Utah Genetics Transcribe and Translate a Gene Interactive Online Activity:

Go to https://learn.genetics.utah.edu/content/basics/txtl/

- 1. Title this section of the Activity "Introduction"
 - a. Take notes on the short introduction video.
- 2. Choose a BLUE HIGHLIGHTED GENE from the genes on the screen and click on it...this will take you and your partner through the Transcription and Translation process for the gene you chose.
 - a. Take notes on the short video explaining transcription (make sure to talk about RNA Polymerase!
- 3. Next do the interactive "Give Transcription a Try!".
 - a. Click the correct base pair from the 4 choices to the base shown at the top of the screen.
 - b. DRAW 1 PICTURE to represent what you are doing in this portion of the activity showing the top base and the matching base you chose as well as the rest of the screen.
 - c. Continue matching the correct bases until the simulator moves you to the next step.
- 4. Take notes on the video clip following completing the Transcription practice.
 - a. Be sure the mention WHERE TRANSLATION TAKES PLACE (PAUSE THIS VIDEO AS NECESSARY TO GET GRAPHICS AND EXPLANATIONS).
- 5. Next do the interactive "Give Translation a Try!"
 - a. Match the correct tRNA anticodon with the codon on the RNA.
 - b. DRAW 1 PICTURE to represent what you are doing in this portion of the activity showing the RNA, the RIBOSOME (with the RNA inside of it), and the tRNA with anticodon you chose to match up.
 - c. Continue matching the correct codon/anticodon until the animation is completed.
- 6. Take notes on the video clip following completing the TRANSLATION practice.
 - a. Make sure to mention the STOP codon and what you get at the end of the process!