

Translation and Transcription Station

Answer the following on your own sheet of paper.

Complete sentences are not necessary.

You may need the list of amino acids on the back of this sheet.

1. Use this strand to answer questions a-c:

AATCGGCGTTAGATC

- a. Is this a strand of DNA or RNA?
- b. What would the matching strand of DNA be?
- c. If the original DNA strand is the template strand, what would be the matching mRNA that is transcribed?
- d. Define a codon. How many codons make up the mRNA strand from "c"?
- e. Where in the cell does this process take place?

2. Use this strand of mRNA to answer questions a-c:

GCCGAUUGUCAU

- a. What did the DNA template strand that this mRNA was made from look like?
- b. What are the tRNA anti-codons that will attach to this mRNA?
- c. What is the amino acid sequence produced from this strand of mRNA?

3. What is a possible template DNA code for the following amino acid chain?

- a. Methionine, Tryptophan, Cysteine

4. Which tRNA anti-codons will be used to create the following amino acid chain?

- a. Typtophan, Methionine