking enzyme essential for DNA replication; catalyzes the covalent bonding of the 3' end of a new DNA fragment to the 5' end of a growing chain.
DNA polymerase	An enzyme that catalyzes the elongation of new DNA at a replication fork by the addition of nucleotides to the existing chain.
double helix	The form of native DNA, referring to its two adjacent polynucleotide strands wound into a spiral shape.
exon	A coding region of a eukaryotic gene. Exons, which are expressed, are separated from each other by introns.
guanine	(G) A double-ring nitrogenous base found in DNA and RNA.
intron	A noncoding, intervening sequence within a eukaryotic gene.
lysogenic cycle	A phage replication cycle in which the viral genome becomes incorporated into the bacterial host chromosome as a prophage and does not kill the host.
lytic cycle	A type of viral replication cycle resulting in the release of new phages by death or lysis of the host cell.
messenger RNA	(mRNA) A type of RNA, synthesized from DNA, that attaches to ribosomes in the cytoplasm and specifies the primary structure of a protein.
mutagen	A chemical or physical agent that interacts with DNA and causes a mutation.
mutation	A rare change in the DNA of a gene ultimately creating genetic diversity.
nucleotide	The building block of a nucleic acid, consisting of a five-carbon sugar covalently bonded to a nitrogenous base and a phosphate group.
polynucleotide	A polymer consisting of many nucleotide monomers; serves as a blueprint for proteins and, through the actions of proteins, for all cellular activities. The two types are DNA and RNA.
promoter	A specific nucleotide sequence in DNA that binds RNA polymerase and indicates where to start transcribing RNA.
reading frame	The way a cell's mRNA-translating machinery groups the mRNA nucleotides into codons.
retrovirus	An RNA virus that reproduces by transcribing its RNA into DNA and then inserting the DNA into a cellular chromosome; an important class of cancer-causing viruses.
reverse transcriptase	An enzyme encoded by some RNA viruses that uses RNA as a template for DNA synthesis.
ribosomal RNA	(rRNA) The most abundant type of RNA, which together with proteins, forms the structure of ribosomes. Ribosomes coordinate the sequential coupling of tRNA molecules to mRNA codons.
RNA polymerase	An enzyme that links together the growing chain of ribonucleotides during transcription.
RNA splicing	The removal of noncoding portions (introns) of the RNA molecule after initial

synthesis.

start codon

On mRNA, the specific three-nucleotide sequence (AUG) to which an initiator tRNA molecule binds, starting translation of genetic information.

stop codon

In mRNA, one of three triplets (UAG, UAA, UGA) that signal gene translation to stop.

sugar-phosphate backbone

The alternating chain of sugar and phosphate to which the DNA and RNA nitrogenous bases are attached.

terminator

A special sequence of nucleotides in DNA that marks the end of a gene. It signals RNA polymerase to release the newly made RNA molecule, which then departs from the gene.

thymine

(T) A single-ring nitrogenous base found in DNA.

transcription

The synthesis of RNA on a DNA template.

translocation

(2) During protein synthesis, the third stage in the elongation cycle when the RNA carrying the growing polypeptide moves from the A site to the P site on the ribosome. (3) The transport via phloem of food in a plant.

triplet code

A set of three-nucleotide-long words that specify the amino acids for polypeptide chains.

uracil

(U) A single-ring nitrogenous base found in RNA.

Add

purine -

pyrimidine -

* Don't just know the definition, understand how

it Looks !!