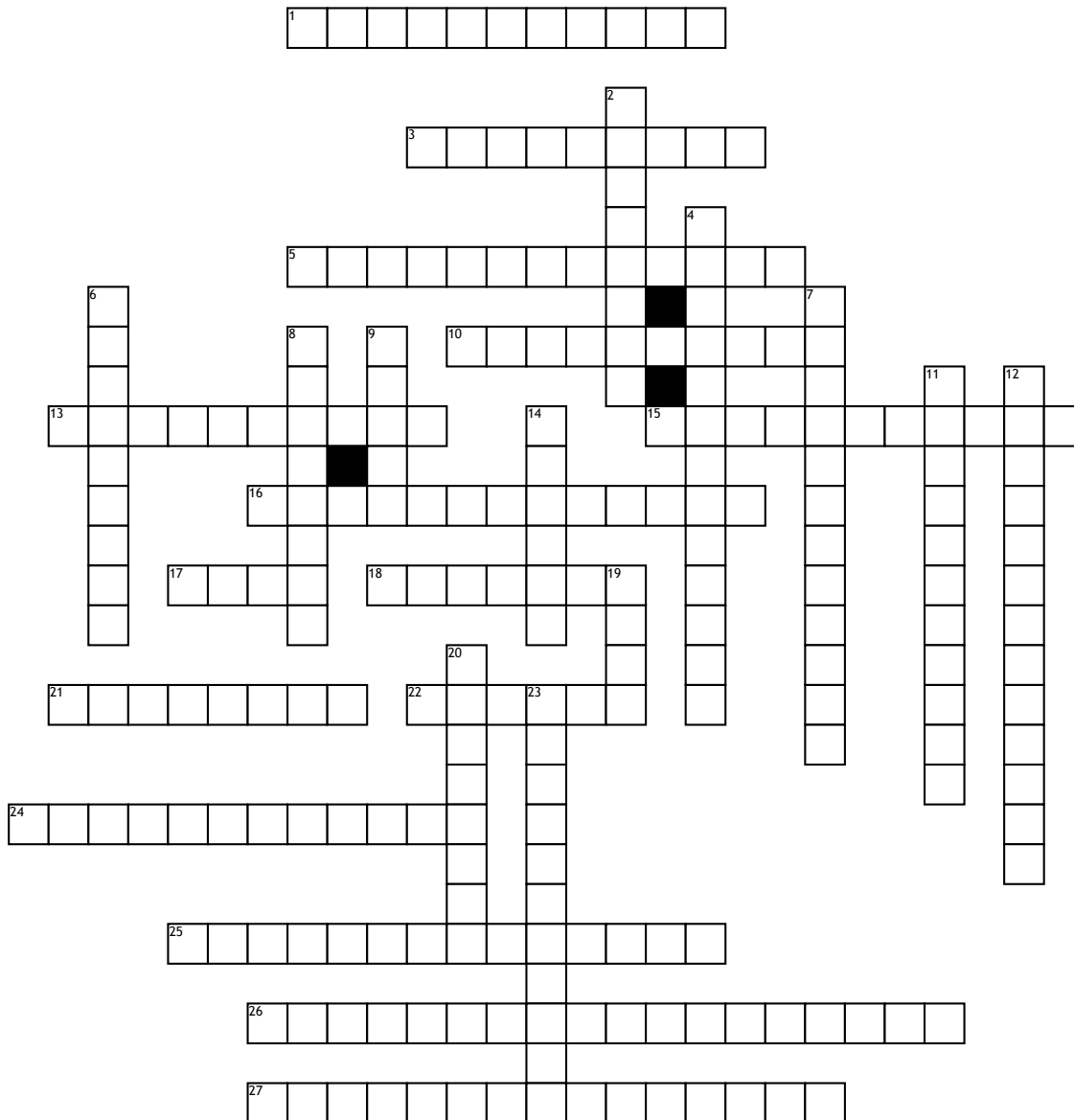


Name: _____

Date: _____

DNA and RNA



Across

1. Principle that bonds in DNA can form only between adenine and thymine and between guanine and cytosine
3. Group of three bases on a tRNA molecule that are complementary to an mRNA codon
5. Enzyme similar to DNA polymerase that binds to DNA and deprecated the DNA strands during transcription
10. Monomer of nuclei acids made up of a 5-carbon sugar, a phosphate group, and a nitrogenous base
13. Condition in which an organism has an extra sets of chromosome
15. type of RNA molecule that transfers amino acids to ribosomes during protein synthesis
16. Mutation that affects a single nucleotide, usually by substituting one nucleotide for another
17. Sequence of DNA that codes for a protein and thus determine a trait
18. Globular protein molecule around which DNA is tightly coiled in chromatin

21. Change in a DNA sequence that affects genetic information
 22. Group of genes operating each other
 24. Type of RNA that makes up the major part of ribosomes
 25. Process in which one strain of bacteria is changed by a gene or genes from another strain of bacteria
 26. Mutation that shifts the "reading" frame of the genetic message by inserting or deleting a nucleotide
 27. Process in which cells become specialized in structure and function
- ## Down
2. Series of genes that controls the organs and tissues that develop in various parts of an embryo
 4. Virus that infects bacteria
 6. granular material visible within the nucleus; consists of DNA tightly coiled around proteins
 7. RNA molecule that carries copies of instructions for the assembly of amino acids into proteins from DNA to the rest of the cell

8. Region in DNA that indicates to an enzyme where to bind to make RNA
9. Three-nucleotide sequence on messenger RNA that codes for a single amino acid
11. Decoding of a mRNA message into a polypeptide chain
12. Enzyme that "proof reads" new DNA strands, helping to ensure that each molecule is a nearly perfect copy of the original DNA
14. Intervening sequence of DNA; does not code for a protein
19. Expressed sequence of DNA; codes for a protein
20. Region of chromosome in an operon to which the repressor binds
23. Copying process by which a cell duplicates its DNA