

Autumn term

Sheet 1

September – December





growit

Growing plan

Time to get on with

Research visits to local gardens, farms or allotments to inspire and enthuse. You'll need to go as soon as possible to maximise the range of crops to be seen.

Consider joining your school to supporting organisations & campaigns, such as the RHS Campaign for School Gardening.

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Start today

If you're not careful, by the time you are ready to start growing crops with the children it is likely to be October. That means short days, lower light levels and cooler temperatures. Unless your school have impressive, and heated, growing areas we suggest that you make the most of the light and warmth of September.

Ideally get seeds directly into prepared ground (that means weed free, forked over and raked to a fine tilth) to avoid filling up less than ideal windowsill space with seed trays. However, if this is a new project and preparing a growing area is going to take some time, don't miss the opportunity to start seeds off in September because, for many crops, October will just be

too late. Instead, get hold of some modular or half seed trays and a good seed compost. Start seeds off in these on sunny windowsills (see 'Sowing indoors' overleaf). Bear in mind that a warm windowsill with uneven light will cause plants to quickly become stretched and weak. To avoid this, move them somewhere cooler soon after germination, such as a cold frame or growhouse. If these aren't available then place them on an outside table during the day to get even light, and bring them back in at the end of the day.

If you don't manage to begin this month, don't worry - there are still crops that can be planted in October and November!

Protection

There are lots of crops that can still be sown in September (see overleaf), though the further north you are, the more limited the range that will succeed. If you didn't start crops



traditionally sown in August (such as parsley and spring cabbages) off at home, they may still work if you sow them early this month and the weather is kind. Alternatively, you may be able to buy young vegetable plants from a garden centre or nursery to plant out in your school garden or in containers.

All crops being grown this autumn and into the winter will benefit from some protection from the elements. This can be provided by horticultural fleece that can be simply laid over the top of crops and pegged down or draped over hoops. Alternatively use cloches or low plastic tunnels, remembering to lift them to water! Of course, if you have a greenhouse then many crops will last well into the winter and even beyond.





September

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Growing plan

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Sowing indoors

For most school gardens there will be room for only a relatively small number of each crop. Therefore sowing an entire packet of, say, Pok Choi into a seed tray will give you hundreds to prick out for which you have neither the space nor the appetite. It is far more sensible to sow a 20 cell modular tray, or even half of one, saving plenty of seeds for the spring and avoiding the need for time consuming pricking out. Fill the trays with ideally a seed or modular compost (they are finer and generally

contain fewer nutrients than a multi purpose compost). Tap the tray on the table a few times to settle the compost and strike off with a ruler to level the surface. Water either with a fine rose or by standing in shallow water until the surface of the compost glistens.

Make holes in the centre of each cell to the correct depth (for most seeds this is between 1/2 cm and 2 cm, check individual seed packets). Drop 2 or 3 seeds into each hole to increase

germination success, extras can either be thinned, leaving the strongest, or pricked out into further trays or pots if more plants are required.

Cover with sieved, dry compost, strike off to level and cover with cling film to retain moisture until germination. Label and place on a well-lit windowsill. When the roots fill the cell, harden off for a few days before pushing out the plants with a pencil and planting.

Planning

Get the children involved in map making, taking particular note of sun and shade patterns throughout the day. Examining soil structure and texture can be an interesting way of getting the children to consider soil in a different way to simply 'dirt' or 'mud' and will give you important information on how to manage your soil and an indication of what will or won't grow well. More in depth investigations of climate can follow later (such as measuring rainfall, maximum and minimum temperatures

and wind speed and direction). When deciding where to site your garden bear in mind that vegetables on the whole will need lots of sun and shelter from prevailing winds to succeed. Avoid areas that will get trampled by passing feet.

Soil preparation



When you have decided on your site, you will need to ready your soil for growing crops. If your chosen area contains a lot of perennial weeds such as bindweed, couch grass or brambles then you may want to consider getting your grounds maintenance team to spray the area with a suitable

herbicide. It may take up to a year to eradicate these weeds completely, with repeat sprayings when the weeds are actively growing.

If the area is covered with turf or annual weeds then either exclude light with black polythene or suitable alternative until the spring or early summer. Alternatively, dig over the plot removing the weeds to the compost or burying them deeply, incorporating organic matter as you go. Either leave the soil lumpy to break down naturally over the winter, or rake to a tilth and sow a green manure into it, plant it, or cover to protect from winter rain.

Green manure

Green manures are plants grown in the soil in order to improve soil structure and fertility. They're normally used to cover bare soil between the harvesting of one crop and the sowing of another, or they are grown underneath/around widely spaced crops, like cabbages. They can be quick growing, short-lived plants like mustard, or hardy plants that cover bare soil over winter, like field beans. They are dug into the soil before they flower and left to rot, releasing their nutrients. Ensure you dig them in a few weeks before you need the soil for sowing, as they can inhibit seed germination.

Sowing direct

If your soil is weed free and of a fine tilth, sow seeds direct – they will benefit from more even light than on a windowsill and their growth won't be slowed from the shock of being transplanted.

Mark out lines with string or measuring sticks. Create a small trench, or 'drill', with a trowel or the corner of a rake or a hoe – probably only 1-2 cm deep (check the seed packet).

Water the trench first, then sow the seeds thinly along it. Cover the drill by

drawing soil back over it with the back of the rake.

Label the rows with the crop, variety and date, as you will soon forget. Keep watered (with a fine spray). Weed regularly, but be careful not to disturb the seedlings.

If seedlings come up too thickly, thin them out by pulling the weaker ones, leaving the plants spaced according to the packet. If cold weather is predicted, protect the seedlings with cloches or fleece over hoops.

Sow now

Winter hardy lettuce, radish (both summer and winter), winter spinach, winter hardy spring onions, oriental leaves (such as mizuna, mibuna and komatsuna), lambs lettuce, turnips for tops. Sow these direct if ground is ready (see left) or into modules if it isn't. With low tunnels or a greenhouse you could try sowing pok choi, calabrese, rocket and chicory and you may be successful still with parsley and spring cabbages.

Starting a vegetable plot



Choose a site in full sun, or that gets sun for at least half the day, and is sheltered from strong winds.

Use a garden fork or spade to dig over the plot, removing perennial weeds as you go. As you remove a trench of soil, add bulky organic matter such as garden compost, 'green waste' or mushroom compost.

Fork over the bottom of the trench. Put the soil from your next trench into the first. The very first soil removed will go in your last trench. Build raised beds 1.2 m wide and 15 cm high (deeper if your soil is very shallow and stony). You could use wood, untreated railway sleepers or specially designed plastic edging to keep the beds neat.

Make permanent paths between the beds 30-45 cm wide. These could be grass (which will need mowing and strimming), wood chip, or gravel, laid over a permeable membrane such as 'mypex'. The latter two can be worked from even when it is wet.

September overview

- Visit public gardens, farms or allotments for inspiration.
- Clear ground and prepare soil for planting by digging in organic matter
- Bag perennial weeds and leave to rot. Put annual weeds in compost heap or bury under the soil.
- Exclude light from weedy areas you don't have time to dig they will then be much easier to prepare in the spring.
- Build raised beds. Don't forget that you'll need compost and top soil to fill them.
- Harvest crops that have made

- it through the summer, such as French and runner beans, tomatoes and July-sown peas.
- Save seeds of beans, and peas ensuring that they are totally dry and firm to the bite before storing in airtight containers.
 Tomato seeds need to ferment for 3 days in a saucer to break down the jelly-like surround.
 Rinse, dry for a few days and separate before storing.
- Gradually harden off August sowings to plant out next month.
- If you have strawberries, sever any rooted runners from the

- parent plant and plant out in a new bed or in pots
- Prune trained forms of apples and pears early this month if not done at the end of July.



September is the time to harvest squash, pumpkin, marrow, courgette, beetroot,

lettuce, french and runner beans, carrots, cucumber, fennel, onions, peas, radish, spinach, chard, sweetcorn, tomatoes, peppers, plums and autumn raspberries.



October

Sheet 3

Autumn term





growit

Growing plan

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Sowing and planting

Once you've prepared your soil you can begin planting. Crops sown in modules in early September should now be ready to plant out. Get them used to outdoor life first by bringing them out during the day for a week ('hardening off'). Most will benefit from some protection from the weather by covering with cloches, fleece, or homemade alternatives.

If you want bulb onions in June and July, October is the month to plant onion sets. Japanese varieties are hardy and pretty reliable. Sets are more likely to bolt than seeds, but are much easier for children to handle and don't require propagators or window sill space.

Broad beans suited to over wintering, eg the variety Aquadulce Claudia, should be sown now. Cover them with fleece or grow under cloches to get the best results. These should provide beans in May and June. You can also sow peas now to steal a march on spring sown crops. Their success depends largely on the severity of the winter, but sowings made this month and given some protection may well be cropping between May and June, some six weeks earlier than summer peas.

Choose a hardy, 'rounded' variety such as Feltham First or Meteor. Don't forget to provide support for the plants to climb.



