



Bath and North East Somerset Director of Public Health Award

Early Years Growing, Gardening and Nature Exploration Toolkit





**Please note:**

This Toolkit has been produced to offer settings a useful resource in order that they can plan and carry out gardening and growing activities. There are many sources of information, websites and companies providing gardening related products and activities.

This Toolkit is for general information purposes only and the inclusion of information or details of specific companies does not imply endorsement in any way. It remains the responsibility of all settings to ensure that they research and access information and resources best suited to their own purposes and the safety of their setting.



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We hope this toolkit will help you support children and families to extend their learning, develop good habits and have fun!



Background

There is much evidence to suggest a dramatic decline of children's relationship with the natural environment, coupled with data that shows both locally and nationally an alarming number of children are starting school an unhealthy weight.

There are many factors attributing to this but early years settings and schools are well placed to provide both access to outdoor spaces and experiences that shape physically and emotionally healthy behaviours.

We know children learn best from their experiences, the activities they are involved in and the attitudes of the people around them. Provision, modelling and activities within our settings and schools should embed healthy lifestyle messages rather than trying to explicitly 'teach' them.

Settings therefore have a responsibility, not only to provide balanced and nutritious food for meals but also to provide an environment where children can explore food in various ways with positive encouragement and support.

Gardening, growing and exploring the outdoors also provides endless opportunity for children to be physically active.

See the ['Early Years Cookery & Food Play Toolkit'](#) for more information and guidance.



Why concentrate on growing, gardening and nature exploration in early years?

Providing growing and gardening opportunities for babies and young children will enable them to connect with the living environment, something that not all children have access to often enough. Regular hands on experiences with plants, animals and insects provide an essential part of learning and development as well as supporting children's emotional and physical health and wellbeing.

Enabling children to get outdoors more and experience the natural world will support them to flourish in many ways and offer a wide range of experiences including:

- **Encouraging the exploration of different foods**
Children who are involved in preparing the soil, growing seeds, planting seedlings, caring for fruit and vegetables will be more motivated to find out what the food tastes like when it has been harvested. You can incorporate your harvest into cooking/tasting activities.
- **Providing a variety of ways to be physically active**
Children will have the opportunity to dig, rake and plant as well as lots of lifting and carrying, pushing wheelbarrows and watering. These activities will not only help to develop their fine and gross motor skills but also offer physical activity for exercise too.
- **Improving their social skills**
Children will be supported to take turns, share tools and resources and work as part of team to achieve a goal together. They can also start to think about others in the wider community – if there is a glut of produce this can be shared with other community groups, perhaps even be a fundraising project!
- **Using all of their five senses**
Children can explore plants that stimulate all of the senses. When planning your gardening area think about the colour, shape, smell and texture.



- **Awareness of the world around them**
Children will have opportunities to learn where their food comes from, what makes plants grow, the lifecycles of plants and animals, understanding of seasons, the weather, wildlife and recycling through your gardening projects.
- **Building self confidence**
There can be a huge sense of achievement in gardening when you can see what your 'labours' have produced!
- **Developing a sense of time**
Some plants grow fairly quickly but they are not ready immediately. Being involved in growing lets children understand more about the necessity of waiting for some things, particularly with plants where they can see new growth each day and are rewarded with the harvest at the end.

This is not an exhaustive list but does show a wealth of benefits to providing regular gardening and growing experiences which should be embedded into your continuous provision.

Supporting research

The National Foundation for Educational Research (NFER) asked the Royal Horticulture Society (RHS) to assess the impact of school gardening on learning. While this research was based in schools it is expected that similar results would be found with early years settings.

Many benefits were highlighted, including evidence of improvements in eating patterns, with a greater willingness amongst children to try new things and to eat a wider range of fresh vegetables and fruit – a willingness that extended into their lives outside school.

It also saw examples of physical activity outside participation in traditional sports and shows a number of instances where the garden at school was regarded as a safe place to develop and foster emotional resilience.

The full report can be accessed [here](#).

The [National Trust](#), [Play England](#), [Project Wild Thing](#) are all good reference points if you would like to find out more about the decline of outdoor play.



Setting up your 'garden'

Your setting's garden can be a vast open space or a window box, either way you will need to plan how to set it up and sustain your gardening projects. How will you embed gardening into your continuous provision for all?

Many of the learning opportunities which settings already plan for can be achieved using gardening and nature exploration as their vehicle. Growing and gardening experiences will support the principles and many aspects of learning, outlined in both the Statutory Framework and the 'Development Matters' EYFS Guidance (Early Education 2012).

The idea of this toolkit is to support settings with ideas, resources and further signposting to help provide a wide variety of valuable, positive experiences, involving gardening, growing and exploring nature.

The most common obstacles for not providing growing and gardening opportunities are: lack of space and support; lack of time; the cost and the expertise. All of these can be overcome with reflective practice, careful planning and enthusiasm. With such rich benefits from providing these opportunities; we cannot afford not to give them more priority in our settings.

Recruiting volunteers

Have you got keen gardeners in your setting's community? Parents/carers, grandparents and other extended family members may be able to help on a regular or one off basis? Getting support and advice from others can be the best resource of all for your setting as well as offering children wider community experiences.

Even if there is little previous experience or knowledge anyone can be involved and you can learn together. When starting out, make sure you plan how to recruit and use your adults well. They will be an invaluable resource to your project!

