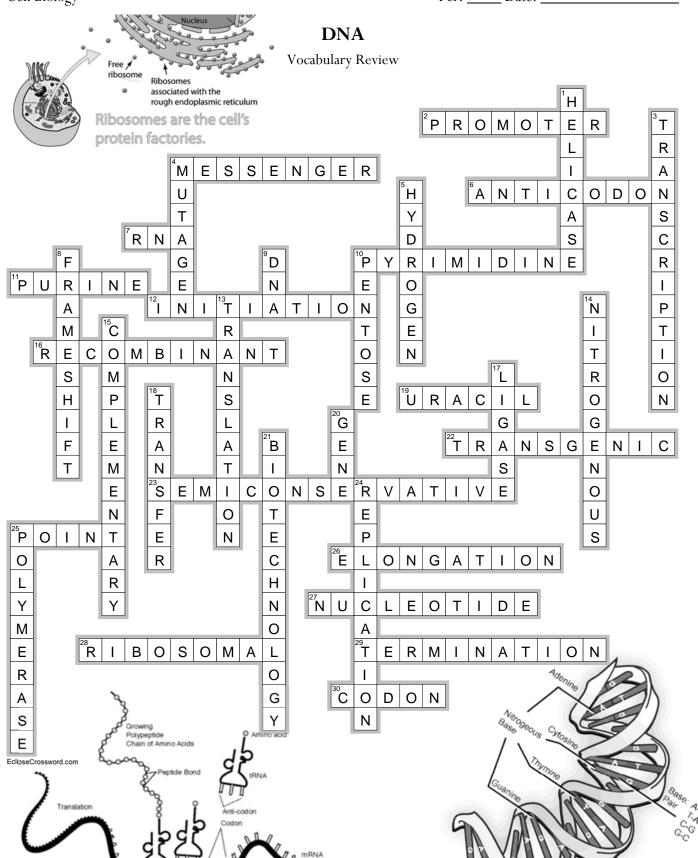
Biology 1	2
-----------	---

Name: _____

Per: _____ Date: _____





Across

- 2. PROMOTER—Region of DNA that contains special sequence of nucleotides telling RNA polymerase to bind.
- 4. MESSENGER—Type of RNA that is made using DNA as a template and moves from the nucleus to the cytoplasm.
- 6. ANTICODON—Found on tRNA, this allows the molecule to bind with mRNA and drop off a specific amino acid.
- 7. RNA—Short form of "ribonucleic acid"
- **10. PYRIMIDINE**—Single ringed nitrogenous bases.
- 11. **PURINE**—Double ringed nitrogenous bases.
- 12. **INITIATION**—The first step of translation, requires the start codon (AUG).
- **16. RECOMBINANT**—This type of DNA contains DNA from two or more different sources.
- 19. URACIL—In RNA, thymine is replaced by this nitrogenous base.
- 22. TRANSGENIC—Organisms that have had a foreign gene inserted into their DNA are ______ organisms
- 23. SEMICONSERVATIVE—Describes the fact that DNA is made up of one old, parent strand and one new, daughter strand.
- **25. POINT**—Type of mutation that substitutes one base for another.
- 26. ELONGATION—The second step of translation, amino acids are joined together by peptide bonds.
- 27. NUCLEOTIDE—The monomer molecule of DNA and RNA
- **28. RIBOSOMAL**—Type of RNA that combines with proteins to become the site of protein synthesis.
- **29. TERMINATION**—The final step of translation, requires a stop codon (UAA, UGA or UAG).
- **30. CODON**—The triplet codes of the mRNA are also known as this.

Down

- 1. **HELICASE**—DNA enzyme that unzips the double helix.
- 3. TRANSCRIPTION—Process that occurs in the nucleus where mRNA is made using DNA as a template.
- 4. MUTAGEN—An environmental factor that can cause changes to the base sequence of genes.
- 5. **HYDROGEN**—Type of bond found between nitrogenous bases.
- **8. FRAMESHIFT**—Type of mutation that can involve the insertion or deletion of a base.
- 9. DNA—Short form for "deoxyribonucleic acid"
- 10. PENTOSE—The backbone of DNA and RNA is made up of a phosphate and a ______ sugar.
- **13. TRANSLATION**—Process of making proteins from mRNA.
- 14. NITROGENOUS—There are four different ______ bases in DNA.
- 15. COMPLEMENTARY—Matching A-T and C-G is known as ______ base pairing.
- 17. LIGASE—DNA enzyme that seals any breaks in the sugar-phosphate backbone.
- **18. TRANSFER**—Type of RNA that brings amino acids to the ribosomes.
- 20. GENE—A segment of DNA found on a chromosome that specifies the amino acid sequence of a protein.
- 21. **BIOTECHNOLOGY**—Field of _____ uses natural biological systems to create a produce or to achieve a goal desired by humans.
- **24. REPLICATION**—The process of duplicating DNA during mitosis or meiosis.
- POLYMERASE—DNA enzyme that fits nucleotides into proper order on a new strand of DNA.