Protein Synthesis Warm Up #1 - 2020

1. Take out your 'Hot Dog' DNA from last class- label the 3' and 5' ends of the DNA. How can you figure this out?

2. Find the mRNA from the following DNA segment and then use your Codon Sheet Translator to find the corresponding amino acid sequence:

TAC TTC CCT CAT ACT

mRNA:
a.a. sequence:

3. Label the 3' and 5' ends of the DNA above.

4. Look at the following views of DNA and RNA. List three differences between these two molecules.

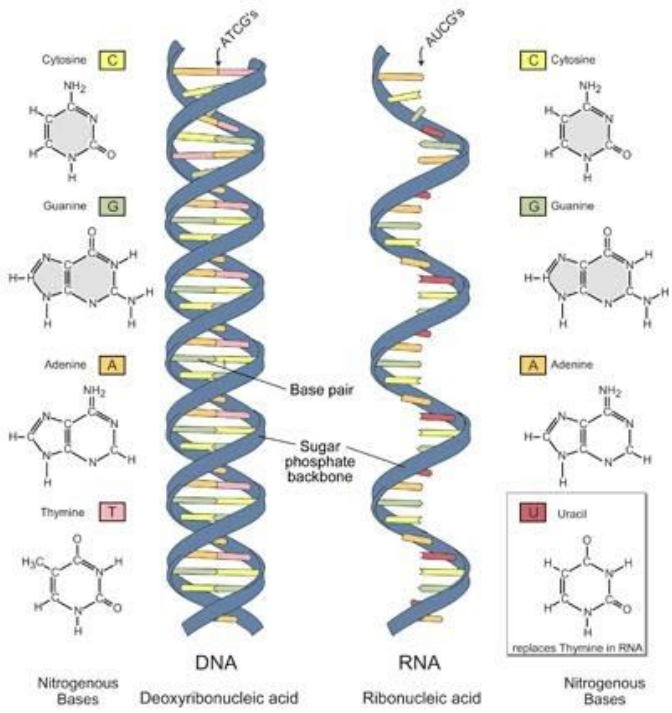


Image adapted from: National Human Genome Research Institute.

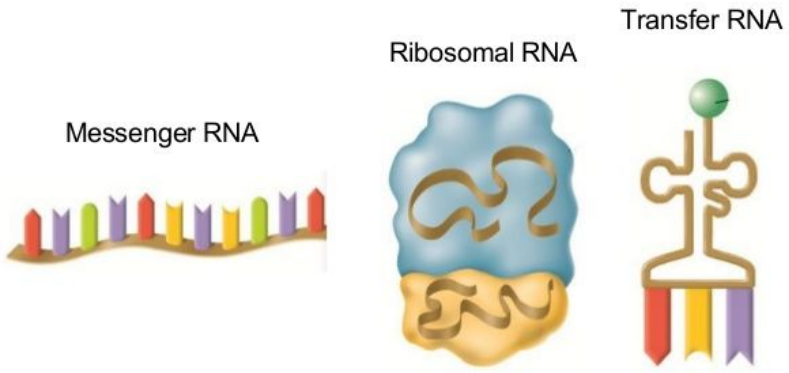
5. What is a triplet?

6. What is a codon?

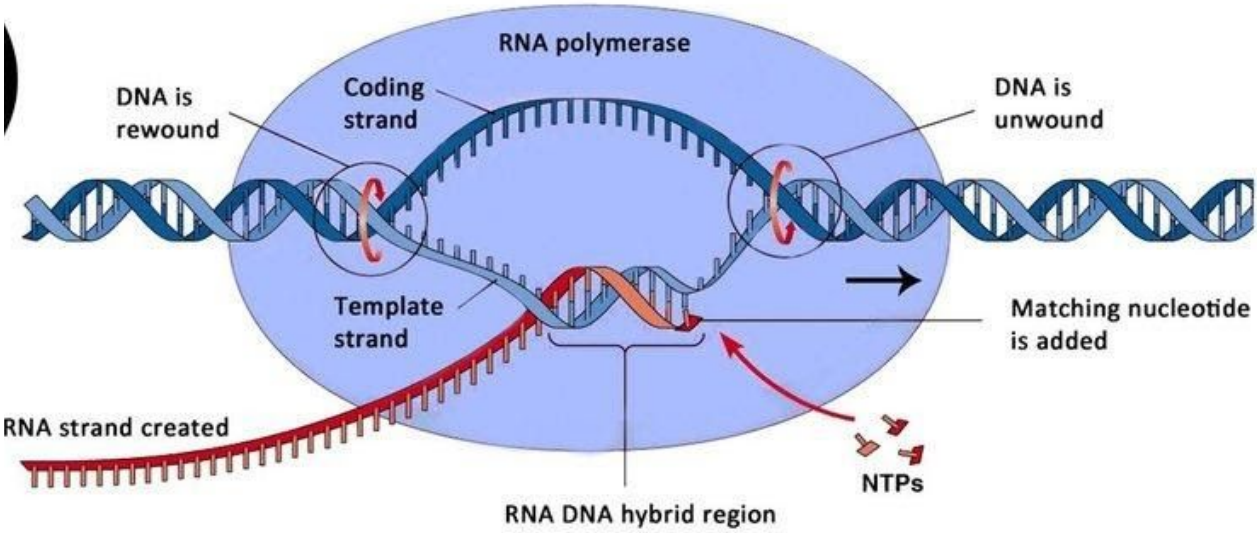
7. What is a start codon?

8. What is a stop codon?

9. There are three types of RNA that do different jobs. Look at the depictions of the three different types of RNA. List some differences in structure. What are their functions?



10. Look at the picture of transcription below. Can you come up with the steps for this process? Can you label the 3' and 5' ends of both the mRNA and the template strand of DNA?



11. Look at the picture of translation below. What's happening here? Can you label the 3' and 5' end on mRNA and tRNA?