Thinking about your space

Don't be put off if you only have a small space. There are many ways to grow with little or no space, whether you use hanging/wall mounted containers or pots and grow bags you can grow something almost anywhere.



If you would like children to experience a bigger space or gardening on a larger scale, check out your local allotments or community buildings. Perhaps the church hall, library, residential home, community centre has a patch of land you could use or share with another group. Often other groups want to start a gardening project but are worried about the lack of people or time. Joining together with youth groups/Brownies/ Scouts etc. could mean you all pool your resources and bring the community together more.

Organise storage close to your growing areas to give children easy independent access to all the gardening equipment. Mark shelves and containers so that children can get into the habit of returning cleaned equipment to the right place after use.

Thinking about time

- Don't begrudge time spent exploring the garden and growing it offers so many possible learning opportunities (see Appendix C 'Links to the EYFS and Development Matters').
- Get organised before you start an activity with the children have everything to hand before you start or get children to help with the preparation.
- Work with small groups at a time.
- Match children's attention spans by making planned experiences short.
- As children get older, they can concentrate for longer and you can move on to more complicated gardening tasks.
- Giving different groups of children different tasks to make one combined end result e.g. one group to dig the soil over, another to plant the seeds, another to water them etc.
- Allocate one crop to each key group so that the garden comes together quicker than trying to get all children to do each thing.

Thinking about cost

- Gardening resources should be considered just as important as all other resources you buy for the setting e.g. paint and paper because of the valuable learning and positive health outcomes associated with them.
- If finance is an issue, consider asking for donations of seeds/tools etc.
- You could ask parents/carers to think of the setting when they next go to the garden centre (or supermarket); asking them to bring in one item to keep the resources stocked e.g. carrot seeds; lettuce seeds; bag of compost etc.



- Organise fundraising activities to raise money to get you started then sell your produce when you harvest it to reinvest.

Helpful hints and tips

When gardening with children, it's a good idea to have a separate digging area available for children if you can so that they can practice with tools and techniques (for example, digging and raking) this will avoid the vegetable beds getting damaged. Some children will enjoy digging in the garden above all other gardening activities!

Encourage all children to dig in the dirt and offer an appropriate range of tools to do so. A large spoon may be suitable for the younger children in this age group and mud pies are always a winner – a mud kitchen could be a good addition to your outdoor area.

Ensure children have clothing appropriate to the weather conditions, especially wellies, waterproofs and warm clothes. Think about protection from the sun too with sun cream and hats. Gardening gloves could allow children to take part in more gardening activities but this perhaps should be more about avoiding prickles and scratches rather than stopping them getting dirty.

Gardening is a good way to encourage those children (and parents/carers) who are worried about 'messy' play and getting dirty hands. If clothing is an issue, ask for old shirts to be donated. Children can wear these over their own clothes whilst gardening – they are often more flexible and comfy than plastic aprons which can be off putting to some children.

Provide hand-washing facilities near and encourage children to wash their hands when they are finished and always before eating and drinking. You also need somewhere to wash mud from wellies, tools and equipment too.

There are some risks associated with soil mainly bacteria arising from animal faeces. Handwashing is one of the most important ways of controlling the spread of infections and bacteria. The recommended method is the use of liquid soap, water, and paper towels. Information is available from the [Health Protection Agency](#).

Any existing cuts or open wounds should be completely covered before gardening. If during the activity a child receives a puncture injury, which



may have become contaminated with soil or manure the wound should be thoroughly washed and parents should be reminded to check their children are up to date with their vaccination schedule (Tetanus boosters are offered at age 3 and 13 yrs). [Information here on vaccinations](#).

Tools and resources

Children's gardening resources are available from many suppliers. High quality, wooden/metal resources rather than cheaper plastic resources will be a good investment in the long term. Child size tools and garden equipment is important to allow children to handle them successfully although the more proficient/older they get adult size equipment will offer them more physical challenge.

A list of some of the items that you will probably need to source is given below. You may be able to get some of these items donated to the setting by families, local community, local garden centre or farm/farm shop:

- flower pots
- seed trays, from large to small
- potting compost for containers or loam top soil for growing beds
- watering cans and buckets
- twine, canes, plant labels
- child-sized long-handled tools for digging, raking and sweeping
- child-sized hand tools – trowels, spades, dustpan and brush
- child-sized wheelbarrows
- children's gardening gloves

Related additional resources

- bug pots
- magnifying glasses
- binoculars
- mark making tools – chalk, charcoal, crayons, brushes, pencils

'Green' and cash saving ideas

- Reuse old plastic pots and containers (with holes in the bottom) for plant pots.
- Use other old/used objects as larger growing containers such as sinks, baths and tyres. (Avoid treated railway sleepers when building beds as these should not be contact with edible crop.)



- Ask parents and the local community to donate plants, cuttings and seeds.
- Recycle natural waste in the setting using a compost heap and/or wormery. This will go on to supply you with fertiliser for the garden and offer another great opportunity for children to see how worms are invaluable.
- Make herb and plant markers from lolly sticks
- Some old adult tools may be able to be used by older children in your setting – you can always cut the handle down to size.

What to grow and when?

Research which seeds and plants grow best in your local soil and what needs to be planted at the specific time of the year. You want to try to ensure success to avoid disappointment. When you are planting things to eat make sure you are also thinking about how you will cook them, include them in recipes and share with families at home.

