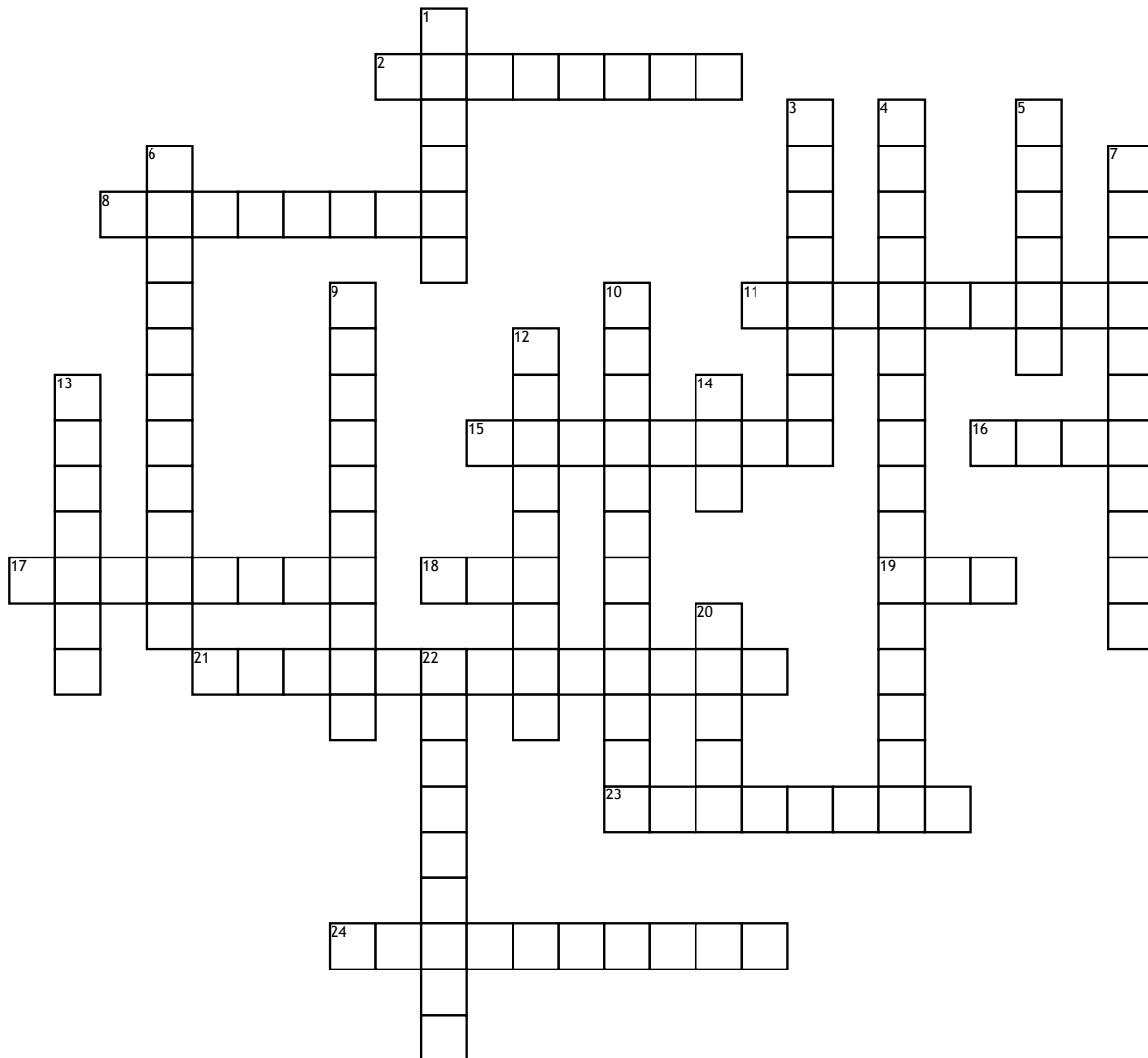


# DNA/RNA, Protein Synthesis, and Mutations Review



**Across**

- 2. The cell part where translation occurs.
- 8. A mistake in replication, transcription or translation that causes a permanent change in a gene or chromosome.
- 11. When a base is added to the DNA.
- 15. A substitution mutation that only affects one amino acid.
- 16. The type of RNA that copies the message from DNA and takes it to the ribosome.
- 17. When a base is Deleted from the DNA.
- 18. A Nucleic Acid that can leave the nucleus.
- 19. Protein Synthesis consists of \_\_\_\_\_ main steps.

- 21. The first step in protein synthesis where DNA is copied into mRNA.
  - 23. A mutation that results in an early stop codon.
  - 24. A mutation that causes the reading frame of the codons to change.
- Down**
- 1. A substitution mutation that does not change the amino acid sequence at all.
  - 3. The amino acid that is coded for by CGA.
  - 4. The process where DNA is used to create proteins.
  - 5. RNA contains \_\_\_\_\_ instead of Thymine.
  - 6. Both DNA and RNA are made of \_\_\_\_\_.

- 7. The second step in protein synthesis where the mRNA is read and used to build proteins.
- 9. This amino acid is coded for with AUG and indicates the beginning of a new protein.
- 10. A type of mutation where only one base is changed.
- 12. The top section of a tRNA molecule carries an \_\_\_\_\_.
- 13. DNA cannot leave the \_\_\_\_\_.
- 14. A Nucleic Acid that is double stranded.
- 20. A group of 3 nitrogen bases that code for an amino acid.
- 22. The tRNA can be found floating in the \_\_\_\_\_.