Name_____________________  Transcription and Translation

Date_____________  Work sheet

1. How many different kinds of bases can be found on DNA ________
2. What base is found on RNA but not on DNA? __________
3. How many bases are in a codon? _____ In an anticodon? __________
4. How many amino acids are attached to a single transfer RNA? __________
5. Transcription occurs in the _____; translation occurs in the __________.
6. The process of making RNA from DNA is called ___________ and it occurs in the ____________
7. The process of assembling a protein from RNA is called ___________ and it occurs in the ____________
8. When messenger RNA (mRNA) is being made the RNA base_____ always pairs with which DNA base_______
9. Which organelle is involved in translation? ______
10. What is the product of transcription?______
11. To what part of the cell do the products of transcription travel?_______

12. Consider the following DNA strand: Write the sequence of bases for the product of transcription here: Remember! transcription produces RNA using the DNA strand as a template!

   TAC CGT TCT GCT AAA TAT ACC ACT

13. What is the third codon in the mRNA you produced in?

14. What is the function of the following in translation?
   - Messenger RNA
   - Ribosomal RNA
   - Transfer RNA

15. Distinguish between the term codon and anticodon. Tip Remember that the sequence of codons specifies the sequence of amino acids. Thus always translate the codons which are only on mRNA.