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Changing your Tomorrow

SUBJECT:BIOLOGY
CHAPTER:2
CHAPTER NAME: REPRODUCTION IN PLANTS..
PERIOD-3

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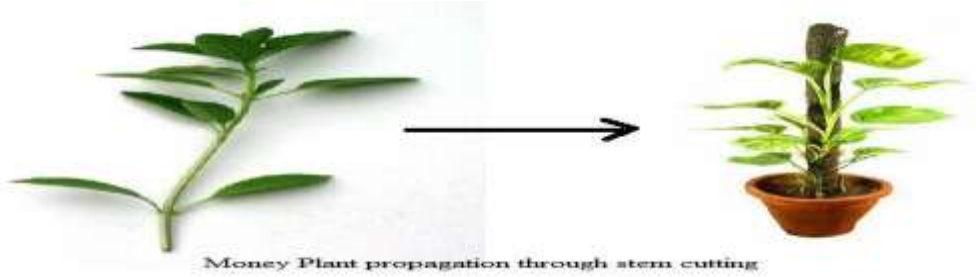
Artificial Vegetative Propagation

- **Cutting**
- Cutting is removing a part of the stem and planting it into the soil to allow the growth of roots and buds.
- Example: Sugarcane, rose, china rose, pears.



Money Plant propagation through stem cutting

Grafting:

- A small branch is cut from the plant to be grown with a wedge-shaped end. This is called scion. Now a V-shaped cut is made in the stem of a rooted called stock. The scion is now fitted into the stock and they are taped together. Soon the graft becomes part of the rooted plant.

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Layering:

- The lower branch of a plant is selected and a ring of the bark is removed from the stem. The portion where the bark is removed is bent and covered with soil. The branch is kept covered with the soil for a few days during which new roots start to develop on the branch. The branch is then cut off from the parent plant and allowed to grow as an individual plant.Example: Hibiscus, jasmine, rose, bougainvillea

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https://www.youtube.com/watch?v=LB6aJLJ5JmE

Tissue Culture:

- Tissue culture is one of the ways of cloning plants. It works with small pieces of plants, called explants
- The technique of developing new plants from a cell or tissue in a nutrient medium under aseptic conditions. The cell or tissue is placed in a nutrient medium where it forms a mass of cells called callus. This callus is then transferred to another nutrient medium where it differentiates and forms a new plant.
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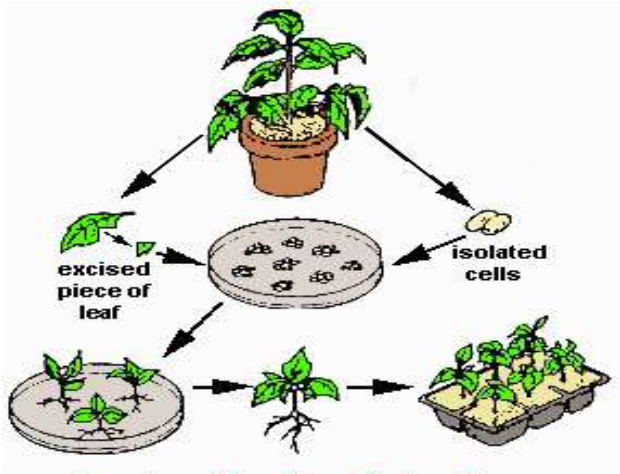

Overview of the Tissue Culture Process

Benefits of plant tissue culture technique.

- The new plantlets can be grown in a short amount of time.
- Only a small amount of initial plant **tissue** is required.
- The new plantlets and plants are more likely to be free of viruses and diseases.
- The process is not dependant on the seasons and can be done throughout the year.

- Exercise short Question No-4 and Long Answer Question No- 7

THANKING YOU

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