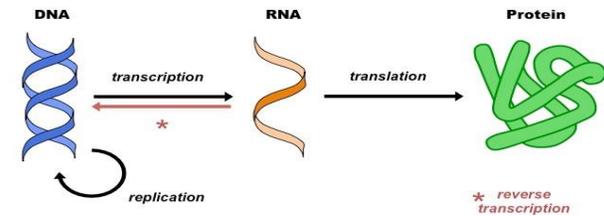
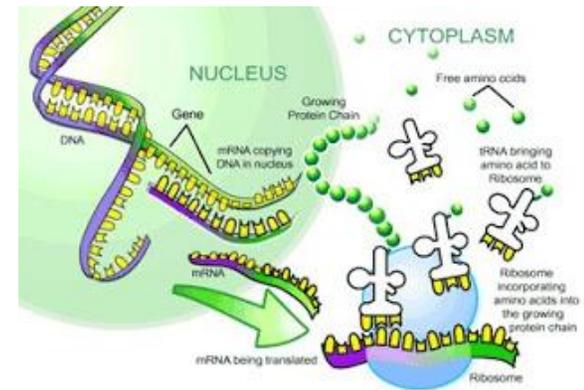


## Unit 8: Protein Synthesis

Fold along the line and glue this side down in your Biology Interactive Learning Log (BILL)

**Learning goals:** How does information flow from DNA to RNA to direct the synthesis of proteins? We know DNA is the genetic material, and we know that the sequence of nucleotide bases in its strands must carry some sort of code. For that code to work, the cell must be able to understand it. Sometimes a few of those coded letters are changed accidentally, altering the message. In this unit, we will discover what the bases code for and how the cell's decoding system works, and what happens when changes on genes effect the polypeptides for which they code.



### Key concepts:

RNA  
transcription

introns & exons  
translation

Central Dogma of Biology  
mutations

natural selection

### Essential Questions:

1. How does RNA differ from DNA?
2. How does the cell make RNA?
3. What is the genetic code, and how is it read/decoded?
4. What role does the ribosome play in assembling proteins?
5. What is the "Central Dogma of Molecular Biology"?
6. What are mutations and how do they affect genes and proteins?
7. How can DNA mutations result in positive or negative phenotypic adaptations that result in natural selection and species evolution?

Can you show what you know?

