Session Plan

Term	Autumn	Date	From September	Week No	Ongoing
Subject	**Autumn Harvesting**				
Objectives	By the end of the session, children will be able to: 1. See a variety of different fruit & vegetables 2. Check if fruit or vegetables are ready to be picked 3. Experience the different ways of harvesting				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Going to pick/harvest fruit & vegetables that planted last term	
0.10	Brief introduction to activities	1. Harvest autumn fruiting raspberries. Can send home in paper cups, save for cooking, preserve as jam (microwave or boiling) or freeze (see recipes section & Freezing fruit & vegetables session plan). 2. Cut cabbages if their heads are big enough. They will need to be harvested before the first frost. 3. Sweet Corn – It's ready to pick when the silky tassels at the top turn brown. You can check further by peeking inside the leaves to see if the kernels are a buttery yellow. To harvest, snap off the cobs by twisting their base. They need to be eaten quickly, before their sweetness fades. 4. Potatoes – Cut off foliage just above the ground, leaving the potatoes in the ground for another 2 weeks. Then lift them with a fork and leave them out for a couple of hours in the sun to dry. Store them in paper bags in cool dark place. If the children are taking them home, the potatoes can washed and put into smaller paper bags. 5. Tomatoes – Outside tomatoes need to be either harvested or brought under shelter if they are in pots. If a ripening truss is picked, it can be placed on a sunny windowsill to ripen. Placing a ripe banana nearby may help with the ripening process as they give off a gas, ethylene*, also known as the 'death' or 'ripening hormone'.	Paper cups Basket/Trug Garden Forks, bowls & water, paper bags
0.20	Children have a go		
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	*As is often the case, the role of ethylene and its effects on produce was discovered by accident. Lemon growers would store newly harvested green lemons in sheds kept warm by kerosene heaters until they were ripe enough to sell. When new, modern heating systems were tried, the lemons no longer turned yellow on time. Research soon found that the important factor in the ripening process was small amounts of ethylene gas given off by the burning kerosene in the heaters (www.ethylenegas.com) **Tomatoes should never be put in the fridge** They'll last a week or eight days on the worktop after ripening, but shouldn't really be kept longer than that. The tart taste of tomatoes is due to a chemical called Linolenic Acid converting to Z-3-Hexenel, and this reaction is disrupted by cold, so keep them at room temperature (www.Raw-Food-Health.net).		

Session Plan

Term	Autumn	**Date**	September	**Week No**	1
Subject	**Autumn/Winter Tidy Up 1 – OUTSIDE -** Could easily run over two sessions				
Objectives	By the end of the session, children will be able to: 1. Understand why we need to tidy up 2. Use & care for tools				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	It is important to tidy up gardens to make them safe places for people & also to make sure that pests & diseases aren't harboured in the waste, ready to infect crops in the spring. However, it is also important that they aren't too tidy so that there are still places for wildlife.	
0.10	Brief introduction to activities	1. Weeding 2. Clear away any weeds, finished crops etc. 3. Round up any pots, labels, bits of string put away neatly 4. Litter collection 5. Canes – Clear away dead plants from canes, wipe down with disinfectant#, tie in bundles & store under cover. 6. Raking up fallen leaves – Collect leaves and make leaf mould.*	Gloves, bags, buckets, twine/ties, disinfectant, rakes, leaf bags, brushes, black bin bags/leaf sacks
0.20	Children have a go		
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	* It's best to keep leaves out of normal compost heaps as they take longer to decompose. So once they are collected, you can put them either in black bin bags (with holes) or biodegradable leaf sacks (can be bought from Stroud Valleys Project Eco Shop, 8 Threadneedle Street, Stroud). Leave the sacks somewhere out of the way and in a couple of years you'll have leaf mould, which you can put around plants as a mulch, particularly good for crops like raspberries. # For home-made disinfectant recipe see page 17.		

Session Plan

Term	Autumn/Winter	**Date**	Any time	**Week No**	
Subject	**Autumn/Winter Tidy Up 2** – Can be **INSIDE** - Could easily run over two sessions				
Objectives	By the end of the session, children will be able to: 1. Understand why we need to tidy up 2. Use & care for tools/equipment				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	It is important to tidy up gardens to make them safe places for people & also to make sure that pests & diseases aren't harboured in the waste ready to infect crops in the spring. However, it is also important that they aren't too tidy so that there are still places for wildlife.	
0.10	Brief introduction to activities	1. Sort out gloves – Gloves may need soil knocking off and get sorted into pairs & attached to each other with pegs. Children may like to decorate pegs with felt tips pens. 2. Clean tools – Digging tools - knock off any loose soil and wash with soapy water. Clean secateurs with wire wool to remove any sticky residues, spray with disinfectant*. 3. Organise Seed Packets – Check and throw away/recycle any empty packets. Make a seed organiser. See page 17.	Laundry pegs, bowls of soapy water, wire wool, disinfectant spray Gloves for using with wire wool See page 17
0.20	Children have a go		
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	*Disinfectant is used to prevent any diseases being carried over to the next growing season. Garden Centres sell specific disinfectant for this purpose. Or you can make your own either at the gardening club (good for a wet weather session) or at home before. For disinfectant recipe and instructions for making Seed Organiser see page 17.		

