

I. Vocabulary

A. Biotechnology

B. Genetic engineering = Recombinant DNA Technology

II. Tools of Biotechnology

A. Mutation

1. natural

2. induced

3. site-directed

B. Selection

1. Natural selection

2. Artificial selection

C. Restriction enzymes

D. Vectors

1. properties

2. examples

a. plasmids

b. viral

c. others

E. PCR

1. Components

2. Uses

III. Applications

A. Therapeutic

1. pharmaceutical product

2. Gene therapy

B. Scientific

1. Forensic

C. Agricultural

1. *Bacillus thuringiensis*