When planting out crops, water the hole first, ideally with a mix of water and seaweed

liquid to promote root growth.

Allow to drain before planting,
firming in and drawing dry soil
around the base of the plant. This
ensures that water is down at the
roots and reduces its attractiveness
to slugs.

Seed saving

Before it gets too wet or frosty, this month is a good time to begin saving seeds of the crops you have grown over the summer. It isn't very difficult, takes very little time and is immensely rewarding. It's a great way of completing the circle of life cycles with the children, and will save some money!

You can save the seed of most vegetables in your garden, from lettuce

to leeks, carrots to coriander.

However, it might be best to start your seed saving with easy, straight forward crops. Broad beans, coriander, french beans, garlic, lettuce, nasturtium, peas and tomatoes are great for beginners.

There are precise instructions on these and other vegetables in *The Seed Savers Handbook* by Jeremy Cherfas and Michael and Jude Fanton.

Seasonal activities

Plan seasonal activities this month, such as lantern making with pumpkins (harvested in September and 'cured' for 10 days on a sunny windowsill), or apple tasting to coincide with apple harvest. Order favourite varieties of fruit to plant next month.

Crop protection

Protecting your first plantings from the weather is crucial at this time of year, even more so the further north you are gardening.

Horticultural fleece and tunnel cloches have made a clear difference to the

success of autumn planted crops in other schools. Fleece can simply be laid over seedlings and weighted down at the edges, or ideally hung over hoops.

Peg down or dig in the edges to secure against wind. Encourage your school to

invest in such items or to find cheaper alternatives, such as large, clear plastic bottles cut in half, or old net curtains over hoops (which can be bought or self-made from irrigation pipe or green hazel). Such measures will also protect the crop from hungry birds.

Planting in containers

Growing vegetables and fruit in containers is relatively easy. It means you can more easily protect them from strong winds and frost than you can in a permanent plot. They enable you to transform bleak patios, courtyards and balconies and can inspire those children without gardens to grow plants at home.

Also, those plants looking particularly good can be brought to the front to ensure the display remains attractive. For most veg, choose pots at least 25

cm in diameter, which will take about 10 litres of compost. Ensure the pot has drainage holes and put some broken crockery in the bottom to allow water to escape.

Autumn broad beans and garlic can be sown directly into the pot, fill others with the module-raised vegetables you started over the last couple of months. Pots will need more regular watering than open ground and hungry, fruiting summer crops such as tomatoes and courgettes will need feeding.

Sow and plant now

Sow broad beans suited to over wintering such as the variety Aquadulce Claudia. Cover with fleece or cloches. These will be ready to pick in May and June. Young children will find it easier to make planting holes for broad beans with a bulb planter.

Sow hardy 'rounded' peas for early pickings in May next year. Again, these are best covered. Sow hardy winter lettuce and protect with fleece or cloches. Plant onion sets suited to autumn planting, such as the Japanese varieties. These will be ready to harvest in June and July.

Growing fruit

Fruit that will crop in the school year can be grown in almost any space, whether it is strawberries in pots, a bed of thorn free gooseberry bushes, a wall covered with trained apples or a grape vine, or a small orchard of plums, pears and apples.

Consideration must be given to choosing the right variety that will crop during the school term and the correct root stock that will determine the overall size of the tree. Apples grown on MM106 Semidwarfing rootstock will tolerate a wide range of soils and can be easily trained as espaliers or

cordons to occupy the vertical, and usually under used space, of walls and fences around the school. The more sun the better, though even against north facing walls you could grow apples for cooking, blackberries and gooseberries.

Order bare root plants from reputable nurseries at the beginning of this month, or earlier, for delivery and planting in November or March providing the soil is not waterlogged or frozen. These will establish better and cost a lot less than container grown plants.



October overview



- Visit public gardens, farms or allotments for inspiration.
- Crops started off in modules in August should be ready to plant out into prepared ground. Protect from the weather and from hungry pigeons with fleece
- Harden off seedlings sown into modules in September for planting out at the end of the month.
- Order fruit bushes and trees for planting in the winter.
- Harvest pumpkins and squashes before the first frosts and 'cure' on a sunny windowsill for a couple of weeks.
- Finish harvesting apples and pears and store wrapped in paper.
- Order strawberry runners, choosing early, mid and late varieties to crop in June and July.



November

Sheet 4

Autumn term





growit

Growing plan

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Sowing and planting

Garlic is such an easy crop for children to grow — the cloves are big enough for the youngest hands to manage. You can pop them in the ground this month and leave them to get on with it. You may not grow any record breakers, but you'll grow enough to be making garlic bread or to add to soups and sauces in June and July. Plenty also to plait and hang for cooking in the autumn as well as your 'seed' for next year. What are you waiting for?

Broad beans can still be sown under plastic tunnels or fleece. Hardy lettuce can be started off in modules, to be planted out under protection when its roots have filled the cells. Most fruit growers are able to supply freshly dug strawberry runners from the end of October. Plant them as soon as you can, as long as the soil is not frozen or waterlogged. These will produce a small crop next summer and heavier yields the following year. For earlier

crops, plant runners in pots and move inside in late winter. Leaves falling from the trees indicate it is the dormant season for deciduous trees and therefore a good time to plant bare root fruit trees and bushes (these are cheaper than container grown plants). If you want fruit next year, or some native hedging for wildlife, and perhaps some wind protection, get them in the ground now before the ground becomes frozen or too wet.

Compost and leaf mould

Adding organic matter to your soil is the single most important thing you can do to the ground to lay the foundations for successful growing. Heavy soils benefit from digging it in, but even simply laying it on the surface at a depth of between 5 cm and 10 cm will have an incredible effect by the spring.

If you haven't got a compost heap, start one now to provide compost next year — bins can be obtained cheaply or even for free from your local council.

Leaf mould is compost made entirely from the decomposition of deciduous leaves. Get the children raking up those fallen piles, heap them up into simple bins made from stakes and netting or chicken wire, (or even into black sacks with a few holes punched through), water them when dry.

You wil have the most wonderful soil improver to add to your garden in a year or two's time.



Organic matter
will not only add
nutrients to feed the
plants, but it will

aid water retention, add humus, increase microbial activity, provide better structure for the roots to grow in and generally ensure stronger, healthier plants.

Digging

If you haven't yet prepared your soil, this month is probably the last month to do so before winter sets in. Once the soil becomes very wet or frozen then you will have to wait perhaps even as late as April before you can dig it without damaging the structure.

As you clear weeds or last years crops, add organic matter to the soil. Leave large clods of soil roughly dug and exposed to winter frost—they will rake to a nice tilth in the spring. If you have crops to go in, you will need to break down the soil more than

this. If you produce a fine tilth and don't plant into it then you need to cover it to protect it from winter rain, which will otherwise damage the soil structure. You can cover it with a good layer of compost or leaf mould, or even plastic sheeting. This will be easy to plant or sow into the following spring.

It may not yet be too late to sow a green manure to protect the soil with living plants. These can then be dug into the soil in the spring to make way for your crops.



Fruit in pots

Most fruits can be successfully grown in pots. They will need regular watering and supplementary feeding in the growing season, (including over the summer holidays), but will enable you to overcome other problems normally found with fruit. If your school soil is poor, a large pot can provide the ideal alternative, or the perfect drainage as required for plums.

Late spring frosts that often damage apple blossom in April can be avoided by either moving the pot inside, or by temporarily wrapping some fleece around the tree.

Recommend varieties include:

- Apples on M26 rootstock in a large pot
- Strawberries (avoid strawberry 'towers' unless you can ensure regular and plentiful watering)
- Gooseberries (opt for a mildew resistant variety such as *Invicta*)
- Autumn Raspberries (in a wide pot to accommodate their spreading roots)
- Plums (choose a variety that crops in September, such as Marjorie's Seedling).



Growing garlic

Get hold of some bulbs of a couple of different varieties from a seed company or garden centre. Avoid ones that are soft.

Break up each bulb, which should give you about 10-15 cloves. Using either a dibber (eg an old spade handle), a trowel or a bulb planter, make a hole no more than 10 cm deep into loose and level soil Drop one clove, skin on,

into each hole ensuring that it is the right way up (not always as easy as it sounds). Cover with soil and repeat for the next clove, about 20 cm apart. When the tops start to wither, usually in June or July, dig them up with a fork and dry them for a few hours on the soil in the sunshine, or on a wire mesh fixed to four posts. Eat them fresh, or plait and hang up to be used in the autumn.

Sow and plant now

Rhubarb: use a spade to split crowns of existing plants or buy from a nursery. It is best not to harvest stems in the first year after planting to allow plants to establish. Also sow broad beans, hardy lettuce, Japanese onion sets and garlic.

November overview



- Harvest winter vegetables such as parsnips, kale, leeks, autumn cabbage, spinach and chard.
- Continue to prepare ground for spring planting as long as soil is not waterlogged or frozen
- Plant bare root fruit trees and bushes, or native trees for hedging, as soon as possible after leaf fall (you may need organic matter to prepare the ground, and stakes and ties for the trees).
- Build compost bins or buy one from your local council and start filling them with plant material, shredded paper and card and discarded fruit.
 Four stout posts, four pallets and a hammer and nails will form a simple compost bin.

