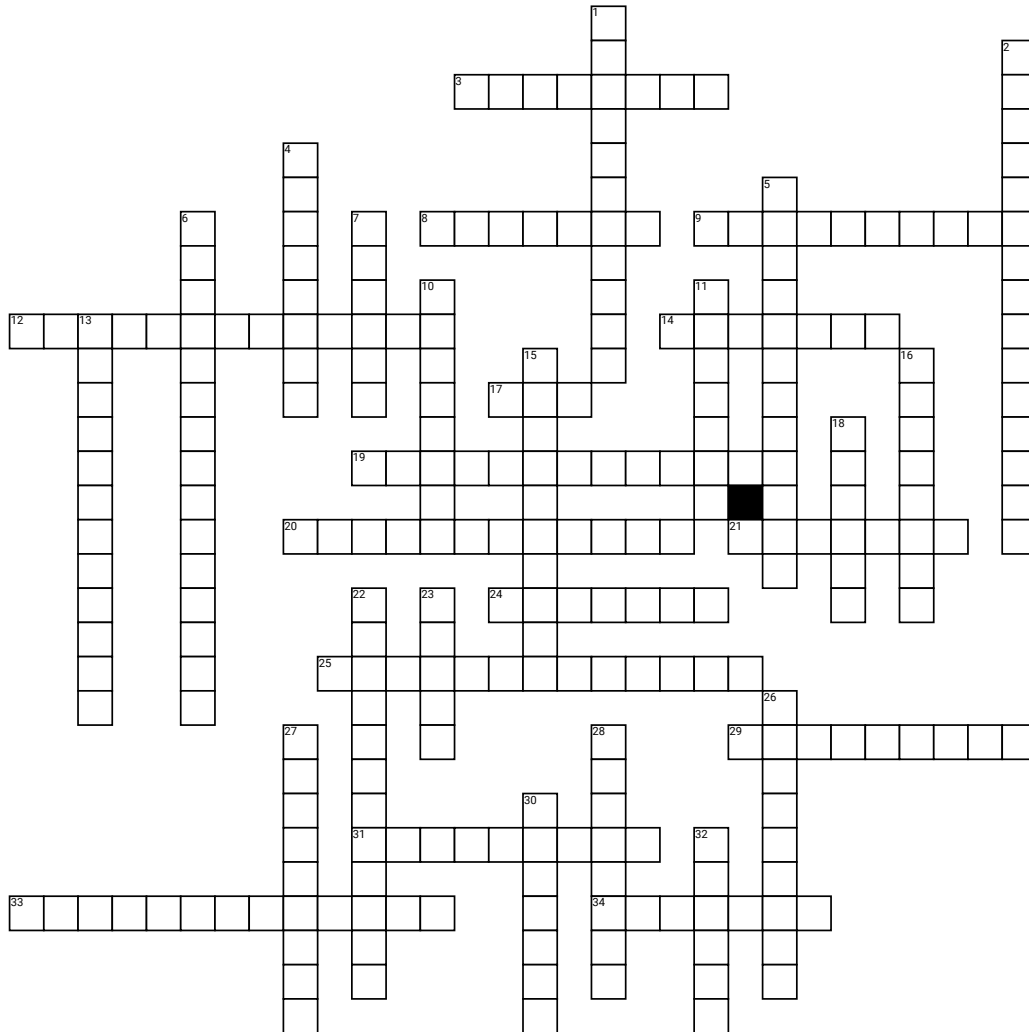


# Station 4: Mitosis, Meiosis, and Reproduction



**Across**

- 3. The study of heredity and the variation of inherited characteristics.
- 8. Type of asexual reproduction in which a new organism develops from an outgrowth or bud due to cell division.
- 9. A threadlike structure of nucleic acids and proteins found in the nucleus of most living cells that carries genetic information in the form of genes.
- 12. The action involving the fusion of male and female gametes to form a zygote.
- 14. A type of cell division that results in two daughter cells each having the same number and kind of chromosomes.
- 17. The carrier of genetic information which is present in nearly all living organisms as the main constituent of chromosomes.
- 19. Type of asexual reproduction in which an organism is split into fragments.
- 20. The second phase of mitosis and is the process that separates the duplicated genetic material carried in the nucleus of a parent cell into two identical daughter cells.
- 21. The type of cell division that results in four daughter cells each with half the number of chromosomes of the parent cell.
- 24. Having a single set of unpaired chromosomes.

- 25. The long protein fibers called microtubules that extend from the centrioles and move the chromosomes during Mitosis.
  - 29. The second stage of cell division during which the chromosomes become attached to the spindle fibers.
  - 31. The material of which the chromosomes of organisms are composed.
  - 33. Type of asexual reproduction where DNA replication and segregation occur simultaneously "division in half".
  - 34. Type of reproduction that does not involve the fusion of gametes.
- Down**
- 1. The cytoplasmic division of a cell at the end of cell division that brings about the separation into two daughter cells.
  - 2. Reproduction from an ovum without fertilization.
  - 4. The first stage of cell division in which the chromosomes become visible as paired chromatids and the nuclear envelope disappears.
  - 5. Father of genetics.
  - 6. A double membrane enclosing a cell nucleus and having its outer part continuous with the endoplasmic reticulum.
  - 7. A distinguishing quality or characteristic.
  - 10. The stage of cell division in which the chromosomes move away from one another to opposite poles of the spindle.

- 11. Containing two complete sets of chromosomes - one from each parent.
- 13. Type of asexual reproduction where an organism has the ability to regrow its lost parts.
- 15. The resting phase between successive mitotic divisions of a cell.
- 16. The passing on of physical or mental characteristics genetically from one generation to another.
- 18. The haploid set of chromosomes in a gamete.
- 22. The production of offspring by a sexual or asexual process.
- 23. A unit of heredity which is transferred from a parent to offspring and is held to determine some characteristics of the offspring.
- 26. The final phase of cell division in which the chromatids or chromosomes move to opposite ends of the cell and two nuclei are formed.
- 27. A trait that will be masked.
- 28. A trait that will be expressed.
- 30. A mature haploid male or female germ cell which is able to unite with another of the opposite sex in sexual reproduction to form a zygote.
- 32. Type of reproduction that combines genetic information from two individuals of different genders.

**Word Bank**

SPINDLE FIBERS	DOMINANT	INTERPHASE	NUCLEAR MEMBRANE	DNA
REPRODUCTION	PROMETAPHASE	GENES	CYTOKINESIS	BINARY FISSION
MITOSIS	REGENERATION	ANAPHASE	GENOME	RECESSIVE
GENETICS	HEREDITY	PARTHENOGENESIS	DIPLOID	GAMETES
TELOPHASE	FRAGMENTATION	SEXUAL	PROPHASE	ASEXUAL
HAPLOID	TRAITS	METAPHASE	CHROMATIN	BUDDING
MEIOSIS	GREGOR MENDEL	FERTILIZATION	CHROMOSOME	