



GROWING GARDEN EDUCATORS

Sustaining Your Garden Program

October 11, 2025

Nate Northup, School Gardens

Stephen Cantu, Friendly Inclusive Gardening

Master Gardener Association of San Diego County



Photo credit Heather Holland



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Agriculture and Natural Resources
UC Master Gardener Program



MASTER GARDENER ASSOCIATION
of San Diego County

Who are the Master Gardeners?



- ❑ 6,328 MG volunteers in California
- ❑ 510,000 hours donated in 2024
- ❑ Trained by University of California Cooperative Education
- ❑ Supported by County Extension Offices
- ❑ 354 active MG's in SD County
- ❑ 112 MG's consulting 900 SD schools





Topics for Session B: *Sustaining* Your Garden

1. **Soil** - importance of amended soil; matching the plant with the soil; planting tips
2. **Pests** - general info: prevent and protect
3. **Maintenance** - life in the garden; irrigation tips
4. **Teaching** in the Garden
5. **Funding** for maintaining and improving
6. **Improvements** - seed starting; accessibility

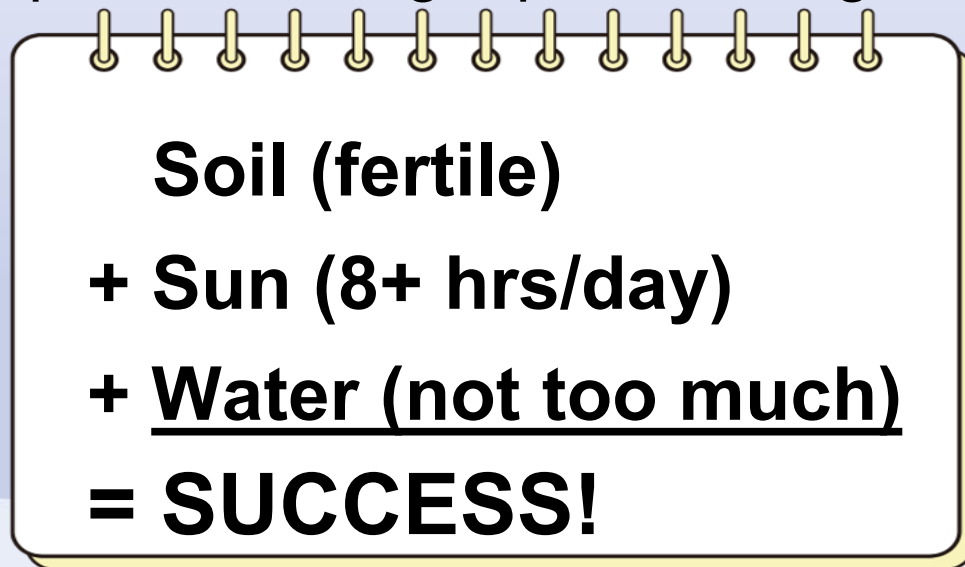




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SOIL: All Important to Your Success

The right plant in the right place, along with this recipe:



Soil: Vegetables Need Nutrition to Grow



Photo: Jonathan Kemper, Unsplash

Amended soil is dark, earthy and pliable

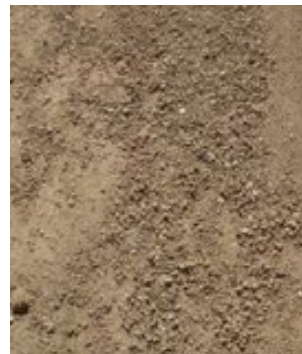


Photo credit - MGASDC



5 Essential Functions of Soil

Regulating water



Sustaining plant and animal life

Providing physical stability and support



Cycling nutrients



Filtering and buffering potential pollutants



Soil Triangle

To Assess your
Soil

-Soil Jar Test

-Ribber Test



Photo: MGASDC



Source: nracs.usda.gov



Photo: MGASDC



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Soil Color is a Clue

Color	Organic Matter (OM)
Black	High in organic matter (4% or more)
Brown	Good organic matter (OM) content and well-drained
Red	Low in organic matter, well drained; color is due to the presence of iron
Gray	Low in organic matter, poorly-drained
Yellow	Low in organic matter, well-drained
Mottled	Mottling effects in subsoil indicates both well and poorly drained conditions during the year due to fluctuations in water table

Goal:

Lots of OM & “well-drained” = **black or dark-brown soil**



“Right Place” Includes *Soil*

Sandy soil = Root vegetables, natives, cactus, succulents

Clay soil = Natives, sages, California poppies,
penstemon, oat grass, sedge,
buckwheat

