



2019-2020
Garden Guide &
Handbook
GROWING LUNCH



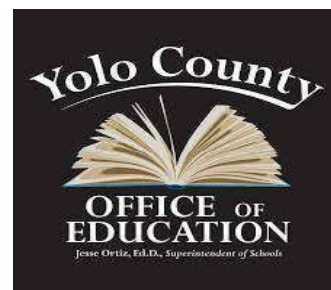
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Edible Learning Garden Guide & Handbook

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Section 1

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Garden Calendar for August through July

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Yolo Farm to Fork Edible School Garden Guide for the 2019-20 School Year



Need help with your garden?
Email:
Anya.Burdick@yolofarmtofork.org
Executive Director

Yolo Farm to Fork
1280 Santa Anita Court, Suite 100
Woodland, CA 95776

August

What should we plant?

Direct sow

Beets, broccoli, cabbage, collards, celery, **carrots**, cauliflower, endive, kale, fennel, **radish**, squash, **swiss chard**, leeks, mustard, turnips, parsnips, parsley, celeriac, **lettuce**, rutabega, onion, **potatoes**, turnips

Start seed indoor

Micro-greens, broccoli, bok choy, brussels sprouts, celery, fennel, kohlrabi, onions, **peas**, cabbage, cauliflower

Transplant

None

Cafeteria Harvest

Melons, tomatoes, peppers

Monday	Tuesday	Wednesday	Thursday	Friday
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

August Activities

To be sustainable, the garden needs people to

- Check with your school, PTA/PTO or YF2F for a garden budget
- Organize a School Garden Team to set goals and plans for the coming year
- Check and repair irrigation
- Dig planting beds and add organic compost
- Make sure you have the garden tools and gloves you need for the year
- Weed garden paths and open area; cover with deep layers of wood chips or other materials
- Control the weeds by pulling them out by the roots
- **Check in with Yolo Farm to Fork** (info@yolofarmtofork.org) to get mulch, seeds and transplants for fall, AND for UCD Interns who can help manage your garden for the school year

Garden learning suggestions

- With cafeteria staff, have students develop a “harvest delivery” procedure to outline the harvest, washing and delivery schedule for garden produce to be used in school meals. Be sure to weigh and record the produce you deliver (see page 34).
- Have students draw a map of the garden and plan spring plantings of veggies and flowers
- Save seeds from summer flowers and veggies for future plantings
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (see page 49-50).
- Have students identify flowers and veggies to plant for fall and winter; map the plantings
- Plant the fall garden, charting its growth in future months
- Have students begin a Garden Journal to log their observations and tasks accomplished

Fun Activities:

- Have a scavenger hunt in teams of two students each to find and bring back at least one of each category: root, stem leaf, flower and seed. (Young children like to make “garden bracelets” with these items using a “bracelet” of masking tape with the sticky side out)
- Harvest and eat some produce from the garden
- Make artistic plant labels (see page 45).

My Notes:

September

Fall

What should we plant?

Direct sow

Beets, **bok choy**, **broccoli**, broccoli rabe, cabbage, collards, celery, **carrots**, **cauliflower**, endive, kale, fennel, radicchio, **radish**, squash, **swiss chard**, **leeks**, mustard, turnips, parsley, **lettuce**, rutabega, potatoes, turnips, garlic bulbs, **peas**, shallots, **spinach**

Start seed indoor

Micro-greens, broccoli, bok choy, celery, fennel, kohlrabi, peas, cabbage, cauliflower, kale

Transplant

broccoli, bok choy, brussels sprouts, celery, fennel, kohlrabi, onions, **peas**, cabbage, cauliflower

Cafeteria Harvest

Melons, tomatoes and peppers

Monday	Tuesday	Wednesday	Thursday	Friday
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	25	27

September Activities

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Continue to dig planting beds and add organic compost to support the fall plantings
- Weed garden paths and open area; cover with deep layers of wood chips or other materials
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Plant the fall garden, charting its growth in future months
- Check in with Yolo Farm to Fork (info@yolofarmtofork.org) to get seeds and transplants for fall

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver (Tracking Form on page 34)
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 49)
- Have the students draw maps of the garden and label its fall plantings
- Save seeds from summer flowers and veggies; save them in paper envelopes (not plastic)
- Have students identify flowers and veggies to plant for fall and winter; map the plantings
- Plant the fall garden, label plantings, and chart growth in future months
- Start a chart of “garden friends” and “garden foes” with pictures to identify each (<https://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Continue Garden Journals in which students record their garden observations and tasks
- Weigh, count, record and track your harvest produce data (Tracking Form on page 34)

Fun Activities:

- Harvest and eat some garden treats
- Dry garden flowers (under paper and heavy books) to use in making bookmarks, note cards and other decorative items (See page 55)
- Make artistic plant labels (See page 44 for ideas)
- Plant “salad beds” of carrots, lettuces chard for winter harvest
- Plant some winter blooming flowers like pansies, snapdragons and English daisies

My Notes:

October

Fall

What should we plant?

Direct sow

Fava beans, beets, bok choy, broccoli rabe, collards, **carrots**, endive, radicchio, **radish**, squash, swiss chard, leeks, mustard, turnips, parsley, **lettuce**, turnips, garlic bulbs, **peas**, shallots, spinach

Start seed indoor

Micro-greens, broccoli, bok choy, celery, fennel, kohlrabi, peas, cabbage, cauliflower, kale

Transplant

broccoli, bok choy, celery, fennel, kohlrabi, onions, peas, cabbage, cauliflower, kalé

Cafeteria Harvest

Melons, tomatoes, peppers

Monday	Tuesday	Wednesday	Thursday	Friday
Sept 30	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	Nov. 1

October Activities

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Continue to dig planting beds and add organic compost to support the fall plantings
- Weed garden paths and open area; cover with deep layers of wood chips or other materials
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Clean up leaves (especially away from fruit trees) and start a compost pile.

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver (Tracking Form on page 34).
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 49)
- Continue to save seeds from summer flowers and veggies
- Have students identify flowers and veggies to plant for fall and winter; map the plantings
- Plant the fall garden, mapping and charting its growth in future months
- Continue Garden Journals to log their observations and tasks accomplished
- Chart “good bugs” and “bad bugs” with pictures to identify each

Fun Activities:

- Harvest and eat some garden treats
- Plant “salad beds” of carrots, lettuces chard for winter harvest
- Check in with Yolo Farm to Fork for winter-blooming flowers and bulbs
- Leave one pumpkin in a bed and have students observe and report on what happens to it from now till June

My Notes:

November

Fall

What should we plant?

Direct sow

Fava beans, Beets, bok choy, broccoli rabe, radicchio, **radish**, squash, **swiss chard**, mustard, **lettuce**, turnips, garlic bulbs, shallots, **spinach**

Start seed indoor

Micro-greens, bok choy, kale

Transplant

broccoli, bok choy, celery, fennel, kohlrabi, onions, peas, cabbage, cauliflower, kalé

Cafeteria Harvest

Radish, lettuce (if you planted in August)

Monday	Tuesday	Wednesday	Thursday	Friday
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

November Activities

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Plant a “cover crop” in empty beds to fix nitrogen in the soil for winter (e.g., red clover or fava beans). Check in with Yolo Farm to Fork for seeds (info@yolofarmtofork.org).
- Weed garden paths and open area; cover with deep layers of wood chips or other materials
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Clean up leaves (especially away from fruit trees) and start a compost pile.

