



A year of food in your school grounds

Why grow food in your school grounds?

There is probably more interest now in food growing projects that at any time since the Dig for Victory gardens of the Second World War. This is not surprising when the topic of food growing supports so many school priorities.

- Curriculum: food growing links to every subject and provides practical relevance and memorable learning.
- Health: children who grow food crops are more willing to eat fruit and vegetables, helping to address concerns with healthy eating and obesity. Planting and tending crops provides exercise and can be the start of a lifelong healthy pastime.
- Citizenship: food growing introduces issues such as organic growing, food miles and fair trade.

What to grow

Food gardens can feature vegetables, fruit, herbs and ornamental plants.

- Most vegetables can be grown from seed in one year, making them a good introduction to a plant's life-cycle. The choice of vegetables depends on your growing conditions and what children like to eat:
 - Carrots are popular with most children, look decorative while growing, and are a good example of how vegetables taste best when fresh.
 - Potatoes are easy to grow, including in containers, and can be timed to harvest outside school holidays.
 - Tomatoes have a high success rate from seed but do need looking after over the summer holidays. You need to choose the variety carefully if you want to harvest them during term-time.

- Although strawberries can be bought cheaply as young plants and fruit in their first year, many other types of fruit are a longer-term, and more expensive, investment. Generally speaking, the larger the plant grows, the longer you will have to wait before it starts to fruit, so be prepared to wait a few years if you are planting young apple trees. Children who are reluctant to eat many vegetables may be more willing to eat fruit, especially if cooked in a pie!
- Herbs can be a new taste sensation for many children and they are decorative, generally pest-free and usually easy to grow. There are lots to choose from: mint is best grown in containers if you don't want it rampaging through your garden; chives produce pretty flowers if left uncut; fennel grows into tall, dramatic, feathery plants.
- Ornamental flowers don't just make the garden look pretty, by attracting helpful insects or birds they help keep the pests down. This organic approach to pest control is called companion planting. For example, marigolds attract hoverflies who feed on aphids. Some companion plants are themselves crops – broad beans and fennel attract beneficial insects and mint and garlic can repel pests by smell. Some flowers are also edible, like nasturtiums, but make sure children understand they shouldn't eat flowers unless they are sure they are safe.

When choosing your plants you can think in themes. You might want to choose varieties which are local to your area, or locate those that originate from parts of the world relevant to the children in your school.





Autumn: harvest time

Celebrating

The start of the school year coincides with the end of the growing year for many food crops. The traditional way to mark this season is with harvest festivals. Use this as a starting point to compare harvest festival traditions from different cultures – the Australian website

www.harvestfestivals.net provides plenty of examples. Many schools use Harvest Festival to focus attention upon problems in the wider world, and to increase children's awareness of the inequality in the distribution of the world's resources.

Making the most of your crops

Fundraising

One way to raise money for next year's seeds and equipment is by holding your own School Farmer's Market. Link this to business and enterprise learning for pupils:

- How will the event be advertised? As well as posters and letters to parents, contact your local newspaper and radio station.
- How can the products be marketed? Selling points might be that your produce is locally grown (zero food miles!) or organically grown – but make sure you don't make inaccurate claims. Pupils could look at commercial food sellers to see how they advertise products.
- Jobs and business organisation – divide up jobs such as marketing, sales or accounting between different pupils. This could link into investigations of jobs in real companies.

- How will you decide on a price? Price research can be as simple or sophisticated as appropriate for your pupils. You could look at competitors as a benchmark, calculate the costs of production and add on a mark-up for profit, or carry out market research, surveying potential customers to find out what they think is reasonable. You might want to take into account differences in quality between your produce and that available elsewhere, or other unique selling points (parental pride, perhaps) which might enable you to charge premium prices.
- Costs and profits. Costs are difficult to calculate for school gardens – what do you include for labour when all your workers have been free? To keep things simple you could just look at materials costs such as seed, pots, compost, etc. Or you could keep track of time spent in the garden and allow an appropriate 'wage' in your calculations.

Consuming

Instead of selling your crop, you might want to use it for cooking in school. Discuss with your kitchen manager whether it would be possible to use it for school meals for a short period. You might even decide to grow crops next year specially to be used in the kitchen. Again, this can be a good opportunity to get local press coverage, as it ties in with current debates about food miles and healthy eating.

Winter: planning time

Winter is the time for planning a new food garden, or how to improve your existing one.

Location

If you don't already have a food garden, then start by looking at your whole school site, to ensure that you choose the right location. Things to consider include:

- How is the site already used? What areas already have activities taking place that you don't want to compete with? For example, locating your vegetable patch next to where ball games are played will lead to lots of squashed plants. Look at how users circulate around the site to make sure you don't create a garden just where people are used to walking through. It might be easier to choose a different location than to get people used to taking a different route.
- Where will be convenient for people using the garden? If you hope that the school kitchen will be using crops from the garden, can you locate the garden near the kitchen? In particular, growing herbs just outside the kitchen door makes it easy for the cooks to include fresh flavours grown by pupils. If growing activities will take place mostly during lesson times, do you want to have the garden just outside a classroom for easy access, or out of sight if you are worried about distractions and noise? If the garden will be tended by volunteers during the holidays, make sure they have access. If possible, locate it near a source of water, ideally a large water butt connected to a downpipe as well as a tap.
- What conditions do the plants need? This can involve research work as part of Science or Geography. Most food crops require sunshine for at least some of the day, and an area in full sun will be most



flexible – you can always create shade for plants that need it, but you can't create sun. Many plants grow best away from strong winds. Rich, loamy soil will be ideal for most plants, but if you don't have that, you can improve your soil with compost or manure, or build raised beds. Most herbs need good drainage, and will grow well even if poor soil. Avoid planting too close to buildings, as this can deprive your plants of rainwater, or too close to roads, where traffic pollution might settle on plants.