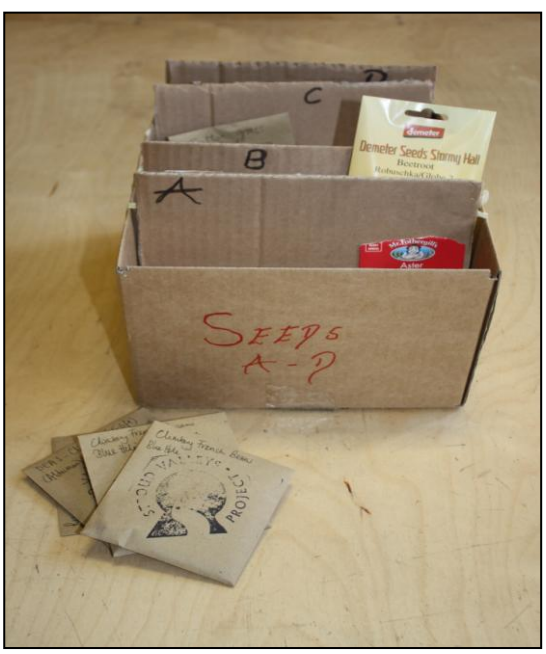
Recipe for Disinfectant Spray

Things you will need:
White vinegar (can be bought from Stroud Valleys Project Eco Shop, 8 Threadneedle Street, Stroud)
Water
Washing-up liquid
Tea tree oil
Plastic pump spray bottle

1. In a plastic pump spray bottle, add 1/4 cup white vinegar. Vinegar is a disinfectant and it shines up surfaces really well without leaving behind any build-up.
2. Squirt one teaspoon of plain washing up liquid into the spray bottle. The dish washing liquid should be just a plain soapy liquid, not one with added bleach or bleach alternative. The cheapest, scent free variety is best. Dish washing liquid is a good cleaning agent, and the soapy film will be kept to a minimum with the vinegar addition.
3. Add about 20 drops of tea tree oil to the mixture. This oil will have quite a strong smell, but tea tree oil is a very effective disinfectant. Shake to mix well. Finally fill the bottle with water. That's it!
4. You can use this all natural disinfectant cleaner on your work tops, microwave, floors, in your bathroom or wherever you would use a disinfectant cleaner.

Read more: www.ehow.com/how_4758237_own-green-disinfectant-cleaner.html#ixzz1UWxgrVWE

Instructions for Making a Seed Organiser



Things you will need

2 -3 Cardboard boxes (shoe boxes are ideal, number depends on how many seeds you have)

Extra cardboard for dividers

Pens, Sticky tape,

Old vegetable seed catalogues

Scissors

Glue

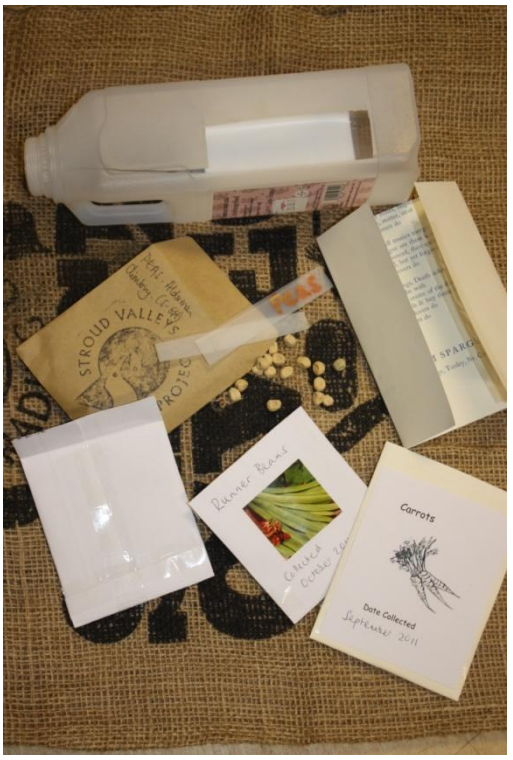
1. Cut out dividers that will fit comfortably into the box but are 2cms higher (should all be the same size for each box, you may wish to cut out a template for the children depending on their age & ability). How many letters of the alphabet you have in each box is up to you depending on number of seeds you have and the size of the boxes. We opted for 5 per box.
2. The dividers should be marked with letters either hand written or printed, with the first letter on the left hand corner, the letter on the next divider a little further right and so on.
3. Each divider can then be decorated using photos of fruit & vegetables cut out from the seed catalogues. For example, pictures of Beetroot, basil, on the B divider. This is a good way of children familiarizing themselves with different types of fruit and vegetables while also using literacy skills.

