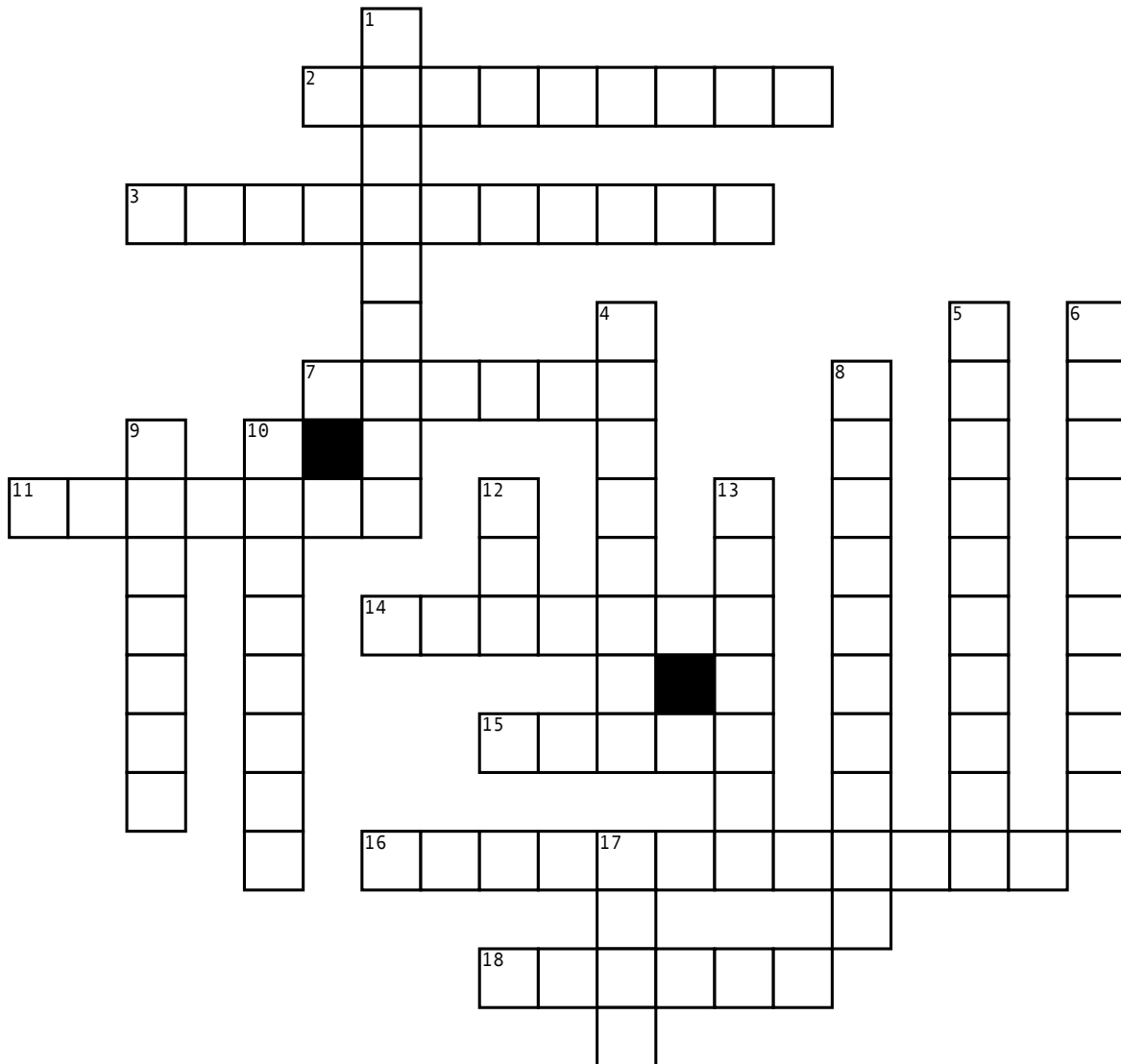


DNA Replication



Across

- 2. Protein that binds to a origin of replication and unwinds a short stretch of DNA, allowing helicase and other single-strand-binding proteins to bind and initiate replication.
- 3. Final step of replication, either occurs when two replication forks meet or specific sequences block further replication.
- 7. DNA _____, function is joining Okazaki fragments by sealing breaks in the sugar-phosphate backbone of newly synthesized DNA
- 11. This strand, which undergoes continuous replication, is called the _____
- 14. Short stretch of newly synthesized DNA produced by discontinuous replication on the lagging strand; these fragments are eventually joined together.
- 15. Replication of circular DNA that is initiated by the unwinding of the two nucleotide strands, producing a replication bubble. Unwinding continues at one or both ends of the bubble, making it progressively larger. DNA replication on both of the template strands is simultaneous with unwinding until the two replication forks meet. (_____ replication)

- 16. A Process by which DNA polymerases remove and replace incorrectly paired nucleotides in the course of replication.
- 18. DNA _____, function is to Moves ahead of the replication fork, making and resealing breaks in the double-helical DNA to release the torque that builds up as a result of unwinding at the replication fork.
- Down**
- 1. What phase of replication does DNA synthesis requires a single-stranded template
- 4. Enzyme that unwinds double-stranded DNA by breaking hydrogen bonds, (DNA _____)
- 5. In this stage of replication, single-stranded DNA is used as a template for the synthesis of DNA. This process requires a series of enzymes.
- 6. Single-strand-binding proteins function is to Attach to single-stranded DNA and prevent _____ structures from forming
- 8. DNA polymerase III function is to elongate a new _____ strand from the 3'-OH group provided by the primer
- 9. DNA strand that is replicated discontinuously.

- 10. A Process that corrects mismatched nucleotides in DNA after replication has been completed. Enzymes excise incorrectly paired nucleotides from the newly synthesized strand and use the original nucleotide strand as a template for replacing them. (_____ repair)
- 12. DNA polymerase I function removes _____ primers and replaces them with DNA
- 13. DNA _____, function is to Synthesizes a short RNA primer to provide a 3'-OH group for the attachment of DNA nucleotides.
- 17. Point at which a double-stranded DNA molecule separates into two single strands that serve as templates for replication. (replication _____)