

## Biotechnology Test

### Define Technology

Technology is applying science and industrial arts to make something useful for humans to use.

What is the purpose of new ideas?

Provides jobs

Satisfies a need

Work is more efficient

Quality of life improves

Economy

Gadgets

### Define Biotechnology

Biotechnology is the use of DNA from the cells of plants, animals, or humans to improve the quality of living organisms.

What are some uses of Biotechnology in the following areas;

Health, Environment, Agriculture, and Criminology.

Organic

Inorganic

You will need to explain the purpose of DNA.

Where are Chromosomes/Genes found and what so they do?

Bases of DNA

Sides of DNA

Shape of DNA

Codon

Define mutation

You will need to explain the 3 types of mutations.

You will also need to explain the cause and effects of mutation.

Cell Membrane

Cytoplasm

Nucleus

Mitochondria

Ribosome

Cell Wall

You will need to explain the purpose of RNA.

Proteins are ubiquitous

Protein Building - Steps and Purpose

Gene Splicing - Steps and Purpose

Heredity

Punnett Square

Where is DNA located (2 Places)?

Nucleotide/Nucleic Acid

Why should DNA remain the same from generation to generation?

Genetics

You need to explain DNA Extraction and the purpose of this procedure.

You need to explain Forensics and the purpose of this process.

E. Coli Bacteria

You need to explain how bacteria impact our lives?

How is bacteria used in Biotechnology?

Enzymes - Restriction (EcoRI) and Ligase

Why is Biotechnology controversial (Debates - Ethics)?