Wednesday, January 16th, 2013

Unit: DNA Topic: Transcription/Translation	Date: 1/16/2013 Class: Biology

Illinois Objectives:
12.11.21 Understand that, in all living things, DNA (deoxyribonucleic acid) carries the instructions for specifying the characteristics of each organism. Understand that DNA is a large polymer formed from four subunits: A, G, C, and T (adenine, guanine, cytosine, thymine, a 5-carbon sugar and a phosphate). The chemical and structural properties of DNA explain how the genetic information that underlies heredity is both encoded in genes (as a string of molecular letters) and replicated (by a templating mechanism). Know that each DNA molecule in a cell is a single chromosome.
12.11.23 Understand the general steps by which ribosomes synthesize proteins, using information from mRNA and from amino acids delivered by tRNA.

Michigan Biology Objectives:
B4.2f Demonstrate how the genetic information in DNA molecules provides instructions for assembling protein molecules and that this is virtually the same mechanism for all life forms.
B4.2g Describe the processes of replication, transcription, and translation and how they relate to each other in molecular biology.

My Lesson Objectives:
- Identify that transcription occurs in the nucleus and only the mRNA leave the nucleus due to its relative size.
- Identify that translation occurs on a ribosome in the cytoplasm.
- Explain that translation occurs by individual pieces of tRNA that carry 3 RNA bases and 1 amino acid.

Activities:	Materials/Equipment:
Bellringer (10 minutes) Transcription & Translation coloring sheet (25 minutes) Begin homework practice (10 minutes)	• copies of coloring sheet • 8 packs of colored pencils • pencil sharpeners • PowerPoint presentation • copies of the bellringer

Assessment: (Embedded, Formal)
Embedded:
- Bellringer responses
- Transcription/Translation coloring sheet (8 questions they had to answer based on the diagram).