Grow fruit, vegetable, flowers and plants. Make sure you choose a few plants that will produce a good harvest for your children to pick, wash and eat straight away.

Good choices to taste include:

- Lettuces
- Radishes
- Tomatoes
- Peas and beans

Start from seeds – at least some of the time! While it's a convenient to buy small plants, children will learn more by seeing the complete growing process. The care given to growing seeds and nurturing the seedling are an important part of the gardening experience and ensures children learn about the whole life cycle.

Make the job of planting seeds easier by planting into cardboard egg cartons or homemade newspaper pots. When it comes to transferring the seedling to the soil, cut out each egg partition and let the child plant the whole thing into the ground. The carton will disintegrate and the seeds/seedlings will not be damaged. If using newspaper pot, it is easily unwrapped by little fingers.



Collect seeds from things that have been eaten by the children at snack/mealtimes and try to grow them. Try apples, lemons, grapefruits, limes and tangerines (you may eventually be lucky enough to get fruit but this will take years).

Grow vegetables which have large seeds as they are easy and enjoyable for children to handle. Vegetable with large seeds include broad beans, mange tout, peas, runner beans and squashes.

Good plant examples include:

- Sunflowers
- Marigolds
- Pansies
- Nasturtiums

See Appendix A for planning support.

Creating a wildlife friendly garden

If you want to encourage wildlife and birds to your garden think about where you want them to go – don't put your bird feeders in the middle of your vegetable patch! Plan carefully and protect your crops with scarecrows and bird frighteners while encouraging the birds to another part of the garden.

Ponds will attract a wide range of wildlife to your garden. You will need to think about safety before building one. You can cover a pond with a metal grid so that children are unable to fall in. Risk benefit assessment is key when thinking about water in your garden.

A garden is an excellent way for children to discover minibeasts and other wildlife. Think about how wildlife can be included in your garden and how children can be encouraged to take a closer look at what they find.

- Make bird boxes and feeders
- Include a bird bath
- Buy a bird book to help children identify what birds they see
- Create a log pile which will attract a wide range of wildlife
- Provide magnifying glasses and bug viewers



- Use binoculars for bird spotting and seeing what's going on up in the trees
- Record the noises that you hear in the garden – can the children identify them?
- Think about feeders for any other wildlife such as squirrels and hedgehogs.
- If you have space, include a pond for tadpoles, frogs and water insects – don't forget a thorough risk benefit assessment though when thinking about water.
- Grow flowers and plants that attract butterflies, bees, ladybirds and other insects. Study them, paint them, dress up as them and move like them.

See Appendix B for more information on how to create a wildlife friendly garden.

Composting

Have a compost heap for all your fruit and vegetable waste and the green garden waste. You can buy a readymade compost heap or make one. If you make one you can add a Perspex front so that children can see what is going on inside.

More information on BANES compost bin offer:

www.bathnes.getcomposting.com

Wormeries

Children will enjoy the whole process of the wormery, particularly collecting them!. Make sure you use the opportunity to look at worms more closely – how do they move, what do they do, how do they eat?

You can purchase readymade wormeries or make your own. If you use a wooden box to build your wormery check that the wood hasn't been treated in any way, treated wood can kill your worms.

More information on BANES Wormery offer:

www.bathnes.getcomposting.com



Ten Top Tips for Talking

1. Be on the same level as the child

Be on the same level as the children when taking part in organised gardening activities and nature exploration.

2. Notice and encourage all children's attempts to communicate

This could be a gesture, a look or words.

3. Watch and listen

Watching what the child is interested in and listening carefully to what they say.

4. Use a clear, lively and animated voice

It will enthuse and motivate children to communicate.

5. Match your language levels to the child's

If a child understands/uses 2 information carrying words you do the same e.g. Child: "seed in the mud" – Adult: "yes water on the plant".

6. Follow the child's lead

Let them lead where the conversation is going and support their communication to sustain it and include others if appropriate.

7. Copy what the child says and correct mistakes by modelling

Copy their word or phrase or model back what they say e.g. "I dig it" – "yes you dug the soil with your spade".

8. Extend the child's language

Add one extra word to their phrase e.g. Child: "It got peppers!" – Adult: "It's grown red peppers".

9. Use more comments than questions

Label what the child is doing or comment on what the child is doing instead of asking them.

10. Take turns and keep going

Repeat what a child says and add a comment or use a gesture to indicate they can take another turn to keep the conversation going.



Planning for activities

It makes sense to provide, in addition to snack and mealtimes, plenty of opportunities for children to become familiar with a wide variety of foods through growing, handling fruit and vegetables, smelling, tasting, role play and investigation as well as songs, rhymes and stories.

All learning opportunities should be planned with the children's individual needs, interests and developing learning characteristics in mind. Most of the play should be open-ended, with some experiences - e.g. planting seeds and harvesting crops being adult-led and small group based.

Ideally small groups should be led by the Key Person to ensure experiences remain suitable and tailored to the individual children. Small group activities are great for developing language and communication skills.

See Appendix A for planning support.

Exploring food through gardening and growing

Children will show a greater willingness to try new foods that they have been accustomed to seeing and exploring in their environment (Lynch 2102; Children's Food Trust Jan.2012, p51)

Some children will only recognise food items by their manufactured product, not realising chips and mash are actually potato. They may never have seen something raw and may not associate the cooked item with it at all. Do children know peas come in pods or understand that tinned sweet corn actually comes from the cob?

