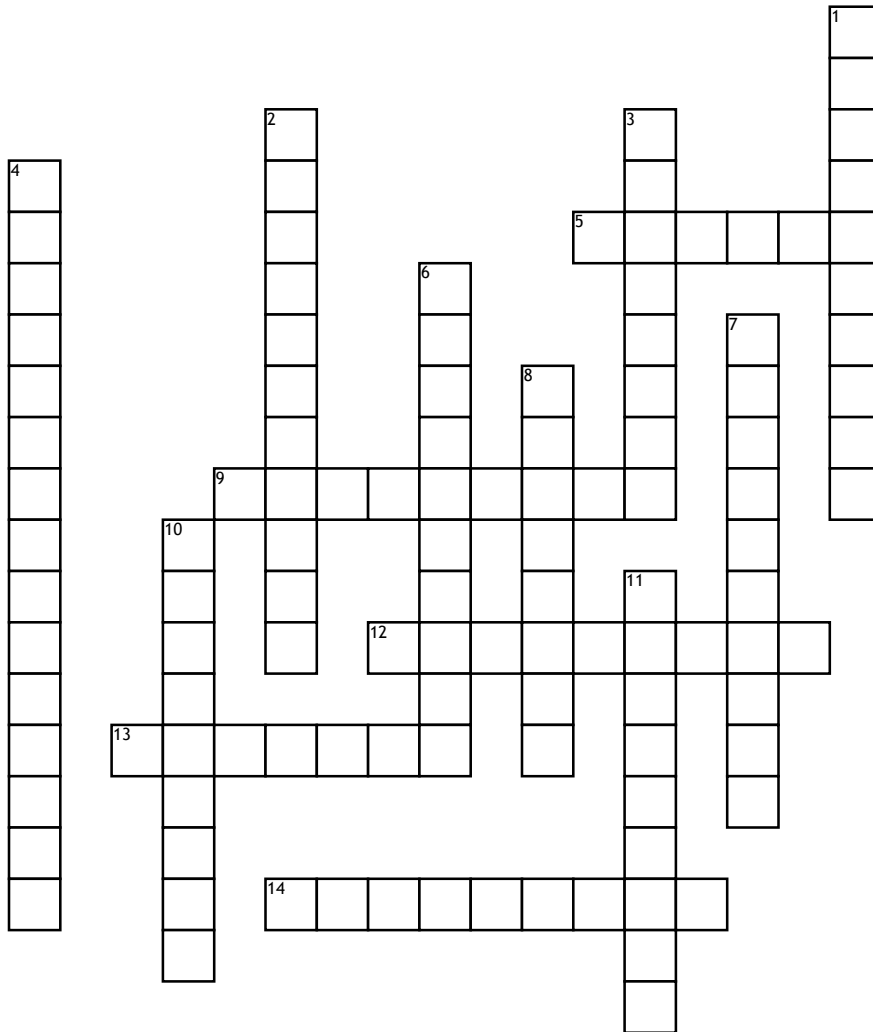


Interphase and Mitosis



Across

5. uncontrolled cell division that may be caused by environmental factors and/or changes in enzyme production in the cell cycle

9. in animal cells, a pair of small cylindrical structures composed of microtubules that duplicate during interphase and move to opposite ends of the cell during prophase.

12. short second phase of mitosis where doubled chromosomes move to the equator of the spindle and chromatids are attached by centromeres to a separate spindle fiber

13. cell structures composed of microtubule fibers; forms between the centrioles during prophase and shorten during anaphase, pulling apart sister chromatids

14. beginning of a cell wall between two new nuclei in a plant cell during cytokinesis

Down

1. cell growth phase where a cell increases in size, carries on metabolism, and duplicates chromosomes prior to division

2. cell process following mitosis or meiosis in which the cell's cytoplasm divides and separates into new cells

3. third phase of mitosis in which the centromeres split and the chromatid pairs of each chromosome are pulled apart by microtubules

4. identical halves of a duplicated parent chromosome formed during the prophase stage of mitosis, the halves are held together by a centromere

6. cell structure that joins two sister chromatids of a chromosome

7. cell structures that carry the genetic material that is copied and passed from generation to generation of cells

8. first and longest phase of mitosis where chromatin coils into visible chromosomes

10. final phase of mitosis during which new cells prepare for their own independent existence

11. long strands of DNA found in the eukaryotic cell nucleus; condense to form chromosomes

Word Bank

sister chromatid
anaphase
cancer
interphase

spindle
chromatin
prophase
cell plate

telophase
centromere
chromosome

cytokinesis
metaphase
centriole