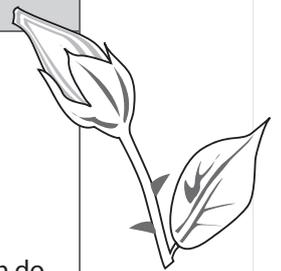


Name : Members  
of your team : 

## NEW PLANTS FROM OLD

Plants can reproduce by sexual (seeds or spores) or asexual (cloning) methods. Here is a comparison of sexual and asexual reproduction:

| <b>Sexual reproduction</b><br>- through seeds, spores  | <b>Asexual reproduction</b><br>- through stem cutting, offshoots, dividing, suckers or offshoots, leaf cutting, etc.   |
|--|--|
| <ul style="list-style-type: none"> <li>The new plant has DNA different from both parents. This allows the new plants to adapt better to changes in the environment, increasing their chances for survival.</li> </ul> <p><b>Implications for Gardening</b></p> <ul style="list-style-type: none"> <li>Used for crossing 2 plants with desired characteristics to get a new plant with both these characteristics.</li> </ul> | <ul style="list-style-type: none"> <li>New plants are clones of their parent plants (same genetic material).</li> </ul> <p><b>Implications for Gardening</b></p> <ul style="list-style-type: none"> <li>Takes a shorter time to produce new plants.</li> <li>Used for preserving a good strain of plant e.g. durian strains.</li> <li>Only method of propagation for plants which do not flower often in our climate.</li> </ul> |



## Project Objectives

### You have to:

- Identify some common plants in the school garden.
- Find out how they are commonly propagated (seeds, dividing, suckers or offshoots, leaf cutting, marcotting etc.).
- Plant seeds, plant parts and keep them growing healthily.
- Water and monitor plants daily for 4 weeks.

## Suggested Steps

- Go to the school garden and identify some common plants there.
- Find out how these plants are commonly propagated (from a book or your teacher).
- Obtain the seeds and plant parts provided by your teacher or from the school garden. (Seeds, suckers or offshoots, stem, root or leaf cuttings).
- Prepare the soil in the new plant bed or pots/container. Plant the seeds, offshoots, root or leaf cuttings etc. at regular intervals (5-10cm apart), depending on the size of the plant. For stem cuttings, remove all leaves from the cutting and stick each stem at regular intervals into the soil, with the buds facing upwards.
- Check your new plants and water them once every day or every 2 days. Remove pests if there are any.

## Tips

- See pages 23-25 of the Community In Bloom: A Concise Guide to Tropical Gardening for a brief introduction to propagating plants.
- Do some research on how plants can be reproduced.

## Equipment/Materials

### For planting into existing school garden plots:

Seeds (suggested species include Balsam, Plume Celosia, Chai Sim, Kai Lan or *Amaranth* or seeds from existing plants in the school), stem cuttings (e.g. Sweet Potato, Sugar Cane, Dill, whole onions), leaves (e.g. *Sansevieria*), ferns (for division), soil/potting mix, spades, watering cans.

**For container planting:** pots or containers (reuse Styrofoam boxes) and permanent markers for labelling.

Optional: digital camera and Community In Bloom: A Concise Guide to Tropical Gardening.