



Hanging Garden Art

Learning Propagation

Types of Plant Propagation

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There are four main types of plant propagation depending on the type of plant. Propagation methods include: taking **cuttings**, **plantlets or offsets**, **dividing** roots, and sowing **seeds** along with the more advanced air layering.

Which type of plant propagation method you use will depend on the type of plant you are trying to increase. Some plants can be propagated fairly easily in **more than one way**, for example; strawberries which can be grown from seed also produce plantlets at the end of runners after the fruiting period. Other plants are always propagated the same way - sunflowers are always grown from seed on an annual basis.

Growing plants from seed, taking cuttings and replanting offsets are easy types of plant propagation to try with **younger children**. Propagating plants by division is a little more complicated and requires your child to have the ability to *gently pry* roots apart. Air layering is the most difficult of propagation methods and takes a longer amount of time suitable for **older children** who already understand the basics of propagation and are patient!

Many **annuals, herbs and vegetables** are easy and fairly quick to grow from seed with minimum amount of equipment. Some vegetable seeds are sown directly into the ground (carrots) while others are started off in seed trays in the house or greenhouse and then transferred to either the veggie patch or a pot once the seedlings are strong enough.

While it is possible to grow a few house plants from seed, a lot of them are quite tricky and don't germinate or grow into strong seedlings without a proper **heated propagating box**.

Cuttings

A surprising number of plants can be easily propagated by taking cuttings or potting up offsets. There are two types of cutting methods: **stem cuttings** and **leaf cuttings**.

Stem cuttings are used for plants with woody or semi-woody stems, such as ivies, azaleas, and roses. A length of stem is cut off and placed in damp seeding compost or a sand/compost mix. Once roots have formed it is then transplanted. This form of propagation can be used for ivies and roses – and Christmas trees!

Leaf cutting just involve a leaf being removed and as with stem cuttings, left in seedling compost until roots have formed. Examples would be the African Violet.

Young children will also enjoy being able to **watch the roots form** after taking cuttings. Try popping some stem cuttings into water with a bit of fertilizer in a glass jar to watch the root formation.

Plantlets and Offsets

Offsets and plantlets can also be separated from their parent plant and grown on in their own pot. Aloe Vera is a good introduction to propagating plants via their offsets, as a little baby aloe grows from the root out to the side. Simply slice it off carefully with a sharp knife and pot on.

A spider plant or strawberry plant is a good example of a plant which propagates via plantlets. Little **baby plants** appear at the end of shoots from the mother plant and can be treated much the same as leaf cuttings – except that they seem to progress quicker.

Some plants can be divided into **clumps** to create new plants. The plant is lifted from the ground or popped out of the pot in the spring and the roots are very carefully and gently tugged apart to form two or more separate clumps. Each separate clump is then repotted or replanted.

This type of plant propagation is suitable for **older children** who have the dexterity and patience to gently pry the roots apart - doing it quickly or harshly can damage the root system.

Some **tubers and bulbs** are also divided. An obvious example would be potato tubers, but begonias and other bulb based plants are also often increased in the same way. In this case the tuber or bulb is cut into several parts with a sharp knife, ensuring each part has at least one eye (in the case of potatoes) or some root growth (in the case of begonias).

Air layering is a more **advanced** type of plant propagation and not suitable for younger children as it requires a more advanced skill level of propagation. Results are slow to materialize and there is always the chance of killing the plant off completely by mistake!

More often than not air layering is used more to give an old straggly plant a **fresh lease of life** rather than increasing the stock, but both are possible.

A slit is cut at a slant into the stem just below a leaf, ensuring the cut doesn't penetrate more than half-way through the stem. A match is then used to prying the slit open a bit, damp potting compost packed around it tightly and secured with tape to make it as airtight as possible. After a couple of months the packing is removed. A **root system** should have formed in the compost. The stem just below the slit is then cut and the plant with the new root system is potted.



Get Creative with your hanging garden: old jars, cans, plastic jugs or peanut butter jars—anything recycled . Let your creativity soar! Just remember to have drainage material (rocks, marbles, etc.) in glass jars.

For additional information on propagation from the University of Florida/Institute of Food and Agriculture Science, visit their Electronic Data Information System (UF/IFAS EDIS).

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