Growing and gardening will give children opportunities to explore the varieties available and where they come from. When planting seeds you may wish to have a grown example at hand to show children what they can expect to grow.

An important aspect of finding out about food and making informed choices is to learn about where it comes from, how it is grown or made, what processes are involved in getting it to us and having opportunities to explore the raw item as well as see it cooked or packaged in a shop.



Exploring food and its provenance is also another opportunity to explore diversity and our interdependency on each other within our country and as part of the wider world.

Closer to home, it is a valuable experience to visit allotments, farms, markets, local shops and supermarkets to see food in processed and unprocessed states.

Within Early Years settings, children can learn about the food cycle by growing herbs, fruit and vegetables, harvesting, washing and eating them and then composting waste.

[Where food comes from](#)

- Part of the Food a Fact of Life resources from the British Nutrition Foundation

[Eat Better Start Better Guidance](#) has more information on:

- Learning about and through play – page 53

Developing a Sensory Garden

When you design your garden don't forget to think about all of the five senses. You could make signs for your garden to remind everyone to use all of their senses – pictures of an eye, a nose, an ear, a mouth and a hand.

Seeing

Include some colourful flowers in your garden – daffodils, sunflowers, pansies, poppies and marigolds. The children can make sun catchers and mobiles, scarecrows, paint pebbles and signs. Make bird frighteners using old CDs, bits of unwanted foil and clothing.

Smelling

You could include flowers such as honeysuckle and lavender, as well as herbs like mint, chives, basil, parsley and lemon balm. Curry plants also have a strong smell.

Hearing

You might want to plant some different grasses that move against each other or make a noise when the wind goes across them. If bees are



attracted they will make a noise. You may also want to include a moving water feature like a fountain or handmade wind chimes for a nice sound. A bird bath and bird feeders will encourage birds to visit the garden which will add to the sounds too.

Tasting

Hopefully your garden will include lots of fruits, vegetables and herbs for the children to taste. Herbs can be grown in the garden or in containers if space is limited. You can help children to identify these in dishes they may have already tasted or incorporate them into the coming week's menu so they can see how they are used.

Touch

There are many plants that are interesting to touch. Lambs ear is as soft as its name suggests while House Leek is firm to touch. You may want to have a touching table where you can include other things that are interesting to touch such as moss, bark, smooth pebbles, and anything else that the children find in the garden that they think has an interesting texture.

More ideas for creating a [sensory garden](#) can be found on the BBC's Gardening with children website.

Sensory activities to support what's in the garden

Early years practitioners understand the importance of providing sensory experiences to stimulate children's learning from birth. The sensory nature of foodstuffs makes them an ideal resource for this kind of play.

Feely bags

Children have great fun guessing the items in a feely sack. Use fruit or vegetables to test their knowledge! Can they tell what it is just by putting their hand inside? Pull it out, were they right? As an alternative ask them to find a certain item by putting their hand in without looking and pulling out the one you asked for.



Treasure baskets

Include apple; peas in pods; sweet potato; orange; plums; banana; mango; cauliflower; carrots with tops on; beetroot with leaves on; corn on the cob.

Vegetable/fruit 'treasure hunt'

Whole, raw fruit and vegetables can be hidden in a box of e.g. soil/sand/shredded paper/sawdust, for children to find. Children also enjoy hiding them again or washing them for future use.

Edible paint for babies

Make 'paint' out of vegetables/fruit for mark making. Cook longer than you would normally, until very soft. Blend until completely smooth. Strawberries can be prepared as usual and then blended with a little water. Put blobs of 'paint' on a tray or wipe clean surface for baby to explore - carrot for orange "paint"; strawberries for red; broccoli for green etc.

Printing

Traditionally shapes are cut from potatoes for printing but why not try letting children experiment with the natural texture and shapes of different fruit and vegetables?

- Use cauliflower or broccoli florets, either whole or cut in half.
- Rolling corn on the cob makes a great pattern.
- Cut things lengthways and width ways to give different shapes.
- Mushrooms, tomatoes and peppers make great shapes when cut in half.

Use plenty of thick paint to avoid watery pictures and splashes. (Adding glue will help with this.)

Ways of categorising food you can grow

- **'Leafy vegetables we can eat'** – lettuce, green cabbage, red cabbage, Chinese leaves, spring greens, spinach.
- **'Root vegetables we can eat'** – carrots, parsnips, Swedes, turnips, beetroot, radishes, yams, celeriac, ginger, potatoes (these are actually tubers rather than root vegetables and grow underground).



- **‘Flowers we can eat’** – broccoli, calabrese, globe artichokes, cauliflower. We eat these whilst still in bud. Cauliflower is a compressed mass of unformed flower buds.
- Don’t forget there are also “fruits we can eat” and “stems we can eat” i.e. celery, and asparagus.

Exploring fruit and vegetables

- Give children appropriate knives to chop fruit and vegetables themselves. They can peel and help prepare for snack time.
- Cut open different fruit, what’s inside? Offer magnifying glasses to help look at seeds. Tomatoes and peppers are great for this!
- Ask children to talk about texture inside and out.
- Can they smell chopped fruit & guess what it is?
- Mix up the chopped pieces and encourage children to taste and guess what it is by taste.

Related songs and rhymes

As well as developing early literacy, music and numeracy skills, songs and rhymes can help children learn new vocabulary and routines when they are regularly used in the same situations.