- Build a leaf bin and fill with fallen deciduous leaves. You will need some mesh fabric or chicken wire, four stakes and some wire staples.
- Cover bare ground with leaf mould, 'green waste', or sheeting to protect the soil structure.
- Order seed catalogues to plan next years garden.





December

Sheet 5

Autumn term





growit

Growing plan

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Planning

December is usually a difficult month in which to get out in the garden due to poor weather. However, with growth of outdoor plants ceasing and much of the soil preparation completed, it is a good month to plan next year's garden—the layout, a basic rotation of crops (so that the same vegetable families are not grown in the same soil for ideally another 3 years) and, excitingly, which vegetables and which varieties

you and the children are going to grow. How much of this is done entirely by the children depends on their age, but even reception children can make clear choices of which vegetables they would like to grow by looking through colourful seed catalogues and practising a bit of cutting and sticking. There are great opportunities for exciting class work, such as whole wall collages, literacy work, maths and

geography. Older children have enjoyed designing a 4-year rotation based on the main plant groups (roots, onions, peas & beans, the cabbage family), slotting in other crops as necessary, such as sweet corn and salads. Years 5 and 6 researched varieties still available dating back to the second world war for their Dig For Victory garden and invited local pensioners to enjoy the fruits of their labours later in the year

Choosing crops

Let the children make the decisions about which crops to grow, although it is a good idea to insist that they also choose a vegetable that they have never tried and one they claim not to like. In most cases, after nurturing it from seed to maturity, they are willing to give it a try, often with pleasantly surprising results.

Bear in mind that you won't be able to grow everything in a seed catalogue because of space and the time it takes to look after them properly. Even in a small space, however, it is possible to grow an enormous range of vegetables. Choose varieties suited to outdoor cropping, unless you are blessed with a greenhouse, and if you are a beginner gardener choose relatively easy things to grow that can be sown directly in the soil outside.

Order your seeds and seed potatoes before you break for Christmas.

Seasonal activities

Children have enjoyed talking about vegetable families and identifying members of the same family from pictures or from real vegetables. Incorporate this into your planning and rotation work. Exploring seasonal food is a topic with many curriculum links. At a simple level it provides good art material.

Building structures

With the soil often too wet to work, use this month to build the structural elements in the garden. These may be low tunnels to protect winter crops made from hazel hoops and old net curtains.

If you want to include some trained fruit you could get the posts and wires in the ground now (if planning to buy a ready formed espalier apple put the wires in at the required height once the apple is in place). Young children

will find raised beds a lot easier both to work at and to avoid trampling crops.

If they are about 1 or 1.2 m wide children can reach the centre of the bed without ever treading onto the soil, preserving crops and soil structure. The beds could simply be mounded, but for a neater finish use timber – untreated railway sleepers or wood 15 cm high and 2.5 cm thick is ideal. Plastic edging also works well.



Try these 10 easy to grow vegetables:

Beetroot, First Early

Potatoes, Dwarf French Beans, Broad Beans, Runner Beans, Pumpkins and Squash, Radish, Courgettes and Marrows, Garlic and Lettuce

Potatoes

If space is limited, grow 'first early' potatoes, either in pots filled with a mixture of top soil and multi purpose compost or direct in the soil. 3-5 seed potatoes will fit into a pot 50 cm in diameter.

First earlies will crop in June if sprouted or 'chitted' on windowsills in January or February and planted in mid March. With more space consider growing main crop potatoes. They could be dug in September on your return from the summer holidays.

Look through seed potato catalogues this month and choose disease resistant varieties that will provide you with a range of different culinary possibilities such as potatoes for salads, for mashing or for jackets.

They naturally provide good links to areas of the curriculum, such as counting and weighing the harvest and comparing different varieties, or looking into the history of the potato coming all the way from the Americas and, of course, the Irish potato famine.

Sow and plant now

Plant bare root trees and bushes if the ground is neither too wet nor frozen. Sow mustard and cress on damp kitchen paper in a pot or a half seed tray.



Rotation

This means not growing the same veg, or veg from the same family, year in year out. Ideally a particular family should not be grown in the same soil for a minimum of 3 years. This prevents the build up of soil-dwelling pests and diseases that depend on one particular plant family.

It has other benefits, such as preventing the same crop depleting the soil of the same nutrients each year, and that in a four year rotation you may only need to dig a quarter of the soil every year ahead of sowing, for example, your root crops. Organic

matter, which is usually in short supply, can then be applied only to those beds that need it most, such as those where you plan to grow squashes and pumpkins.

The following groups are the most important to rotate: onion family (including leeks and garlic), peas and beans, potatoes and tomatoes, cabbage family (including broccoli, kale, turnips, swede, radish and leaves such as mizuna, mustard and rocket). Other vegetables can fit in around these. Each year you should keep a record of which crops grew where to



December overview



 Look through seed catalogues and choose which crops and which varieties to grow next year.

- Plan where the crops will fit into the garden and how they will fit your rotation scheme.
- Order seeds and seed potatoes before you break for Christmas.
- Continue to harvest winter vegetables, such as parsnips, kale, leeks, winter cabbage, spinach, chard and pick brussels sprouts from the bottom upwards.
- Get the children to keep food diaries and explore healthy eating topics, seasonality and 'where our food comes from'.

- Wash seed trays and pots ready for next year.
- Earth-up stems of tall growing winter vegetables, such as kale, sprouts and cabbages to prevent strong winds loosening them.
- Keep cabbage family plants netted to keep pigeons away.
- Keep fleece fixed securely over autumn sown crops.
- December is a good month to build raised beds — choose whether to use timber or buy a plastic edging. There are pros and cons to both.



Spring term

Sheet 1

January - April





growit

Growing plan

Time to get on with

- Consider taking the children to see a kitchen garden. Although crops will be most abundant in the summer term, you will probably need to book the visit and begin planning now.
- Consider joining your school to the RHS Campaign for School Gardening for free advice and support.
- Make a list of all the equipment you have and work out what you will need for the year ahead. Shops will often give discounts for schools, but parents may be able to donate a lot of what is required.

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New beginnings

This term will herald the majority of your sowings for the year - hardy crops to begin with in February, a busy March and more tender crops in April.



That doesn't mean that January is a month to take off from the garden, but, ideally, the lack of sowings will give you a chance to prepare your soil and get on top of lots of other jobs in the garden that were postponed for that nativity play. It's also the month to decide what you and the children would like to grow. Pouring over seed catalogues is a much loved winter activity of gardeners and is a good chance to explore likes and dislikes

within the class and perhaps challenge children to try something new (they are much more likely to try a vegetable they have grown themselves).

February

With the right varieties sowings can begin this month, though all will benefit from either being started in pots under cover or covered with fleece or cloches if sown outside. It's the month to start your early potatoes into growth in egg boxes on your windowsill, known as 'chitting', to be planted out just before Easter.

March

The choice of what can be sown this month is much greater due mainly to warmer soil and longer hours of sunshine. If you're short of space, grow quick maturing salad crops where you plan to grow more tender vegetables such as squashes and French beans. The salads should be out of the ground before you need the space for the later sowings.

Ten to try

This term you should have a go at sowing these easy to grow vegetables:

- Peas sow them outside as early as February, in short rows every 2 weeks to give a longer harvest.
- 2. **Garlic, shallots and onion sets** can all be planted in February and March. Choose varieties suited to spring sowing.
- Potatoes start them chitting in February and plant out in March and April.
- Lettuce hardy varieties can be sown indoors as early as January or outdoors in pre-warmed soil from February.
- 5. **Radish** sow little and often from February (in mild areas) onwards.
- 6. **Spinach** as for radish.
- 7. **Tomatoes** either sow indoors in March or after the Easter break to give crops in September, providing they can be watered over the summer holidays.
- 8. **Leeks** sow in April to give you a winter harvest
- 9. **Carrots** early types can be sown outside as early as February.
- 10. **Oriental Salads** Crops such as mizuna, mibuna, komatsuna and pok choi all grow well in early spring. Direct sowings from March will give baby leaves for interesting salads within 8 weeks.

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Sheet 2

Spring term





growit

Growing plan

Soil

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Planning

Use the quiet month of January to begin to gather your supplies for the gardening season ahead - pots and trays, compost, sieves, labels, cloches, fleece, netting, bamboo canes or hazel poles, pea sticks and watering cans not to mention egg boxes and empty plastic drinks bottles that will all be put to good use. If you can collect them now it will free up valuable time for sowings later in the term.

If that quick list has frightened you, and I haven't even mentioned seeds yet, perhaps now is a good time to begin to plan fundraisers for the gardening year ahead. If you grew vegetables last year, perhaps you had plant sales to help with garden costs. If you didn't, then consider one or two events over the year ahead. In my experience mum's and dad's always like to buy:

- · Herbs raised in pots.
- Strawberry plants sell well
 (if you planted a patch in
 September, you'll have runners
 that can be potted up this
 September for nothing more
 than the price of the pot and the
 compost). Grow them on and
 sell them in the spring.
- Seedling salads sown in modular trays are always popular and families can enjoy planting them out in soil or in pots at home and harvesting them later in the year.

