

Unit 5 Review Stations

Station 1: Nucleic Acid Structure

1. Complete the DNA Structure sheet
2. At the bottom of the sheet, draw a piece of RNA that is 4 Nucleotides long. Then, write 2 things that is different about the RNA *molecule*, and 2 things that are different about the *nucleotides* of RNA that you didn't list about the RNA molecule.

Station 2: Processes

1. Watch the video Amoeba Sisters: DNA Replication (The Cell's Extreme Team Sport)
<https://www.youtube.com/watch?v=5qSrmeiWsuc>

While you view create a chart of the ENZYMES that are involved in DNA Replication and what function they contribute to the process:

ENZYME	FUNCTION

2. Watch the video Teacher's Pet: Protein Synthesis

<https://www.youtube.com/watch?v=2zAGAmTkZNY>

As you watch, list the steps of transcription and translation in your own words. Try to condense the steps to 8 or less.

3. Complete the **Protein Synthesis Analogy Sheet: Construction/ Candy Factory**

Station 3: Mutation

1. Take and complete a copy of the **DNA Mutations Practice Worksheet**.
2. Complete the mRNA and the polypeptide for the **original DNA sequence**.
3. Complete the mRNA and the polypeptide for the **Mutated DNA sequence**.
4. Based on what happened in the mutation circle the description of the mutation.

Station 4: DNA Technology

Re-create and fill in the chart:

Biotechnology Process	Description/How it works	Example	Possible Uses	Bioethical Issues associated with it
			GMOs	

	DNA loaded onto a gel to separate by size and charge			
Cloning				
	Sequenced the entire Human Genome			
		Nasal Spray to cure Cystic Fibrosis		
Stem Cell Research				