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Continue to save seeds from summer flowers and veggies
- Have students identify flowers and veggies to plant for fall and winter; map the plantings
- Plant the fall garden, charting its growth in future months
- Continue Garden Journals to log their observations and tasks accomplished
- Start a chart of “good bugs” and “bad bugs” with pictures to identify each (<https://savvygardening.com/guide-to-vegetable-garden-pests/> can help you identify garden friends and foes)
- Weigh or count, record and track your harvest produce (Tracking Form on page 34)

Fun Activities:

- Harvest and eat some garden treats
- Last chance to plant a cover crop for winter
- Plant bulbs for spring blooms – especially daffodils
- Consider making holiday garden gifts (See page 55 for ideas)

My Notes:

December

Winter

What should we plant?

Direct sow

Fava beans, Beets, bok choy, broccoli rabe, kale, radicchio, radish, squash, mustard, turnips, garlic bulbs,

Start seed indoor

Micro-greens,

Transplant

bok choy, onions, kale, asparagus roots

Cafeteria Harvest

lettuce, radish (planted by October)

Monday	Tuesday	Wednesday	Thursday	Friday
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

December Activities

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Weed garden paths and open area; cover with deep layers of wood chips or other materials
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Clean up leaves (especially away from fruit trees) and start a compost pile.
- **Check in with Yolo Farm to Fork** to get mulch, seeds and transplants for spring (info@yolofarmtofork.org)

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Continue Garden Journals to log their observations and tasks accomplished
- Continue a chart of “good bugs” and “bad bugs” with pictures to identify each (<https://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Weigh or count, record and track your harvest produce (Tracking Form on page 34)

Fun Activities:

- Have students create holiday garden gifts, decorations or cards from previously pressed flowers and other garden materials (See page 55 for ideas)

My Notes:

January

Winter

What should we plant?

Direct sow

Fava beans, broccoli rabe, kohlrabi, **lettuce**, mustard, radicchio, **radish**, bok choy

Start seed indoor

Micro-greens, broccoli, cabbage, cauliflower

Transplant

Bok choy, pak choi, onion, asparagus roots

Cafeteria Harvest

lettuce, radish, carrots (planted in September or October)

Monday	Tuesday	Wednesday	Thursday	Friday
		1	2	3
6	7	8	8	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	31

January Activities

Winter

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Prune fruit trees and roses if you have them. Here’s a helpful video for pruning fruit trees: <https://www.youtube.com/watch?v=yNytXvxWJIY>.
- For pruning roses: <https://www.youtube.com/watch?v=5uMbXpDOfno>

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 49)
- Put a rain gauge in the garden and have students measure and graph rain accumulation. You may want to turn off your automatic watering system.
- Grow “desk top gardens” of micro-greens like broccoli (See page 52)
- Have students draw a map of the garden and plan spring plantings of veggies and flowers
- Continue Garden Journals to log their observations and tasks accomplished
- Continue to chart “good bugs” and “bad bugs” with pictures to identify each (<https://savvygardening.com/guide-to-vegetable-garden-pests/> can help you identify garden friends and foes)

Fun Activities:

- Make “good bug” houses from twigs (<https://www.pinterest.com/wildforms/bug-houses/>) They can hang in the garden or be taken home.
- Start sweet or white potatoes indoors for transplanting into the garden (page 53)

My Notes:

February

Winter

What should we plant?

Direct seed beets, broccoli rabe, broccoli, kohlrabi, **lettuce**, mustard, radicchio, **radish**, cabbage, **carrots**, swiss chard, **chives**, collards, endive, kale, kohlrabi, peas, **potatoes**, radicchio, turnips

Start seed indoor Micro-greens, eggplant, leeks, peppers, tomatoes

Transplant Broccoli, cabbage, kale, leeks

Cafeteria Harvest Lettuce, carrots, radish, snow peas

Monday	Tuesday	Wednesday	Thursday	Friday
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28

February Activities

Winter

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Finish pruning fruit trees and roses if you have them
- Control the weeds by pulling them out by the roots
- Work fresh compost into beds with perennials
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Measure, track and graph rain accumulation in the garden (you may turn off your automatic watering system)
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 51)
- Grow “desk top gardens” of micro-greens like broccoli (See page 52)
- Have students draw a map of the garden and plan spring plantings of veggies and flowers. Check in with Yolo Farm to Fork for spring seeds and transplants and other freebies. info@yolofarmtofork.org
- Continue Garden Journals to log their observations and tasks accomplished

Fun Activities:

- Have students design and build a worm compost bin. Here’s a helpful video link: <https://www.youtube.com/watch?v=pR9TzAK3jMo>
- Have students create valentine garden gifts or cards from previously pressed flowers (See page 55)

My Notes:

March

Spring

What should we plant?

Direct sow beets, mustard, radicchio, **radish**, **carrots**, swiss chard, chives, collards, endive, kale, potatoes, **squash**, turnips, celeriac, celery, fennel, jicama

Start seed indoor chives, eggplant, peppers, sweet potatoes, tomatoes

Transplant leeks, chives

Cafeteria Harvest Lettuce, carrots, radish, snow peas,

Monday	Tuesday	Wednesday	Thursday	Friday
2	3	4	5	6
9	10	11	12	13
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

March Activities

Spring

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Finish pruning fruit trees and roses if you have them
- Feed the base of fruit trees with organic fertilizer
- Begin planting your spring/summer garden; be sure to work compost into beds before planting
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 49)
- Measure, track and graph rain accumulation in the garden (you may turn off your automatic watering system)
- Plant spring garden seeds following the instructions on each seed packet. **Check in with Yolo Farm to Fork for spring seeds and transplants.** (info@yolofarmtofork.org)
- Continue Garden Journals to log their observations and tasks accomplished

Fun Activities:

- Dissect daffodils to identify the parts of a flower
- Celebrate the first day of spring by making and throwing wildflower seed balls (seeds mixed with mud)
- Transplant potatoes sprouted indoors into the garden (see page 52).

My Notes:

April

Spring

What should we plant?

Direct sow

Lima/snap beans, beets, corn, cucumbers, eggplant, mustard, radish, **carrots**, **swiss chard**, chives, endive, **melons**, okra, potatoes, **squash**, turnips, celeriac, celery, fennel, jicama, soy bean, spinach, **watermelon**

Start seed indoor

Micro-greens, chives, eggplant, sweet potatoes, tomatoes

Transplant

chives, eggplant, peppers, sweet potatoes, tomatoes

Cafeteria Harvest

lettuce, carrots, peas, chard

Monday	Tuesday	Wednesday	Thursday	Friday
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

April Activities

Spring

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Plant your spring and summer garden; be sure to work compost into beds before planting
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Flush out your automatic watering system and repair it as needed

Garden learning suggestions

- Keep up your “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)
- Make seed tapes for carrot and lettuce seeds – they won’t need thinning later. (See page 49)
- Continue Garden Journals to log their observations and tasks accomplished
- Weigh, count, track and graph your garden harvests (Tracking Form on page 34)

Fun Activities:

- Fertilize your growing veggies with worm castings from your worm bin
- Track the growth of your potato sprouts
- Be sure to taste your garden harvests

My Notes:

May

Spring

What should we plant?

Direct sow

Beans, corn, cucumbers, eggplant, swiss chard, **melons,** okra, potatoes, squash, turnips, soy bean, spinach, pumpkins, watermelon

Start seed indoor

Basil

Transplant

chives, eggplant, sweet potatoes, tomatoes

Cafeteria Harvest

Lettuce, carrots, radish, peas, potatoes

Monday	Tuesday	Wednesday	Thursday	Friday
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

May Activities

Spring

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Plant your summer garden; be sure to work compost into beds before planting
- Control the weeds by pulling them out by the roots
- Patrol for bugs and other pests; hand-picking the “bad guys” and dropping them in soapy water (<https://savvygardening.com/guide-to-vegetable-garden-pests/> or <http://davesgarden.com/guides/bf/> can help you identify garden friends and foes)
- Arrange the summer care for your garden

Garden learning suggestions

- Continue Garden Journals to log their observations and tasks accomplished
- Keep up your spring “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)

Fun Activities:

- Harvest and taste your garden’s edible produce
- Have students plan thank-you gifts/letters for staff and volunteers who have helped in the garden
- Consider providing “awards” to students who have excelled in some way in the garden.