Children can have fun and develop their language further by playing around with rhymes/songs. Encourage children to invent new versions related to foods or processes they are involved with.

Making soup

(‘Here we go round the mulberry bush’)
Who will help me make some soup,
Make some soup, make some soup
Who will help me make some soup,
Soup for the nursery children

Chop up the carrots, in they plop,
In they plop, in they plop.
Chop up the carrots, in they plop
Making soup for the nursery children

Empty the pea pods, pop, pop, pop,
Pop, pop, pop; pop, pop, pop.
Empty the pea pods, pop, pop, pop,
Making soup for the nursery children

Choosing/picking fruit

(‘Here we go round the mulberry bush’)
This is the way we pick the fruit...
This is the way we wash the fruit...”
This is the way we chop up the fruit...”
This is the way we eat the fruit...”



Five little peas

Five little peas in a pea-pod pressed,
One grew, two grew, and so did all the
rest.

[Clench all the fingers on one hand]

[Slowly open each finger]

They grew and they grew ...and did not
stop,

[Stretch fingers wide apart]

Until one day the pod went ...POP!

[When it says POP! clap loudly]

Don't forget old favourites. . . One Potato, Two Potato; Little Miss; Five Rosy Apples by the Cottage Door . . . etc.

Related books

Sharing stories and non-fiction books is a great way to introduce new ideas, encourage discussion and support learning. There are many food related fiction and nonfiction titles; here is a very small selection:

Fiction Books

- **And Then It's Spring by Julie Fogliano**

A boy and his dog decide that they have had enough of the brown winter and plant a garden. They then wait.... and wait.... until at last, the brown becomes a more hopeful shade of brown, signalling that spring may finally be on its way.

- **Eddie's Garden and How to Make Things Grow by Sarah Garland**

The book tells the story of what makes Eddie's garden grow – and gives ideas for growing your own garden.

- **The Enormous Turnip**

A traditional story - many versions are available.

- **Foodies**

12 books – one for every month focusing on a different vegetable

www.thefoodies.org

- **Flower Garden by Eve Bunting**

A family living in a city apartment create a garden. A little girl and her father buy flowering plants and plant a window box as a birthday present for her mother.



- **Growing Vegetable Soup by Lois Ehlert**

Told in rhyme, this book describes the steps involved in growing vegetables and making vegetable soup. The illustrations are labelled (e.g. names of tools and plants) and the book includes a recipe for vegetable soup.

- **Isabella's Garden by Glenda Millard**

This rhyming book (in the tradition of 'the House that Jack Built') tells the story of what happens in the garden all year around.

- **Jack and the Beanstalk**

A traditional story – many versions are available.

- **Jack's Garden by Henry Cole**

A story of a boy's flower garden told to the rhyme of "This Is the House That Jack Built". The illustrations tell the story of planting and tending a growing garden both above and below the soil. Everything in each illustration is labelled: garden tools, insects, plants, plant parts, clouds, seeds, animals and birds.

- **Jasper's Beanstalk by Nick Butterworth**

Jasper plants a bean and waits for it to grow into a beanstalk. How long will he have to wait before he can start looking for giants?

- **Meg's Veg by Jan Pienkowski**

Meg and Mog plant vegetables – but will they grow?

- **One Mole Digging a Hole by Julia Donaldson**

All the animals are busy lending a hand in the garden in this rhyming counting book. The parrots are pulling up carrots, the bears are picking pears and a swarm of bees are pruning the trees with their miniature shears.

- **Oliver's Fruit Salad by Alison Barlett**

Oliver is back from his grandad's and his mum's fruit seems very boring. What can his mum do?

- **Oliver's Vegetables by Alison Bartlett**

Oliver won't eat anything but chips - until he plays a game with his grandpa. Whatever vegetable Oliver finds in the garden, he must eat. On Monday, he pulls up carrots, on Tuesday, it is spinach . . .



- **Planting a Rainbow by Lois Ehlert**

A mother and child “plant a rainbow,” beginning with bulbs in the autumn and seeds and seedlings in the spring, and ending with a garden of flowers in a rainbow of colours.

- **Ten Seeds by Ruth Brown**

If you have ten seeds and count them, what do you get? - counting book with a difference.

- **The Tiny Seed by Eric Carle**

When the seed is blown away, it travels a very long way - overseas, deserts and mountains. The tiny seed survives the journey and finally falls onto earth. It grows and grows, becoming the tallest, biggest flower for miles around. Then one day the wind blows and thousands of the flower's seeds begin their own journeys.

- **The Little Red Hen**

A traditional story – many versions are available.

Non Fiction Books

- **Big Yellow Sunflower by Frances Barry**

This fold out picture book shows young gardeners how to grow their own sunflowers. It follows the process from seed to sunflower. Each page unfolds into an individual petal so that by the end of the story, a big beautiful yellow sunflower has been created.

- **Eating the Alphabet: Fruits and Vegetables from A – Z by Lois Ehlert**

Fruits and vegetables are explored for every letter of the alphabet. Included are familiar fruits and vegetables like apples, bananas, and grapes along with some that children may be unfamiliar with such as endive and papaya.

- **I Eat Vegetables! And I Eat Fruit By Hannah Tofts**

From the Things I Eat series, these picture books look inside fruit and vegetables and see seeds and other interesting things.

