

Name _____

Date _____

Transcription and Translation Worksheet

For each of the following sequences, fill in the DNA, the mRNA sequence, the rRNA anticodons, or the amino acid sequences (AA) that have been left blank. If several sequences might work choose any one. USE THE GENETIC CODE DIAGRAM FROM YOUR TEXTBOOK OR LOOK ONE UP ONLINE!

1. DNA T A C T G A T C G A C C C C C A T A A T G A A A A T C

mRNA _____

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 MET ALA ARG ARG GLU LEU LEU TRY STOP

DNA _____

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

tRNA _____

AA _____

DNA _____

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

tRNA _____

AA _____

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?