Acidic soil = Lower pH (<7.0): blueberries, tomatoes,
ceanothus, Western Redbud

Alkaline soil = Higher pH (>7.0): beets, cabbage



Soil Amendments: Raised Beds or Containers

1. Soil amendment: 20%

Amendments could include compost, worm castings, fertilizer and *composted* chicken manure* (preferably all of them)



1. Bagged potting soil: 80%

- Mix well and fill soil to top of container
- Water well before planting
- Plan to amend soil annually



*Check with your school's rules, especially those with farm-to-table programs, as some sites may have allergy or health concerns with certain products



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Soil Amendments: *In-Ground Beds*

Recipe per 50-ft row:

1. **Soil-Building Compost** (e.g. G&B) - **Use 15 gallons** (5-gal paint buckets x 3)
2. **Composted chicken manure** with 1-4-2 fertilizer and 10% calcium (e.g. EZ Green) - **Use ½ bag** (25 lbs)
3. **Worm castings** (e.g. Worm Gold Plus. Make or buy good quality castings, not cheap dried-out stuff; don't scrimp!) **Use 1 bag** (20 dry quarts)
4. **Balanced fertilizer** - (e.g. Dr. Earth All Purpose 4-4-4 Organic Fertilizer) **Use 9 cups.**



Credit: MGASDC

(Thanks to Farmer Roy for sharing recipe, friend of the UC Master Gardeners of San Diego County)



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Grow Cover Crops

Maximize Presence of Living Roots



- Build soil fertility
- Increase soil organic matter
- Suppress weeds
- Protect soil from wind and water erosion
- Provide habitat for beneficial insects and earthworms
- Loosen soil without digging. Roots reach down deeper than any shovel
- Fix nitrogen in the soil. Research shows that legume crops, especially vetch, are the best for nitrogen fixing
- Suppress some harmful soil-dwelling nematodes: Mustard plants do this naturally
- Provide aesthetic addition to winter gardens



The “Right Place” Needs Sun

Fruits and vegetables need at least 8 hours of sun per day, during growing season

Less than 8 hours, consider shade-tolerant plants (ferns, hummingbird sage, lettuce, some herbs)

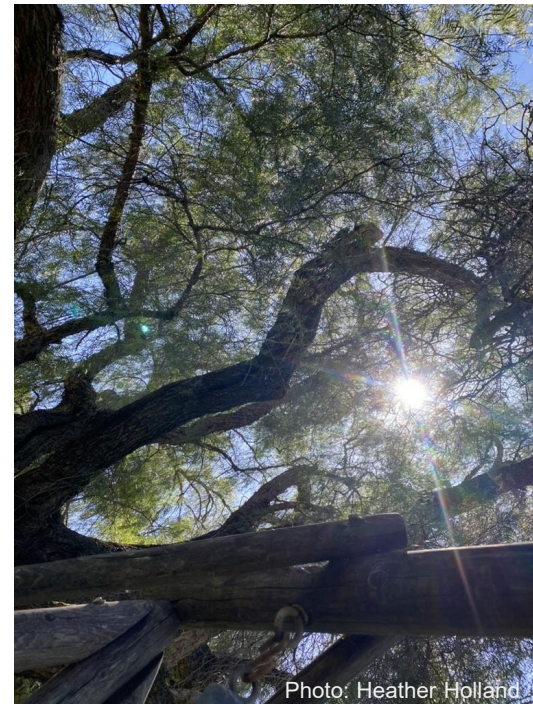


Photo: Heather Holland



The “Right Place” Needs Water

How much? Where? When?

- Take advantage of expert suggestions to improve your irrigation system
- How will you water over vacation/summer breaks?





Inline Irrigation

Inline drip irrigation system best for veggies

Drip system wets only the soil, minimizing disease risk, moderating soil moisture

Mulch on top of 1/2" supply and drip lines to lower soil temperature, slow evaporation and build soil



1/4 inch drip lines emit water every 6 or 12 inches

Use with a battery operated controller



Raised Bed Irrigation Summary

Vegetables thrive when given a consistent, reliable source of water.

