**Introduction to Protein Synthesis from learn.genetics.utah.edu**

**Go to learn.genetics.utah.edu ad click on “Molecules of Inheritance.”**

**Module 1 – RNA**

**Click on “RNA: the Versatile Molecule” and complete the following questions.**

1. Identify three major differences between the DNA molecule and RNA.

2. If RNA is made of a single strand, what use does base pairing have in RNA?

**Click on “RNA’s role in the Central Dogma” and complete the following questions.**

1. What are the three types of RNA? (provide the abbreviation and the full name)

2. What molecule serves as instructions to create RNA molecules?

3. Describe how the three types of RNA molecules work together to make a protein.

**Module 2 – Proteins**

**Click on “Types of Proteins” and complete the following question.**

1. What type of protein aids in digestion of foods and speeds up other chemical reactions in the body?

2. What type of protein builds tissues that make up organs like muscle and skin?

3. What type of protein allows your cells to transfer certain ions and molecules into or out of the cell?

4. What type of protein makes up some hormones an allows our cells to chemically communicate with each other?

**Module 3 – The Central Dogma**

**Click on “How do Cells Read Genes?” and answer the questions below.**

1. A codon is a group of \_\_\_\_\_\_\_\_\_ Nucleotides?

2. A codon specifies which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is needed in the protein.

3. A DNA reading frame always starts with the three letter code \_\_\_\_\_\_\_\_\_\_\_.

4. What amino acid is determined by the codon GGU?

5. What do “stop codons” do?

**Click on “Transcribe and Translate a Gene,” complete the interactive, and answer the questions below?**

1. What molecule is built during Transcription?

2. What molecule is built during Translation?