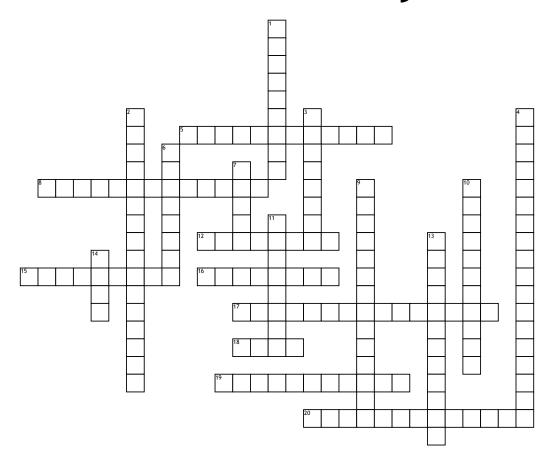
## Mutation Vocabulary Review



## Across

- **5.** Type of replication error during DNA replication which places the wrong nucleotide or sequence of nucleotides in the wrong position.
- **8.** A mutation when a single base pair is altered. This can result in a silent mutation, nonsense mutation or missense mutation.
- **12.** Occurs when the sequence of nucleotides in DNA is changed in a way that stops the normal sequence of amino acids in the final protein.
- $\begin{tabular}{ll} \bf 15. & {\tt Mutation} & {\tt which} & {\tt extra} & {\tt base} & {\tt pairs} & {\tt are} & {\tt inserted} & {\tt into} \\ {\tt DNA} & {\tt sequence}. & & & \\ \end{tabular}$
- **16.** Point mutation in which single nucleotide is changed, resulting in a codon that codes for a different amino acid.
- **17.** Branch of agriculture where animals are reared, bred and raised for meat, fiber, eggs, milk and other food products.

- **18.** Molecules that act as temporary carriers of amino acids, bringing the appropriate amino acids to the ribosome based on the (mRNA).
- **19.** The act or process of duplicating or repeating a region in the genetic material or chromosome, as in gene duplication and chromosomal duplication.
- **20.** A chromosomal segment is moved from one position to another, either within the same chromosome or to another chromosome.

## Down

- 1. A mutation that literally flips a segment of a chromosome.
- **2.** Process whereby a genetically modified organism is made in the laboratory.
- 3. Chemical agents that increase the rate of genetic mutation by interfering with the function of nucleic acids
- **4.** Insertions or deletions in the genome that are not in multiples of three nucleotides.

- 6. A change in a DNA sequence
- 7. A sequence of three nucleotides which together form a unit of genetic Coe in a DNA or RNA molecule.
- **9.** Occurs when chromosomes do not separate properly during cell division.
- **10.** the transplantation of normal genes into cells in place of missing or defective ones in order to correct genetic disorders.
- 11. Mutation in which a selection of DNA is lost or deleted.
- 13. A change in the sequence of nucleotide bases which constitutes DNA, without a subsequent change in the amino acid or the function of the overall protein.
- **14.** Transforms the information from DNA to the cell machinery that makes the proteins.

## **Word Bank**

**Animal Husbandry** Nonsense mRNA Mutation Inversion Substitution Frameshift Mutation Missense **tRNA Duplication** Insertion Gene Therapy Nondisjunction Codon Deletion Translocation Gene Modification Point Mutation Silent Effect Mutagens