- **RHS How Does My Garden Grow? (Dorling Kindersley)**

A book giving details of how to grow plants for food (and other projects)



- **RSPB First Books of Garden Creatures**

RSPB First Book of Garden Birds

RSPB First Book of Garden Bugs

RSPB First Book of Garden Wildlife

- **Show Me How: I Can Grow Things: Gardening Projects for Kids by Sally Walton and Stephanie Donaldson.**

This book explains gardening terms and the names and uses of tools and equipment. It also includes 16 gardening projects.

- **Tilda's Seeds by Melanie Eclare**

A book following Tilda growing her first sunflowers.

- **The Ultimate Step by Step Kid's First Gardening book by Jenny Hendy**

This book has been written by 5 – 12 year olds but may be useful for planning projects in your setting as it includes lots of ideas for projects, tips and growing ideas.

- **What Lives in the Garden? by John Woodward**

Beautiful photographs of insects, spiders, and other animals that may be encountered in the garden.

Risk benefit

In common with many other exciting and engaging play experiences, there can be certain risks as well as many benefits whilst gardening and exploring nature. It is important that care is taken when planning and supervising activities. Explaining to children as you observe safety rules will help them to learn good habits too.

When thinking about risk assessment it is important to also think about the benefits of doing an activity. It is often necessary to have some risk in children's play to give them the benefits of development, achievement and fun. The Risk Benefit approach is one where we look at what risks are present and what, if any, benefits are gained from having these risks.



A good judgement can then be made on what risk, if any, is acceptable. Check out the [BANES Risk Benefit Toolkit](#) for more information and example templates etc.

Some health and safety considerations when harvesting fruit and vegetables to eat/cook:

- **Be allergy aware**

Take into account existing and potential allergies. Ensure parents/carers know that you will be regularly exploring food during growing and gardening activities.

[Eat Better Start Better Guidance](#) has more information on:

- Food allergies and intolerances – page 48

- **Avoid choking hazards**

Check the size of items and how easily they can be broken into swallowable pieces.

Food should always be cut length ways rather than into circular shapes/discs to avoid forming a 'plug' e.g. carrots. Foods like cherry tomatoes and grapes should always be cut in half, lengthways.

Babies and young children frequently explore with their mouths and might be even more likely to try to swallow something which is a recognisable food whilst playing with it in the garden.

- **Food safety and hygiene**

All staff supporting children with food preparation and cooking (as well as those responsible for preparing food for children) should have a current Food Safety Level 2 Award certificate.

Children need to be shown how to observe safety and hygiene rules and reminded each time they handle food e.g. turning away from food and people to cough/sneeze and washing of hands and fruit and vegetables before eating/cooking.

[Eat Better Start Better Guidance](#) has more information on:

- Food safety and hygiene – page 55

Early Years Foundation Stage - Curriculum Guidance



Gardening, growing and nature exploration offer ideal opportunities to support and extend the learning characteristics (Playing and Exploring; Active Learning; Creating and Thinking) as well as develop the skills and knowledge in all areas of learning outlined in “Development Matters in the Early Years Foundation Stage”.

The Prime areas are all integral elements of well-planned gardening, growing and nature exploration; for example:-

- The relationships which build as children engage in these activities with encouraging adults and cooperative peers; the confidence and self-esteem children experience as they learn to do things for themselves (and create attractive and appealing items for others); learning to take turns and observing safety rules help children’s **Personal Social and Emotional Development**.
- **Communication and Language** skills are developed through conversation and non-verbal communication with adults and peers as children take part in gardening experiences. Children who are having fun are motivated to communicate. With sensitive and responsive adult support, they learn new vocabulary in meaningful contexts, they practice listening, following instructions and they have opportunities to express what they are doing, thinking or feeling. (See page 13 - Ten Top Tips for Talking).
- **Physical Development** is a key aspect of gardening and nature exploration - from the earliest sensory explorations to the high levels of co-ordination and control needed to use tools effectively. The physical awareness and motor skills which are established in the earliest years form foundations for all sorts of later learning - including writing. In addition, children can learn important messages about health and self-care.

Gardening, growing and nature exploration will offer endless opportunities for:

- **Literacy** - e.g. writing lists; writing plant labels and signs; reading growing instructions; rhymes; stories; reference materials etc.
- **Mathematics** - e.g. counting; measuring; comparing sizes; calculating; weight of soil/water; length of canes and strings etc.



- **Understanding the World** - e.g. learning about food and its natural origins; growth and change; weather and seasons; minibeast exploration; similarities and differences; cause and effect etc.

For a more detailed look at Links to the EYFS and Development Matters see Appendix C.

Involving families

Early years practitioners know that children's learning is more effective when they are supported by their families; food is an ideal common ground from which to encourage this. By providing support and activities for families to continue at home, children are likely to get more from the experiences.

- Set up **Growing challenges** for families - 'How many tomatoes can you grow?' or "Who can grow the biggest pumpkin?" Provide recipe ideas for when they've harvested their crop.
- Families could be asked to contribute recipes to match a current theme in the garden or to make future growing plans.
- **Cookery bags**, containing a recipe linked to what children are growing in the setting, some utensils and perhaps a related story could be taken home for families to enjoy together with the children. You can find information on [cookery bags](#) here.
- Develop Gardening bags from the Cookery bag idea and send children home with seeds, a related story, gardening tools and a note book. Provide a showcase wall for everyone's pictures of progress.
- Hold an event, like a summer fete to showcase children's growing success and promote the fruit and vegetables children are enjoying in the setting.
- Settings could consider running a regular gardening session as social drop in events for parents/carers to help out.



