Ch 3: Transcription and Translation Name:

Practice Worksheet Date:

mRNA DNA

start: AUG \_\_\_\_\_

stop: UAA \_\_\_\_\_

 UAG \_\_\_\_\_

 UGA \_\_\_\_\_

(Fill in & use this to find the beginning of the DNA template that coded for the start & stop codons on the mRNA)

Example:

DNA : **G T A C G C G T A T A C C G A C A T T C**

stop codon

mRNA: C **A U G C G C A U A U G G C U G U A A** G

start codon

**mRNA Codons:** AUG-CGC-AUA-UGG-CUG-UAA

*tRNA Anticodons: UAC-GCG-UAU-ACC-GAC-AUU*

Amino Acids: METHIONINE-ARGININE-ISOLEUCINE-TRYPTOPHAN-LEUCINE

Example 2

DNA : **C A T A C A G T G C C T A C G C T A T T G A T**

mRNA:

**mRNA Codons:**

*tRNA Anticodons:*

Amino Acids:

Using the example above, transcribe the following DNA strand into mRNA and translate that strand into a polypeptide chain, identifying the codons, anticodons, and amino acid sequence. **Amino Acid sequence from mRNA is on other side**. Do not be tempted to code for amino acids from tRNA. Pay attention to the start codon and stop codons to see how far to transcribe and translate!!

1.

DNA: **A T A C G A A A T C G C G A T C G C G G C G A T T C G G**

mRNA:

**mRNA Codons:**

*tRNA Anticodons:*

Amino Acids:

2.

DNA: **T T T A C G G C C A T C A G G C A A T G A C T G G**

mRNA:

**mRNA Codons:**

*tRNA Anticodons:*

Amino Acids:

 Amino acid sequence chart

 **mRNA codons**

