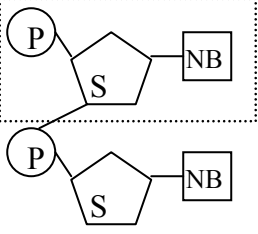


DNA, RNA & Protein Synthesis

<p style="text-align: center;">DNA</p> <p>Deoxyribonucleic Acid Is a polymer constructed from four nucleic acids containing:</p> <ol style="list-style-type: none"> 1. (A) 2. (T) 3. (C) 4. (G) <p>The molecule takes on a ladder like shape called the _____ with the nitrogenous bases to the inside and the _____ backbone to the outside. DNA is found in the nucleus of _____ cells. Where it is responsible for storing the genetic information.</p>	<p style="text-align: center;">Nucleotide</p> <p>Building block of DNA and RNA</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Constructed from Ribose sugar and a phosphate group bonded to a nitrogenous base. A chain of nucleotides is called a Nucleic Acid</p> </div> </div>	<p style="text-align: center;">Translation</p> <p>The process that uses RNA and the ribosomes to synthesize polypeptides (proteins).</p> <p>mRNA travels to the ribosome where its bases are read in groups of three called codons or triplets.</p> <p>tRNA arrives at the ribosome with matching anticodons to bring amino acids to the ribosome where they are bonded to the next amino acid.</p> <p>The chain of amino acids will continue to grow until the stop codon is reached. Then the polypeptide chain is released and finished in the ER.</p> <p>Each tRNA has one of 64 possible anticodons however because there are only 20 amino acids some codons code for the same amino acids.</p> <p>The start codon in RNA is AUG. This sequence codes for the amino acid methionine (Met) in eukaryotes.</p>
<p style="text-align: center;">Chromosome</p> <p>When DNA is condensed around proteins called histones it forms an easy to move structure called a chromosome. A human has 23 pairs of chromosomes (46 total)</p>	<p style="text-align: center;">Gene</p> <p>A section of DNA that codes for a specific polypeptide is called a gene.</p>	
<p>Polymers are molecules made up of repeating subunits. The order of the subunits determines the meaning of the polymer.</p> <p>DNA/RNA are polymers made up of Nucleotides</p> <p>Proteins are polymers made up of amino acids</p>	<p style="text-align: center;">RNA</p> <p>Ribonucleic Acid is a single stranded polymer used to transmit the information from the DNA in the nucleus to the ribosomes in the cytoplasm. It exits the nucleus by way of the nuclear pores. There are three kinds of RNA</p> <p>mRNA- Messenger RNA-</p> <p>tRNA- Transfer RNA-</p> <p>rRNA- Ribosomal RNA-</p>	
	<p style="text-align: center;">DNA Base Pairing Rule</p> <p style="text-align: center;">A-T C-G</p>	
	<p style="text-align: center;">Transcription</p> <p>The process that creates RNA using the coding strand of DNA as a template. RNA Polymerase assembles the RNA using the following substitution rules:</p> <p style="text-align: center;">A→Uracil T→A C→G G→C</p>	