My Notes:

June

Summer

What should we plant?

Direct sow

Melons, sweet basil, corn, cucumbers, radish, swiss chard, okra, squash, turnips, soy bean, **pumpkins, watermelon**, parsnips

Start seed indoor

Micro-greens, celery, brussels sprouts

Transplant

chives, eggplant, **sweet potatoes, tomatoes**, celery, leeks

Cafeteria Harvest

Lettuce, carrots, peas, chard

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26

June Activities

Summer

To be sustainable, the garden needs people to

- Keep up your gardening schedule with students, staff and volunteers
- Last chance to plant melons, pumpkins and sunflowers!
- Control the weeds by pulling them out by the roots
- Finalize the summer care for your garden

Garden learning suggestions

- Keep up your spring “harvest delivery” procedures so the cafeteria can serve garden harvests. Be sure to weigh and record the produce you deliver. (Tracking Form on page 34)

Fun Activities:

- Harvest and taste your garden’s edible produce
- Prepare students for their “back to school” harvest; have them figure out what will be available and how much will be there?
- Build a solar oven and roast garden potatoes and carrots
(<https://www.homesciencetools.com/a/build-a-solar-oven-project>)
- Present any “awards” to student gardeners, and thank-you’s to staff and volunteers.

My Notes:

July

Summer

What should we plant?

Direct sow Beans, **corn**, radish, okra, squash, turnips,
pumpkins, parsnips, celeriac, lettuce, rutabaga

Start seed indoor Micro-greens, brussels sprouts






Transplant celery. Brussels sprouts

Cafeteria Harvest Lettuce, carrots, tomatoes, sweet potatoes,
Sweet Basil

Monday	Tuesday	Wednesday	Thursday	Friday
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
26	26	27	28	29

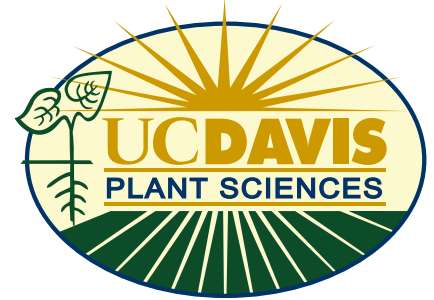
Enjoy a summer vacation with produce from your garden!

Vegetable Planting Guide

-  preferred time to seed in a greenhouse or other protected area (e.g. coldframe, well lit window)
-  preferred time to transplant
-  preferred time to direct seed
-  seeding
-  transplanting

Seeding and transplanting dates may vary between varieties. Please check seed package or nursery for additional information.

Weather can modify planting and harvesting dates.



Information provided by Robert Norris, Department of Plant Sciences, 2008

SUMMER/FALL Vegetables for the Sacramento Area

	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
brussels sprout													
cabbage													
parsnips													
cauliflower & broccoli													
carrots													
rutabaga													
lettuce													
lettuce													
lettuce													
turnips													
spinach													
spinach													
fava beans													
peas													

WINTER/SPRING Vegetables for the Sacramento Area

	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
cauliflower & broccoli													
onion													
cabbage													
lettuce													
lettuce													
lettuce													
shallots & garlic													
tomato													
carrots													
carrots													
potato													
chard													
beets													
pepper & eggplant													
cucumber													
cucumber													
corn													
corn													
corn													
corn													
green bean													
green bean													
melon													
melon													
squash													
lima bean													



Section 2

-

Garden Management

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When We Work in the Garden...

We are safe, respectful and responsible.

Safe means

- We always use garden tools properly
- We walk carefully

Respectful means

- We raise our hands to talk in meetings
- We work together in groups cooperatively
- We take good care of the plants we grow and eat

Responsible means

- We help our group get its job done well
- We put all tools back where we found them



That way we can ALL enjoy the garden!

Managing Kids in a Garden

Sourced from **Creating and Sustaining Your School Garden Spring 2012** Find additional resources go to www.csgn.org/csystg

An edible school garden is a unique learning environment, with activities that are more structured than recess, but also more physical and open-ended than those done in the classroom. Therefore, it is essential for garden leaders to clarify for themselves and their students what type of behaviors are appropriate to this environment and encourage appropriate behaviors.

Before coming into the garden

Remember that comfort and safety are really important. For many children, this is a new and possibly strange environment.

1. Provide a shaded area where students can gather for instruction.
2. Provide kid-sized gloves, tools and hats if possible.
3. Review *Garden Rules* (See page 27) You will need to enforce them in the garden:
 - Proper tool use and ways to avoid danger with tools.
 - Walking, not running in the garden.
 - Keeping voices at a reasonable level.
 - Paying attention to verbal instructions while in the garden
 - Care with plants and how to avoid damage to garden spaces.
 - Picking and eating only with clear permission from an adult.

Tips for Working with Kids in the Garden

1. Use a consistent cue for students listen when in the garden, e.g, a patterned clap or specific hand signal that everyone imitates
2. Work in small groups. Having five or fewer kids per group is extremely helpful.
3. Develop a series of activities or stations that groups can rotate through.
4. Look for opportunities to provide students with choices. They may be able to choose, for example, which chore to work on or which seeds to plant.
5. Use team building activities to encourage teamwork and cooperation between students.
6. Have a class set of clipboards for activities that involve data tracking, writing or drawing.
7. Plan unsupervised activities such as journaling, sketching, measuring, etc.
8. Include art supplies and have kids make weather-proof labels for plants.
9. When choosing students' first garden activity for the year, start with something highly engaging, like harvesting and eating fruit or veggies that have matured over the summer or those activities suggested in the August month of the *Garden Calendar*.
10. Provide LOTS of opportunities for students to harvest and eat from the garden.
11. Use the suggested seasonal activities in the *Garden Calendar* and *Learning Activities* sections of this Guide.
12. If a student behaves badly and consistently, ensure s/he leaves the garden under supervision.

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How to Prepare Garden Beds Fall & Spring Planting

1. Pre-water the bed 2 days before you dig to loosen the soil and existing plants.
2. Remove all plants from the bed. Add them to your compost pile.
3. Dig 3-5 inches of fresh, organic compost into each bed.
4. Rake the bed smooth, then make appropriate rows.
5. Water the bed before you plant seeds directly into the soil.
6. Sprinkle seeds or set seed tapes in each row at appropriate distances or transplant seedlings at the proper distance apart.
7. If you've planted seeds, erase the rows gently (with gloved hands).
8. Cover the entire bed lightly with straw or light compost, taking care not to cover any seedlings you planted.
9. Remember to keep the newly planted seeds evenly wet; straw/compost will help.



