

Garden Plans for Schools

at Oliver's Battery Primary School

www.hgt.org



Year two - encouraging healthy eating

Jill Walmsley & Ruth Farley, December 2022

February:

Our second year at Olly B started with the launch of an enterprise competition with Yr 5/6. In class they wrote a persuasive letter asking local garden centres for donations of flower seed, compost and seed modules.

We cleared the pollinator border, and added the cuttings to the compost. We turned the compost and saw what work the worms and microbes had done for us. Then we spread this on the garden.

We made bird feeders from pine cones collected from the school grounds stuffed with fat and rolled in seed.

The most popular activities were the birds feeders and the spreading of mulch.

Harvest: Red Mizuna and Pakchoi



March:

We learnt all about seeds. The children performed germination yoga to help them understand the life cycle of a plant. From planting a seed through root growth, shoots, flowers and fruit.

We introduced technical words like germination which is the process of a plant developing roots and leaves from a seed. We also talked about the constituent parts of the seed; the embryo, supply of nutrients (packed lunch) and seed coat.

We then sowed some seed : Beetroot, Spring onions, Lettuce, Spinach, Coriander and Parsley, Peas, Sweet peppers, Radish, Tomatoes, Cornflowers, Calendula, Carrots. We also launched the 'Potato in a bucket competition' using the Swift variety.

We planted the five fruit trees in the field which came from the Tree Council. Pear Comice, Pear Conference, Victoria Plum, Apple Christmas Pippin and Apple Hidden Rose

We played the 'Can you eat me?' game where the children identify the plants and flowers in the garden and discover which parts of the plant are edible. Tasting is always a popular activity, but always supervised by an adult.

We sowed our Cornflower meadow from seed donated by Brambridge Garden Centre.

Harvest : Broad Beans, Cavolo Nero, Pakchoi, Chard, Red Mizuna, Green Mizuna Parsley, Mint.



April:

The children harvested, prepared and then cooked Kale outdoors. Making Kale crisps. They designed a plate of healthy food, dividing the proportion of fat, protein, carbohydrate and fruit and veg to learn about a balanced diet.

We pricked out Yellow and Red Chard and Beetroot and planted Sweet Peas into the beds. Early signs of life from the potato in a buckets.

We collected mole hill soil. Ruth and Jill extended the meadow border during half term.

Seed sowing : French Marigolds, Cosmos, Cornflowers, Sweetcorn, Runner beans, Peas, Sunflowers Courgette, Pumpkins, Lettuces, Basil, French beans.

Harvest: Broad beans, Pakchoi, Kale, Chard, Parsley, Chervil Primrose and Perennial Cornflower.



May:

The children potted up spare tomato plants for sale and cleared some of the beds removing Spinach, Pakchoi, Green Mizuna.

We made more bird feeders and played 'Can you find me?' and the 'Blackbird Lunch Game'.

The plot needed lots of watering as it was very hot.

Seed sowing : Sunflowers into loo rolls.

Nasturtium, Cosmos, Radish, Gypsophila, French marigolds, Cucumbers, Parsley.

Planting out : Antirrhinums, Calendula, Cornflowers, Cosmos, Tomatoes, Alchemilla, Sweet peas, Runner and French beans, Chard and Beetroot.

Harvest : Chard, Kale, Broad beans, Radishes.

Flowering : Perennial cornflower, Calendula, Silene, Antirrhinum, Sweet peas, Calendula.



June:

We had such fun with a session on Jubilee themed garden art using red white and gold flowers, green foliage, pine cones, sticks and stones. We created portraits of the Queen, Union Jacks, Corgis, Tea cups, Carriages and Crowns.

We had the 'Potato in a Bucket' big reveal.

We watered everything as it was starting to get really dry.

The Yr 6 children designed posters for the sale of produce and they cut and prepared flower posies. They sold them at £2 per bunch. We also sold garlic at 50p a bulb, radishes 50p a tray and large lettuces for a £1 each. Profits were used for the Year 6 end of term treat.

