Name _____pd._____ Date _____

Codon Dictionary Worksheet

When a cell makes proteins it creates them from the information in the Messenger RNA. This information can be translated by using a codon dictionary.

      1. The code is broken up into three nucleotide segments called a codon.

      2. Each codon codes for a specific amino acid.

      3. The Codon Dictionary translates the codons to their amino acids.

Reading the Codon Dictionary:

1. Identify the codon you wish to translate (ex. CCU)
2. First, find the location of the first letter In the center of the wheel. This shows the section which starts with that letter (Ex. <u>C</u>CU)
3. Second, find the second letter in the codon in the second ring of the dictionary. This shows the section where all the second letters are the same as your letter (ex. C<u>C</u>U)
4. Third, find the third letter from the codon on the outer ring of the dictionary. This show the row in which the codon is located. (ex. CC<u>U</u>)
5. Fourth, these three points shows the location of your codon. The three-letter abbreviation, tells you which amino acid the codon codes for. (ex. Pro)
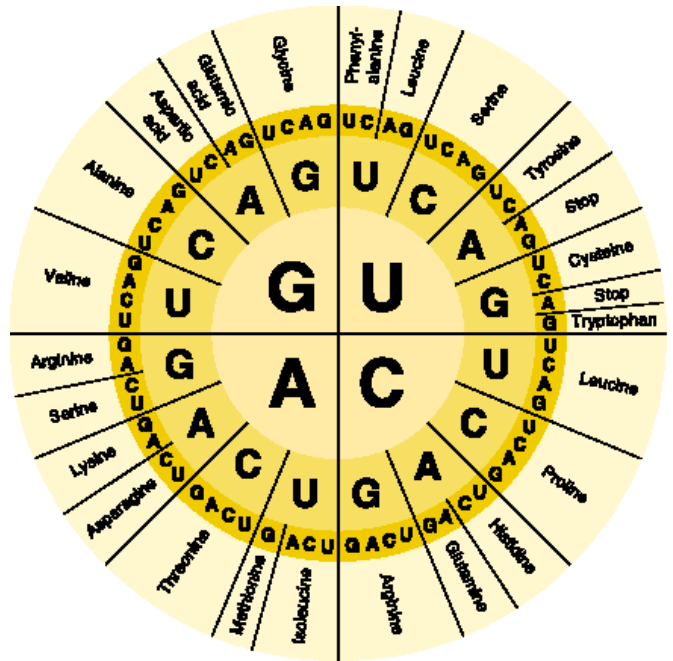
Directions: Use the Codon Dictionary to the right to find the correct amino acid sequence for the mRNA strands below. Write the sequence of amino acids under the RNA stands.

1. AUGGUACGAUCGAUGCACCCGUUA

Met-Val-

2. AUGGGGUAUGCAUGUACGCAGUGA

3. AUGGAUCGAGCGAUCGACCCAUAG

4. AUGAACGAGCUGCUAGAAGCUUAA

5. AUGCUUUCGCUAUUAUAACGAUAA

6. AUGGACCGACCGAUAAUAAACUAG

7. AUGGUUUAUGCCGGGAACAUGUGA

8. AUGAAUGGAUCGAACCCGGCCUAG

Hint: Underline each codon in the mRNA strand so that don't get confused.