

Name \_\_\_\_\_

Date \_\_\_\_\_

### Codon Dictionary Worksheet

		SECOND BASE					
		U	C	A	G		
FIRST BASE C	U	UUU } Phe	UCU } Ser	UAU } Tyr	UGU } Cys	THIRD BASE U C A G	
	U	UUC } Phe	UCC } Ser	UAC } Tyr	UGC } Cys		
	U	UUA } Leu	UCA } Ser	UAA Stop	UGA Stop		
	U	UUG } Leu	UCG } Ser	UAG Stop	UGG Trp		
FIRST BASE C	C	CUU } Leu	CCU } Pro	CAU } His	CGU } Arg	THIRD BASE U C A G	
	C	CUC } Leu	CCC } Pro	CAC } His	CGC } Arg		
	C	CUA } Leu	CCA } Pro	CAA } Gln	CGA } Arg		
	C	CUG } Leu	CCG } Pro	CAG } Gln	CGG } Arg		
FIRST BASE A	A	AUU } Ile	ACU } Thr	AAU } Asn	AGU } Ser	THIRD BASE U C A G	
	A	AUC } Ile	ACC } Thr	AAC } Asn	AGC } Ser		
	A	AUA } Ile	ACA } Thr	AAA } Lys	AGA } Arg		
	A	AUG Met or Start	ACG } Thr	AAG } Lys	AGG } Arg		
FIRST BASE G	G	GUU } Val	GCU } Ala	GAU } Asp	GGU } Gly	THIRD BASE U C A G	
	G	GUC } Val	GCC } Ala	GAC } Asp	GGC } Gly		
	G	GUA } Val	GCA } Ala	GAA } Glu	GGA } Gly		
	G	GUG } Val	GCG } Ala	GAG } Glu	GGG } Gly		

Use the codon tale above to answer the following:

1. What are the codons that code for the amino acid "Phe"? List ALL of them.
2. What codons code for the amino acid "Pro"?
3. Which codon is START codon for all proteins?
4. Which codons act as STOP codons?
5. How many codons are there in the codon table?
6. How many amino acids are coded by the codons?

Fill in the missing information using the codon table and your knowledge of DNA structure.

DNA Triplet	mRNA	tRNA	Amino acid
<b>TAC</b>	<b>AUG</b>	<b>UAC</b>	<b>Met</b>
CAG			
	CUC		
		CCC	
GTG			
	AAA		
		GAA	
GTG			
	CCC		

**Write the codons for the following amino acids:**

1. Thr
2. Val
3. Leu
4. Asn
5. Arg

**Write the amino acids coded by the following codons:**

1. UUU
2. AUU
3. CCC
4. GAA
5. GCC