The success of your garden is down to the soil. Look after it correctly and it will look after your plants. How to look after it depends on the type of soil you have. Clay soils and sandy soils need to be treated in quite different ways.

If you have quite a heavy soil, one that is predominantly clay, it will benefit from being dug over once a year and organic matter, such as garden compost, being added. This will make it easier to work during the growing year ahead and will grow better plants. Late autumn is a traditional time to begin this work, but it can be done over the winter with an eye on the weather.

If you dig it when it is frozen or waterlogged however, not only will it be harder but you will be doing more harm than good.

Generally it's obvious when it's frozen and if soil sticks thickly to your boots then it's too wet to walk on and certainly too wet to dig and you should return to indoor activities. When digging, remove a trench of soil to a spade's depth, line it with compost, then step backwards and dig another trench behind, the exact same size, and turn the soil into the first trench. Repeat this, lining each trench with compost and ending when your last trench is filled with the soil you removed from the very first trench.

If your weather is reliably dry and frosty, don't try and break down large lumps of soil - this will happen naturally due to freezing and thawing over the winter and it will be easy to knock it into shape in early spring.

Alternatively, if the digging will be too much for the children (we have found year 4's and above quite capable and keen) then consider building raised, no-dig beds.

If your soil is light, predominantly sand, then covering the soil to prevent winter rain washing out nutrients and damaging soil structure is most important. This is called mulching and can be done with plastic sheeting, garden compost, leaf mould or a living 'green manure'. Whichever mulch you choose you will be impressed by the healthy condition of your soil underneath and only a light digging after the new year will be required before you make your first spring sowings. Avoid putting the mulch onto very wet or frozen ground as it will be slower to warm up in the spring and delay plant growth.

Warm it!

One of the main reasons you have to wait until spring to sow many crops is the temperature of the soil. It used to be tested by a gardener baring their bottom and sitting on the earth. If they couldn't comfortably stay there for long, it was too cold for planting seeds!

Thankfully you can now buy soil thermometers to do this job for you. Either way, covering your soil with black/ clear polythene this month will help it to warm up a bit quicker, enabling early crops to be sown in February and fresh vegetables to perhaps be eaten by the end of March.

Overview

- Clear ground and prepare soil for planting by digging in organic matter, such as compost.
- Exclude light from weedy areas you don't have time to dig- they will then be much easier to prepare in the spring.
- Build a compost bin and turn that existing heap if you have one already.
- Build raised beds. Don't forget that you'll need compost and top soil to fill them.
- Harvest winter crops such as sprouts, kale, cabbage, leeks, celeriac, turnips, swede, spinach, chard, parsnips and carrots. If you planted seed potatoes in pots in June you can empty them now and enjoy fresh new potatoes.
- Keep crops, particularly brassicas, covered with netting to prevent hungry pigeons eating them before you have the chance.
- Plant bare root trees and bushes as long as the soil is neither

- waterlogged nor frozen. This may be fruit to pick and eat or perhaps hedging to slow down the wind and attract wildlife.
- Begin forcing rhubarb. This can be as simple as placing a dustbin over the mulched crown, encouraging fresh pink shoots to grow. Don't force the same plant in consecutive years.
- Prune fruit trees such as apples and pears. However, if growing trained forms such as espaliers, prune them in the summer instead.
- Prune autumn raspberries by cutting all canes down to ground level.
- Order seed potatoes promptly, to arrive before the end of the month. These can then be 'chitted' in February and will ensure fresh potatoes can be dug out the ground before the end of the summer term. Choose maincrop, blight resistant 'Sarpo' cultivars so there are crops to return to in September.

There are lots of gardening jobs to keep you busy outside, but if the weather is just too awful then there is plenty to get on with indoors.

Indoor activities

- Get hold of seed catalogues and begin choosing crops for next year.
 One packet of each type should suffice for most school spaces, though you may want to choose different varieties for comparisons. Plan your rotation of vegetable families in the garden (look at last years plan to remind yourself which vegetables grew where).
- Collect large, clear, plastic bottles and use them to make individual plant cloches to protect your early crops from the cold.
- Make vegetable signs for the garden to let everyone know what is growing. You could draw or paint onto pieces of wood and then varnish, or onto paper before laminating. Use crops from the garden or pictures from magazines and seed catalogues for inspiration.
- Make a scarecrow to keep birds away from this years plants as part of a design and technology lesson.
- Even though it's January, you can still grow some crops. Try broccoli, red cabbage or salad seedlings, including mustard and cress, sown onto either damp cotton wool/ kitchen towel or into half seed trays filled with compost. Keep on a sunny windowsill. Sown into small plastic cups, seed germination and growth can be easily seen and pupils can take their own one home to taste test with their families. If you want to make it part of science, put some pots in the dark and keep others dry to discover what plants need to grow.



tip!

Next month, sowings of early crops can start in earnest. So, get your seeds

ordered particularly if you plan to grow broad beans, peas, potatoes, carrots, lettuce and radishes. Crop covers, such as fleece, clear polythene or bottle cloches will all be useful to ensure good growth.

Choosing crops

We might all want to grow pomegranates but we don't have the right climate. Bear this in mind when choosing crops. You should also consider:

- Horticultural knowledge and expertise - some crops need more care and attention than others.
- When will they be ready to harvest?
 Avoid varieties that crop in August.
- Who's going to cook and eat the produce?
- Who's available for watering over holiday periods? This will determine what you grow and when you sow it.



February

Sheet 3

Spring term





growit

Growing plan

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Potatoes

Baked, boiled, mashed, roasted or fried - potatoes have been the staple of our diet for hundreds of years. Why? Probably because they grow well in our climate, taste delicious when used fresh and are packed full of carbohydrate.

They're great to grow in schools as they are easy for the smallest children to handle, are relatively easy to grow in open ground or containers, and are well liked when cooked. They provide a good opportunity for measuring (size, number and weight) at planting and for estimating the final harvest. Children also love digging them up.

The potato growing calendar:

- January order seed potatoes from catalogues.
- February place them upright in egg boxes in a light, cool but frost free place with the rose end (that with most 'eyes') facing upwards. This is called 'chitting'.
- March (traditionally Good Friday) –
 plant first earlies. Cover new shoots
 with fleece if frost threatens. Also,
 chit maincrop potatoes (2nd earlies
 often crop in August and are best
 avoided in schools).
- April Plant maincrop potatoes in the second half of April and into

 May
- June and July Dig up earlies as required.
- September Lift maincrop potatoes on a dry day, leave on top of the soil to dry for a few hours before storing them. Discard any damaged or diseased potatoes, the remainder should store until May.

Top tips for potatoes

Start with healthy seed potatoes from a good supplier, such as a local garden centre or online seed company, to be sure of having virus free stock.

- Chit them somewhere cool and light - the sunny classroom window above the radiator is not the best start to their growth.
- Potatoes are a good 'ground breaker'. That is, they are useful as the first crop to grow in a new patch as their growth pattern will help to loosen the soil for subsequent crops. The biggest potatoes, however, will grow in soil that has been well dug and had lots of compost added.
- For an early crop, pre-warm the prepared soil with polythene for a few weeks from the beginning of the month but be sure to have either fleece or a straw mulch to pull over the emerging shoots if frost threatens
- You can vary the planting distances a little depending what size tubers you want. Closer together will give smaller potatoes.

- If you don't 'earth up' potatoes as they grow you will still get a crop but it will be smaller, and those tubers near the surface will be green and will have to be thrown away.
- Water maincrop potatoes when they flower to increase the size of tubers, but avoid soaking the leaves - this will encourage blight.
- Take your time when digging them up - it's a shame to put your fork through those beautiful new tubers.
- Lift first earlies in June or July, depending on the variety grown and the date you planted them. They don't store well, so dig them up as you need them. Lift maincrop potatoes before the end of September as left in the ground they will be damaged by slugs. Dry them in the sun for a few hours before storing them in paper sacks somewhere cool and dark.
- Remember they are in the same family as tomatoes when planning your rotation.

Crop protection

This month, this really means protecting your plants from the cold. How you do it depends on your budget.

You can buy Victorian-style glass cloches, but clear plastic or fleece tunnels are cheaper. Cheapest of all is to make individual plant cloches from 2 or 3 litre drink bottles, cutting them in half and remembering to make a hole to secure them with a peg. If you

have a hazel tree this could be coppiced for some flexible poles, or use willow from a tunnel, sculpture or living hedge. Bend these into hoops and space them 50 cm – 1 m apart along the vegetable bed, drape a sheet of fleece over and dig in at the edges. Plastic piping also works well instead of wood, alternatively metal hoops can be readily bought from garden catalogues and horticultural suppliers.