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1. Materials for harvest include

- harvest baskets and tools (as needed) for harvest
- scale to weigh produce
- a copy of the *Tracking Your Garden Produce* form (page 34)
- approved garden cart with three (3) CLEAN rinse buckets
- delivery crate to bring produce to the school kitchen

2. Before harvest begins, garden intern

- checks in with Kitchen Manager and Garden Coordinator about today's harvest
- locates harvest baskets, scale and recording sheet
- Sterilizes harvest basket(s) in dishwasher or 3-compartment sink
- Surveys the garden for produce to pick
- Fills the 3 CLEAN rinse buckets with water (about $\frac{3}{4}$ full)
- inspects the garden for animals, insects, feces and sitting water (If there are animal feces, identify the area and do not harvest anything within two feet of the area. Feces need to be removed to a garbage can)

3. Preparing students for harvest activities

- Select a "harvest group" and schedule an introduction to harvest, weighing, washing, and storing procedures. Teach one group and have them teach other groups while your supervise.
- Have students wash their hands for at least 20 seconds in warm water and soap before harvesting.
- Make sure harvest trays and buckets are clean; re-wash any that don't look clean or set them aside for more cleaning
- Have intern show the students what to pick and how to tell if something is ready for harvest

4. Harvesting for the cafeteria

- Pass out harvest baskets and have students gather the harvest
- Have students weigh and record what has been harvested
- Have students rinse harvested produce 3 times in the CLEAN harvest buckets
- Have students pack CLEAN produce in the kitchen tray(s) and take them to the kitchen

5. Complete the *Cafeteria Harvest Check List* (page 33)

Save a bit of harvest for a snack reward to the harvesters

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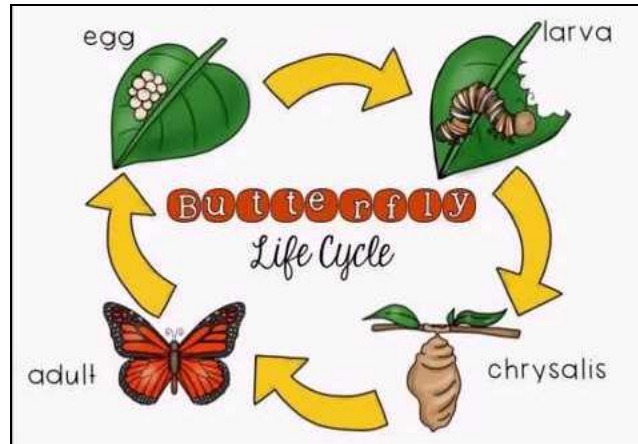
Section 3

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Garden Learning Activities & Lessons

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Butterfly Races



Objective

Students will learn the butterfly live cycle and the importance of sequencing through a relay race activity.

Materials/Set Up

- Popcorn or other small, healthy snack
- Small cups/bowls
- Safe Area to run Bonus: the area is near a butterfly-related plant

Opening Questions

- What types of garden critters fly in the air?
- Can anyone explain what a life cycle is?

Procedure

1. Go through the butterfly life cycle with students: egg, caterpillar, chrysalis, and butterfly
2. Once students are comfortable with this cycle, have them come to the running area
3. In the running area, have students pretend to be in each sequence of the life cycle
 - a. Crouch down and cover your head as an egg
 - b. Crawl as a caterpillar
 - c. Hug yourself tight as a chrysalis
 - d. Flap your wings as a butterfly and get pollen at the end
4. Have students line up in 2 equal lines and mark the points where they will stop at each sequence
5. Allow students to run through the life cycles, ending by receiving their popcorn (or healthy snack) pollen
6. If time allows, play again!

Reflection

- Discuss the importance of pollination with students
 - Ex: helps flowers blossom, trees produce fruit, and keeps the garden happy!
- After they finish their snack, they may butterfly fly - with walking feet - through the garden
- Ask students which plants they pollinated as butterflies

Graham Cracker Insects

Objective

Students will understand the main parts of a bug and will create their own edible version

Materials/Set Up

- Paper plates
- Serving bowls
- Serving spoons
- Plastic knives
- Bug Body Parts Info Poster
- Photograph examples
- Place paper plates out for every child. Wash and cut any produce, then place in separate bowls. Break crackers in half and put cream cheese or honey into bowls.
- Crackers (rice, graham, etc.)
- Cream Cheese and/or honey
- Freshly harvest plant parts OR
- Strawberries, mint, sunflower seeds, raisins

Opening Questions

- What are some critters we know of that fly in the garden?
- What are some critters we know of that crawl on the ground?
- What are some critters we know that dig through the dirt?

Procedure

1. Sing Bug Parts song with students
2. If having students harvest, pick the produce, then place in colander to wash and have students wash their hands as well
3. Explain the parts of the bug body, then demonstrate how we will create a bug shape using plants
 - a. Common garden plants to harvest or purchase: mint, spearmint, chives, lettuce, grated carrots, kale, flower petals
4. Interns or chaperones can help apply cream cheese or honey to graham crackers with younger students
5. Allow students to create their own bug, ensuring each one has a head, thorax, and abdomen.
 - a. Ask students to wait until everyone is done before they eat it

Reflection

- Ask students to share their bugs, identifying the head, thorax, and abdomen as well as the name of the bug if they have come up with one
- Eat and enjoy!

Bug Parts Song (Tune of Head, Shoulders, Knees & Toes)

Head, Thorax, Abdomen, Abdomen
Head, Thorax, Abdomen, Abdomen
Eyes, Antenna, Wings, and Six Legs,
Head, Thorax, Abdomen, Abdomen!
(Repeat 3x)

Mild to Wild



Objective

Allow students to taste a variety of garden veggies and use this sense of to categorize them based on their judgement of “mild” and “wild” flavors.

Materials/Set Up

- Set out tables, harvest and wash greens set out.
- Common plants to try: lettuce, kale, mustard, chives, mint, carrot tops

Opening Questions

- What are some ways you could describe “wild” flavors?
- Are spicy foods wild? Sour foods? Sweet foods
- What are some ways you could describe “mild” flavors?
- Discuss “don’t yuck my yum”

Procedure

1. Harvest a variety of leafy greens and herbs (if available) from the garden.
2. Wash everything off under running water and plate a piece of each leafy green on a plate.
3. Students take one plate each and taste each
4. After everyone has tasted their veggies, instructor asks which ones were mild and which were wild

Reflection

- Students raise their hand in response to the instructor and give their explanations as to why a certain leafy green was mild or wild. This is a good time to have them use descriptive adjectives and potential vocabulary terms.
- Students talk about which one was their favorite (keeping in mind “don’t yuck my yum”)



No Peeking

Objectives

Allow students to use their senses of touch, smell, and hearing to explore different garden items.

Materials/Set Up

- Collect the following:
 - Pieces from several different plants in the garden. Cut pieces that 1-3 times the size of a child's hand. Choose plants with interesting, contrasting, smells and textures.
 - A large tray or bowl for plant pieces.
 - A cloth to cover the tray of plant pieces.
- Put the plant parts into the tray and cover with the cloth. You may want to have a jar of water available to put the plant pieces into between uses to keep them fresh.

Opening Questions

- What are the different senses we use?
- If you couldn't use your sight, what other senses would help you know what different objects are?

Procedure

1. Have the children sit on the ground in a close circle around the covered tray of plants. Point out the covered tray in the center and tell them they will discover what is underneath the cloth. Exaggerate the mystery of the activity to interest the group.
2. Instruct them to close their eyes if they are comfortable with it and that it's important that they do not peek
3. Once they have their eyes closed, tell the children that you will give them each a different plant part from the tray. If there are extras, remove them from the tray at this time.
4. Encourage the children to touch, smell, and shake the plant part to become familiar with it with closed eyes. (Do not have any children taste the plants.)
5. Collect all the plants back into the tray and ask students to open their eyes.

