A58 Taking cuttings

Taking cuttings is very rewarding. These simple 'propagation' techniques let you increase numbers of ornamental and edible plants. Cuttings especially suit plants that don't do well or take a long time from seed, such as fruit bushes. This activity looks at the most common 'stem tip' cuttings. These give reliable results by stimulating roots to grow from a short length of stem.

Resources

- Plants to take cuttings from (see Top tip)
- Tools including secateurs, sharp knife, spade, pencil
- Pots filled with compost and material for better drainage (see next page) or spare area of land

Activity

1 Select plants to take cuttings from and identify the best type of stem tip cutting.

   a 'Softwood' cuttings are taken from early summer as the wood begins to mature; 'semi-ripe' cuttings later in summer. Both these need a sheltered place to root.

   b 'Hardwood' cuttings are taken from autumn until early winter. These usually stay in open ground outdoors or cold frames.

2 Prepare all the equipment needed and follow instructions for taking cuttings on the next page.

Top tip ☺

Example crops for stem tip cuttings

Softwood/semi-ripe

Herbs, eg bay, hyssop, lavender, lemon balm, lemon verbena, marjoram, rosemary, sage, tarragon, thyme, winter savory.

Flowering plants, eg aster, chrysanthemum, fuchsia, cat mint, phlox, golden rod.

Hardwood

Fruit, eg blackcurrant, blueberry, gooseberry, grape, red/whitecurrant

Shrubs for wildlife, eg *Amelanchier*, buddleja, cotoneaster, willow, guelder rose.

Extended activity

Develop a list of plants in your garden that could be propagated by cuttings and start increasing stocks of plants you could sell or swap at community garden events.

Health & Safety	Be especially careful when using sharp tools such as knives and secateurs. Store tools safely. Follow Manual Handling guidelines if lifting heavy trays of young plants (SG1.3). *See also Health and Safety Guidelines (Section SG1.2)*
Further information	G4.7 Increasing plant stocks 'Propagating Plants' by Alan Toogood, Royal Horticultural Society. ISBN 1405315253

Taking stem tip cuttings

Softwood/semi-ripe cuttings (early to late summer)

> ### Top tip   ☺
>
> **Be quick and keep cool**
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> Prepare softwood/semi-ripe cuttings promptly after removing from parent plants. They can otherwise dry out and wilt quickly, reducing their chances of rooting. If any delay is expected before preparing cuttings, such as walking from your school garden to classroom, put the cuttings in a sealed plastic bag to conserve moisture.

1   Prepare a potting mix of 50:50 organic, peat free compost, and either sharp sand, horticultural grit or vermiculite. These added materials make the compost more free draining so water doesn't soak the compost and rot the cuttings. This is vital.

2   Fill a pot or tray with the compost mix and tap firmly on a hard surface to settle. Stand in a shallow tray or bucket of water until the surface of the compost mix is moist.

3   Choose a vigorous growing shoot, ideally without flowers or damage. Cut off a 5-15cm length just above a leaf on the parent plant.

4   Trim the lower stem to just beneath a bud/leaf. Make a clean cut using sharp knife or secateurs.

5   Gently cut or pinch off the lower leaves from the bottom half of the stem. If left, these leaves could rot when they touch the damp compost mix and cause the whole cutting to die.

6   Push a pencil or small cane about 5cm deep into the compost mix and insert the cutting. Gently firm the compost mix around the base of the cutting to settle.

Note: Synthetic hormone rooting powder is not considered a suitable organic input, and in most cases cuttings root fine without it.

7   Continue adding cuttings until the pot is full. Don't overfill, making sure the cuttings don't touch.

8   Cover the pot with a plastic bag held away from cuttings by two or three sticks or canes. This bag maintains a humid environment around the cutting to reduce water loss.

Note: Use a heated propagator for quicker results, omitting the plastic bag if the propagator has its own lid. See A57. Try also a closed cold frame.

9   Keep the cuttings in light position, but out of direct sunlight. Shade with paper or netting if needed. Check often to remove any rotten leaves and water when potting mix begins to dry out.

Note: cuttings usually root in two to three weeks. Once they start growing, pot up each plant individually (see A21).

Hardwood cuttings (autumn to early winter)

1   Prepare a weed free site in open ground or inside a cold frame. Make a V-shaped trench 15cm deep by pressing a spade vertically into the soil and pushing back and forth. Put a little grit at the bottom to create a free draining base.

   Note: Alternatively, prepare a deep pot with the same compost mix as for softwood/semi-ripe cuttings.

2   Choose a healthy, reasonably straight shoot, about pencil thickness is ideal. Cut off a 15-30cm length above a bud/leaf on the parent plant.

   Note: This works for 'deciduous' plants that lose their leaves in winter, such as gooseberries, and 'evergreens' that keep their leaves, such as holly (*Ilex* species).

3   Make a straight cut on the shoot just beneath a bud/leaf. Then make a diagonal cut at the top of the shoot above a bud/leaf, removing any softer wood. This angled cut lets you know which way to insert the cutting, and deflects water from the top.
   Note: Remove leaves, except some at the top of cuttings from evergreen plants. Also remove spines, eg from gooseberry. 'Wound' stem by removing a sliver of bark about 3cm long at the base. This exposes more tissue and helps rooting.

4   Insert cuttings so the straight cut is in the soil. Place the cuttings in the trench about 15cm apart or three or four per 15cm wide pot. Position so the top third of the cutting is above ground.

5   Gently firm back the soil on either side of the cutting in trench or pot. Keep the plants watered during dry weather. Rooted cuttings can be dug up and transplanted the following autumn. Cuttings in cold frames may be ready to plant out by the following spring.