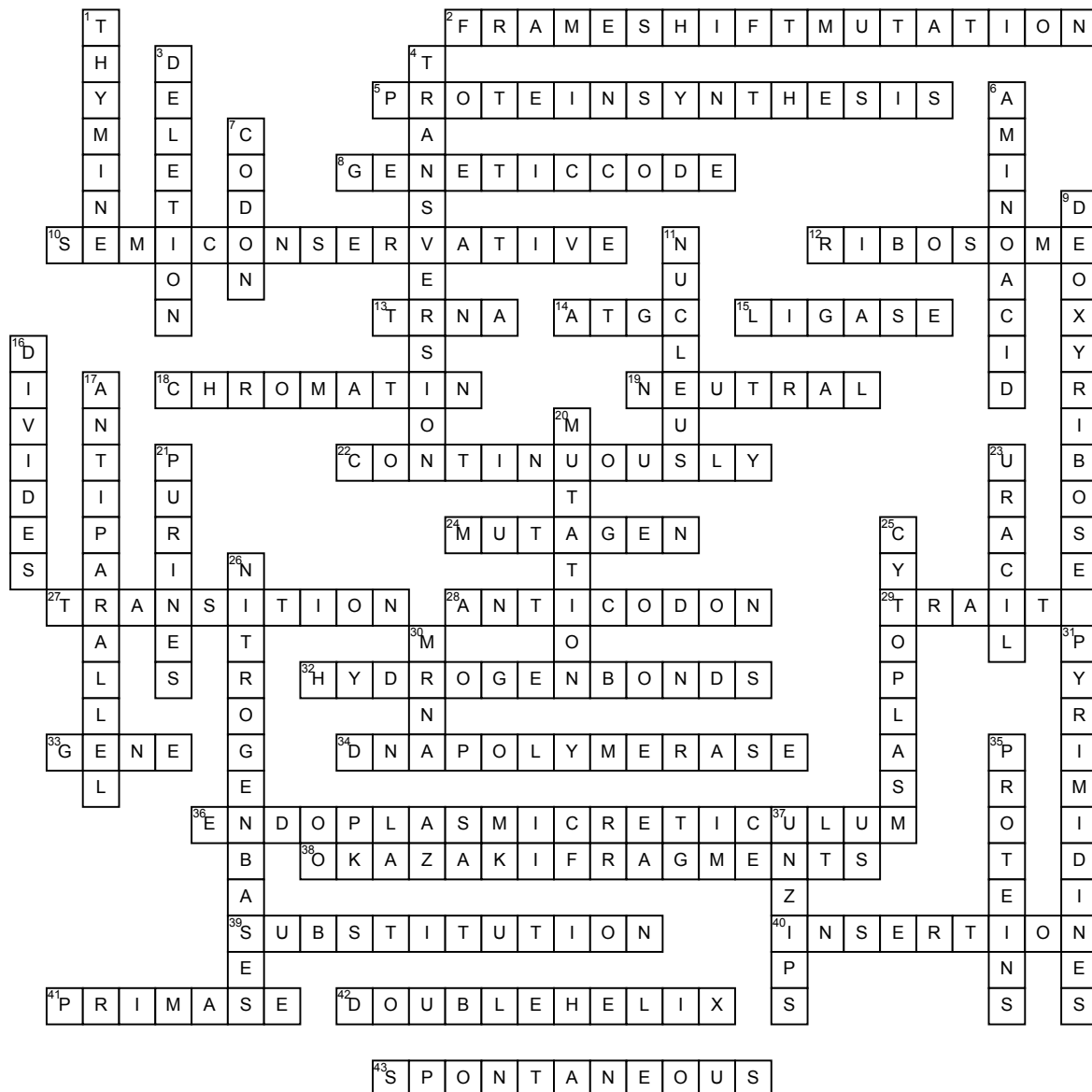


Replication, Transcription, Translation, and Mutations



Across

2. Type of mutation that changes the entire sequence of DNA following the mistake (2 words)
5. tRNA and mRNA are involved in (2 words)
8. A mutation can change the _____ and be replicated when forming new cells (2 words)
10. DNA replication is _____
12. After transcription, mRNA leaves the nucleus and attaches itself to a _____
13. _____ carries amino acids to the site of protein synthesis
14. The bases are often abbreviated to _____, _____, _____, and _____
15. _____ joins the Okazaki fragments
18. Unwound DNA
19. A mutation can be _____, beneficial, or harmful
22. DNA polymerase replicates one strand _____ and one not
24. A mutagen is a(n) _____, such as radiation, chemicals, high temperatures, or UV light
27. A purine → purine or pyrimidine → pyrimidine mutation
28. A(n) _____ is a sequence of three bases in a tRNA molecule
29. Passed on from parents to offspring
32. _____ connect the bases (2 words)
33. Part of a chromosome, passed on from parents to offspring

34. _____ adds nucleotides and checks to make sure the new copy is correct (2 words)
36. Ribosomes are located on the _____ (2 words)
38. Because it only makes 5'-3', DNA polymerase makes little sections for the other side called _____ (2 words)
39. One base is placed incorrectly
40. One base is added
41. _____ creates a primer on the DNA strand by adding RNA nucleotides
42. DNA is shaped like a twisted ladder, or _____ (2 words)
43. Mutations can be _____

Down

1. In DNA, adenine pairs with _____
3. One base is deleted
4. A purine → pyrimidine or pyrimidine → purine mutation
6. The message from the mRNA will be translated into an _____ sequence (2 words)
7. A(n) _____ is a sequence of three bases that codes for an amino acid
9. The sides of DNA are made of _____ and phosphate.
11. Transcription happens in the _____
16. DNA replication does not happen when the cell _____
17. DNA is _____
20. A change that takes place in DNA
21. A and G are both _____

23. RNA has _____ instead of thymine
25. Translation occurs in the _____, specifically on the ribosomes
26. _____ contain nitrogen (2 words)
30. Transcription is the process of making _____
31. T and C are _____
35. _____ are made in the ribosomes
37. Helicase _____ DNA