**Growing an Indoor Herb Garden Lesson Plan – Guidance Notes**

A good place to start when using growing in the classroom is with herbs – what can be better for the pupils than being able to actually taste the fruits of the labour?

Herbs make a good start point as you can plant them part grown (no long staring at soils and hoping), you can have a mixture of types (allowing for some types to just fail – it happens to us all), they give prettiness even before eating, you can have a number of plants so everyone gets a try (but in a small space!) and, best of all, you don’t have to wait for the right weather or the right time of year!

**What do herbs need?**

Herbs are great fun to grow indoors and you can try them anytime as long as you find a sunny windowsill or reception spot. Imagine walking about school and smelling the different aromas and seeing the fresh greens and the different coloured flowers.

To get your indoor herb garden going, park a planter filled with quality potting soil and your favourite herb seeds in front of a window that gets lots of natural sunlight. For this to be successful, the spot you choose will have to get six hours of sunlight each day and not be so hot in the afternoons. Think [southern exposure](http://tlc.howstuffworks.com/home/southern-exposure.htm) here, where the plant leaves won't burn. If you have a perfect spot, go for it. A bag of potting soil, some culinary herb seeds and some judicious watering, and you're ready to go.

The three main things herbs will need to grow lush and flavourful is good light, water and the right nourishment.

**Indoor Herb Growing Tips and Tricks**

To get your herb garden started without any major problems, make sure to choose healthy plants, or grow your own from seed. This means that you should inspect plants before you use them and discard any that show signs of insect activity. If a plant looks suspicious, pass. Other things to keep in mind are:

* Give plants plenty of room. Plant descriptions and seed packets will offer spacing recommendations, and even though potted plants don't typically grow to full size, give them generous accommodations.
* Water plants regularly and make sure the pots drain thoroughly after watering. One of the biggest plant killers is stagnant water hanging around long enough to rot plant roots.
* Turn plant pots frequently to keep plants growing evenly on all sides.
* Go light on the fertilizer. Most herbs like moderate to poor soil. Remember, more houseplants are killed with kindness than through neglect.
* Wait for plants to reach 6 to 8 inches (15.24 to 20.32 centimetres) in height before harvesting any leaves, and only take about a quarter of the plant or less at any one time. After you've snipped an herb's leaves, wait for that much or more to grow back before harvesting again. If you're a parsley or oregano fanatic, it might be a good idea to keep more than one plant going at a time

**History and source of Herbs**

For thousands of years, humans have used herbs. Herbs have always been used in the following ways

* in cooking to flavour foods
* as perfumes
* to make us smell nice
* as disinfectants
* to protect us against germs
* as medicines - to heal us when we are sick
* as currency, instead of money

Today we still use herbs for the same purposes, but perhaps not as currency!

Look in your kitchen cupboard - you may find small jars or pots of herbs.  You probably add them to food to give extra flavouring.  Look at the labels and make a list of the herbs in your kitchen.

Recipe books are full of suggestions about which herbs blend with which other foods. Of all the uses for herbs, the most important is as medicines.

**Where do herbs come from?**

The herbs we use today come from many parts of the world. We have learnt about how to use herbs from people of past times. We know that people of all ages have used herbs because they wrote about what they learnt.

**Who are the people who have taught us about herbs?**

The **Ancient Egyptians** wrote their findings on papyrus.

The **Sumerians** from Mesopotamia (modern day Iraq) used tablets of cuneiform writing.

*Hippocrates* was a famous **Ancient Greek** doctor.

The **Romans** believed Greek doctors were the best. *Galen* was doctor to the emperor Marcus Aurelius. *Dioscorides* was the emperor Nero's doctor.

We learnt about the herbs used in **Ancient India** and **Ancient China** through a famous **Arabic** doctor called *Avicenna* who had read their writings. Throughout **Europe** in the Middle Ages monks in their monasteries, grew and used herbs as medicines. In Germany, *Hildegarde of Bingen* who was an abbess and a herbalist treated the sick with herbs.

Voyages of discovery in the 15thC and 16thC resulted in The Pilgrims taking to America herbs they used in England. Then, over time, herbs native to America came to Europe and other parts of the world.

In **Britain**, *Nicholas Culpeper* published a book to help ordinary people make their own herbal remedies instead of paying for expensive ones from doctors.

We also learnt about herbs that *Druids* used before the Romans came.