Session Plan

Term	Autumn	Date	September onwards	Week No	
Subject	**Collecting Seeds**				
Objectives	By the end of the session, children will be able to: • Understand that by letting crops flower you can get more seeds • Seeds need to be dried otherwise they will go mouldy				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	If left, many vegetables will go to seed and by collecting them you can save money & time, especially if you can share them with friends! In order to get the plants to flower and then produce seed they need to be left in the ground (this can be a problem if you are short of space.) Also you cannot collect seed from F1 Hybrids (look on the packet if you are not sure) because their seed will not produce the same plant again. It is also best to collect seed from plants that are growing a little distance away from other varieties of the same plant, otherwise you will end up with a cross (hybrid) between the two. It makes the most sense to collect seeds from those plants that are the most expensive to buy or from crops you hope to grow lots of next year.	
0.10	Brief introduction to activity, then Children have a go	1. Once the plant has flowered you can collect the seed. Below are just a few tips on the different types but it obviously depends on what you have in your garden! 2. **Dry seeds** e.g. salad veg, rocket, herbs (such as dill, fennel, caraway.) If the seeds grow in pods e.g. rocket, wait for the pods to go brown but collect before they drop. Empty the seeds out and dry before storing. If the seeds aren't in pods, cut of the flower heads and put them upside down in paper bags. Scrunch up the tops and give the bags a shake. The seeds should come out into the bags! 3. Seeds from **wet fruit** e.g. tomatoes, squash, cucumber, courgette. Let the seed ripen in the fruit then pick it, cut it open and remove the seeds. Spread them out onto kitchen paper to dry, then store. 4. Seeds from **pods** e.g. beans & peas. Leave the last few pods on the plant to dry thoroughly. If they are still wet, pick the pods and spread them out to dry indoors. When they are dry, empty out the seeds. 5. Put the dried **(important they are completely dry, otherwise they may go mouldy**) seeds in to labelled packets, then into the Seed Organiser (see notes.)	Baskets Envelopes Paper Bags Scissors Cutting knives suitable for children Chopping Boards Kitchen Towel **For resources for seed organiser see page 17 & seed packets see page 19**
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	For Instructions for making a Seed Organiser see page 17.		

Making Seed Packets



Things you will need

An assortment of small envelopes

Paper (can be scrap)

Pens, Marker pens Sticky tape

Old vegetable seed catalogues

Scissors

Glue

Washed plastic milk bottles –clear or white

1. To make your own packets. Cut an A4 piece of paper in half. Fold the two short sides of the paper to the middle and overlap slightly. Seal with tape. Fold up the bottom and tape again. Fold over the top, once the seeds and/or labels are inside. Then can be sealed with a strip of masking tape to allow resealing.

2. Decorate the envelopes with drawn pictures or pictures cut out from seed catalogues. The labels can be hand written or printed if you have access to computers. To make seed labels, cut out thin, rectangular strips from the milk bottles and write down the name of the seeds, pop them inside the envelope ready to be used.

Session Plan

Term	Summer/Autumn	Date	From June onwards	Week No	Ongoing
Subject	**Preservation - Drying Fruit & Vegetables**				
Objectives	By the end of the session, children will be able to: 1. Understand that fruit & vegetables will become rotten if left 2. Understand that it needs to be preserved in some way if it is to last longer 3. Drying is one method of preserving food.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Once fruit and vegetables are picked, unless they are eaten quickly, they will begin to go bad, so they need to be eaten while fresh or be **preserved**. Preserving is when food is treated to prevent decay and then it can be kept for future use. For example, you may have too many strawberries at once to eat in May and then none in the winter. But if you make the strawberries into jam you can eat them all year. **Drying** is one of the oldest ways to preserve food. People in warm, dry climates have found it easy to preserve their foods simply by spacing their produce out and letting the air take the moisture out of the food. Drying works by taking the water from the food so depriving micro-organisms of the moisture they need to survive and stopping them from spoiling the food. Properly dried fruits and vegetables will have 80-90 percent of their water removed. Because drying does not violently heat food, it does not destroy as many of the nutrients as canning or cooking. Dried foods can be reconstituted by adding water or often simply eaten dry. Common dried foods we eat every day include raisins, plums and beef jerky. Dehydration (drawing out water) is used to make packaged soups, coffee, tea and most spices.	
0.10	Wash hands, brief introduction to activities	The amount of moisture in the food effects how it is dried. If it has a high water content e.g. apples, it needs to be oven dried. If it has a low water content e.g. chillies, it can be air dried, which is much simpler. **Oven Drying** 1. Pick your ripe fruit **2.** Remove any damaged ones, leaves etc and wash. **3.** Leave berries whole. De-stone and halve plums & halve tomatoes. Slice apples & strawberries. Apples also need to be de-cored and dipped in lemon juice to prevent them going brown (pat dry with tea towel). 4. Place on a wire rack (best) or an oiled baking tray, evenly spaced without them touching. 5. Place in oven at lowest temperature, occasionally open the door to lower the heat. 6. Cook for several hours til it feels light & dry to the touch. 7. Allow to **completely** cool. 8. Put into airtight jars. Seal & store in cool, dark area for up to 4 weeks **Air Drying** This is well suited to chillies, herbs & de-podded beans **Chillies** – Place on a wire rack in a cool, dry, airy place (not the kitchen as too damp due to steam) for a few weeks. Or wearing gloves (keep hands well away from eyes) thread the chillies onto string and hang somewhere cool & dry. **Woody Herbs** - e.g. –Rosemary, sage, bay & marjoram. Make into bunches & hang somewhere cool & dry	Baskets or trugs Bowls of water Chopping boards Knives suitable for children (I have used normal table knives with a slightly serrated edge. They cut most veg except onions.) Apple corer Wire racks/Baking trays Oven Tea towels Air-tight jars String Needles (with blunt end if possible e.g. embroidery needles) Gloves (for chillies)
0.20	Children have a go		
0.50	Tidy up, wash hands, change, Leave		

