

Name: _____

Transcription and Translation

Date: _____ Per. ___ PG# _____

Practice Worksheet

Example:

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

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

Codons: CAU-GCG-CAU-AUG-GCU-GUA (Leave off A & G because not a complete codon)

Anticodons: GUA-CGC-GUA-UAC-CGA-CAU (Leave off A& G again)
(tRNA)

Amino Acids: His - Ala - His - Met - Ala - Val (Translated from the mRNA codons, NOT the Anticodons!)
(on tRNA)

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.

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:

Codon:

Anticodon:

Amino Acids:

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

mRNA:

Codon:

Aniticodon:

Amino Acids:

3. DNA: TACGGGCCTATACGCTACTACTCATGGATCGG

mRNA:

Codon:

Anticodon:

Amino Acids:

4. DNA: GTACGCGTATACCGACATTC

mRNA:

Codon:

Anticodon:

Amino Acids:

Transcribe the following DNA strand into mRNA and translate that strand into a polypeptide chain, identifying the codons, anticodons, and amino acid sequence.

DNA: CGATACAATGGACCCGGTATGCGATATCC