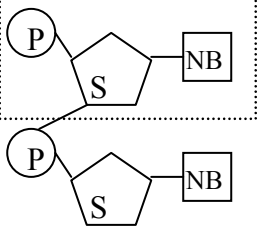
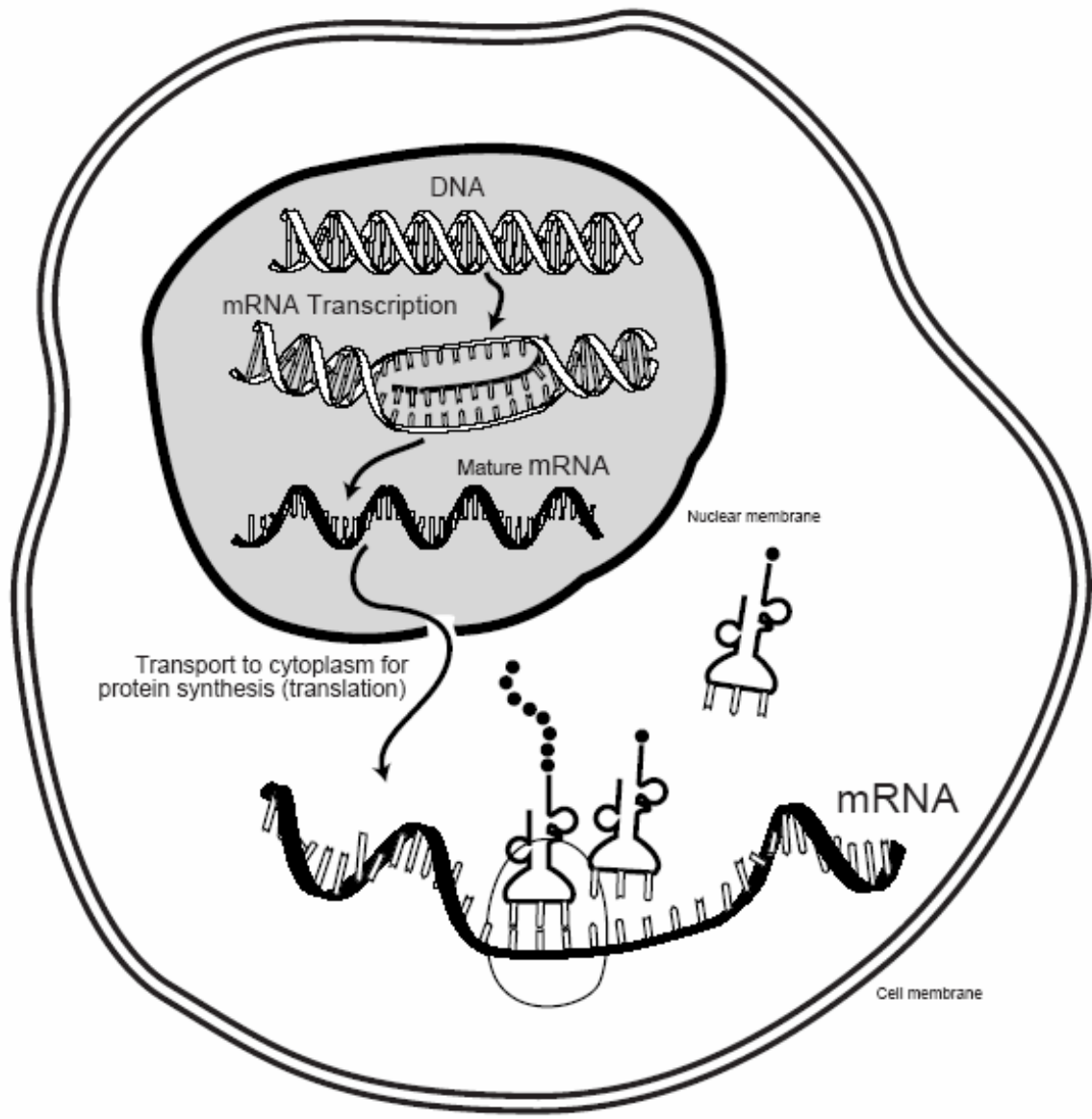


DNA, RNA & Protein Synthesis

<p style="text-align: center;">DNA</p> <p>Deoxyribonucleic Acid Is a polymer constructed from four nucleotides 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 sugar phosphate backbone to the outside. DNA is found in the _____ of Eukaryotic cells. It is responsible for storing the genetic information of every organism.</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.</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 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>The chain of amino acids will continue to grow until the stop codon is reached. Then the chain is released and finished in the ER.</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 Nucleic acids</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-</p> <p>tRNA-</p> <p>rRNA-</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 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: A→Uracil, T→ , C→ , G→</p>		



DNA- RNA- Protein- Genetically Modified Foods Study Guide

Adenine

Amino acid

Anticodon

Base Pairing Rule

Coding Strand

codon

Cytosine

DNA

Guanine

mRNA

Nucleotide

Polymer

Protein

Protein Synthesis

Replication

Ribosome

RNA

Thymine

Totipotent

Transcription

Translation

tRNA

2 Short Answer Essays about, involving or using the words

Tissue Culture

Golden Rice

Genetically Modified Organism

Gene Gun