Session Plan

Term	Autumn	Date	September	Week No	1
Subject	**First Ever Introductory Session**				
Objectives	By the end of the session, children will be able to: 1. Be familiar with a variety of fruit & vegetables 2. Know more about the other children in the group 3. Be familiar with the how the club is run				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, brief introduction to session	Who am I…A brief introduction to leader. Who are you? – Alphabet Memory Game – Each child comes up with a fruit or vegetable that begins with the same letter as their name (eg Amy Apple.) If children need help coming up with fruit/veg look through seed catalogues/books for ideas. First child says their name, next child says first child's name then adds theirs, then next says first two then adds their own until the last person (good if it is garden club leader) has to remember them all!	Seed catalogues, books
0.10	Brief introduction to activities	• Make name necklaces (leader keeps, collects at end of each session, hands back at beginning of sessions until familiar with names.) Don't wear when outside (strangling hazard) • Get Growing Gardening Bingo (see pages 22 & 23). • Get Growing Gardening Survey (see attached sheet) • Vegetable Sequencing Cards (see page 22).	Cardboard rectangles (label sized, with hole punched) String/wool, pens, pencils
0.50	Tidy up, discuss next week	Recap of session - Collect in name necklaces then have a quiz to see how many names garden club leader can remember! Say what they'll need to bring with them next week e.g. wellies, waterproofs, old trousers. Tell children what you will be doing next week.	
1.00	Leave		
Notes	Get Growing Gardening Bingo, Gardening Survey & Vegetable Sequencing Quiz are all designed to be good fun for the children but should also allow the garden club leader to see how much the children know about gardening and also allow the garden leader to see how much the children's knowledge progresses throughout the year.		

Gardening Bingo

Things You Will Need:

Gardening Bingo Sheets (see page 23 – you can put in any questions you like, we have just put in a sample selection)
Pencils, Clipboards (if no access to tables)

1. This is an ice - breaking activity and good in larger schools where the children might not be as familiar with each other. But regardless, it's a good way of finding out what the children know. Be prepared for it to be quite lively!

2. Each child has a bingo sheet & pencil, they then have to go around the rest of the group asking them the bingo questions, every time they get a yes to the question they write the person's name in the appropriate box (the same person can only be written in up to two different boxes.)

3. The first person who fills all the boxes says 'House' and is the winner!

4. Then discuss who's in the boxes. You can keep the sheets and play it again at the end of the year and see if anything has changed.

Vegetable Sequencing Cards

Things You Will Need

Vegetable sequencing cards (cut out & also laminated if you intend to re-use them.)

1. Divide the children into groups of up to 4. Give each group 2 – 3 different vegetable groups (pictures from seed, seedling, plant harvested vegetables, to cooked vegetables). In some of the cooked vegetable groups there are two options, a straight photo of the cooked vegetable or a trickier one of the vegetable incorporated into something else e.g a cake, it's up to the leader which one to use, it depends on the age & ability of the children. Muddle up the cards.

2. The children then have to get each vegetable in the right order from seed up to cooked vegetable. It can be quite difficult, particularly for younger children, so they may need to be with older children or more experienced gardeners. They get two points for each card (one point for getting the picture in the correct vegetable group and one point for getting it in the right place in the sequence!) You can then give them a score.

3. You can repeat the game at the end of the year seeing how they did and compare their scores. It's a good way of measuring any progress they may have made.

Gardening Bingo

Find someone who has eaten broad beans. Write their name below	Find someone who has made compost. Write their name below	Find someone who likes to eat peas. Write their name below 
Find someone who likes to eat carrots. Write their name below 	Find someone who likes to eat potatoes. Write their name below	Find someone who has planted seeds. Write their name below
Find someone who eats garlic. Write their name below	Find someone who likes digging. Write their name below 	Find someone who has grown tomatoes. Write their name below

Session Plan

Term	Summer/Autumn	Date	From June onwards	Week No	Ongoing
Subject	**Freezing Fruit & Vegetables**				
Objectives	By the end of the session, children will be able to: 1. Understand that fruit & vegetables will become rotten if left 2. Understand that it needs to be preserved in some way if it is to last longer 3. Freezing is one method of preserving food.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Once fruit and vegetables are picked, unless they are eaten quickly, they will begin to go bad, so they need to be eaten while fresh or be **preserved**. Preserving is when food is treated to prevent decay and then it can be kept for future use. For example, you may have too many strawberries at once to eat in May and then none in the winter. But if you make the strawberries into jam you can eat them all year. Freezing is one way to preserve food. It works by stopping most of the chemical and biological processes that slowly break down a vegetable once it is picked (www.preservefood.com.) Nearly any food, raw and cooked, can be frozen with a few exceptions such as lettuce and raw potatoes. Some require special preparation including cooking or blanching (a very short, sharp boil which destroys natural enzymes that can spoil flavour, colour & texture) and it is always best to use clean fresh produce.	
0.10	Brief introduction to activities, wash hands	**Freezing Soft Fruit e.g. Strawberries, Raspberries, Blueberries** **Tray Freezing** 1. Pick your ripe fruit 2. Remove any damaged ones, leaves etc and wash 3. Place the individual berries on a baking tray/s 4. Put the trays in a freezer 5. Label freezer bags with name of fruit & date 6. At next session spoon the fruit into the labelled freezer bags and return to the freezer. They should keep up to 6 months. **Freezing Vegetables*** There are 2 general methods, Raw freezing & Blanching. If the food, such as French beans, is to be eaten within 3 months, tray freezing can be suitable, see above. Otherwise try blanching 1. Prepare veg. Place in a pan of boiling water for 2 minutes if small, 4 minutes if larger. 2. Drain and plunge into a bowl of ice cold water (to prevent them from carrying on cooking) 3. Drain again and pat dry. 4. Place in labelled freezer bags and return to the freezer. They should keep up to 6 months.	Baskets or trugs Bowls of water Baking trays Freezer bags Marker pens Large pans Bowl with iced water Clean dry tea towels Freezer Bags Marker Pens
0.20	Children have a go		
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	*Which vegetables freeze best is a matter of trial & error! Some work best uncooked, others may need blanching and others are best incorporated into soups etc. It is good to remember that freezing destroys the structure of anything with a very high water content, such as raw lettuce, potato, courgette & cucumber. When they are defrosted they will become a mush! A good wet weather activity would be to get the children to tray freeze a variety of your garden produce, make predictions as to what will work best and then defrost at a later session and see how the produce fairs. They could work out why some produce freezes better than others.		

