

Biotechnology Vocabulary

Copy the term & definition on a piece of notebook paper. Remember to label each session and number the questions.

Session 1

1. **Biotechnology** - A set of biological techniques developed through basic research and now applies to research and product development. Biotechnology products include antibiotics, insulin, interferon, recombinant DNA, and techniques such as waste recycling.

Session 2

1. **Genetic engineering** - The process of making changes in the DNA code of living organisms.

2. **Bioethics** - the branch of ethics, philosophy and social commentary that discusses the life sciences and their potential impact on our society.

Session 3

1. **Gene therapy** - Is a rapidly growing field of medicine in which genes are introduced into the body to treat diseases

2. **Restriction map** - A physical map of a piece of DNA showing recognition sites of specific restriction endonucleases separated by lengths marked in numbers of bases.

Session 4

1. **Recombinant DNA** - one or more segments or genes have been inserted, either naturally or by laboratory manipulation, from a different molecule or from another part of the same molecule, resulting in a new genetic combination.

Session 5

1. **Stem Cells** - An unspecialized cell characterized by the ability to self-renew by mitosis, a cell that has not acquired a specific function.
2. **Transgenic** - is the process of introducing an exogenous gene, called a transgen, into a living organism so that the organism will exhibit a new property and transmit that property to its offspring.

Session 6

1. Science drives technology, and technology drives science.
2. Biotechnology has been around as long as humans have practiced agriculture.
3. Biotechnology is used to conduct research, develop new products, and improve processes.

Session 7

1. DNA - based technologies have been developed in microbes.
2. As a society, we are responsible for using biotechnology wisely.