References

- **Children's Food Trust**, January 2012. *Eat Better, Start Better: voluntary food and Drink Guidelines for Early Years Settings in England - A Practical Guide* Available online at: www.childrensfoodtrust.org.uk/pre-school/resources/guidelines
- **Department for Education**, 2012. *Statutory Framework for the Early Years Foundation Stage*. London: Crown
- **Early Education**, 2012. *Development Matters in the Early Years Foundation Stage (EYFS)*. London: Crown
- **National Child Measurement Programme** data collected for the DPH Award [Health Profiles](#)



Planning support

Appendix A

- **Food for Life Partnership**

www.foodforlife.org.uk

“The Food for Life Partnership is a network of schools and communities across England committed to transforming food culture. Together we are revolutionising school meals, reconnecting children and young people with where their food comes from, and inspiring families to grow and cook food.”

[Get Growing](#)

[Get Cooking](#)

[Visit a Farm](#)

- **Royal Horticulture Society (RHS)**

www.rhs.org.uk/Children

- **Waitrose Royal Horticulture Society (RHS)**

<http://apps.rhs.org.uk/schoolgardening/teachershome/getyourgrown-upsgrowing/waitrosesaladdressing.aspa>

RHS Campaign for School Gardening – resources and case studies.

- **Morrisons Growing Schools (early years included!)**

<https://your.morrisons.com/Kids-and-Baby/LetsGrow/>

Lesson plans, activities and how to guides.

- **Bake Your Lawn**

This site gives information about how to help children to sow a square meter of soil with a handful of wheat, grow it, mill it, bake it, bake it and eat it, following the Real Bread journey from seed to table.

http://www.sustainweb.org/realbread/bake_your_lawn/

- **The Tesco Eat Happy Project**

Teaching toolkits, Farm to Fork Trails and how to videos.

www.eathappyproject.com

- **Garden Organic**

This resource is produced by Garden Organic as part of the Food for Life Partnership (FFLP). Ideal for use by settings, schools, community groups and families

www.gardenorganic.org.uk



- **Growing Schools (Early Years sections too)**

Support for teachers and practitioners in using the "outdoor classroom" as a resource across the curriculum for children of all ages.

www.growingschools.org.uk

- **Great Grub Club**

Recipes, toolkits, resources, growing and food related activity ideas.

www.greatgrubclub.com

- **Grow your own grub**

A step-by-step guide for teachers who want to run a growing project in their school - adaptable for early years.

www.growinggrub.co.uk

- **“From Welly to Belly”**

Developing positive minds and healthy bodies for a brighter future!

www.buddinggardeners.co.uk

- **Little Green Fingers – Getting Children Hooked on Gardening**

A blog with lots of ideas for gardening related projects for preschool children - includes weekly activity plans and what to do when.

www.littlegreenfingers.com

- **BBC**

Gardening resources for all ages, with links to interactive games.

<http://www.gardeningwithchildren.co.uk/>

CBeebies programme information - Mr Blooms Nursery (for under 5s)

Includes a link to some songs and other resources

<http://www.bbc.co.uk/cbeebies/mr-blooms-nursery/>

CBeebies programme information - Dirtgirl World (for 4 - 6 year olds)

Includes a link to songs and other resources

<http://www.bbc.co.uk/cbeebies/dirt-girl-world/>



- **Foodies**

Cooking and gardening for young children - story books available linked to each month and a different fruit and vegetable with activities.

<http://www.thefoodies.org/>

- **Fruitful Schools**

All you need to know about planning and planting an orchard

<http://www.fruitfulschools.com/fruitfulschools/Welcome.html>

- **The Kids Garden**

<http://www.thekidsgarden.co.uk/>

Free Posters

- **Royal Horticultural Society (RHS)**

- Seed Dispersal Poster
- Wildlife Poster
- Cuttings Poster
- Kitchen Garden Planner

<http://apps.rhs.org.uk/schoolgardening/teachershome/resources/seeddispersal/default.aspx>



Supporting links for a wildlife area

Appendix B

Make an insect hotel to attract a wide range of insects to your garden
[http://www.theguardian.com/lifeandstyle/gardening-
blog/2009/jun/17/wildlife-stack](http://www.theguardian.com/lifeandstyle/gardening-blog/2009/jun/17/wildlife-stack)

- **RSPB (Royal Society for the Protection of Birds)**
www.rspb.org.uk www.rspb.org.uk/wildlife/wildlifegarden/
- **Wildlife Watch**
www.wildlifewatch.org.uk
- **Wild about Gardens**
www.wildaboutgardens.org.uk/
- **Wildlife Gardener**
www.wildlifegardener.co.uk/WildlifeActivitiesForKids.html



Links to the EYFS and Development Matters Appendix C

Running a gardening/growing project in your setting will of course support the delivery of the EYFS. Links can be made across the Prime and Specific areas of development – not just in Understanding of the World and Physical Development.

As an example, using the 30 – 50 month age stage, links that could be made if a growing/gardening project was run in a setting are set out below.

You will no doubt make other links for the same project depending on the additional activities that you develop in the course of the project (e.g. by including story making, sharing books, songs and poems, sorting/counting of plants/seeds etc).

