

<p>START</p> <p>Why can't DNA leave the nucleus</p>	<p>Because it can be damaged.</p> <p>This enzyme separates and unwinds the DNA, what am I?</p>
<p>Helicase</p> <p>This enzyme relieves tension caused by the unwinding of parent DNA</p>	<p>Topoisomerase</p> <p>I am the product of translation, what am I?</p>
<p>Polypeptide chain</p> <p>I am created in the nucleus and the product of transcription</p>	<p>mRNA</p> <p>It is a carrier molecule that binds to a specific amino acid and adds the amino acid to the growing peptide chain.</p>
<p>tRNA</p> <p>This is the location the tRNA comes into the ribosome</p>	<p>A site</p> <p>I am double stranded, and used to code for genes</p>

<p>DNA</p> <p>What is the complementary sequence of base pairs on a tRNA that corresponds to a codon on the mRNA?</p>	<p>Anticodon</p> <p>What end does a post transcriptional modification occur that adds 7 Guanines?</p>
<p>5' cap</p> <p>The trp operon is used to synthesize what amino acid</p>	<p>Tryptophan</p> <p>This occurs when the polypeptide is cut short and will most likely be unable to function due to a premature stop codon</p>
<p>Nonsense mutation</p> <p>This is an enzyme that cuts DNA a specific location</p>	<p>Restriction Enzyme</p> <p>A process used to amplify a gene and make a large number of copies.</p>
<p>PCR (Polymerase Chain Reaction)</p> <p>An anticodon is attached to a tRNA and peptide bond is formed with the amino acids at this location</p>	<p>P site</p> <p>The amount of adenine equals the amount of thymine and the amount of cytosine equals the amounts of guanine. What is this called?</p>

<p>Chargaffs Rule</p> <p>A mechanism of DNA replication in which each of the two strands of parent DNA is incorporated into a new double strand</p>	<p>Semi-Conservative Replication</p> <p>An enzyme that catalyzes the formation of phosphodiester bonds between DNA strands and Okazaki Fragments</p>
<p>DNA Ligase</p> <p>An enzyme that binds to DNA, at the promoter region of a gene to be transcribed</p>	<p>RNA Polymerase</p> <p>I am single stranded and bind adenine with uracil, what am I?</p>
<p>RNA</p> <p>This region is removed in post transcriptional modification and does not code for functional genes</p>	<p>Introns</p> <p>I consist of a promoter, and operator, and the coding region of various enzymes that metabolize a milk sugar</p>
<p>Lac Operon</p> <p>This is a mutation occurs when the reading frame of codons shift</p>	<p>Frameshift mutation</p> <p>This DNA sequencings allows DNA to be separated based on size and charge, what does the process use?</p>

Gel Electrophoresis

I am an enzyme that can withstand heat and
am used in PCR

Taq Polymerase

END