**Biochemistry: DNA, Proteins, and their Applications – Lecture 1 Worksheet**

Definitions:

* Central Dogma:
* Transcription:
* Nuclear Translocation:
* Transcriptional Pausing:
* Transposable Elements:
* Translation:
* Unfolded Protein Response (UPR):

Transcription:

1. What is the function of RNA polymerase and where does it bind on the DNA? How does RNA polymerase know to stop transcribing?
2. If proteins are made in the cytosol by ribosomes, how do proteins such as transcription factors enter the nucleus?

1. What is one reason why transcriptional pausing occurs?

1. Name one difference between retrotransposons and DNA transposons.

Translation/Protein Quality Control:

1. Translation and the UPR act simultaneously, how?
2. What is the main goal of the Unfolded Protein Response?
3. How can the UPR be activated?
4. What was the most interesting topic to you discussed today?