Unique Child	Positive Relationships	Enabling Environments
PSED – Self confidence and self awareness		
<p>Can select and use activities and resources with help.</p> <p>Enjoys responsibility of carrying out small tasks</p>	<p>Encourage children to see adults as a resource and as partners in their learning.</p> <p>Teach children to use and care for materials, and then trust them to do so independently.</p> <p>Ensure that key practitioners offer extra support to children in new situations.</p>	<p>Vary activities so that children are introduced to different materials.</p> <p>Make materials easily accessible at child height, to ensure everybody can make choices.</p>
PSED – Managing Feelings and Behaviour		
<p>Begins to accept the needs of others and can take turns and share resources, sometimes with support from others.</p>	<p>Collaborate with children in creating explicit rules for the care of the environment.</p>	<p>Provide familiar, predictable routines, including opportunities to help in appropriate tasks,</p>
Communication and Language – Understanding		
<p>Understanding use of objects</p> <p>Shows understanding of prepositions such as</p>	<p>Talk to children about what they have been doing and help them to reflect upon and explain events</p>	<p>Set up shared experiences that children can reflect Upon</p> <p>Provide practical</p>



<p>'under', 'on top', 'behind' by carrying out an action or selecting correct picture.</p> <p>Responds to simple instructions, e.g. to get or put away an object.</p>	<p>Give children clear directions and help them to deal with those involving more than one action</p>	<p>experiences that encourage children to ask and respond to questions,</p>
<p>Communication and Language – Speaking</p>		
<p>Uses talk to connect ideas, explain what is happening and anticipate what might happen next, recall and relive past experiences.</p> <p>Questions why things happen and gives explanations.</p>	<p>Introduce new words in the context of play and activities.</p> <p>Use a lot of statements and fewer questions. When you do ask a question, use an open question with many possible answers.</p>	<p>Display pictures and photographs showing familiar events, objects and activities and talk about them with the children</p> <p>Help children to build their vocabulary by extending the range of their experiences</p>
<p>Physical Development – Moving and Handling</p>		
<p>Uses one-handed tools and equipment</p>	<p>Teach children the skills they need to use equipment safely</p> <p>Introduce and encourage children to use the vocabulary of manipulation, e.g. 'squeeze' and 'prod.'</p> <p>Explain why safety is an important factor in handling tools, equipment and materials, and have sensible rules for everybody to follow</p>	<p>Provide sufficient equipment for children to share, so that waiting to take turns does not spoil enjoyment.</p> <p>Provide activities that give children the opportunity and motivation to practise manipulative skills</p> <p>Teach children skills of how to use tools and materials effectively and safely and give them opportunities to practise them</p>
<p>Physical Development – health and self care</p>		
<p>Observes the effects of activity on their bodies.</p> <p>Understands that equipment and tools have to be used safely</p> <p>Can usually manage washing and drying hands</p>	<p>Encourage children to notice the changes in their bodies after exercise, such as their heart beating faster.</p> <p>Talk with children about the importance of hand-washing.</p>	<p>Encourage children to be active and energetic by organising lively games, since physical activity is important in maintaining good health and in guarding against children becoming overweight or obese in later life.</p>



Literacy – Reading		
Knows information can be relayed in the form of print.	Help children to understand what a word is by using names and labels and by pointing out words in the environment and in books.	Provide some simple poetry, song, fiction and non-fiction books. Provide fact and fiction books in all areas, e.g. construction area as well as the book area. Introduce children to books and other materials that provide information or instructions. Carry out activities using instructions
Literacy – Writing		
Ascribes meanings to marks that they see in different places.	Make books with children of activities they have been doing, using photographs of them as illustrations	Include opportunities for writing during role-play and other activities.
Mathematics – Numbers		
Realises not only objects, but anything can be counted, including steps, claps or jumps.	Support children’s developing understanding of abstraction by counting things that are not objects, such as hops, jumps, clicks or claps.	Give children a reason to count, e.g. by asking them to select enough wrist bands for three friends to play with the puppets.
Mathematics – Shape , space and measure		
Uses positional language. Shows interest in shapes in the environment.	Demonstrate the language for shape, position and measures in discussions	Provide rich and varied opportunities for comparing length, weight, capacity and time
Understanding the World – The World		
Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. Can talk about some of the things they have observed such as plants, animals, natural and found objects. Talks about why things happen and how things	Use parents’ knowledge to extend children’s experiences of the world. Support children with sensory impairment by providing supplementary experience and information to enhance their learning about the world around them. Arouse awareness of	Use the local area for exploring both the built and the natural environment. Provide opportunities to observe things closely through a variety of means, including magnifiers and photographs. Provide play maps and small world equipment for



<p>work.</p> <p>Developing an understanding of growth, decay and changes over time.</p> <p>Shows care and concern for living things and the environment.</p>	<p>features of the environment in the setting and immediate local area</p> <p>Introduce vocabulary to enable children to talk about their observations and to ask questions</p>	<p>children to create their own environments.</p> <p>Teach skills and knowledge in the context of practical activities</p>
<p>Expressive Arts and Design – Exploring and using media and materials</p>		
<p>Uses various construction materials.</p> <p>Realises tools can be used for a purpose.</p>	<p>Support children’s responses to different textures</p> <p>Introduce vocabulary to enable children to talk about their observations and experiences</p> <p>Make suggestions and ask questions to extend children’s ideas of what is possible</p>	<p>Provide a place where work in progress can be kept safely.</p> <p>Demonstrate and teach skills and techniques associated with the things children are doing</p>