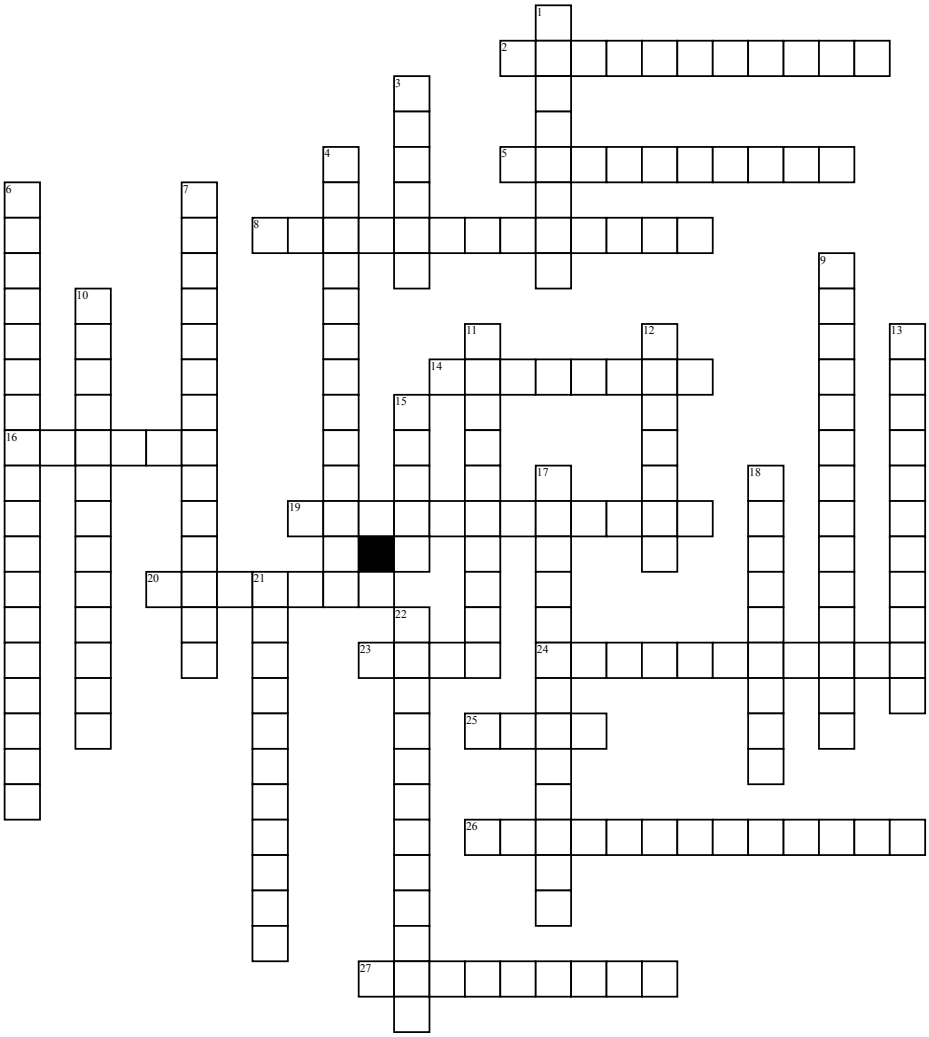
Name: _____ Date: _____

Biology: Class 10, CH. 12



Across

2. Decoding of an mrna message into a polypeptide chain
5. Condition in which an organism has extra sets of chromosomes
8. An enzyme involved in DNA replication that joins individual nucleotides to produce a dna molecule
14. Changes in a dna sequence that affects genetic information
16. Sequence of DNA that is not involved in coding for a protein
19. Type of rna that makes up the major part of ribosomes
20. Protein molecule around which DNA is tightly coiled in chromatin
23. Sequence of dna that codes for a protein and thus determines a trait
24. Copying process by which a cell duplicates its dna
25. Expressed sequence of DNA; codes for a protein
26. Enzyme similar to dna polymerase that binds to dna and separates the dna strands during transcription
27. Group of three bases on a trna molecule that are complementary to an mrna codon

Down

1. Region of dna that indicates to an enzyme where to bind to make rna
3. Group of genes operating together
4. Process in which part of the nucleotide sequence of dna is copied into a complementary sequence of rna
6. Mutation that shifts the "reading" frame of the genetic message by inserting or deleting a nucleotide
7. Process in which cells become specialized in structure and function
9. Process in which one strain of bacteria is changed by a gene from another strain of bacteria.
10. Gene mutation involving changes in one or a few nucleotides
11. Monomer of nucleic acids made up of a 5-carbon sugar
12. Series of genes that controls the differentiation of cells and tissues in an embryo
13. Principle that bonds in DNA can form only between adenine and thymine + guanine and cytosine
15. Three - nucleotide sequence on messenger RNA that codes for a single amino acid
17. Virus that infects bacteria
18. Granular material visible within the nucleus
21. Type of rna molecule that transfers amino acids to ribosomes during protein synthesis
22. Rna molecule that carries copies of instructions for the assembly of amino acids into proteins from dna to the rest of the cell

Word Bank

MUTATION	GENE	DNA POLYMERASE	TRANSLATION	TRANSCRIPTION
OPERON	EXON	POINTMUTATION	MESSENGERRNA	BACTERIOPHAGE
CHROMATIN	RNAPOLYMERASE	REPLICATION	ANTICODON	FRAMESHIFTMUTATION
HOXGENE	PROMOTER	TRANSFORMATION	BASEPAIRING	NUCLEOTIDE
RIBOSOMALRNA	TRANSFERRNA	POLYPLOIDY	CODON	INTRON
DIFFERENTATION	HISTONE			