Session Plan

Term	Any	Date		Week No	Any
Subject	**Growing Microgreens**				
Objectives	By the end of the session, children will be able to: 1. Describe what is a microgreen 2. Plant a seed				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	**Microgreens** are greens, lettuces, and herbs that are harvested when they are quite young - generally when they are approximately 2.5cms tall. Any lettuce, salad green, or herb can be grown as a microgreen. They are simple to grow, and provide you with a quick harvest for not much work. You can add them to salads, sandwiches, or stir-fries, and it's much cheaper to grow your own than it is to buy them.	
0.10		1. Fill a container to within 2cms of the top. 2. Sow the seeds 0.5 – 1.5cms apart, in rows, so it's easier to mix and match. Cover with finely sieved compost (about 0.3-0.5cms deep) and use a sprayer to keep the compost just moist. 3. Place your container in a spot where it will get at least four hours of sunlight (but avoid strong sunlight). If you're growing them indoors, a south-facing window is best, but an eastern or western-facing one will do as well. 4. Do not let the soil dry out, and be sure to remove any weeds so that the tiny greens don't have to compete with them for water and nutrients.	Containers (should be at least 5cms deep. You can even use recycled plastic takeaway containers as long as you punch drainage holes in the bottom.) Drainage Trays Seeds (see notes below) Potting Compost Water Spray Labels/Pen/Chinagraph Pencil
0.50	Tidy up, wash hands, change. Leave		
Notes	Varieties to try - Amaranth, Arugula, Basil, Beet greens, Beetroot, Broccoli, Buckwheat, Cabbage, Chicory, Daikon Radish, Endive, Garlic Chives, Golden Purslane, Kale (try 'Cavolo Nero' or red-leaved types), Kohlrabi, Land Cress, Lettuce (any), Linseed, Mibuna, Millet, Mizuna, Mustard, Orach, Pak choi, Parsley, Peas, Perilla, Radish greens, Rocket, Salad Mix, Shungiku, Silverbeet, Spinach, Sorrel, Sunflower Tatsoi, Watercress. Grow at the appropriate time of year for optimal germination of the seed. Suttons (http://www.suttons.co.uk/Gardening/Vegetable+Seeds/Featured+Vegetable+Seed+Ranges/Windowsill+Gardening/Rocket+Victoria_150400.htm#150400) sell Rocket Microgreens Seeds – Victoria, which can be grown year round. The best time to harvest microgreens are when they've developed their first set of true leaves (the first ones are seed leaves, and don't look anything like the actual leaves of the plant), which is generally about 10 days to 2 weeks after planting. To harvest, simply snip the microgreens just above soil level. You won't be able to get additional harvests from one planting of microgreens. This is because the plants haven't had much time to develop, and as you're snipping off everything except the very bottom of the stem, the plant has no way to generate new growth. You can plant another crop after harvest by simply scattering fresh seed and covering it with soil. You don't need to remove the old roots; they are good sources of organic matter.		

Session Plan

Term	Autumn	**Date**	Any time	**Week No**	
Subject	**Pot Cleaning - INSIDE/OUTSIDE**				
Objectives	By the end of the session, children will be able to: 1. Understand why we need to tidy up 2. Use & care for equipment				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	It is important to tidy up gardens to make them safe places for people & also to make sure that pests & diseases aren't harboured in the pots ready to infect seedlings in the spring.	
0.10	Brief introduction to activities	1. Knock out any old soil (outside!) 2. Clean in buckets of warm soapy water. Rinse in clean water. 3. Allow to drain if space allows, otherwise dry with old tea towels. 4. When finished stack them tidily away. 5. If you have storage space, children could design & label shelves for different sized pots *.	Buckets of warm soapy water, (waterproof painting aprons (optional) Small scrubbing brushes or old toothbrushes Disinfectant spray (for recipe see page 17) Old tea towels
0.20	Children have a go		
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	* Sorting pots is a useful exercise for smaller children. In a group discuss how you will sort them. Is it useful to sort them by colour? If you are sorting by size, measure the diameter of each pot with a ruler so that you know what size each pot is. Label each stack of pots with a sticky label. Ask the children to note whether it is a full sized pot or a half sized pot; deep or shallow? Use coloured hoops and sort some of the pots into a 3D Venn diagram. Try single sets for each size. Then look for intersecting sets, pots in half sizes for example but with the same diameter. You could then try sorting pots by circumference rather than diameter.		

