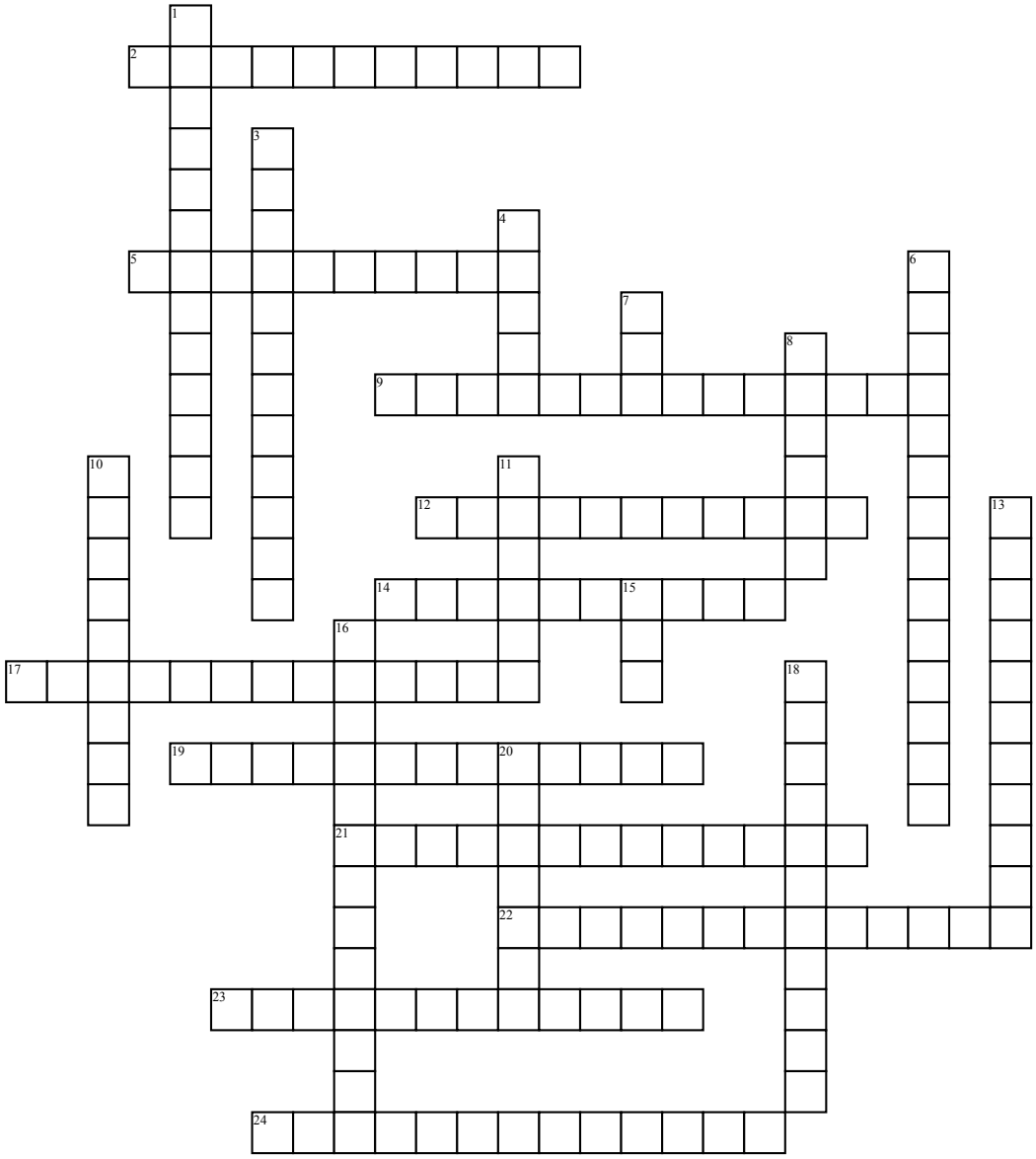
Name: _____ Date: _____

DNA



Across

2. A step in protein biosynthesis wherein the genetic code carried by mRNA is decoded to produce the specific sequence of amino acids in a polypeptide chain.

5. a threadlike structure of nucleic acids and protein found in the nucleus of most living cells, carrying genetic information in the form of genes.

9. found dna double helix

12. a pair of parallel helices intertwined about a common axis, especially that in the structure of the DNA molecule.

14. a colorless crystalline compound with basic properties.

17. is an enzyme that produces primary transcript RNA.

19. is the process where plants absorb water through the roots and then give off water vapor through pores in their leaves.

21. a nitrogen containing molecule that has the same chemical properties as a base.

22. replication is a conserved mechanism that restricts DNA replication to only once per cell cycle.

23. a weak bond between two molecules resulting from an electrostatic attraction between a proton in one molecule and an electronegative atom in the other.

24. Chargaff's rules states that DNA from any cell of all organisms should have a 1:1 ratio (base Pair Rule) of pyrimidine and purine bases and, more specifically, that the amount of guanine is equal to cytosine and the amount of adenine is equal to thymine.

Down

1. a professor of biochemistry at Columbia University medical school.

3. a molecular component of a ribosome, the cell's essential protein factory.

4. a unit of heredity that is transferred from a parent to offspring and is held to determine some characteristic of the offspring.

6. lack a distinct cell nucleus and their DNA is not organized into chromosomes.

7. ribonucleic acid, a nucleic acid present in all living cells. Its principal role is to act as a messenger carrying instructions from DNA for controlling the synthesis of proteins, although in some viruses RNA rather than DNA carries the genetic information.

8. a compound found in living tissue as a constituent base of RNA. In DNA its place is taken by thymine.

10. the material of which the chromosomes of organisms other than bacteria (i.e., eukaryotes) are composed. It consists of protein, RNA, and DNA.

11. a colorless crystalline compound with basic properties, forming uric acid on oxidation.

13. RNA consisting of folded molecules that transport amino acids from the cytoplasm of a cell to a ribosome.

15. deoxyribonucleic acid, a self-replicating material present in nearly all living organisms as the main constituent of chromosomes. It is the carrier of genetic information.

16. the form of RNA in which genetic information transcribed from DNA as a sequence of bases is transferred to a ribosome.

18. a compound consisting of a nucleoside linked to a phosphate group.

20. A molecule composed of polymers of amino acids joined together by peptide bonds.