Central Dogma of Gene Expression

DNA

RNA

PROTEIN

mRNA 5’ AAUAUGUCUAGAGGGUGACGA

# Directions:

1st Label each of the lines as transcription, translation, or replication

2nd Label each of the empty boxes as Nucleus or Cytoplasm

3rd List all of the enzymes and proteins involved in each process

 RNA Polymerase, DNA Polymerase, Ribosome, tRNA, helicase, Spliceosome, mRNA

4th I gave you a strand of mRNA.

1. Write out the double stranded DNA sequence that coded for that mRNA.
2. Label the ends 5’ or 3’

5th re-write the mRNA sequence in the top of the translation bubble

1. Put a box around the start codon
2. circle all the other codons
3. write out the sequence of the tRNA that would correspond
4. draw lines under each anticodon
5. how many amino acids will be incorporated into the polypeptide chain?
6. write out the amino acid sequence

6th fill in the chart using the word bank below