Session Plan

Term	Summer/Autumn	Date	From May onwards	Week No	Ongoing
Subject	**Preserving - Jam**				
Objectives	By the end of the session, children will be able to: 1. Understand that fruit & vegetables will become rotten if left 2. Understand that it needs to be preserved in some way if it is to last longer 3. Making jam is one method of preserving food.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session, wash hands	Once fruit and vegetables are picked, unless they are eaten quickly, they will begin to go bad, so they need to be eaten while fresh or be **preserved**. Preserving is when food is treated to prevent decay and then it can be kept for future use. For example, you may have too many strawberries at once to eat in May and then none in the winter. But if you make the strawberries into jam you can eat them all year. **Making Jam -** In a high enough concentration sugar can be a preservative because it desiccates (dries out) the cells of any microbes e.g. bacteria, slowing their growth. Due to its high sugar content, jam is an example of a sugar-based preservative, as are maple syrup & honey. The reason why jam can go mouldy on the top layer is because it has come into contact with moisture in the air which re-hydrates (returns water to) the microbes. Read more - http://wiki.answers.com/Q/Is_Sugar_a_Preservative#ixzz1V6FK6PYJ	
0.10	Making Jam together	**Warning! JAM MAKING INVOLVES COOKING AT HIGH TEMPERATURES, EXTRA CARE IS NEEDED!** **Easy Microwave Jam Recipe (www.allotment.org.uk)** 1. Sterilise your jam jars by washing them thoroughly in hot, soapy water. Then place them in a moderate oven (250˚F/120˚C/gas mark 1) until they are dry. 2. Place a saucer in the freezer. Wash and prepare fruit and place in a LARGE microwavable bowl with lemon juice. 3. Microwave on high for 4-5 minutes until fruit softens slightly. 4. Stir in sugar and microwave on high for 20 minutes stirring occasionally. 5. Drop small amount onto cold saucer and check for setting point(for more info see 4 on hob top method.) It will be slightly thinner than normal. Add 5 minutes more cooking on high if necessary (can vary for different fruits). 6. Leave to stand for 5 minutes. 7. Spoon into hot sterilised jars, seal and label. Should make 2 average sized jam jars.	**Ingredients** 500g strawberries (works equally well with other berries too) 1/4 cup lemon juice (approx 1 and 1/2 lemons) 2 cups sugar (1lb) Jam jars Bowl of hot soapy water & gloves Oven Saucer (freezer where available) Bowl of water Scales Large microwavable bowl Knife & lemon squeezer Wooden spoon Discs of waxed paper Labels
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	We have opted for a microwave jam recipe as most schools will have a microwave, even if it is in the staff room, and they are relatively portable, so can be moved to where you are holding the gardening club. This jam will seem runnier than normal but cooking continues during standing time and it sets well once in jars and cooled. It works well with strawberries and gooseberries. A traditional hob top method is also included on our website, stroudvalleysproject.org.		

Session Plan

Term	Autumn	Date	From September onwards	Week No	
Subject	**Preserving – Chutneys**				
Objectives	By the end of the session, children will be able to: 1. Understand that fruit & vegetables will become rotten if left 2. Understand that it needs to be preserved in some way if it is to last longer 3. Making chutney is one method of preserving food.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session, wash hands	Once fruit and vegetables are picked, unless they are eaten quickly, they will begin to go bad, so they need to be eaten while fresh or be **preserved**. Preserving is when food is treated to prevent decay and then it can be kept for future use. For example, you may have too many strawberries at once to eat in May and then none in the winter. But if you make the strawberries into jam you can eat them all year. **Preserving with Vinegar (Pickling)** Vinegar contains acetic acid, but is not considered a harmful chemical and is used commonly as a natural food preservative. It is the acetic acid that kills microbes e.g. bacteria and slows down food spoilage. There are different types of vinegar depending upon the sugar base from which they have been made.	
0.10	Making No Cook Chutney all together	No-Cook apple chutney (www.edibleplayground.co.uk) 1. Peel, core and then grate the apples. Adding a squeeze of lemon juice to the grated apple to prevent it turning brown. 2. Grate the onions (have a spoon ready to suck so there are no tears!) 3. Very finely chop the dates and cut the sultanas in half. 4. Put the fruit and onions in a large ceramic bowl, add the sugar and vinegar and stir well. Cover with a cloth. 5. Leave in a cool place for 3 days*. Stir every day. 6. Sterilise the prewashed jars by putting them upside down in the oven and turning the heat on to 250˚F/120˚C/gas mark 1. When the oven is up to temperature, turn it off and leave the jars inside to cool gradually. Sterilise the lid by boiling for 5 minutes in a saucepan of water. You need rubber lined lids for chutney as vinegar will make metal lids rust. 7. After 3 days, pour the chutney into jars and leave to mature for 2-3 months **Caution**: **The level of acidity in a pickled product is as important to its safety as it is to taste and texture. Do not alter vinegar, food, or water proportions in a recipe. There must be a minimum, uniform level of acidity throughout the mixed product.**	**Ingredients** Per pair of children 1 large cooking apple (around 200g) 2 small or 1 large onion (around 200g) 150g dates 50g sultanas 200g soft brown sugar 260ml malt vinegar Scales Apple peelers Graters Chopping knives & boards Large bowls Tea towels Spoons Oven Jars Labels
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	* At this stage, there are a couple of options. The club leader could take the covered mixture home and bring it back the next week for the bottling or it could be sent home in sealed plastic containers with the children. Alternatively, you could ask a member of staff at the school if they could get the children to stir the chutney at playtime each day until the next session.		