Planting out : Louffas, Melon, Aubergine, Parsley, Courgette, Pumpkin, Spring Onions, Sunflowers, Nasturtiums and Cosmos.

Seed Sowing : Calendula, Sunflowers, Radish.

Harvest : Lettuce, Garlic, Radish.

Looking good: Antirrhinums, Sweet peas, Nigella, Gyp, Ami, Calendula, Cornflowers, Silene, Borage.



July:

Unfortunately there was some external vandalism on the polytunnel with slashes along its length. These were repaired with polytunnel tape.

Another issue was poor watering. This very hot summer meant that even more irrigation was needed. There was a lack of action despite constant requests by the gardening team. The size of flowers and vegetables was affected and there was a marked difference in growth between this year and last.

Plants died and looked unsightly which proved to be the catalyst for better care and nurture. Watering was better and plants responded though many seedlings had been lost.

The children drew and labelled pictures of flowers which they dissected, learning the scientific names for parts of the flower.

We then cut flowers for the enterprise projects for the sale, and continued watering, weeding, deadheading and tying in tomatoes.

Harvest : Lettuce, Kale, Carrots, Cucumbers, Tomatoes, Runner and French Beans.

Looking good: Sweet peas, Nigella, Calendula, Cornflowers, Silene, Borage.

Flowering : Perennial cornflower, Calendula, Silene, Antirrhinum, Sweet peas, Calendula.



August :

School Holidays.

A parent watering rota was set up to keep the polytunnel and outside beds alive through the holiday.

We came in fortnightly to weed, deadhead and harvest.
We gathered seed from Sweet Peas, Calendula, Cornflower, Nigella in brown envelopes.

In Flower : Sunflowers, Cosmos, Calendula, Borage

Harvest : Tomatoes, Cucumbers, Runner beans, Lettuce, Aubergine fruit starting to set, Chillis, Chard

Sow Autumn veg : Spinach Medania/ Perpetual, Chervil, Pak Choi Green Boy, Cavalo Nero, Landcress, Mustard Wasabina, Bulb Fennel, Lambs Lettuce.



September :

We entered six categories in the St Cross Garden Society Annual Show and came first in four! Best Capsicum, Best Cherry Tomaotes, Best Abnormally shaped vegetable (a carrot), Best Eggs.

We discussed food groups and nutrition to encourage healthy eating. The children drew and labelled a healthy plate of food.

We did a whole session on decomposition which is the process of rotting or the breaking down of organic material into small pieces to be recycled within nature. We played the 'Rates of decomposition game.'

We shoveled mulch which had been delivered to the car park to the Edible Playground using barrows, bucket and trowels.

We did a specific lesson for Yr 3 about how we can help plants to grow. We discussed photosynthesis, what the essential constituents for growth are (light, air, water, nutrients space to grow) and how different plants grow in different conditions.

We illustrated this using Stachys with their hairy leaves, Lavender with their small leaves, Hylotelephium with their succulent stems, all are drought resistant.

Harvest : Tomatoes, Aubergine, Cucumbers, Courgettes, French and Runner beans, Chard, Peppers.

Looking good : Hylotelephium, Gladioli, Cosmos.



October :

We had a special lesson on Transpiration for Yr 4 requested by their teacher. This was a great opportunity to link our session directly with the science curriculum. Using celery stems we illustrated how water travels through a plant, entering through the roots rising through the xylem in the stems and evaporating through the stomata in the leaf.

We continued to move mulch and clear beds to the compost heap. More fun with leaf art using colourful leaves, twigs, conkers and cones.

Harvest : Last of the Tomatoes, Chard, Kale, Peppers.



November :

We processed saved seed.; Dhalias, Cornflowers, Poppy, Nigella and Calendula. We also enjoyed harvesting all the remaining tomatoes including the green ones in the poly-tunnel along with Aubergine, Peppers and Cucumbers.