Reflection

- Ask students to identify the part that each of them had. Let them touch and smell the parts again if they would like
- Which senses were most helpful in determining different garden items?
- Give descriptions of garden items.
 - Is it flower, seed pod, or leaf?
 - What is the name of the plant or area it was found near?
 - What are the uses of the plant?
- This activity can be lengthened for older students by allowing them to find the garden items in the garden

Compost in a Bag



Objectives

To familiarize students with aerobic composting, composting processes and how compost helps the natural/garden ecosystem.

Materials

- Ziploc bags (1-2 bags per group)
- Starter compost (aerobic compost or worm compost)
- Food bits (vegetables or fruits)
- Hay or other types of organic matter (grass clippings, chicken manure)
- One plastic toy, paper clip, rock, Styrofoam, plastic (something that takes a long time to decompose)
- 6- Pots, three with compost and other three without compost.

Background:

Composting is a process in which natural products and wastes decompose at a faster rate as compared to individually decomposition. It is basically a way of recycling food and yard waste by the use of organisms (i.e. **F.B.I**: fungus, bacteria and insects), air and water.

There are two ways to make compost:

Vermicomposting and aerobic composting.

Both ways of composting must include insects and microorganisms.

Vermicomposting is a process in which composting is done through red worms as well as the **F.B.I**. digesting food leftovers and aerobic composting is a processes which the **F.B.I** exclusively decomposes natural wastes, no food. The red worms and the **F.B.I**. eat the compost material, digest it and secrete it out as nutrients that are packaged into a form that plants can use. Plants thrive with compost because plants need nutrients to be broken down into smaller forms so they can absorb it through their roots, which is the job of the red worms and the **F.B.I**.

Opening Questions

- Does anyone know what happens to food parts that you don't eat, like orange peels?
- Are you able see the animals/organisms that help break it down?
- How do plants in the garden get the food/nutrients that they need? The sun? The soil?

Pre-Activity Lesson:

1. Explain how aerobic compost works
2. Start with a pile of natural waste, emphasizing the layers of brown, green, brown, green. Explain what kind of waste can go into a compost pile and which is green versus which is brown.
3. Air is required. A pile is turned to keep oxygen available in all parts, water is also added to insulate and retain oxygen
4. Through this process, the material slowly breaks down into smaller and smaller particles while retaining most of its nutrients.
5. Once all of the pre-compost material has been broken down into small dark brown material, it is now compost.

Procedure

- Get Ziplock bags for each student to make their own "mini compost in a bag."
- Place food bits, organic matter and non-decomposable item into the bags.
- Water the contents of the bag.
- Punch 4-5 holes along the top of the bags under the seal for oxygen.
- The kids write their names on their own bags and place it in a safe place in the classroom. Over time, they will see what happens to the compostable items and the non-compostable items.

Reflection

- Explain why the non-biodegradable item does not break down
- Discuss the importance of compost in helping plants grow bigger, taller, and stronger
 - Ex: the nutrients supplied to the plant from the compost help the plant be healthier and grow bigger, much like how eating vegetables helps students grow healthier and bigger

Mini Monets in the Garden



Objective

To have children create a visual representation of their garden and to help students work on their creativity, language arts, and vocabulary. This activity can be used for any grade or age level.

Materials/Set Up

- Paper
- Crayons/Markers/Pencils/Paint
- Clipboards

Opening Questions

- Can someone name some plants that might be in a garden?
- Can someone name some bugs that could be in the garden?
- What else can be found in a garden?

Procedure

1. Give each child a piece of paper and coloring utensils at the beginning of the activity. Have them spend 5 minutes looking around the garden and then spend 10-15 minutes drawing and coloring what they see in the garden.
2. To scale up this lesson, children could pair together and one student can describe what they are looking at while the other student draws.
3. Students can switch roles once they are done drawing. This allows students to use descriptive vocabulary words and requires more thought; in addition, students can use vocabulary words they learned in the classroom to describe their drawings.
4. At the end of the activity, have the children share what they drew.
5. Having children draw what they see helps with motor skills and hand-eye coordination, creativity, and allows them to express themselves through non-verbal means.

Reflection

- How would you describe what you drew (touch, sight, taste if possible)?
- What is a new word that you learned today?

Scavenger Hunt



Objectives

To allow students to explore the garden as well as use appropriate vocabulary to find items

Materials/Set Up

- Copy the Scavenger Hunt Lists (on the next page) as needed
- *Optional:* garden mural sketch on butcher paper.

Opening Question

- What are some items that you can find in the garden?
- Can anyone describe to me something that you could find in a garden?

Procedure

1. Divide the class into groups of five or six kids each with an intern or parent in charge of each group. Often we do this in the rotation groups which may be as large as 8-10 but it is most fun with smaller groups.
2. Pass out lists of the items to find to each group. Have the students read all items off the list and find one of each in the garden. They and their intern/parent helpers can do this as a group all moving together, or the kids can divide and conquer, bringing their goodies back to the rest of the group. When all the items have been found, the group sits back down on the benches and waits for the other groups to finish.
3. Once everyone is collected back at the benches (or hay bales) each group gets up in front of the others and shows one of the things that they found. If they show all the items it takes too long and the "audience" loses interest.
4. Another way that we have handled the show and tell is to have the kids come back and attach their findings to a large mural on which we have drawn some of the basics to show a garden setting (grass, maybe a tree, sky). Some things do not attach well (worms, roly-polys) so these are drawn on with markers. The end result is a cool representation of the garden site and can be taken back to the classroom.
5. To scale up this activity you can have a scavenger hunt based off of other senses besides visual (sound, smell, touch, taste if possible).

Reflection

- Allow students to describe found items to clas

List 1

- Something that makes bugs stay away.
- Something that would cure a fever.
- Something that a chicken could turn into an egg.
- A bean seed

List 2

- A leaf you can eat.
- Something that will feed a plant.
- A plant part that carries pollen.
- A roly-poly bug.

List 3

- A root you can eat.
- Leaves of two plants that are cousins.
- Something that grows when you cover it with dirt and water it.
- An apple.

List 4

- Something that a worm could turn into plant food.
- Something besides a worm that helps break down food.
- Something that gives you oxygen.
- A very soft leaf.

List 5

- A flower you can eat.
- Something that a worm can turn into vermicompost.
- A leaf of a plant that attracts good insects to our garden.
- A seed you can eat.

List 6

- Something roots like to grow in
- The biggest leaf you can find.
- A small red fruit that you can eat.
- Something that will cure a cold.

List 1

- Something that would cure a fever.
- Something that a chicken could turn into an egg.
- A leaf you can eat.
- Something that could feed a plant.
- The part of a plant that produces pollen and nectar and attracts insects.
- Something essential yet invisible that you could “capture” in a plastic bag.

List 2

- A root you can eat.
- A very soft leaf.
- A flower you can eat.
- A leaf of a plant that attracts good insects to our garden.
- Something roots like to grow in.
- Something essential yet
 - invisible that you could “capture” in a plastic bag.

List 3

- The biggest leaf you can find.
- Something that could cure a fever.
- The leaf of a plant that feeds the soil.
- The part of a plant that gets energy from the sun.
- An edible root that takes up water.
- A leaf of a plant that attracts good insects to our garden

List 4

- A roly-poly bug.
- The creature that eats garbage and makes compost.
- The leaf of a plant that feeds the soil.
- The part of a plant that gets energy from the sun.
- A flower you can eat.
- Something that lives in the soil.

Nature Bracelets

Materials

- A piece of masking tape or duct tape large enough to slip over child's hand.

Directions

1. Cut a piece of masking tape long enough to make a bracelet to slip over child's hand.
2. Form a ring with tape with sticky side out.
3. Slip on bracelet and go explore!
4. Decorate bracelet with leaves, pebbles, flowers, seeds and other things from nature.



Propagate new plants from cuttings.

