

NAME _____

REPLICATION, TRANSCRIPTION, & TRANSLATION REVIEW

REPLICATION

Use the DNA code provided and fill in the complementary DNA strand.
Which nitrogen base CAN'T you use during replication? _____

A T T C G A T G C T A C G G A T C G C A G T G A C T T

TRANSCRIPTION

Use the DNA code provided to copy an m-RNA message.
Which nitrogen base CAN'T you use during transcription? _____

A C T G G A T A C A C G G A T C G T T G A C A G C T A

TRANSLATION:

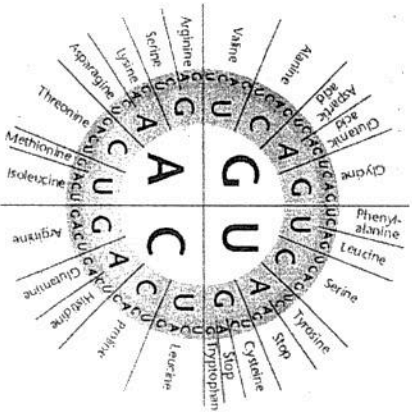
USE the DECODING WHEEL to DETERMINE the AMINO ACID that corresponds to the m-RNA CODE GIVEN

Which amino acid has ONLY ONE codon that codes for it? _____

mRNA CODE	AMINO ACID
AAA	
GCG	
GAU	
CAA	
CAC	
UUU	

Which two mRNA codes correspond to histidine? _____

How many different mRNA codes correspond to Threonine? _____

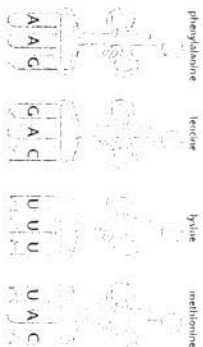
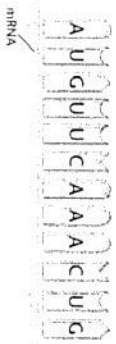


Tell the amino acid sequence for the following mRNA message:

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

Amino acid sequence: _____

Look at the m-RNA message below:
PUT A NUMBER under each of the t-RNA/amino acid complexes to show the correct sequence that they would attach as this message is read.



WHAT IS THE AMINO ACID SEQUENCE FOR THE PROTEIN THAT WOULD BE PRODUCED FROM THIS MESSAGE? _____

FILL IN THE INFORMATION BELOW with the correct sequence

DNA code T T A C G C G C A DNA code _____

mRNA message _____ mRNA message G G C U U A G C A

DNA code A C A C T C G G C DNA code _____

mRNA message _____ mRNA message C U G G C U A C A

This process of protein synthesis is also called _____

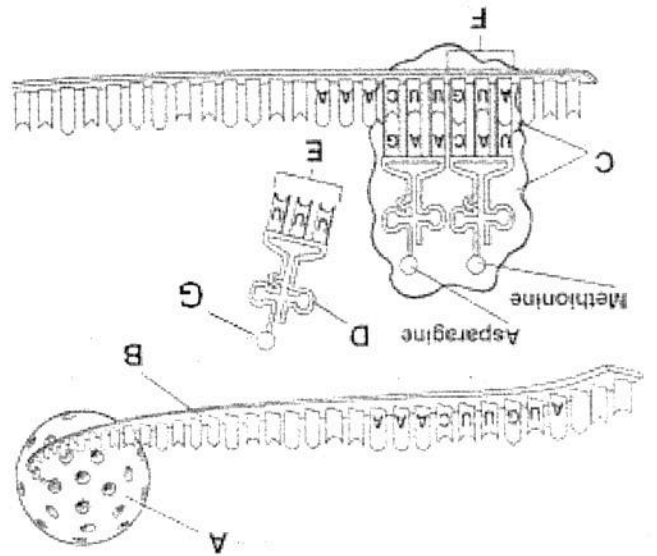
another name for a protein chain is _____

What if a mutation caused a change in the code so the message read UGG instead of UGC?
How would this affect the protein produced?

What if a mutation caused a change in the code so the message read GGA instead of GGC?
How would this affect the protein produced?

MATCH THE PARTS IN THE DIAGRAM
WITH THE CORRECT LABEL.

- _____ RIBOSOME
- _____ NUCLEUS
- _____ MESSENGER RNA
- _____ ANTICODON
- _____ AMINO ACID
- _____ CODON
- _____ TRANSFER RNA



What will happen to D after it drops off its amino acid?

What will happen to B after its message is read?