

1-GENETIC ENGINEERING

Producing Clones

Mean: has been cloning organisms for billions of years. For example, when a new fertilized seed is sown in fertile (suitable) soil, a new plant grows where the seed is sown. But we plant the seed from a cloning source, ie parent, mother, individual.

Example: have been cloning plants for centuries to produce the thousands of years. For example, when you take a leaf cutting from a plant and grow it into a new plant (vegetative propagation), you are cloning the original plant because the new plant has the same genetic material as the donor plant.

1.1 What is cloning?

Genetic cloning involves producing a new individual that has identical

Organisms at various stages of cell division produce genetic

Cloning

Cloning is the production of a genetic duplicate of an existing organism.

In the 20th century, scientists started cloning for medical and agricultural purposes.

More cloning: they started to use cloning for producing identical copies of plants in agriculture.

How Cloning

Cloning to produce another	the whole genetically	to	the same DNA code	the original DNA code
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2.1 Do you have any previous knowledge of Cloning? Here are:

The different types of Cloning

What the scientists or concepts in their cloning

1 - DNA cloning reproductive cloning somatic cells	it is a technique used to produce identical or a genetically identical but the same nuclear DNA as another somatic or previously existing
2 - Reproductive cloning	it is a technique used to produce identical or a genetically identical but the same nuclear DNA as another somatic or previously existing
3 - Cloning with somatic cells	it is a technique used to produce identical or a genetically identical but the same nuclear DNA as another somatic or previously existing

Answer the following questions

Do you think cloning should be allowed to be used?