Overview

- Warm prepared soil with polythene or cloches.
- Start early sowings outside if weather allows, in modules inside if you have space.
- Start 'chitting' early potatoes.
- Last chance to plant bare root fruit trees and bushes.
- Don't panic if very wet or frosty weather prevents you getting outside or kills your early sowings. Experiencing failures is part of growing plants and March sowings will often catch up as the weather improves.



The British Potato Council have a website full of

resources for schools. You can enter their annual competition to grow your own spuds in a container and can compare the growth of yours at school to that of the experts via their potato-cam. Check it out at www.potatoesforschools.org.uk

Sow and plant now

- Sow broad beans suited to cold weather such as the varieties
 'Express', 'Jubilee Hysor' or
 'Imperial Green Longpod'.
 Cover with fleece or cloches or
 alternatively sow into individual
 pots, grow on in an unheated
 greenhouse and plant out in April.
 These will be ready to pick in late
 May and June. Young children will
 find it easier to make planting
 holes for broad beans with a bulb
 planter or a dibber rather than a
 trowel.
- Start sowing peas using hardy varieties this month, such as 'Tafila' and 'Meteor'. Small amounts sown every 2 or 3 weeks between now and Easter will give fresh peas from May to the summer holidays. Cover the first sowings with fleece or cloches to protect from cold weather. Remember they are climbing plants so you'll need some peas sticks for them to clamber on. Put these in straight away (pea sticks are simply twiggy branches, usually cut from hazel or birch. Pushed into the ground along the row of peas, they allow the plants to climb and to produce the best crops).

- Sow spinach direct into the ground to be ready throughout June and July.
- Early carrots sown under fleece or cloches, ideally into soil warmed for a few weeks under polythene, will give baby carrots by June. Choose Amsterdam Forcing types such as 'Sweetheart' or 'Nantes express'.
- Sow hardy winter lettuce and protect with fleece or cloches.
 These do best sown in modules under cover, planted out when they have filled their cells in about 4 weeks time. This gives quicker growth and keeps them away from slugs and snails whilst they are tiny.
- Shallots should be planted this month, protect them with fleece or cloches and lift in July when the foliage turns brown. If you missed planting onion sets in autumn they can be done now or in early March as well.
- Sow parsley into pots on a windowsill as it can be slow to get going.

Successional sowing

It is common for vegetable growers to experience lean months, when there is hardly anything fresh to be harvested from the garden, and gluts when there is simply too much of a crop to know what to do with and you give most of it away.

Experienced gardeners know how to reduce both of these problems, though some months will still be far leaner than others. One of the ways is to sow things successionally, that is, to sow little and often. This month, then, is a good month to start off broad beans but, unless you are planning a monumental feast in June, you

probably don't want to sow all of the packet at the same time. Instead, sow a couple of rows now and when they are 8—10 cm high, sow again. Repeat this as often as you wish and you should find that there are beans to harvest at their peak for a much longer period. It will also show children how plants react to weather.

This way of staggering sowings doesn't always work. Sometimes, as the weather improves, the later sowings grow more rapidly and catch up the early ones. In which case you may find yourself blanching and freezing again! However, it's worth trying and

is a good way of getting multiple classes involved in sowing the same crops. Don't just use this method for broad beans. It's particularly useful for crops that you want to eat little and often and that won't remain in perfect condition in the ground for long, such as radishes, lettuces, spring onions, rocket and oriental and baby leaf salads.

It takes a bit of planning and some willpower not to fill all that space up straight away, but you'll be pleased at harvest time!



Sheet 4

Spring term





growit

Growing plan

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Thinning

Seeds are often so tiny that we can let too many fall into the drill, though it's good practice to sow more than you need, to allow for poor germination (eg parsnips), and to lessen the blow of slug and snail damage (aren't beans sown to the singing of 'one for the mouse, one for the crow, one for the snail and one to grow'?)

Once seedlings are growing away strongly, however, they need to be thinned. This may seem harsh but crowded seedlings just won't get the light, water or nutrients they require and will become weak and crop poorly, if at all. Such conditions also allow disease to get a foot-hold much more readily. Thinning in stages will give some back up in case a hungry pigeon should discover the row.

Of course the size of some crops, such as carrots, can be determined, within reason, by the spacing you allow and it is common to pull the first thinnings as baby carrots, allowing the rest to grow on to a fuller size. Remember to always try to sow carrots thinly as the smell released by the plants when thinning attracts carrot root fly.



March can be a tough time to eat homegrown veg as winter crops are nearing their

end and new sowings aren't yet ready to pick. However, you may be able to harvest leeks, winter salads, spring cabbage, Brussels sprouts, rhubarb, kale and sprouting broccoli. Not too bad, then.

Sowing indoors or outside?

Some crops, such as tomatoes or peppers, need warmth to germinate and have to be started off inside, ideally in a heated propagator. Most vegetable crops, however, can be grown either way. So how do you decide which is best for you?

In a school environment where rooms tend to be too hot and windowsills badly lit, seedlings will germinate but quickly become 'leggy' and weak. Watering is also a problem as there's normally too much class work nearby and moving everything outside or to the sink turns it into a bigger job that never gets done. Crops raised in warm conditions also have to be carefully acclimatised to going outside (called 'hardening off').

Direct sowing, by which I mean sowing seed directly into the soil outside where the plants are to grow, also has it's downsides: you will have to wait

for the soil to warm up in the spring, you may have to delay sowing because of bad weather, you will need to create a fine tilth to sow the seeds into (a coarser soil is ok for planting out small plants you have raised indoors) and direct sowings are much more prone to damage from slugs and snails (plants) and mice (seeds) than sturdier plants you have raised indoors.

On balance, unless you have a greenhouse to raise plants in, we would advocate direct sowing where possible, (direct sown plants are often stronger as they have no check to their growth from transplanting). This also cuts down on the costs of compost and of modules or pots.

Indoor sown plants are useful for early crops, for when soil is poor, when slugs are a huge problem and to provide fillers for gaps in the rows of vegetables.

Watering

With our summers becoming drier and hosepipe bans a common occurrence watering is a big issue for gardeners. Water-butts are a great way of collecting winter and spring rainfall to provide a free supply in the drier summer months. Ideally they need to be close to where they will be used but be sure to follow health and safety guidelines when installing them. At some schools, caretakers have put wire mesh across the top of the butt and then locked the lid in place so that no child could gain access.

At this time of year you will mainly be watering seedlings, either outside or in pots and modules. It is essential that you have a really fine rose fitted to the watering can for this as larger drops disturb the plant's growth and wash away compost.

When sowing into trays or modules you can pre-wet the compost by standing the tray in a sink of water. The compost wets from beneath by capillary action. Sow the seed and cover with sieved, dry compost.

Overview

- Cultivate and prepare soil for sowing, covering with fleece or polythene for a few weeks to warm it up.
- Chit early and maincrop potatoes. Earlies are traditionally planted out on Good Friday and should ideally be planted before the Easter break, but delay if it's very cold.
- Plant crops from the list above if the weather is suitable (The appearance of weed seedlings in your soil is a good indication that conditions are right for plant growth). If the soil is too wet or

there's a cold snap, delay planting until things improve. Alternatively, start crops off indoors in seed trays or pots and plant them out later.

- Uncover forced rhubarb crowns
- When harvesting spring cabbages, cut the head from the stem rather than pulling up the whole plant. If you make a cross in the top of the cut stem often mini cabbages or 'spring greens' will grow.
- If gardening on wet soil, work from a plank of wood to avoid treading on the bed and compacting the soil.

Timing



Getting the timing of crops right, to have more vegetables to eat from your school garden for longer periods, is quite a difficult skill to master. Hopefully this guide will help you avoid having nothing quite ready for many months and a glut of fresh vegetables in August when you and the children have forgotten all about the garden.

Make a note in a special diary of the dates you sow crops and record when they were first ready to harvest and when they finished being productive. This information will help you make changes to your growing plan for next year and begin to develop a sowing guide for your particular garden with it's own particular microclimate.

However, at this time of year you must take into account the Easter holidays. Seed packets will tell you to sow, for example, outdoor tomatoes under cover in March and frost sensitive plants, such as cucumbers, into pots indoors in April. These will only succeed, however, if you can guarantee they will be watered regularly over the 2 week break. If you can't be sure, then we suggest waiting until after Easter but make these sowings a priority as soon as you are back. Depending on the crop, this delay may help to make September, rather than August, the main month of harvest.

Pests

There is nothing more disheartening than losing your entire row of carefully sown seedlings, but slugs, and other pests, are part of gardening and whilst defending crops from their attack is important, you must also prepare yourself for losses.

Slugs

Of course, you could liberally sprinkle slug pellets around the garden but you should consider the danger they pose to young children and to other wildlife before use. There are many other options for limiting damage by slugs, none will give complete protection but adopting several different methods should enable you to produce good quality crops. Sinking yoghurt pots into the soil and filling them with water and yeast is quite effective. Remember to check and empty them regularly to avoid nasty smells. Old tiles covering piles of bran amongst the vegetables works well, check the tiles each morning and you should find lots of slugs underneath feeding on the bran. Similarly you can use empty halves of grapefruits that provide suitable conditions for slugs to shelter under. Gravel or egg shells around the base of plants will deter some slugs, and is particularly useful

for small numbers of plants or plants in containers. Encouraging wildlife into your garden is effective as some beetles, frogs and birds will feed on slugs.