Materials

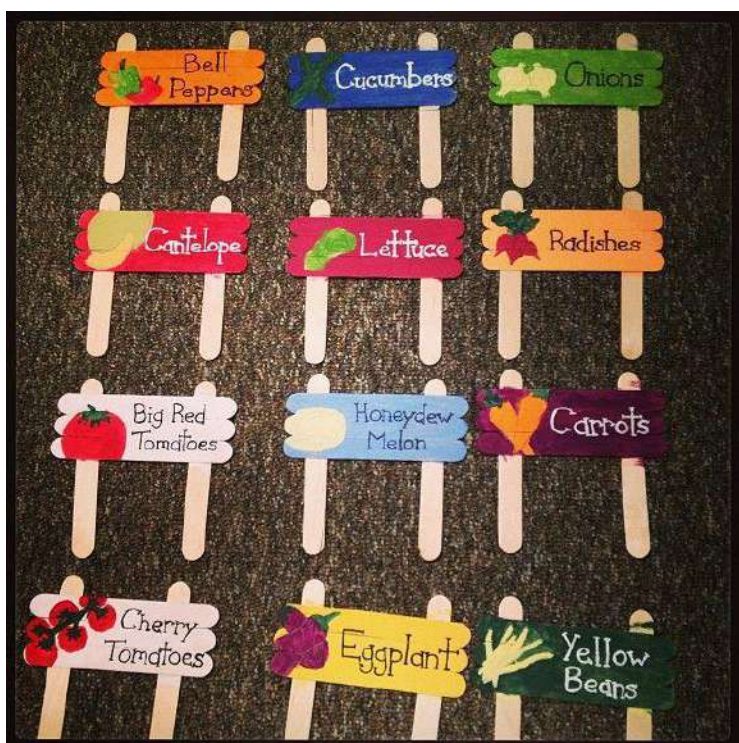
Rosemary, lavender, sage, mint

Directions

1. Remove leaves on the bottom of stem.
2. Place cuttings in glass containers with water in a sunny window. In two weeks, there should be roots sprouting.
3. Change the water every four or five days.
4. After roots develop, plant directly into soil.



Don't forget to label your plants!



Be creative with your kids.
Plant labels make GREAT art projects!

Herb Poetry

These activities require about 45 minutes, and is best for grades 3-5.

Objective: Learners will be able to describe herbs using their senses and create a poem.

Materials

- Assortment of herbs or leaves, enough for each learner
- 1 blindfold for every two learners
- Garden journals
- Pencils



Preparation: Harvest any strongly scented herbs including sage, rosemary, lemon balm, and scented geraniums. Harvest entire sprig instead of individual leaves.

Make sure each learner has his own pencil and garden journal. Divide the group into pairs. Students will take turns being the scribe and the sensor in this exercise.

Activities

1. The first student ties the blindfold over her eyes. Her partner gives her a sprig of herbs.
2. The blindfolded student answers the following prompts while the scribe writes down the answers:
 - Use words to describe the scent of the plant.
 - Feel the plant with your fingers. Use words to describe the texture.
 - Taste a piece of the plant. Use words to describe the flavor.
 - What does the plant remind you of?
3. After the first learner has finished the questions, repeat the exercise with a different plant and the second learner.
4. Use the description words to write a poem.

Discussion from the garden: Share the poems with the class and ask the learners, “What do you know about the herb that you didn’t before the lesson?”

Garden Work Search for Adjectives



Objective:

To have students read and connect adjectives to real world items in the garden that specific adjectives describe. Use the list below or add more words as appropriate – in English or any other language students speak.

Set up:

Write each adjective on a separate slip of paper and insert the paper in a “treasure bag” (clear plastic sandwich bag). Bring all the bags out to the garden with the students. On the next page, you will find a list you can copy and cut up for each “treasure bag”.

Word list:

Rough	Smooth	Triangular	Squishy
Dark	Light	Soft	Stringy
Scratchy	Hard	Rectangular	White
Dried	Fuzzy	Brown	Green
Slippery	Flat	Egg-shaped	Oval
Black	Round	Wrinkled	Live
Sticky	Long	Spiny	Heavy

Activity:

This activity should take students about 15 minutes

1. Divide students in teams of two. Give each team a bag with the adjective in it. Have them read the word in the bag, asking if anyone needs help with the reading or meaning.
2. Explain that they have 10 minutes to find two items in the garden that fit the adjective and put those two items in the bag.
3. Back in the classroom select a few students to explain how their items fit the adjective in their bags.
4. Have each team write a sentence that includes both the adjective and the item they found in the garden.

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Copy and cut as needed

Rough

Smooth

Triangular

Squishy

Dark

Light

Soft

Stringy

Scratchy

Hard

Rectangular

White

Dried

Fuzzy

Brown

Green

Slippery

Flat

Egg-shaped

Oval

Black

Round

Wrinkled

Live

Sticky

Long

Spiny

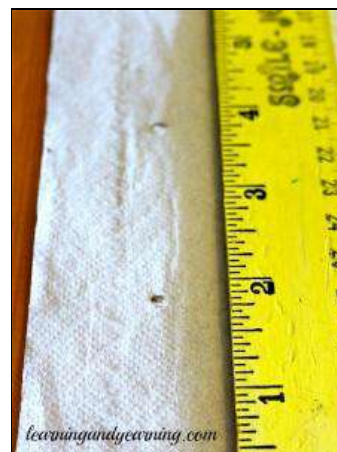
Heavy

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Making Your Own Seed Tape in the Classroom

What is Seed Tape?

Seed tape is a great product for planting that has seeds embedded right into it. It's perfect for planting tiny seeds like carrot that are difficult to space in the garden. The "tape" is made of bio-degradable paper (like toilet paper or newspaper) which is planted directly into your garden. You can make your own seed tape for a fraction of the cost of pre-made tape.



Why Bother With Seed Tape

Seed tape has several advantages. No seed is wasted; the seeds are embedded into the paper tape one at a time and are perfectly spaced and ready to go into the garden. This also means that no thinning is required. They are especially useful for tiny seeds which can be difficult to plant such as radish, carrot, lettuce or parsnip.

How to Make Seed Tape

Use unbleached toilet paper to make seed tape. Paper towels or even newsprint would work as well, although I haven't tried them. Cut strips of paper into 12" sections for classroom use. Label each length with the name of the seeds and, possibly, the student preparing them.

Picking up seeds.

Begin by mixing approximately 2 Tablespoons of white flour with 1 Tablespoon of water to make a thick paste, or use Elmer's School Glue. This will act as the glue to hold the seed in place. You want it to dry quickly so that the seed does not have a chance to absorb the water.

Unroll the toilet paper (or newsprint) into 12" strips (3" x 12" if using newsprint). Fold the paper in half the long way, and then unfold. You will be placing the seed in the middle of one half of the paper (about 1" from the edge of the paper).

From the seed packet, determine how far apart you need to space your seeds. Don't use the distance given on the packet for planting – use the distance that the packet suggests for thinning. For carrots seeds should be 1" apart.

Use a ruler to guide you as you space seeds.

Spread your seeds out onto a piece of paper. Use a pen or marker to mark the spot on the paper where the seed will go. Now, dip a tooth pick into the glue to get a small amount on its tip. Use this to pick up just one seed. Using a ruler as a guide, place the seed onto the toilet paper at the proper distance apart for the seed you are working with.

When you've seeded 12" of toilet paper, add a few dots of your glue every few inches near the edge of the toilet paper and fold the paper back in half.