**What herbs have come from different parts of the world?**

* **From Mesopotamia:** apple, coriander, dill, fennel, garlic, onion, roses and many more
* **From Ancient Greece and Roman Italy:** sage, parsley, chives, lemon balm, mint, thyme, valerian, calendula, tansy, etc.
* **From India:** aloe, caraway, cardamom, castor oil, nutmeg, sugar and sesame oil and others
* **From Ancient China:** ginseng root, caraway, chrysanthemum, frankincense, ginko, jasmine, kiwi fruit (Chinese gooseberry), liquorice, loquat, lotus, lychee, magnolia, mimosa, mulberry, myrrh, peach, pomegranate, rhubarb, walnut, etc.
* **From Bhukara, Central Asia:** avicenna, the great Arabian doctor, apart from using herbs he had read about, used dressings, compresses and massages in his treatments.
* **From Europe:** chickweed, dandelion, elderflower, eyebright, goosegrass, hawthorn, milk thistle, meadowsweet, stinging nettle, St John's Wort, vervain, woad, yarrow, yellow dock
* **From America:** black cohosh, evening primrose, American ginseng, saw palmetto, slippery elm, wintergreen, witch hazel, wild yam.

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**Descriptions of some common herbs**

1. **Spearmint**, *Mentha spicata*; mint will thrive in most soils, to the extent that it can easily become a nuisance. To avoid this, try growing it in a container on the patio. Use the leaves to flavour new potatoes and peas.
2. **Rosemary**, *Rosmarinus officinalis*; this pretty herb produces blue flowers and has highly-scented, needle-like leaves. Plant in a sunny, sheltered area of the garden.
3. **Thyme,** *Thymus vulgaris*; grow thyme in a well-drained, sunny area of your garden. The leaves of this evergreen herb can be picked throughout the year. Their distinctive taste goes well with a variety of dishes.
4. **Chives**, *Allium schoenoprasum*; grow in moist soil and full sun. For a regular supply of delicious leaves for your salads cut off the flowers before they open.
5. **Lavender**, Lavandula; a pretty herb that produces beautiful scented flowers during the summer months. Cut and dry some to make pot-pourri.
6. **Sage**, *Salvia officinalis*; this strong-flavoured herb has grey-green leaves and spikes of blue flowers. Grow in a sunny area of the garden.
7. **Oregano,** *Origanum vulgarea*; planted in a sunny area of the garden, marjoram will grow as vigorously as mint. Children may recognise its taste as it's often used in pizza and pasta.
8. **Coriander**, *Coriandrum sativum*; this popular herb, frequently used in Indian cookery and salads, favours a sunny, sheltered area of the garden. Both leaves and seeds can be used for flavouring.
9. **Sweet bay,** *Laurus nobilis*; this evergreen shrub or small tree likes a sheltered position in the garden. Its leaves are the key ingredient for bouquet garni and are great in stews.
10. **Tarragon,** *Artemisia dracunculus*; grown in a sheltered spot, tarragon can spread at the same rate as mint but is not totally hardy, so cover with straw as winter approaches.

**Studying Herbs and the National Curriculum**

**The Early Years**: Knowledge and Understanding of the World

* using a magnifier to look at plants and creatures from the garden
* using garden implements to improve coordination, control and movement to gain confidence
* to learn how to look after plants - their need for light and water
* gaining information by imitation of adults and older pupils

**Science** at both **KS1** and **KS2**SC.2 Life processes and living things

* Green plants - 3a, b, c, and at KS2, d
* Variation and classification - 4b and at KS2, 4c
* Living things in their environment - 5a, b, c , and at KS2, 5e

Topics that could arise from using the herb garden include

* growing and caring for individual plants (especially the need for water and light)
* measuring their progress (making comparisons)
* monitoring the best/less good growing conditions (including soil and nutrients)
* growing herbs in pots from seeds saved from the plant for later planting
* discovering which herbs attract insects
* finding out why plants need insects
* making a 'plant profile'

**Other links** with the national curriculum include:

* **History** - research into history of herb gardens; where herbs come from and how they got here; famous herbalists and their legacy; how modern medicine derives from herbal medicine, etc.  Pupils could evaluate solutions used, for example, during The Plague - did they work?  If not, why not?  What food did people eat?  How did they disguise bad tastes?  Explore the use of herbs in dyeing clothes
(KS1 1a,b 2a,b, 4b, 6a,b KS2 1a,b 2a, 4a,b, 5c, 7, 9, 10)
* **English** - developing appropriate vocabulary, communication skills, poetry,  drama and stories.
(KS1 1b,c,d,e, 2b,c,e 3a,b 8c, 9a,b, 10a,b,c, KS2 En1, En2, En3)
* **Mathematics** - patterns, symmetry, measurements, tables, graphs, sets, etc.
(KS1/KS2 Ma3, Ma4)
* **Information Technology** - using computers for research and recording information (e.g. in data bases) and graphics.
(KS1/KS2 1a,b,c 2a,f, 3a,b 4a 5c)
* **Design and Technology** - covering food technology e.g. explore different ways in which herbs change the taste of food as in pizzas, for example.
(KS1 1a,b,c 2a,b, 3a,b, 4a,b,c, 5a,b,c, KS2 1a,b,c. 2a 3a, b 4a, c 5a,b)