**Chapter 19 Biotechnology Vocabulary Crossword**

**Across**

4. These are innovations and inventions that involves the use of living organisms.

9. This is a unit of DNA that is usually located on a chromosome and that controls the development of one or more traits.

11. These are permanent changes or damages that were done to the composition of a DNA gene.

13. This is a large molecule composed of one or more chains of amino acids in a specific order determined by the base sequence of nucleotides in the DNA coding.

14. This is a type of mutation where a part of the chromosome is missing.

15. This is a type of mutation where one or more nucleotides are added to a chromosome.

16. This is the shape that DNAs take form in.

17. These are the building blocks of proteins.

**Down**

1. These carries the genetic information of a cell and they contains many genes.

2. The molecule that contains the genetic code of organisms. It also has a double-helix shape.

3. This is a type nucleic acid in the cells of plants and animals that helps make proteins.

5. This is the modification of the characteristics of an organism by manipulating its genetic material.

6. This is the use of a DNA probe for the identification of an individual, as for the matching of genes from a forensic sample with those of a criminal suspect.

7. This is a type of mutation where a single nucleotide is substituted or exchanged with the wrong nucleotide.

8. These makes up part of nucleic acids.

10. This is any cell or organism which is genetically identical to another cell or organism.

12. This causes mutations.