We collected mole hill soil and finished clearing weeding and mulching all the beds

We worked with the charity Munch CIC and cooked omelettes with Yr 6 using herbs and veg with eggs from the hens.

Planted : Mizuna, Chervil, Parsley, Broad Beans, Chard outside and planted Chard, Kale and Peas in the polytunnel

Sowed : Broad beans, Kale, Lettuce.

Looking good : French Marigolds, Cosmos, Calendula.

Harvest: Carrots, Spring onions, Chard, Kale, Parsley, Cucumber, Tomatoes, Peppers.



December :

With the colder weather we chose craft sessions for the children to learn and experience the beauty of using natural materials. We made and decorated stars and wands made from Cornus stems.

The final treat was a visit to National Trust Hinton Ampner.

A wonderful day and great end to the growing season.



Activities List

Self-Created Resources

Harvesting seed and processing to save for next year
Collecting mole hill soil
Spreading mulch on beds
Why we love worms, and what materials to add to the compost heap
Can you find me? Learning names of plants growing in the garden
Can you eat me? Learning which parts of plants in the garden are edible
Plant life cycle, including germination yoga
Pricking out
Seed sowing indoor and outdoor
Flower dissection and botanical drawing
Transpiration lesson, using celery
Plant adaptation lesson
Plant growth lesson
Writing a letter to persuade local garden centres to donate materials
Healthy eating and Food groups– nutritional value of vegetables and a balanced diet
Designing posters to advertise the sale of cut flowers

Downloaded Resources

Blackbird Lunch Game - Trailblazer
Compost decomposition Game – Learning Through Landscapes
Heroes and Villains – Edible Playground by Trees for Cities
Insect spotter survey - RHS
Summer flower spotter survey - RHS
Weed spotter survey – RHS

Crafts

Leaf/ garden art
Cornus stars/ triangle wreaths
Cornus star wands
Pine cone bird feeders
Lavender bags

Crop List:

Outside beds

Veg/Herbs

Beetroot 'Detroit'
Beetroot 'Pablo'
Beetroot 'Chioggia'
Broad Bean 'Aquadulce Claudia'
Broad Bean 'De Monica'
Carrot 'Harlequin Mix'
Carrot 'Sugarsnax'
Chervil
Climbing French Bean 'Cosse Violette'
Coriander 'Leaf Selection'
Courgette 'Orelia'
Courgette 'Romanesco'
Garlic 'Early Purple Wight'
Kale Taunton Dean (perennial)
Landcress
Lemon Sorrell
Lettuce 'Amaze'
Lettuce 'Black seeded Simpson'
Lettuce 'Freckles'
Mint
Mizuna Red
Mustard Wasabina
Parsley 'Gigante di Napoli'

Pea 'Early Pedigree'
Radish 'Scarlet Globe'
Runner Bean 'Scarlet Empire'
Spinach 'Medania'
Spinach 'Perpetual/Beet'
Spring Onion 'White Lisbon'
Swiss Chard 'Bright Lights'
Winter Squash 'Crown Prince'

Flowers

Alchemilla mollis
Ammi 'Majus'
Antirrhinum 'Apple blossom'
Borage
Calendula 'Touch of Red'
Cornflower 'Polka Dot Mix'
Cosmos 'Psyche White'
Dahlia 'Bishop's Children'
Gladioli mix
Nasturtium mix
Sunflower 'Sunburst mixed'
Sweet pea 'saved seed'

Fruit

Apple 'Chivers Delight'
Apple 'Christmas Pippin'
Apple 'Kid's Orange Red'
Apple 'Hidden Rose'
Apple 'Sunset'
Pear 'Beurre Hardy'

Pear 'Concorde'
Pear 'Conference'
Pear 'Comice'
Plum 'Victoria'
Strawberries
Summer Raspberries

