

# Transcription and Translation Worksheet

Name \_\_\_\_\_

Hour \_\_\_\_\_ Date \_\_\_\_\_

For each of the following sequences, fill in either the DNA, the mRNA sequence, the tRNA anticodons, or the amino acid sequences that have been left blank. If several sequences might work choose any one.

1. DNA \_\_\_\_\_

mRNA A U G A C U A G C U G G G G G U A U U A C U U U U A G

tRNA \_\_\_\_\_

AA \_\_\_\_\_

2. DNA T A C C G C T C C G C C G T C G A C A A T A C C A C T

mRNA \_\_\_\_\_

tRNA \_\_\_\_\_

AA \_\_\_\_\_

3. DNA \_\_\_\_\_

mRNA \_\_\_\_\_

tRNA U A C C A C C C C C G U A U G G C U G G G A A U A U C

AA \_\_\_\_\_

4. DNA \_\_\_\_\_

mRNA \_\_\_\_\_

tRNA \_\_\_\_\_

AA MET ARG GLY PHE PHE MET VAL GLY (STOP)

5. DNA T A C \_\_\_\_\_ A T G \_\_\_\_\_

mRNA \_\_\_\_\_ U G U G A U \_\_\_\_\_

tRNA \_\_\_\_\_ C U C \_\_\_\_\_ U U G \_\_\_\_\_ A U U

AA \_\_\_\_\_ ALA \_\_\_\_\_ PRO \_\_\_\_\_

6. What are the three differences between RNA and DNA?

7. Where is DNA found in the cell? \_\_\_\_\_ Where is RNA found in the cell? \_\_\_\_\_

8. Name the three types of RNA and what they do.

9. Draw an mRNA strand that is complementary to the DNA strand AATTGC. Circle a nucleotide.

10. What are the steps of transcription?