Session Plan

Term	Autumn	**Date**	October onwards	**Week No**	
Subject	**Planting Autumn Garlic**				
Objectives	By the end of the session, children will be able to: • Plant garlic cloves correctly				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Garlic belongs to the onion family. Its close relatives include the onion, shallot, leek & chive. It's thought to have originated from Central Asia. It is mainly used to flavour food but has lots of medicinal qualities and is believed to kill microbes such as bacteria. It was known to the Egyptians and the sticky juice within the cloves is used as an adhesive in mending glass and porcelain in China (Wikipedia.) China is currently the biggest producer of garlic. Plant garlic cloves in midwinter (ideally before Christmas) in a sunny, well-drained place to ensure your best harvest the following summer. In mild regions, the cloves can be planted out in prepared ground or simply plant into seed trays and set out the young plants in March.	
0.10	Brief introduction to activity, then Children have a go	1. Pass around the cloves of garlic so the children can see them - look at size and shape – they are like the ones used for cooking but specially bred so that they are free of disease. You can try planting ones bought from the supermarket but the results may not be as good. (Could do a trial to compare.) Prepare the ground. It should be fertile but not recently manured. Dig it lightly & rake. Remove any large stones & lumps. 2. Break garlic bulbs into individual cloves ready for planting. Remove most of the papery outer layers but take care not to damage the cloves as this can lead to rotting. 3. In mild regions, simply push the cloves into the soil (approx 2cm deep) so that the tip of each one is just below the surface. Plant 10-20cm apart, flat end down. Water well. Cover them with cloches in frosty weather. 4. In cold areas and to speed up the growth-rate of the crop, plant the cloves in divided seed trays of multi-purpose compost. Water well and place trays in a cool greenhouse or cold frame to grow on. 5. Garlic plants grown in trays will be ready to plant out in March or April. Use a trowel to make a hole and set the plants at the same level as they were growing in the trays. see www.gardenersworld.com/how-to/projects/garlic-grow/	Garlic bulbs Spades/ Forks Rake Trowels Seed Trays Dibber/marked garden cane for spacing Labels Watering can **You can record the progress of the garlic growth on our Record Sheet (see website)**
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	**Harvesting (June - August)** Harvest when the leaves start to turn yellow, using a digging fork. The earlier it is in the season, the milder it will be. Use it immediately. For more info see www.bbc.co.uk/gardening/basics/techniques/. For Gardening Club Record Sheet see website.		

Session Plan

Term	Autumn	Date	September	Week No	
Subject	**Planting Autumn Onion Sets**				
Objectives	By the end of the session, children will be able to: • Plant onions correctly				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Onions belongs to the Alliaceae (onion) family! Its close relatives include garlic, shallot, leek & chive. It's thought to have originated from Central Asia. There is a lot of historical evidence regarding the onion. It has been found in pyramids and the Egyptians worshipped them! It was also used by Greek athletes 'to lighten the blood' and Roman gladiators to firm up their muscles. It is mainly used to flavour food but they also are reputed to have lots of medicinal qualities such as reducing inflammation from bee stings & killing microbes such as bacteria (Wikipedia.) Common onions are normally available in three colours: yellow, red, and white. China is currently the biggest producer. Onions can either be grown from seeds or sets (tiny bulbs). Seeds are cheaper but more labour intensive and they are more prone to disease. Sets are easier, ready earlier & less prone to disease. Also they are more forgiving of less than perfect soil (could do a seed v set trial to compare). Like sunny, well aired place with medium rich soil (dislikes fresh manure) that holds water but has good drainage. Avoid sets that are 2cm or larger as they are prone to bolt (go to seed early). Radar & Buffalo are good varieties as is Electric (red.)	
0.10	Brief introduction to activity, then Children have a go	1. Pass around the onion sets so the children can see them (look at size and shape – they look a bit like the ones we eat but smaller.) Prepare the ground. It should be fertile but **not** recently manured. Dig it lightly & rake. Remove any large stones & lumps. Weed. 2. Gently push the sets into the soil (approx 2cm deep) pointed end up & so that the tip of each one is just below the surface. Plant 10-15cm apart, allowing 30cm between rows. Water well initially. 3. If you have any left-over sets they can be planted so they are almost touching and the young green leaves cut as spring onions 4. Make sure that they are kept weed free (as onions are shallow rooted they cannot cope with competition so may bolt.) Once they are established they do not need a lot of watering unless they show signs of wilting.	Onion sets Spades/ Forks Rake Trowels Dibber/marked garden cane for spacing Labels Watering can **You can record the progress of the onion growth on our Record Sheet (see website)**
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	**Harvesting (May - June)** Harvest when the stems start to naturally collapse and the leaves 'rustle.' Using a digging fork, lift the onions from underneath while pulling the bulb from the neck. If possible leave to dry in the sun. Leave on the leaves if you want to make an onion Rope, see below. **Make an Onion Rope** – Cut a 60 – 75cm length of sturdy, natural-fibre garden twine. Make sure that you only use undamaged onions otherwise they may spread mould to the others in the rope. Firmly tie in two onions at the bottom, then wind their leaves firmly up the string. Then add two more on top following the same procedure with each new onion resting on the one below until you reach the top. Then tie a firm knot at the top. Hang up somewhere dry. For Gardening Club Record Sheet see website.		