Make Your Own Seed Tape...page 2

Rub gently to allow the paste to glue the two sides of toilet paper together. Continue working in the same manner until you've used all your seeds, or until you've made as much seed tape as you require. Be sure to leave the paper spread out until the glue is completely dry. Store in a cool, dry spot until you're ready to plant. This is also a good time to make an attractive, larger garden label for your future crop.

Stashing your Seed tapes

When they're dry, you can roll them up into a tube, or fold them into a large envelope until you're ready to plant.

Math connections

When children make seed tapes, they reinforce an experiential connection with "inches" and "feet." After the tapes are planted, they can "predict" and count the days to germination to bolster their concepts of cause and effect, prediction, and data gathering if they chart the germination and growth process.

Planting Seed Tape

When you are ready to plant your seeds, unroll your seed tapes plant them in a raised bed. Uncover any mulch on top of the soil, place the tape on the soil, and cover it with the amount of soil that the seed packet recommends for planting depth. For carrots, that's about 1/4". Cover gently with mulch and water.



Snap/Snow Peas

(Organic Oregon Sugar Pod)

Two ways to grow them

1. Sprouting in the classroom

Soak all the pea seeds overnight in room-temp water.

Desktop containers can be recycled (sterilized in a dishwasher) plastic containers at least 1" tall. In each container pat down 1" of new or sterilized, MOIST potting soil. "Perfect" soil is moist enough to hold together when squeezed, but not drip water.

Have students count out 10 or 20 seeds to plant in each container. Pat them evenly on top of the soil in each container. Cover half the containers so those seeds are completely in the dark, and leave the other containers in regular light. Ask students to predict how long it will take and what percentage of seeds will germinate. It's fun to chart their answers.

In 2-5 days seeds will sprout. How many or what percentage sprout and when? Which sprouted first, the seeds in the dark or in the light? Why?

When the sprouts are about 2" tall, have students snip them above the soil level and taste them. Have them describe the flavor(s). Who guessed the right number of days and the right percentage of germination?

2. Direct seeding in the garden for yummy snacks in future months

Snow peas make a GREAT fall or spring crop. Germinating in one or two weeks (kids love to predict how many days till they sprout), they create 3-4' vines that produce sweet, edible pod peas in the last days of winter and early spring.

Sprouting happens best when seeds are soaked in water 24 hours before planting. This breaks down the hard outer covering and increases the germination percentage (also a good math lesson – how many of the seeds we planted actually germinated?).

In the garden, top the pea-planting area with 3" of organic compost. Have students poke 1" deep holes in the compost about 3" apart. They can measure distances with fingers: 1" = the distance from fingertip to first knuckle. 3" = about 4 finger widths. Plant 1 pre-soaked seed in each hole and cover with soil or compost. Water well.

Once they sprout, they take 60-65 days to mature. Harvest them continuously when the pods are about 3" long. The more pea pods are harvested, the more pods will be produced. Be sure to weigh and log the amount of each harvest, and wash them before kids devour them.



Growing Micro-greens in the classroom

Yummy, Healthy and Math-oriented!

Request organic sprouting broccoli/kale/bean seeds from Yolo Farm to Fork.

1. Prepare small, clear plastic boxes or jar lids (for each student's desk) in the garden:
 - Wet the soil so that when a handful is squeezed, it sticks together, but no water comes out. If it's too wet, add more dry soil. (If the soil is too wet, the seeds will mold and not sprout)
 - Fill the bottom of the box or lid with damp soil about 1/2" deep.
 - Scatter a packet of 10 organic sprouting **Broccoli** seeds over the top of the soil in the box or lid. Gently pat them down, then sprinkle a tiny bit of soil on top of them.
 - Close the lid on a stick to keep it partially open, and have students write their name(s) and the date on the label.



2. Keep the boxes/lids in the classroom, near a window; they don't need much light to sprout, but more shade = leggy sprouts.
 - Don't water! If you're using jar lids, spritz the top with water at the beginning and end of each day
 - Track how many days it takes to have the seeds begin to sprout.
 - When the seeds sprout, open the box lid completely (or take it off; it can be reattached later)
 - When the soil looks dry on top, use a sprayer to water – just 2 sprays (if soil is too wet on top the sprouts will "damp off" and die at the soil level)
3. Track how many days it takes to have the seeds begin to sprout – lots of ways...
 - Predict, then count the days until the first seed sprouts, then count how many days until ALL of the are sprouted (10 per box)
 - Graph the number of seeds that sprout each day – in total or by each box
 - Calculate the percentage of seeds that sprout – in total or by each box
4. When the sprouts are taller than the box, snip them off with scissors (above the soil) and eat them
5. Language arts connections:
 - Vocabulary: sprout, roots, stems leaves; reading *From Seed to Plant*
 - Discussing which parts of plants we eat
 - Journaling the experience of planting, waiting and eating
 - Discussing adjectives to describe the flavor of the sprouts; how many different words can describe the taste?

How to Grow a Sweet Potatoes

Materials

Sweet potato
Toothpicks
Jar or Vase

Directions

1. Place the sweet potato in a container of water.
2. Keep the top 1/3 of the potato exposed by placing toothpicks into the sides.
3. The pointed end should be down in the water.
4. In a few weeks a vine with several stems will begin to sprout.

You can keep the vine growing in water, or you can transplant it into soil after about three weeks. Just carefully remove the potato, remove the toothpicks and plant it in a pot that is large enough to completely bury the potato, or you can cut off the sprouted sections of the potato and plant them in the soil.



Growing ANY potatoes in a large container

(You can use rooted sweet potatoes or white potatoes)

1. Prepare: Cut seed potatoes into chunks having at least 2 eyes each or plant potatoes whole.
2. Fill a container about 1/3 full with a mixture of garden soil and compost, straw, or dried leaves.
3. Plant potatoes eye side up.
4. As potatoes grow and reach about 3-4" tall fill container with More soil. (Potatoes grow up in the soil rather than down).
5. When potato plants begin to grow flowers, it is time to harvest potatoes.
6. Either turn container over and enjoy finding the potatoes or stop watering and dig for potatoes whenever you want some!
7. You can keep some of the new potatoes to start a new container of potatoes and eat the rest!



Garden Gift Ideas

Rosemary Bouquets

Materials

- 3-4 sprigs of rosemary 4 inches long
- Doily for each child
- Aluminum foil
- Festive ribbon

Directions

1. Cut 3-4 sprigs of rosemary for each child.
2. Wrap bottom stems in a square of foil.
3. Cut a small hole in center of doily.
4. Insert wrapped stem into hole.
5. Scrunch up foil to hold rosemary in place.
6. Tie a ribbon around bouquet.
7. Let rosemary bouquets dry.



You can use the same methods for small flower bouquets, but with fresh flowers, make sure there's something moist around the bottom of the stems inside the foil.

Pressed Flowers and Leaves Bookmark

Materials

- Flowers and leaves
- Cardstock
- Scissors
- Glue
- Laminating plastic
- Single hole punch
- Yarn, raffia, ribbon



Directions

1. Take a nature walk and pick some small flowers and leaves. Press your flowers and leaves by placing them inside the pages of a thick book for 3-4 days. Once your flowers and leaves are pressed and dry, carefully remove them from the book.
2. Cut some cardstock the size you'd like your bookmark to be. (about 6" x 2") Play around with colors.
3. Use the pressed flowers and leaves to make a design on your cardstock. Once the design looks good, lightly attach the flowers and leaves to your bookmark before you permanently cover them up. You could also use a glue stick.
4. Cover the bookmarks with plastic to protect them during use. They can be laminated, but you could also cover your bookmark with clear contact paper.
5. Once you've covered your bookmark, trim off the excess plastic and decorate.

