



High School Science Virtual Learning

Biology

Central Dogma

DNA and Protein Synthesis

April 29, 2020



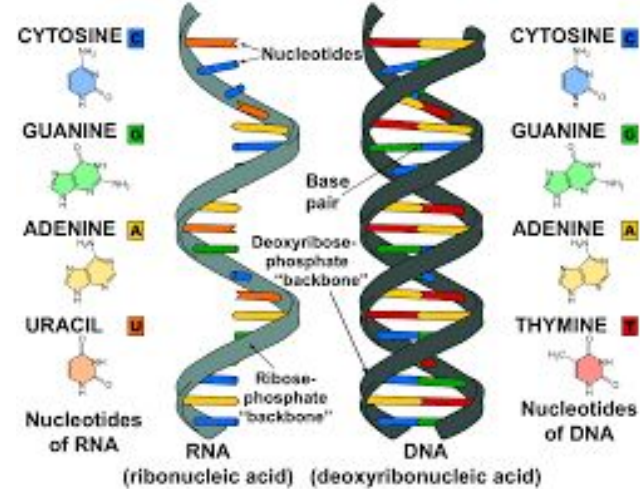
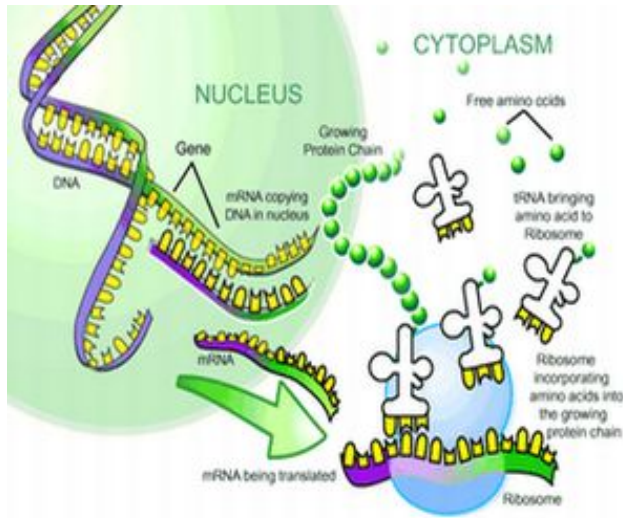
High School General Biology

Lesson: Wednesday, April 29 2020

Objective/Learning Target:

I can create and revise an explanation of macromolecule composition.

1. What are the major differences between RNA and DNA



2. What order do you follow to express a trait?

Let's Get Started: Answer Key

1. DNA is double stranded, uses thymine, stays in the nucleus, is the complete code for an organism
2. DNA → RNA → Protein

Lesson Activity:

Directions:

1. Watch the video one time through to review protein synthesis and the central dogma.
2. Watch the video a second time to help answer the practice questions.

Links: [Amoeba Sisters: Protein Synthesis](#)

Practice

Complete the following questions using the information you learned during the lesson activity.

Questions:

1. What are the 3 types of RNA?
2. What is transcription, where does it happen, and what does it make?
3. What is translation, what organelle does it, and what does it make?
4. What is a protein made of?
5. What is a 3 letter section of RNA called?

Once you have completed the practice questions check with the **answer** key.

1. mRNA; the messenger that is a copy of a gene from DNA.
tRNA; the amino acid transfer piece
rRNA; the RNA that is part of a ribosome
2. Transcription is the process of making a strand of mRNA from a gene on DNA. It happens in the nucleus. It makes the mRNA.
3. Translation is the process of reading mRNA to build a chain of amino acids (protein). The ribosome does the process. It makes a protein chain to express a trait.
4. Amino acids chained together.
5. Codon

More Practice:

Follow the links below to do more practice. Make sure you allow flash player once you have clicked on the link.

1. [PBS: Nova Labs Protein Synthesis](#)
2. [Bioman: Protein Synthesis Race](#)

Additional Practice:

Click on the link below for additional practice. Make sure you allow flash player once you have clicked on the link.

1. [Drag and Drop Protein Synthesis](#)
2. [Ribosome Game, Interactive 2D Animation](#)