Session Plan

Term	Autumn	Date	October - December	Week No	
Subject	**Sowing Broad Beans**				
Objectives	By the end of the session, children will be able to: • Identify what is a legume				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Broad beans (sometimes also known as fava beans) are among the most ancient plants in cultivation and also among the easiest to grow. It is believed that along with lentils, peas, and chickpeas, they became part of the eastern Mediterranean diet in around 6000 BC or earlier. They are legumes (plants which have special bacteria in their roots which help it 'fix' or get nitrogen from the air. Nitrogen is a fertiliser and so helps the bean plant to grow). Well-known legumes include alfalfa, clover, peas, beans, lentils, lupins, carob, soy, and peanuts. Because broad beans are hardy they can be sown in the autumn or spring. If they are sown in the autumn they hopefully should avoid the blackfly in the spring (when they are a real pest).but they do run the risk of being lost in very hard winters. However, if they are killed, you can do another sowing in the spring. Best autumn planting varieties – Super Aquadulce, Aquadulce Claudia & The Sutton. They like sunny, sheltered positions.	
0.10	Brief introduction to activity, then Children have a go	1. Pass around the beans so the children can see them (look at size and shape – they are just the dried version of the bean that you eat.) 2. Prepare the soil where you are going to plant the beans. It needs to be dug over and either leaf mould or well rotted manure added. 3. Sow the beans 5cm deep and 23cm apart in staggered blocks 4. Water Or alternatively plant in pots and then plant out as young plants 1. Sow 1 bean per 7cm pot 2. Water & place in a frost-free place but avoid heated places as they won't germinate. 3. Harden off (introduce to being outside gradually) before planting outside, 23cm apart in prepared beds (see above.)	Super Aquadulce, Aquadulce Claudia or The Sutton Beans Spades/ Forks Leaf mould or well rotted manure Dibber or cane with 5cm & 23cm marked on it Pots Labels Watering can **You can record the progress of the beans growth on our Record Sheet (see website)**
0.50	Tidy up, wash hands, change		
1.00	Leave		

Notes

Aftercare - pinching out and staking

As soon as young beans appear at the base of the plant it's time to 'pinch out' the growing tips. Go to the very top of the plant and remove the tip with two leaves attached, you can compost these or steam them as a leaf vegetable.

Spacing shouldn't be compromised as good airflow is essential for combating fungal disease.

As the plants grow you will need to stake them to prevent the fragile stems from bending or breaking and pods being damaged. Stake after the seedlings are up and use anything from pea sticks to bamboo with string to support the plant.

Dwarf varieties will need less space and less staking and are well worth considering especially on windy or small sites.

Harvesting (April – June)

Pick from the bottom up when ripe and continue to harvest frequently. Finger thick beans can be eaten whole or wait until the pod bursts open to harvest the fully ripe beans inside.

From www.bbc.co.uk/gardening/basics/techniques/

See Drying session plan for how to store (p 20.) For Gardening Club Record Sheet see website.

Session Plan

Term	Autumn	Date	Sept – Early Nov	Week No	
Subject	**Storing Apples**				
Objectives	By the end of the session, children will be able to: 1. Understand the different ways of storing/using apples 2. Understand that only undamaged fruit can be stored 3. Identify the ideal storage conditions and reason why.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Apples can be eaten straight away, used in cooking or stored whole ready to be used at a later date. When storing apples it is important that you only select those which are undamaged, otherwise they may spread mould to the others (hence phrase 'one bad apple...'). Any that are slightly damaged can be used immediately for cooking or juicing.	
0.10	Clean & wrap the apples	1. Wash & dry the apples. 2. Wrap individual eating apples in tissue paper or cooking apples in newspaper (to stop them drying out) then place in a tray/ box with plenty of ventilation gaps. The apples can touch. The cardboard fruit trays with indentations that you find in supermarkets are ideal to help add separate layers.	Bowls, water, tea towels Old newspapers, tissue paper Supermarket cardboard fruit trays Crates/boxes with plenty of air gaps
0.45	Take apples to suitable storage site	The boxes of apples then need to be taken somewhere cool (below 10˚C) and dry. They also need to be stored where 'wildlife' (ie rats & mice!) can't get at them.	Suitable store
0.50	Tidy up, wash hands, change. Leave		
Notes	The apples can then be left and used throughout the winter. Occasionally check the boxes for signs that any apples are starting to go off. If any have started to go mouldy remove them. For apple recipes see recipe section and website.		

Session Plan

Term	Autumn	**Date**	September	**Week No**	
Subject	**Potting up Strawberry Runners**				
Objectives	By the end of the session, children will be able to: 1. Identify that plants can reproduce by sending out runners 2. Pot up strawberry runners 3. Understand that you can get new plants at no cost.				

TIME	CONTENT	DETAILS	RESOURCES
0.00	Arrive, register, get changed, brief introduction to session	Show a strawberry plant with a runner coming off it. Explain that strawberries reproduce by sending out stems or 'stolons'* at the end of which new, small plants called runners form. These can then be planted and you get a new plant. Constantly getting new plants is great because strawberry plants only crop well for 3 – 4 years, after which time they need to be replaced.	Strawberry plant with runner
0.10	Brief introduction to activity	Demonstrate how to pot up a runner. 1. Choose 4 or 5 of the healthiest runners from each plant. Remove any others. 2. If runners are rooted, dig up and pot. 3. If they are unrooted, fill up a small pot with compost, place runner on top of compost and anchor in with wire (shaped like upside down u) or with an opened up paper clip with the top broken off. 4. Once the runners are rooted cut the stolon* & plant out.	Trowel Wire/paper clips Soil Pots
0.20	Children have a go	As above. Once the plants are potted children can label (and take home if desired) then water in well.	Trowels, wire/paper clips. Soil, pots, watering cans, labels
0.50	Tidy up, wash hands, change		
1.00	Leave		
Notes	* A stolon is a horizontal shoot from a plant that grows on top of or below the soil surface with the ability to produce new clones (identical to parent plant) of the same plant from buds at the tip.		