Mice

They are particularly fond of eating pea and bean seeds which will then fail to appear after your careful sowing. Either set traps, or sow these crops indoors or in trays wrapped in mesh. Once growing they are far less appealing to mice.

Birds

They can be a problem on seedbeds, eating newly sown seed and disturbing the growth of others. Pigeons in particular will strip leaves of plants especially brassicas. The best defence is to use netting but scarecrows will also help and can be incorporated into lessons.

Sow and plant now

- Garlic
- Shallots and onion sets
- Potatoes ('earlies')
- **Broad beans**
- Carrots
- **Parsnips**

- Beetroot
- Lettuce
- Radish
- Peas
- Spinach
 - Cabbages (summer)

- **Brussels sprouts**
- Salad leaves
- Leeks
- Swiss chard

Spring term





growit

Growing plan

Beans



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Sowings

March was the last month to sow Brussels sprouts and late summer/ autumn cabbage, but now that the soil has warmed up there are lots of other crops to start into growth.

In mild areas you may be able to sow dwarf French beans outside under cloches or fleece to ensure they will be harvested before the summer holidays.

If you are able to ensure watering over the summer holiday, then April is a good month to start marrows, courgettes, pumpkins and squash. Plant the seeds in individual 9 cm pots and keep them inside until all danger of frost has passed. If you live in cold

areas then delay sowing until May. I've even had good autumn harvests from a direct sowing of pumpkins made at the end of May.

Sweet peppers, tomatoes and cucumbers can all be sown inside to be moved outside in July. If watered over the summer these will provide good crops when you return to school in September. Sprouting broccoli, cauliflowers and cabbages can all be sown outside this month. Sow them close together in a seedbed to save space, then plant them into their final position in June/July for harvesting in autumn/winter.



There should be space for beans in every school vegetable garden. They have interesting seeds, particularly the many varied colours of French beans. Beans are easy for the smallest of hands to handle, they provide good material for seed saving that helps to demonstrate life cycles, they can have stunning flowers, such as the 'crimson flowered' broad bean, and demonstrate clearly the subsequent development of pods from embryonic to mature stages.

Also, not only do the beans in the pods provide good number work for younger children they are delicious when cooked as well. In addition the climbing varieties make a wonderful visual statement in a garden and purple-coloured climbing French beans such as 'Blauhilde' wouldn't look out of place in an ornamental border.

This month you should sow French beans. Outside under cloches if the weather is warm otherwise start them inside in pots or modules. Dwarf varieties are quicker to mature than climbing and work well planted inbetween widely spaced tall crops such as sweetcorn.

Herbs

No kitchen garden is really complete without a supply of fresh herbs. Most commonly used herbs are really easy to grow yet they are extremely expensive to buy in the shops - it makes sense to grow your own.

April is a good time to start off pots of basil, parsley, chives, lemon balm, marjoram, coriander and dill on the windowsill. They could be planted out at the end of May if big enough, though basil is perhaps happiest under cover all the time.

Make successional sowings of the annual herbs here, like coriander, basil and dill, as older plants may quickly run to seed in hot, dry weather.

Mint, thyme and rosemary are probably best bought in as young plants from a garden centre as they are relatively



tricky to grow from seed. These will be fairly cheap and will soon bulk up in your garden. If you have these existing plants in your school already, you may like to try propagating them.

Soil management and seed beds

If you haven't managed to dig areas of the garden yet, there is still time. Make sure you incorporate compost as you go to improve the soil's structure and fertility for the crops ahead. Be careful if your soil is heavy clay as large clods of it can quickly turn into unmanageable blocks more resembling concrete than soil if it is left to dry out. Ensure you use the back of the fork to knock large lumps out as you go.

Seed beds are very useful at this time of year. They are small areas

of ground that have been carefully worked with forks and rakes to produce a very fine tilth, free of large lumps and stones. They are used for sowing slow growing crops which don't mind the root disturbance of being dug up and transplanted. These crops would otherwise take up valuable space in the vegetable garden, which can now be used to grow other crops until these seedlings are transplanted in June. Sprouting broccoli, autumn and winter cabbages and kale as well, as leeks do well in seed beds.

Leeks

A member of the onion family, leeks are a vital crop in any kitchen garden and space should be found for them in your school. They are pretty reliable, aren't too troubled by either pests or diseases (as long as you make sure you rotate them with the rest of the onion family) and provide colour and fresh vegetables throughout the winter. In fact, with clever selection of varieties you could be pulling fresh leeks from the garden from September right through to March (but then again there's probably only so much leek and potato soup that either you or the children can face). Sow them this month in a well-prepared seed bed, at fairly close spacing, to be transplanted to their final growing position in June when they are about 20 cm tall and the thickness of a pencil. This use of



a seed bed serves 3 functions. First it means you only need to prepare a really fine tilth in the small area of the seedbed. Second, more of the garden is free for other crops until the leeks need transplanting in June, and lastly when transplanting you can ensure that more of the stem is buried giving a longer, whiter shank to the leek at harvest.

Sow and plant now

- Swiss chard
- Lettuce
- Leeks
- Radish
- Turnip
- · Spring onion
- Peas, including mange tout and sugar snap
- Spinach

Indoor activities

Sow in the second half of the month:

- Marrows
- Pumpkins
- Squash
- Courgettes
- Peppers
- Tomatoes
- Cucumbers

Overview

- Earth up early potatoes as the shoots grow
- Chit and plant out maincrop potatoes in the second half of this month.
- Keep early outdoor sowings protected with fleece or polythene
- Sweet peppers, tomatoes and cucumbers can all be sown indoors this month, but to maximise autumn cropping, rather than an August harvest, sow them towards the end of the month rather than the beginning. Continue to prepare soil and to add compost.
- Begin mulching around established plants, hedging, fruit trees and bushes. This will reduce the weeds and lock in moisture around the roots.



April should still provide you with the last of some winter leeks, salads, kale and

sprouting broccoli but may also mean that spring onions, spring cabbages and early-sown radishes are ready to harvest.





Summer term

Sheet 1

May - July





growit

Growing plan

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Bumper harvests

If you managed to sow seeds into your soil last term then May, June and July should see your hard work rewarded with fresh, delicious vegetables from your garden. However, to keep supplies coming right up to the end of term, and to provide for autumn, there are more sowings to be made. This term, to give your vegetables the best chance of growing well, you need to keep on top of the weeds as they are growing just as quickly as the vegetables, if not quicker. Getting them early is the answer, as a hoe makes light work of seedlings whilst using a fork to remove established weeds takes much longer and is far harder work. To grow well your plants will need watering and if you want to return to crops in

September then you will need to work out a watering rota or invest in some seep hose and a timer. However, overwatering can be detrimental to your plants as well as being irresponsible at a time of year when hosepipe bans are increasingly commonplace. Most of the crops we recommend should remain fairly trouble free, but there are some pests and diseases that may try to get a foothold in your garden during this term in particular. If you didn't get enough crops in the ground before the Easter break, don't worry. There is still time to get many of them underway in the second half of April and early May and they will still provide a crop to enjoy before the summer holiday.



Crops to sow/plant in April, to be eaten before the summer holidays

- Beetroot
- Carrots
- Swiss chard and spinach
- Lettuce
- Radish, turnip
- Spring onion
- Potato fast growing, first early variety
- Peas, calabrese, French beans

Consider joining your school to the RHS Campaign for School Gardening for support.

Nine to try

This term you should have a go at sowing these easy to grow vegetables and fruit:

Peas – A July sowing of early dwarf peas will, in the South, provide an autumn crop.

Potatoes – get your maincrop potatoes into the ground in early May to give good sized tubers in the

Pumpkins and Squashes – sow outside under cloches in late May, for autumn harvests.

Tomatoes – sow in pots on a sunny windowsill in early May, pot on and plant outside 4-6 weeks later. These

will give good crops in the South in September and October, if watered over the summer.

Carrots – sow suitable varieties in May and July to crop between October and December.

Lettuce – Sow in May to give crops in July, and again in July to provide leaves in September.

Radish – can be ready to pick in just 4 weeks in good weather.

Spinach – Sow in early May to give baby leaves in July.

Strawberries – plant cold-stored runners during May and enjoy fresh strawberries 60 days later.

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growit

Growing plan

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Thinning

Seeing strong, healthy seedlings emerge is a wonderful moment that can leave you paralysed when it comes to thinning. Leaving the seedlings to grow in a crowded environment, however, will lead to crops that run short of food, water and sunlight, will simply never achieve their full size, will produce low yields and are more likely to suffer disease.

Thin crops in stages, for example composting the first carrot thinnings,

using the second as baby carrots and allowing the remainder to grow on, at their correct spacing, to full size. Lettuce can be thinned at first to 10 cm spacing in the row, then to 20 cm and finally to the required 30 cm.

