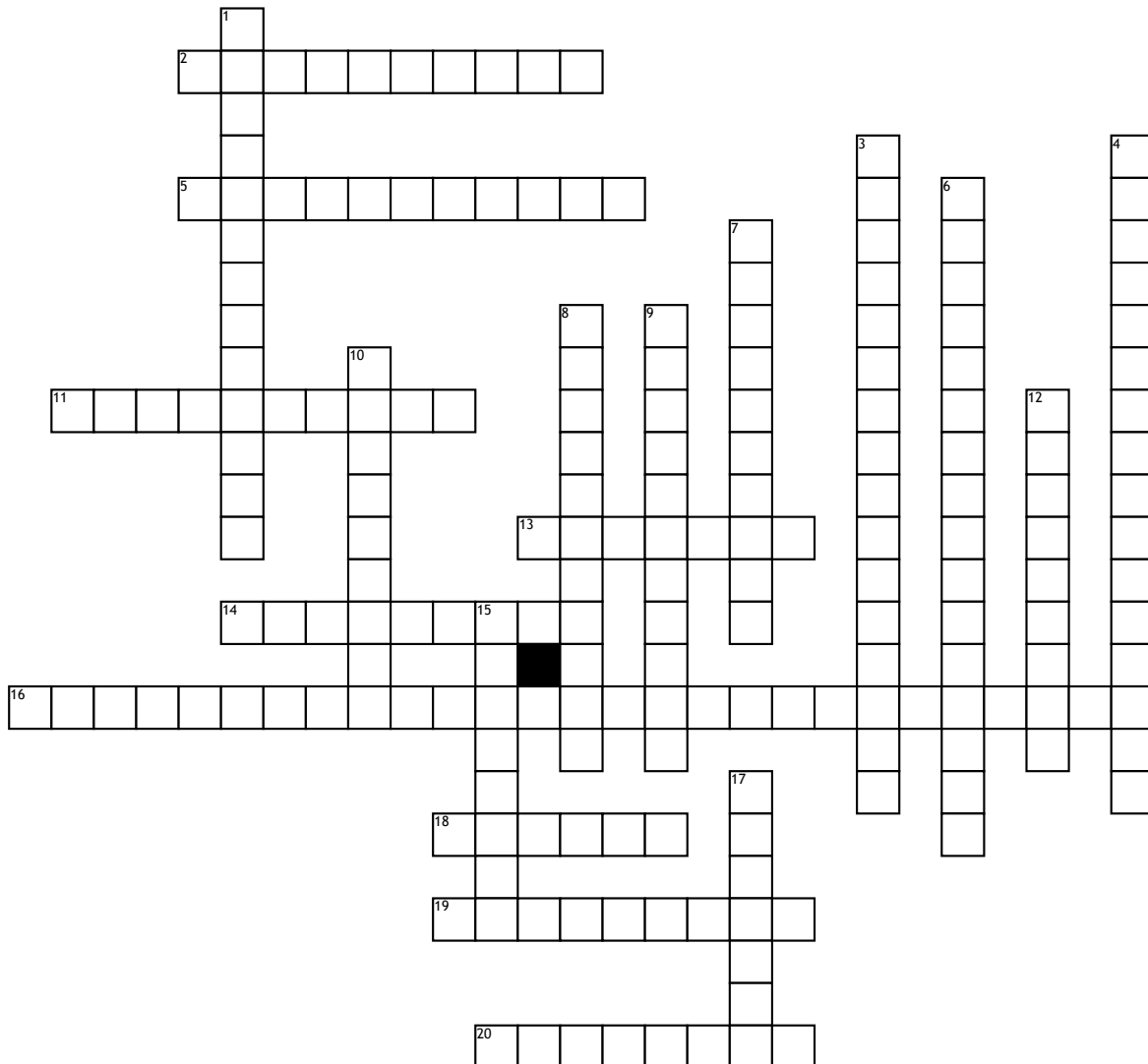


Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

# DNA Replication and Mitosis



**Across**

- 2. stage where the cell grows, matures, duplicates DNA in the nucleus, and prepares for division
- 5. twisted ladder shape
- 11. structure at the center of the chromosome where sister chromatids are attached
- 13. stage of cell cycle where the cell's nucleus and nuclear material divide
- 14. second stage of mitosis, sister chromatids are lined up in the middle of the cell
- 16. parental strands of DNA separate and serve as templates, one strand is the parental DNA and one strand is the new DNA
- 18. uncontrolled growth and division of cells

- 19. cycle of growing and dividing where cells reproduce

- 20. first stage of mitosis, cell's chromatin condense to form chromosomes

**Down**

- 1. enzyme that catalyzes the addition of nucleotides to the new strand of DNA
- 3. structures that contain identical copies of DNA
- 4. small segments formed when the lagging strand synthesizes discontinuously
- 6. important in moving and organizing the chromosomes before cell division
- 7. the relaxed form of DNA
- 8. when the cell's cytoplasm divides
- 9. condensed structures that contain DNA visible during mitosis

- 10. last stage of mitosis, chromosomes decondense, two nuclei are formed with a complete set of DNA each
- 12. programmed cell death
- 15. third stage of mitosis, chromatids are pulled apart, equal separation of replicated and identical DNA
- 17. proteins that bind to the cyclin-dependent kinases in interphase and mitosis to initiate activities