Pre-sprouting and Planting Carrots

Total Lesson Time: 30 minutes 1st day, and then 10 minutes a day for 10 days

In this activity, students will pre-sprout carrot seeds and then transplant them into pots or the school garden. Students will be interested to know that sweet-tasting carrots depend on a soil that has humus and loose soil. Loose soil is especially important for carrots because it allows the root to grow deeply and smoothly.



Objectives: *Students will be able to*

- Pre-sprout carrot seeds
- Plant them in pots or the garden

Materials for the class:

2 quarts water	school garden, or pots	rulers
2 packets carrot seeds	potting soil	1 paper towel per student
Permanent marker	journals	
1 paper cup per student		

Doing the Activity

1. Introduction: Discuss with the entire group the process of sowing and germinating seeds. Explain that carrots are hard to germinate and that the seeds do not live very long. Describe the process of pre-sprouting, and demonstrate how to do it:

Demonstrate how to fold the paper towel into thirds and roll it into a tube. The diameter of the tube should be a bit smaller than the diameter of the plastic cup. Place the paper towel tube in the cup so that it rings the inside of the cup. Pour water into the bottom third of the cup. as the paper towel slowly absorbs the water, place 10 seeds between the cup and towel around the circumference of the cup.
2. Divide the group into teams of 3-4 students. Provide 1 paper cup and 1 paper towel per student and have them count out 10 carrot seeds to sprout in each cup.
3. With a permanent marker, have each student write his/her name on her/his cup.
4. Have teams help each other roll the paper towel into the cup, pour water into 1/3 of the cup, and place 10 seeds around the cup as demonstrated between the cup and the towel.
5. In their journals, have students draw a picture of the cups and seeds and write their predictions of what will happen in 10 days.
6. Place all the cups in the warmest part of the room.
7. For the next 10 days, provide time (about 10 minutes) for students to observe the seeds and record their observations in their journals. add sufficient water to make sure paper towels stay moist.
8. Student observations may lead to discussions about the germination process. Common observations are that some seeds do not germinate (count how many do and don't; calculate percentages), the seed cracks open, the root grows out of the seed before the shoots (stem), and the leaves unfurl from the stem. Encourage students to measure the growth of the roots and stems by using rulers.
9. When leaves unfurl from the stems, help students transplant the largest plants into the school garden or pots. Discuss what the carrot plants need for optimal growth. Continue to water and monitor the growth of the carrots until they are ready to harvest.

Science Experiment: Celery in Colored Water

Materials

- Celery stalk with leaves
- Clear jar or glass
- Red or blue food coloring

What You Do

1. Fill a tall, clear glass or jar half-full with water.
2. Add a few drops of red or blue food coloring and mix well.
3. Trim the bottom of a large stalk of celery, leaving the leaves on the stalk.
4. Place the celery stalk in the glass or jar.
5. Watch for results over the next few days.



Garden Collage

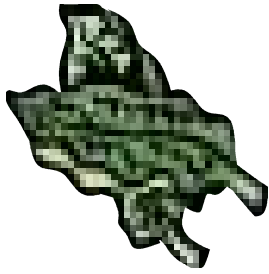
Materials

- Long roll of paper
- Paint or crayons
- Large Ink pads
- Leaves for printing or cut sponges in leaf shapes for printing
- Tissue paper flowers - two 4" squares per flower



Directions

1. Roll out paper.
2. Ask the children to draw plants and animals in the garden.
3. Add tissue flowers. Make tissue flowers by layering two or more squares twisted from the center to create a flower.
4. Add Leaf prints. Paint back of leaves with paint or press in large ink pad to make prints or cut leaf shapes out of sponges and print with paint.



FINGER SALAD



This activity is appropriate for all ages and takes approximately 15 minutes in the garden.

Objective:

To give kids an experience harvesting and preparing a fun, healthy snack from the garden.

Background:

Edible greens eaten raw, like spinach and lettuces plus edible flowers that can all be found in the garden during most of the spring.

Setup:

Set out 3 CLEAN buckets ½ full of clean water at a “washing station” for harvests (unless you are lucky enough to have a washing sink and running water in your garden) Provide dressing (1 part olive oil, 1 part balsamic vinegar) in a “squirt top” bottle so washed salad ingredients can be dressed for each student harvester.

Activity:

1. Have each student pick one large spinach or lettuce leaf from the garden plus one edible flower from the garden. Optional: Pick a sprig of an herb such as cilantro or oregano to add.
2. Wash everything off under running water 3 times in buckets or under running water
3. Separate petals from flower and place them on your leaf. Optional: remove herb leaves from stem and place them on your leaf as well.
4. Squirt one squirt of dressing on the “salad” (make sure excess dressing drops on the ground instead of on clothing or arms)
5. Roll the leaf up like a taco.
6. EAT UP and ENJOY!
7. Optional: Write about the experience in a garden journal.

Want pollinator cards for the garden?



Bees

Bees like to pollinate flowers that smell sweet
and are bright yellow or blue

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If you would like a set of **Pollinator Cards** for your garden please contact Katrina T. Ferro, Program Coordinator at katrina.ferro@yolofarmtofork.org. We are able to print them in color for the school to laminate.

For even more information about pollinators in your garden, check out this site:
<http://www.lifelab.org/wp-content/uploads/2010/02/3rdGardenPollinators2016.pdf>

Mrs. Fields

<https://www.mrsfields.com/blogs/blog/2013/05/edible-flowers-recipe-ideas>



ONLINE RESOURCES for Garden Learning and Development

<p>All aspects of garden development</p>	<ul style="list-style-type: none"> • Life Lab a comprehensive guide including professional development opportunities: http://www.lifelab.org/ • Collective School Garden Network offers a comprehensive development plan for school gardens: http://www.csgn.org/steps
<p>Garden lessons</p>	<ul style="list-style-type: none"> • California School Garden Network, Gardens for Learning: http://food-hub.org/files/resources/GFLBook.pdf • Kids Gardening. Loads of excellent lesson plans easily integrated into all areas of the curriculum K-6: https://kidsgardening.org/lesson-plans/ • Slow Food USA provides a “Good” curriculum for K-6 that emphasizes garden sensory experiences – especially eating from the garden. Good can be downloaded for free: http://gardens.slowfoodusa.org/curriculum • Cornell University offers some excellent garden-learning and garden projects: http://gardening.cce.cornell.edu/lessons-listed-by-type/
<p>Starting and maintaining fruit tree orchards</p>	<p>Common Vision: http://www.commonvision.org/orchards/#tab_0 They have GREAT videos on tree care (especially pruning), and can come to your school if you get on their state-wide schedule for orchard installation and maintenance.</p>
<p>Garden Grants</p>	<p>Small grants (\$100-\$500) and in-kind donations can be acquired by contacting local “big” vendors like Home Depot, Lowe’s, Target, Walmart, etc. Here’s how to approach them</p> <ol style="list-style-type: none"> 1. Identify and visit the manager of your local vendor 2. Specify your request and ask if a donation is possible. Ask if they would like to have publicity about the donation (online or print). 3. If s/he responds positively, the company will likely need a letter from Yolo Farm to Fork or your school’s letterhead formally requesting your donation. This assures the company that the donation will be tax deductible. Offer specific publicity if they want it. 4. If there is a delay, continue to contact the manager by phone or email until the donation comes through. <p>Here are some foundations that offer monetary grants: Collective School Garden Network (Western Growers Foundation): http://www.csgn.org/grants. YF2F will help you develop a competitive proposal; don’t hesitate to ask us!</p>
<p>Bug ID by photo</p>	<p>http://davesgarden.com/guides/bf/</p>