Preparation

Once you've chosen your location, winter is a good time to build any paths or raised beds you need; put in place any benches or greenhouses you want; and dig the beds ready for planting. If you have heavy clay soil, digging early in the winter is a good idea, as any frosts will help break down the soil. If the necessary work is unsuitable for the age of your pupils, appeal to parents for volunteers. You might also get help from local companies, who are often looking for opportunities for their staff to spend a day at a school helping in a practical way. Companies whose staff usually sit at desks all day seem most keen on helping out in this way.

Spring: planting time

Choosing

By the time spring starts, you'll need to have chosen what to grow in the new season – browsing the seed catalogues is a good job for when the winter weather is too off-putting for work outside. Pupils could research the conditions needed for different plants using gardening books or the internet, and carry out market research to see what people would like to eat or buy. As well as normal-looking varieties, why not plant stripy tomatoes, or purple carrots, or blue potatoes – bound to be talking points



when they are harvested! Growing unusual varieties which are unavailable in the shops can be a strong selling point when you market your crops, or you could carry out taste-tests of the different types to see which are preferred.

Planting

The actual planting of seeds provides lots of links to Maths, especially measuring and counting. How deep should the seeds go? How far apart? How many seeds have been sown to a row? Keeping a careful count of how many seeds you sow (easier when the seeds aren't too small!) allows you to monitor progress by calculating success rates or drawing graphs to show which seeds flourished best.

Growing from seed also links into Science learning about life processes, from the simplest level of knowing what conditions seeds need to grow, to sophisticated experiments looking at different growing conditions. For example, you could have two food gardens with the same crops, one grown organically and one using chemical fertilisers (taking care with safety), so that you can then compare the crops.

Keep track of what you've sown by making labels. These can be as simple as writing with a waterproof pen or pencil on plastic labels that can be bought from garden centres, or be as creative as you like. Set an Art or Design project creating decorative labels. Clay labels can be inscribed with plant names while wet. Thin metal can be painted with enamel paint or even nail varnish, or press with a pointed implement to write indented names.

Summer: growing time

Tending

Throughout the summer, crops need to be tended. Weeding, pest control and watering all take time, particularly if done organically. Share the work out by setting up a rota, and organise volunteers to help during school holidays. Challenge pupils to invent clever methods of pest control – for example, plastic bottles can be cut down to act as mini-cloches, protecting young plants from slugs. Have a competition to design a bird scarer if the blackbirds eat more of your fruit than you do.

Harvesting

By the summer, the first of your crops might be ready for harvesting, particularly if you have access to a greenhouse. You could celebrate with a picnic, perhaps as part of your National School Grounds Week activities in June.





Practical know-how

This Groundnotes has touched on some of the practical aspects of growing food, but it cannot cover every question. Most food growing is quite straight-forward, but if you are not a confident gardener, you can probably find help among staff, parents or your local community. Many schools benefit from a volunteer who helps with the school garden, and increasing numbers are seeing the benefits of employing someone specifically to work with children in the garden.

If you still can't find a local expert, then don't worry. There are plenty of gardening books, magazines and internet sites with advice at all levels to help you. Schoolgrounds-UK members can also call the advice line on 01962 845811 or email member@ltl.org.uk with any questions.

Some of the questions most frequently asked include:

We don't have any open ground to plant in – what can we do?

As well as bought pots, all sorts of containers can be recycled for growing plants in. Tyres are a popular choice but do clean them well with industrial strength detergent and preferably a power washer, and make sure there are no wires poking out. You can paint them to make them more decorative: masonry paint mixed with leftover emulsion for colour is reasonably durable. Potatoes grow well in dustbins, which can also be painted.

Strawberries, cherry tomatoes, herbs and other small plants can be successfully grown in hanging baskets, but you will need to keep them well watered.



We've built large raised beds – should we fill them with compost?

Compost alone will tend to compact over time, so you will need to keep topping it up. It is better to use a mixture of topsoil and compost. Save money and create good drainage by filling the bottom third of deep raised beds with rubble – unless you're planting root crops of course!

We don't have anyone to water the plants during the summer holidays!

If you really can't get any volunteers, you could consider installing an automatic watering system, but these can be quite expensive, and will need your garden to be fairly close to a tap. It is cheaper to first try appealing to a larger audience for volunteers by leafletting neighbouring houses to see if anyone can help. Will the school be used by any groups over the summer who could do a little watering in exchange for using the school's facilities? Perhaps your local paper would feature an appeal. Your volunteers could be rewarded with any crops which ripen at this time.



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