Not only can the thinnings go into salads, but this means that should a slug eat one, you have replacements. Of course, many 'thinnings' can be planted out into their own space, such as lettuce or cabbage family plants.

Leeks are another example of crops which are deliberately sown at close proximity because they grow slowly. Rather than taking up a lot of valuable space in the vegetable garden, they are transplanted when they reach the size of a pencil, some 8-12 weeks after sowing.

Some crops, such as carrots, parsnips and beetroot, will usually bolt if disturbed in this way and are not worth replanting.

Sowings to eat this term

You can still sow the following crops to give fresh delicious vegetables before school breaks for summer:

Amaranth – ready in 10-12 weeks, is a delicious and unusual salad leaf.

Basil – ready in 6-8 weeks, can still be sown. Best kept on a windowsill, though in warm sheltered gardens they can be transplanted outside for the summer.

French beans – ready in 9-14 weeks, will still crop in time but don't delay.

Beetroot – ready in 8-12 weeks, will grow quickly at this time of year and give small beets in July.

Calabrese – ready in 10-14 weeks, will give some heads before the summer.

Courgettes – ready in 9-14 weeks, may produce fruits before the holidays.

Mini varieties of **lettuce**, ready in just 8-10 weeks, can be sown this month.

Radish – ready in as little as 4 weeks, can be sown right up until the middle of June.

Rocket – baby leaves could be ready to pick in just 4-5 weeks.

Spinach and Chard – ready in 10-12 weeks can be sown early this month.

Weeding

It's not the most glamorous side of gardening but a neat row of swelling bulb onions and fattening strawberries at this time of year, free of weeds, is rather satisfying.

Choked in weeds, seedlings fail to establish, crops grow weakly as they compete for resources, and fruits fail to ripen. At this time of year, soil temperatures allow weeds to grow as strongly as your vegetables (indeed, weed growth is a good indication

that the soil is warm enough to plant certain crops). The weed seeds will have often laid dormant in the ground for years until you dug it over and raked it to a tilth, providing the optimum conditions for germination. You probably even watered it!

The key to weeding is little and often - using a sharp hoe to cut the weed seedlings from their roots, or hand forks and trowels depending on the age of the children. If you allow the weeds

to grow bigger it will be a much harder job, will require garden forks and they may set seed, giving you a weed problem for years to come.

Remember to separate perennial weeds, such as bindweed and couch grass, from annual weeds. The latter can go on the compost and perennials into a sack to rot down over a year or two. Weeding on a dry day ensures any that don't make the compost wither on the surface.

Pumpkins and squashes

This is a great crop to grow with children. The seeds are fairly large and easy to handle, growth is rapid, the plants and their fruits can reach considerable size, have flowers whose reproductive organs are easy to see and can be used to do simple hand pollination, and fruits can be used for an array of activities from lantern making, to soups or baking, to be hollowed out for water carriers or dried, painted and varnished for decoration.

Bigger fruits are obtained by starting them early and having the longest growing season. This means sowing them into pots in mid April, keeping them somewhere warm to germinate and warm but well lit for two or three weeks after. Then begin hardening them off, that is, gradually acclimatising them to outdoor conditions by bringing them outside for increasing lengths of time over a week to ten days. Then plant them into

their growing position, around the end of May, and provide some protection for a week or two, especially if frost is expected. This could be a home-made or bought cloche or some fleece.

Alternatively, sow them directly into their growing position in May, covering the soil with a cloche. These may not have enough time to produce huge fruits.

They are hungry and thirsty plants, so the biggest fruits are obtained by regular watering, especially when the fruits are swelling, (this will require assistance over the summer holidays) and ensuring the soil has had lots of compost or well rotted manure dug into it. Too much water early on can lead to large plants with few flowers.

Ideally place a tile or straw under the fruits to prevent them rotting on contact with wet soil

Sun safety

This month can be really sunny, so if children are going to be outside for even just twenty minutes gardening, sun cream, hat protection and water are really important. Make sure the necessary letters are sent home.

Organising the gardening sessions so that some of the time is spent under shade is a good idea for you and for the children.

This could be under a tree or perhaps a gazebo, and could provide time for pricking out, potting on, sowings, shelling of peas or beans, enjoying some of your harvests, writing, drawing or simply sharing thoughts.

May overview

- Keep on top of the weeds.
 Frequent hoeing of weed
 seedlings in dry weather is the
 most effective way to get rid of
 them, but however you do it, do
 it before they seed.
- Continue to keep plants covered, as sunny days can be followed by cold nights and frost may still be likely.
- Keep up with sowings, both for harvests this term and for crops in the autumn and winter. April is best, but if you're quick, you may still get sprouts, cabbages and kale over the winter.
- As strawberries begin to swell, keep the fruits off the soil by tucking straw underneath.

- Make sure supports are in place for climbing plants such as peas and beans, they need supporting very early on in their growth.
- Take action against slugs and snails as they can destroy whole rows of seedlings in one night. Watering on nematodes, microscopic organisms that will cause the pests to die, at this time of year is very effective and will give protection for 6 weeks. They are harmless to children, pets and other wildlife and can be safely used on food crops.
- Earth up potatoes by drawing soil up around their stems, leaving only the top 10-20 cm

- of stems and leaves exposed. In pots, fill up the pots as the plants grow, stopping 5 cm short of the rim to allow room for watering.
- You can still plant maincrop potatoes to come back to in September. Choose a blight resistant variety to increase your chances of a good crop.
- If you're planning to sell plants in a summer fair, now is the time to sow them. Pumpkins and squashes, cucumbers and courgettes are quite reliable, and quick growing herbs such as basil and coriander could be sown to be sold in June.

Summer term





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Water

All of your garden plants have optimum water requirements that must be met if they are to grow to their full potential. However, watering can take time that you don't have and water shortages mean we should be looking at ways of reducing our water use in the garden.

There are some key points to remember:

Watering is best done with the smallest droplet size possible.

Most seeds cannot germinate unless they can soak up enough water. Water the drill before sowing to ensure water is where it is needed and to prevent 'capping'.

Water is essential for seedlings to establish. If it's dry they will need watering with a fine rose.

Once established, it is better to water plants with less frequent, heavy waterings, to ensure water penetrates down to the roots, encouraging deep root growth, rather than frequent light waterings that only encourage shallow rooting and make plants susceptible to drying out in a drought.

Leafy crops, such as lettuce and spinach, require most water.

Many crops have critical watering times. If water and time are limited then concentrate on watering at these times. For example, watering potatoes in late May/early June, when they are in flower, encourages tubers to swell and watering peas and beans when pods are first forming will increase yields.

Mulching established plants may help to reduce evaporation and conserve water.

Lettuce

Cut outer leaves off and use these for salads, leaving the plant to grow more.

'Cut and come again' salads, such as lettuce, spinach, Swiss chard, mizuna, rocket, radish leaves, amaranth and kale - cut the whole plant at a height of about 2-3 cm above ground level. Keep well watered and enjoy a second harvest a few weeks later and perhaps even a third in a further 3-6 weeks.

Radish

Use as required, taking every other one to allow remainder to increase in size, though lift all before they go tough and 'woody'. The young leaves can be eaten in salads.

Peas

Pinch the pod from the stem, using your thumb and finger, to avoid damaging the plant which will continue to produce more pods.

Broad beans

Harvest lowest pods first, as these mature soonest, by twisting the pod until it comes easily from the stem. Young beans can be eaten raw. If you have more than you can use, shell, blanche and freeze for future use or allow to dry on the plant and save seed for next year.

Spinach

Remove older, outer leaves first or cut the whole plant about 2-3 cm above ground leaving it to re-sprout. Keep crop well watered to encourage further leaf growth.

Coriander

Pick regularly and keep watered to delay it going to seed. If it does,

remember that some recipes require coriander seed rather than leaf.

French beans

Pick regularly to encourage new beans to be produced. Consider leaving a few good sized pods to dry on the plant to provide seed for next year.

Carrots

Harvesting tips

Use a fork to lift part of the crop from the ground, being careful not to damage the roots, leaving smaller carrots to increase in size. Carrots send up beautiful flowers that attract beneficial insects into the garden, so consider leaving a few to flower the following year.

Potatoes

First early potatoes should be ready to lift at the end of this month if planted in early March. Investigate their size by carefully pulling back the soil. Lift what you need and leave the remainder in the soil until required.

Cabbage

Cut when the hearts are firm to the hand, leaving the stump in the ground to re-sprout to give a crop of greens, especially if a cross is made with a knife in the surface of the cut stem.

Onions

Autumn planted sets will be ready to lift this month. Spring planted sets, or onions raised from seed, probably won't be ready until July or even August/September. They are ready to harvest when the leaves begin to yellow. Lift and use fresh as required. To store, pull them up and allow to dry in the sun then store in a net bag somewhere cool and dry, or plait the stems and hang in bunches.

Fruit

Shorten over vigorous shoots, including leaders, on wall-trained apples and pears. This will put energy into fruit rather than shoot production.

