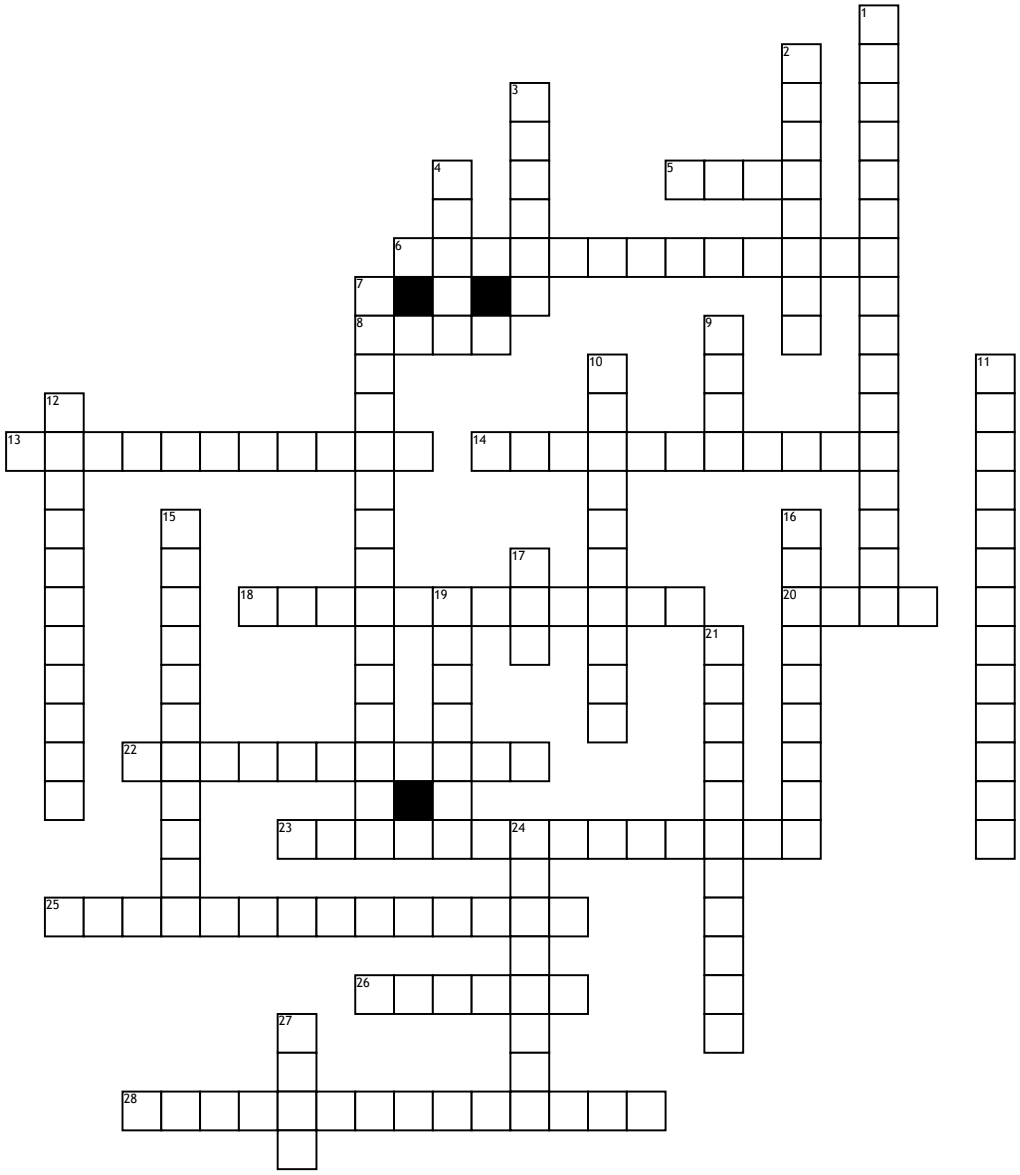
Name: _____ Date: _____

Chapter 12 and 13



Across

5. Type of RNA that combines with proteins to from ribosomes

6. Synthesis of an RNA molecule form a DNA template

8. Introduction of double-stranded RNA into a cell to inhibit gene expression

13. Long chain of amino acids that makes proteins

14. Process of copying DNA prior to cell division.

18. Holds the two strands of DNA together.

20. Type of RNA that carries each amino acid to a ribosome during protein synthesis

22. Principle that bounds in DNA can form only between adenine and thymine and between guanine and cytosine.

23. Process by which a gene produces its product and the product carries out its function

25. Process in which one strain of bacteria is changed by a gene or genes from another strain of bacteria

26. Sequence of DNA that is not involved in coding for a protein

28. This people made a modle of DNA

Down

1. This person took an X-ray picture of DNA.

2. Change in the genetic material of a cell

3. This base pairs with Adenine

4. Type of RNA that determains the genes

7. Technique Franklin used to study DNA

9. Type of RNA that carries copies of instruction for the assembly of amino acids into proteins from DNA to the rest of the cell

10. Condition in which an organism has extra set of chromosomes

11. Principal enzyme involved in DNA replication

12. DNA has this type of structure

15. Process by which the sequence of bases of an mRNA is converted into the sequence of amino acids of a protein

16. Group of three bases on a tRNA molecule that are complementary to the three bases of a codon of mRNA

17. Single-stranded nucleic acid that contains the sugar ribose.

19. This base pairs with cytosine

21. Collection of codons of mRNA, each of which directs the incorporation of a particular amino acid into a protein during protein synthesis

24. Specific region of a gene where RNA polymerase can bind and begin transcription

27. Expressed sequence of DNA; codes for protein