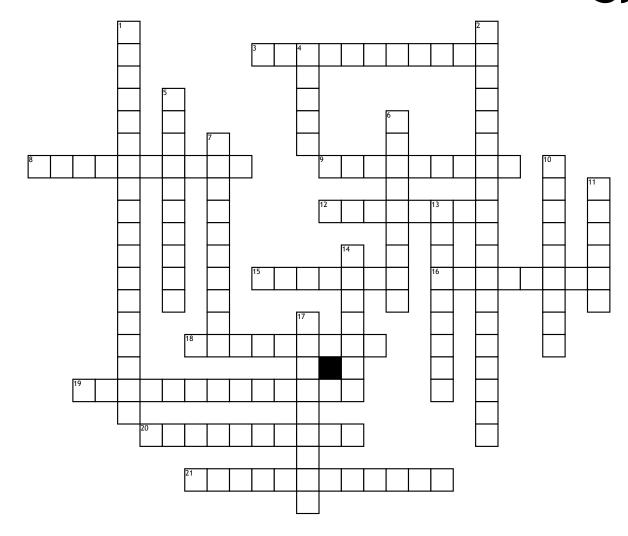
## Cell Division - Ch. 10 Biology



## Across

- 3. The splitting of one cell into two; occurs after the phases of mitosis are complete; the process of cytokinesis is different in plant and animal cells
- **8.** Tiny paired structures where spindles come from to attach to the centromere to
- ${\bf 9.}$  A series of events where a cell grows, prepares for division and divides to form two daughter cells
- 12. Third event of mitosis; the chromosomes separate and move along spindle fibers to opposite ends of the cell
- **15.** Proteins that regulate the timing of the cell cycle; these proteins are inside and outside the cell
- **16.** First described phase of mitosis, takes the longest, the genetic material inside the nucleus condenses and the duplicated chromosomes become visible. Outside the nucleus, a spindle starts to form
- **18.** The second phase of mitosis; the centromere of the duplicated chromosomes line up across the center of the cell. Spindle fibers connect the centromere of each chromosome to the the two poles of the spindle

- **19.** Proteins that stimulate the growth and division of cells; especially important proteins during embryonic development and wound healing
- **20.** Part of cell cycle where the cell grows, DNA replicates, and the organelles and molecules produced for cell division
- 21. The process by which a cell divides into two daughter cells

## <u>Down</u>

- 1. Offspring produced by sexual reproduction inherit some of their genetic information from each parent
- 2. The production of genetically identical offspring from a single parent is known as asexual reproduction
- 4. A mass of cells; can be benign which means the mass doesn't spread; or malignant which means the mass will spread and start new tumors in other areas of the body
- **5.** DNA, genetic information, that is bundled and packaged in the cell in preparation for cell division (rather than being in long strands of chromatin)

- 6. The fourth and final phase of mitosis; the chromosomes, which were distinct and condensed, begin to spread out into a tangle of chromatin; the nuclear envelope re-forms around each cluster of chromosomes . the spindle breaks apart and a nucleolus becomes visible in each daughter nucleus. Mitosis is complete.
- 7. Where the duplicated strands of DNA attach
- **10.** One of the duplicated strands of DNA, sometimes the two strands are referred to sister chromatids
- 11. A mass of body cells that do not respond to the signals that regulate the growth of most cells
- **13.** A process of programmed cell death; cells end their life cycle in one of two ways: damage or programmed
- $\textbf{14. } \textbf{Duplication of the cell's genetic information} \\ \textbf{which is described by four phases}$
- 17. DNA exists in the nucleolus in chromatin form; "beads on a string" the beads are histone proteins and the the string is the DNA