Gooseberries can be thinned allowing better dessert fruit to develop. The thinnings can be cooked and eaten.

Watch out for gooseberry sawfly larvae. They look like pale green caterpillars with black spots and black heads and devour the leaves from the centre of the bush upwards. Check for them on the underside of leaves and remove.

Tie in new growth on blackberries and raspberries to prevent wind damage.

Hoe off raspberry suckers that appear between the rows.

Peg down runners from strawberry plants to produce new plants for next year. For the best crop of fruit, only peg down as many as required and remove any further runners that appear to concentrate the plants energy on this years crop. Alternatively, choose a couple of plants to produce runners and pinch out all flowers that develop on these to maximise runners. Once they have rooted, they can be cut from the parent plant and potted up.

Continue to harvest rhubarb until the end of the month and then allow the plant to rest.

This month you could be harvesting lettuce, radish, peas, broad beans, spinach, coriander, French beans, carrots, autumn sown onions, parsley, Swiss chard, early potatoes, garlic, spring and summer cabbage and maybe some gooseberries for cooking.

Sow now

- Sow turnips this month for an autumn crop.
- Quick maturing lettuce, such as little gem types, may be harvestable in 8 weeks from sowing.
- Cut and come again salads, harvested as baby leaves, will be ready even quicker.
- Radishes can be ready to eat in as little as 4 weeks from sowing.
- Marrows, outdoor cucumbers, courgettes, pumpkins and squashes can all be sown direct this month to produce crops in the autumn.
- Transplant leeks, sown in April, into their final positions when they reach the size of a pencil.
 Drop them into holes so their stems are buried to give a longer edible stem when mature.

Mulch

Mulches are coverings placed on the soil for a number of important reasons:

They suppress weeds, lock in moisture, maintain more even soil temperatures, prevent edible crops from rotting due to contact with soil, deter pests and attract beneficial soil organisms. They can be organic (straw, compost, bark) or inorganic (slate, gravel, pebbles, plastic sheeting), though if the mulch is made from an organic material, such as compost, straw or leaf mould, then

they improve soil structure and add nutrients as well.

A mulch is best applied earlier in the year, when there is more moisture in the soil, but your established plants will still benefit, however, from being mulched now, ideally with 5-10 cm of organic material. Apply after rain, or water the soil beforehand, onto weed free soil, but do not spread it right up to the stems of plants as it can cause damage.

June overview



- on them then they are ready to be planted out. Support cordon varieties with a cane and keep pinching out sideshoots that grow in the leaf axil.
- Plant out members of the cucurbit family this month, after careful hardening off.
 This includes pumpkins and squashes, marrows, courgettes and cucumbers.
- Prevent broad beans from falling over by stretching string around them. Pinch out the tips if colonies of aphids are seen.
- Take softwood cuttings of lavender and rosemary.
- Use the opportunity of dry, warm weather to hoe off weeds, leaving them to wilt on the surface.
- Net strawberry plants as the fruit begins to redden to prevent birds stealing the crop.

Summer term





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Sowings for autumn

The following crops can all be sown this month to give you something to return to in the autumn other than bare soil. In a dry summer their success will depend upon people watering them, especially whilst they are establishing. You may have lettuce, courgettes and French or runner beans cropping over the summer that can be used as a bargaining tool in a watering rota.

On the other hand, in a summer like this one, everything should flourish!

Peas – an early dwarf variety may give

July harvests may be the biggest yet as you could be picking spinach, French beans, courgettes, radish, cabbage, peas, beetroot, carrots, lettuce, new potatoes, shallots, garlic and onions as well as gooseberries from the fruit garden.

you fresh peas in the autumn. It won't be as reliable as earlier sowings but if you have space. It is worth a try, especially in the South.

Carrots – sow up to the end of July and expect to pull them 12-16 weeks later. Sow thinly and cover them with fleece the whole time to reduce carrot fly attacks.

Cabbage – spring cabbage sown this month, and transplanted to final positions in September, will give fresh produce in April and May when supplies can be short. They will need to be covered with fine netting to avoid damage from pigeons and cabbage white caterpillars, and fit collars around the base of each plant to deter cabbage root fly.

Other crops to be sown include winter salads, turnips, fennel, parsley, kale, chard and radish.

Green Manure

This is the use of plants to add nutrients to the soil and improve its structure, though often the plants chosen will do more of one than the other. They achieve this by drawing up nutrients from in the soil, often from greater depths than vegetable crops, which are then released back into the soil when they are dug in later in the year, giving a flush of nutrients.

They have the added benefit of covering the soil, so protecting it from baking sun and hard rain that can damage the soil structure.

Depending on the type of green manure seed chosen they can be either

short lived, such as sowing mustard this month and digging it into the soil to rot down and release its nutrients in the autumn, or can be sown in the autumn to cover the ground over the winter and be dug in the spring, such as winter tares and field beans.

Two factors should be considered when choosing green manures. Firstly, rotation groups should still be paid attention to such as using field beans in the bean or legume rotation and mustard in the cabbage family section. Secondly, after digging into the soil they can inhibit seed germination so are best dug in two weeks before the soil is required for sowing.

After all your hard work throughout the year, July should allow you some time to celebrate your achievements in the garden. There should be plenty to harvest which can be put to good use - such as the 'super salad day' at St John the Baptist. Here, different year groups picked lots of different kinds of lettuce, onions, garlic, French beans, radishes and new potatoes - all from the garden - to make salads that were enjoyed by the whole school.

Other schools have put on big plant sales, often as part of a summer fete, raising money for next years seeds by selling surplus plants and produce that won't keep until the autumn. Good sellers have proven to be herbs such as parsley, basil and coriander, surplus tomato plants, and extra cucurbits sown in May such as pumpkins, courgettes and cucumbers.

Vegetables that will keep until the autumn and beyond are onions and garlic, if properly dried after harvest. Peas and beans can be blanched and frozen for later use, but a lot of others such as radish, lettuce, new potatoes, French beans, cabbages and courgettes are probably best sold to parents if they can't be used in school. It's come and see the garden and find out what their children have been up to, (some clever schools even get them to pay up for a guided tour of the plot!) and it may even bring future volunteers

Summer garden care

If no-one will be coming into school over the summer then the harvests you can expect in the autumn will be dependent on the weather and will probably be much reduced.

However, some crops can often cope. Pumpkins for example, if watered well when first planted and then mulched, should still produce a good crop in September even if the summer is dry. Maincrop potatoes will produce a larger yield if watered but will still produce a crop if ignored, as will root crops such as parsnips and carrots.

If you want peas, beans, salad crops, spinach, tomatoes or peppers to come back to in September, however, then you will need to give them water over the summer. Often this will depend on having a cooperative caretaker who is supportive of the garden project, who may be prepared to water crops, perhaps in return for some fresh vegetables from the garden – at this time of year this could be peas, tomatoes, French beans, lettuce and courgettes.

Otherwise perhaps a watering rota can be drawn up amongst the staff. I would suggest twice a week is the minimum required to keep the crops going.

There are things you can do to help plants survive hot, dry spells and to reduce the amount of water they will need. A really good soaking before the end of term, followed by a thick mulching of dry compost or leaf mould will trap moisture in and reduce water loss. This can be done on pots as well as around crops in the ground.

If you are growing in containers, these will dry out the quickest, so perhaps consider putting them all together as this increases the humidity around them. Place in semi-shade if possible, soak and mulch.

Terracotta pots, which are porous, are best lined with polythene before planting to reduce evaporation, but remember to allow for drainage.

July overview

- This month should be about enjoying the fruits of your labours, and garden care is mostly about maintenance with a few sowings to give crops in the autumn.
- Keep on top of the weeds.
 Frequent hoeing of weed seedlings in dry weather is the most effective way to get rid of them, but however you do it, do it before they seed.
- If your strawberries have finished cropping it is good practice to remove and compost the straw, then shear off the old leaves a couple of centimetres

- above the crown. This reduces the chance of disease and will give a better crop next year. Don't worry if it looks severe, by the time you return to school the plants will have grown new healthy leaves.
- If you sowed leeks back in the spring and didn't transplant them last month, lift them and pop into holes at correct spacing before the end of term to give leeks from autumn and through the winter.
- Keep picking courgettes, peas and beans, perhaps as often as twice a week. This will ensure the best flavour and keep them producing more.
- Make plans for summer garden care if you want to come back to large harvests in the autumn.
 Lift all first early potatoes before the end of term and sell or send home any surplus. Left in the

- ground they may not be as good by September as they are now.
- There are still some crops that can be sown now to provide fresh vegetables in the autumn.
 See previous page.
- Give established plants a good soak and then mulch with compost to trap in moisture to help them through the summer.
- Harvest onions, shallots and garlic when their leaves yellow and fall over. Dry them in the sun for a few days then brush off the soil and store in a cool shed or garage.
- When your peas and beans have finished, cut them off at ground level and allow the roots to break down in situ, releasing nitrogen into the soil from their nodules. This will have most benefit if a nitrogen hungry crop follows, such as cabbage family plants.