

I. OBJECTIVES	
A. Content Standards	The learner's demonstrate an understanding of the information stored in DNA as being used to make proteins.
B. Performance Standards	
C. Learning Competencies Write the LC code for each	Explain how protein is made using information from DNA S10LT-IIId- 37
D. Learning Objectives	Simulate the steps in translation.
II. CONTENT	TRANSLATION
III. LEARNING RESOURCES	
A. References	
1.Teacher's Guide pages	
2.Learner's Materials pages	276-279
3.Textbook pages	
4.Additional Materials from Learning Resource (LR)portal	
B. Other Learning Resources	
IV. PROCEDURES	
A. Reviewing previous lesson or presenting the new lesson (2 mins.) elicit	From the previous activity, what do you think determines protein synthesis? The order of bases in mRNA determines the protein synthesis.
B. Establishing a purpose for the lesson (1 min.) Engage	Protein controls the activities of the cell, how does DNA make a unique protein that performs special functions? It is in translation process, where a chain of amino acids is formed until the ribosome reaches a stop codon on the mRNA strand. The polypeptide chain is released. Protein synthesis is complete.
C. Presenting examples/ instances of the new lesson Explore (2-5 mins.)	Perform Activity 4. Relay the message, to demonstrate the process of translation.
D. Discussing new concepts and practicing new skills #1 Explain (15 mins.)	Follow the procedures in making the model for translation
E. Discussing new concepts and practicing new skills#2 (10 mins.)	What are the four nucleotides bases present in tRNA? Do they differ from those in mRNA? In tRNA, the nucleotides are Adenine, Uracil, Guanine and Cytosine. The same nitrogenous bases found in mRNA. The trans containsothef nitrogenous bases that are derivatives of the same nucleotides.
F. Developing mastery (Leads to Formative Assessment 3)	What is a codon? What does it represents?

Codon is a set of three nitrogenous bases in mRNA which codes for specific amino acids.
What is the role of tRNA in protein synthesis?
tRNA brings an amino acid in the cytoplasm with ribosome. Each tRNA molecules attached to only one type of amino acids.
How does a trans molecule carrying amino acid recognizes which codon to attach?
In tRNA there is a sequence of three nucleotides in the mRNA codon. These are called anticodons because the bond to the codon of the messenger RNA. The trans carries only the amink acids that the anticodon specifies.
A construction worker brings hollow blocks to build a wall. What part of translation resembles the construction worker's job? What do the hollow blocks represents?
It resembles the job of the tRNA and hollow blocks represents the amino acids
The sequence of codon in the mRNA determines the sequence of amino acids in the protein. How are then the right amino acids added in the right sequence to match the sequence of codons in the mRNA. State events in translation.
See details in the LM page 278
Give brief statement on figure 7. Page 279
Checked by
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