Polytunnel

Veg/herbs

Aubergine 'Moneymaker'
Basil 'Red Boza'
Basil 'Sweet Genovese'
Chilli peppers
Cucumber 'Carmen'
Sweet peppers
Tomato 'Apero'
Tomato 'Black Russian'
Tomato 'Feo de Rio'
Tomato 'Gardener's Delight'
Tomato 'Golden Sweet'
Tomato 'Green Zebra'
Tomato 'Honeycomb'

Flowers

French Marigold 'Dainty Marietta'
Tagetes 'Linnaeus'
Tagetes 'Tangerine Gem'

Successes and Areas to Improve - Growing year 2022

Successes:

- ◆ Regular volunteers who knew the ropes, and brought enthusiasm and energy. There was almost always a ratio of one adult to seven children or less. Groups bigger than this are more challenging.
- ◆ No dig method, adding compost on top of the beds in Autumn/ Winter and planting straight into it. We used a 50:50 mix of multipurpose compost and well rotted horse manure bought in bulk from <https://www.beavercompost.co.uk/>
- ◆ Potato in a bucket competition. The children loved the anticipation, and big reveal! We planted the seed potatoes earlier, and started them in the polytunnel for larger, quicker maturing potatoes.
- ◆ Changed potting compost to Melcourt Sylvagrow. More expensive, but much more effective.
- ◆ Involved children in planning and choosing which crops to grow.
- ◆ Sessions that involved a mixture of practical horticulture, craft, and other outdoor games /surveys/ activities. This year, we also created a series of bespoke lessons, at the teachers request, to teach a specific part of the curriculum in the garden.
- ◆ Cooking Kale crisps in the garden. An activity that every child remembered!
- ◆ Collaborating with Munch Club to cook omelettes packed with veg and herbs from the garden with Year 6s.
- ◆ Year 5/6 cut flower enterprise project. The children took responsibility for the project from start to finish. Planning, seed sowing, planting, harvesting, arranging flower posies, advertising and selling. This could easily be repeated, and scaled – demand for the flower posies was greater than supply.
- ◆ Won four 1 st prizes at the St. Cross Show: cherry tomatoes, capsicum, abnormally shaped vegetable (funky yellow carrot) and hen eggs.
- ◆ Year 3 trip to National Trust Garden Hinton Ampner, hosted by Head Gardener, John Wood. The children asked such intelligent and technical questions.
- ◆ Use of the yurt as an outdoor classroom in addition to the polytunnel when weather was too wet or cold to be outside.

Crops:

- ◆ Polytunnel veg, quantity and flavour: tomatoes, cucumbers and sweet peppers.
- ◆ Herbs, especially lemon sorrel!
- ◆ Salad crops, lettuce (early in the summer), radishes, spring onions.
- Garlic
- ◆ Runner and French beans
- ◆ Flowers in pollinator border (if a bit smaller than last year): calendula, cornflower, cosmos, dahlias, sweet peas.

To Improve:

- ◆ Watering of the plants by the school. 2022 saw months of hot weather and drought. Insufficient watering during the times when we were not on site, meant that crops either died or growth was severely stunted. Alex, from the office was a saviour during the school holidays when she and her family devotedly watered and kept the garden alive.

Crops:

- ◆ Pumpkins, courgettes, beetroot – just not enough water
- ◆ Carrots (impatient children wanting a look, the seedlings never had a chance to get going before being pulled up!)
- ◆ Luffa – didn't get going early enough in the polytunnel...
- ◆ Aubergines – lots of flowers, not much fruit – humidity too low?
- ◆ Sunflowers – too dry, some flowered late, but were no taller than 50cm.

Aspirations for 2023

- ◆ Incorporate invertebrate and bird surveys throughout each term to start building a data set.
- ◆ Build a more permanent and solid frame for climbers in the polytunnel.
- ◆ Better labelling of crops – perhaps one large label per bed.
- ◆ Better watering rota.
- ◆ More trips to gardens, and perhaps a strengthening of our collaboration.
- ◆ Inviting more visitors to share our experience.