In a sunny raised beds during growing season:

Water sown seeds twice daily; young plants daily



Most established vegetables need water only every other day

Turn off irrigation in the rain

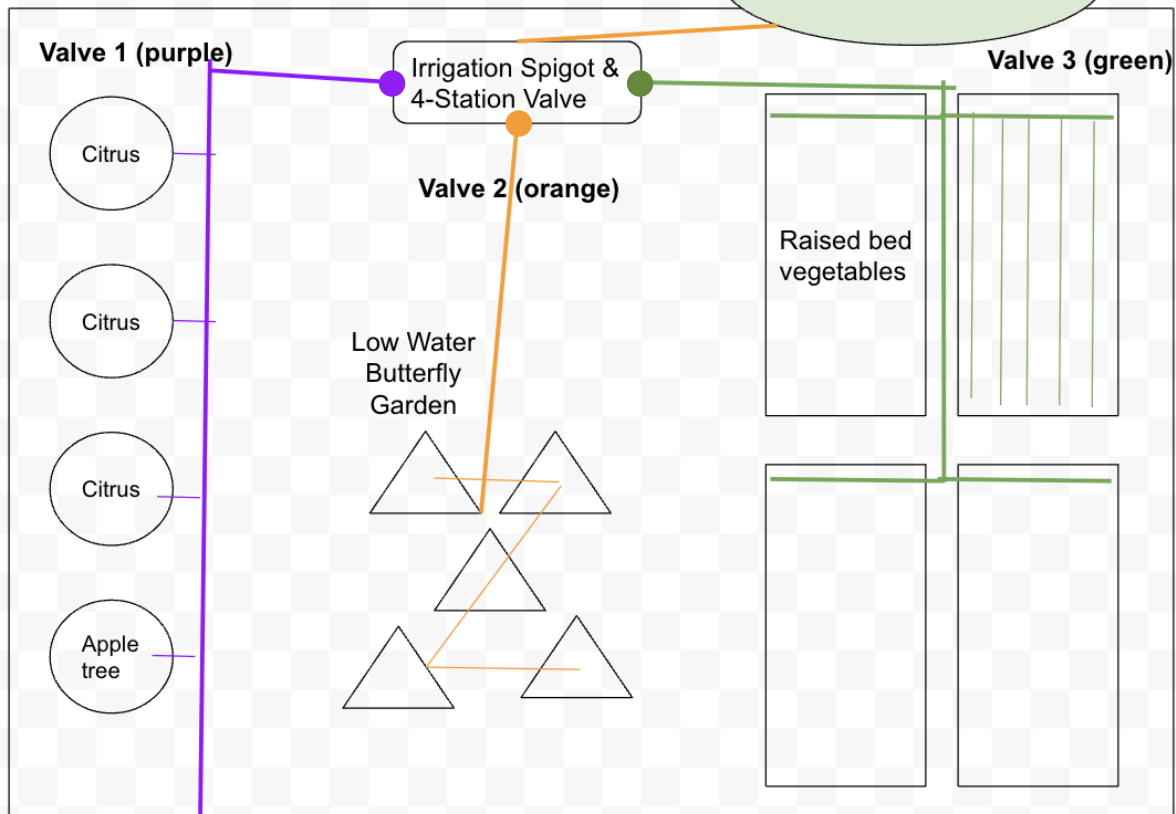
Don't water empty beds; include shut off valves



Photo: Webdam, ANR



Sample Garden Diagram Watering with 3 Valves (one valve saved for future use)



Passionfruit vine on garden fence

Irrigating Raised Beds & More!!

Group plants with similar water needs into a hydrozone

One valve per hydrozone

Several valves on single controller (battery/solar or electric)



“Right plant”: Planting Tips

Choose for the seasons:

- cool v. warm

Plan ahead:

- soil prep
- seeds v “starts”
- equipment/help

Keep a garden diary/log:

- what, when, who
- progress, results
- digital photos?

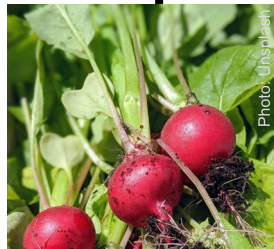


Credit: Erda Estremera, Unsplash

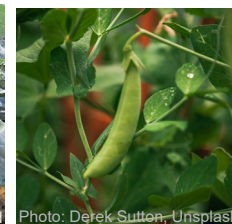
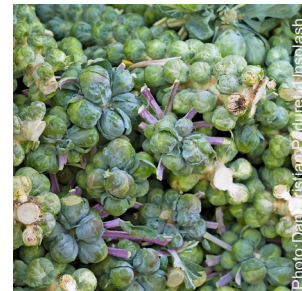


Two Vegetable Planting Seasons in San Diego

Warm: Plant March - Summer



Cool: Plant Oct - Feb



Plants That are Easiest to Grow in Cool Season

Plant in the Fall - Winter



Radishes

Peas

Beets

Chard



Radishes can be grown from seed and harvested in about 40 days!

Less sun: Lettuce

Bok choy

Plant for Success: What is Easiest to Grow in Warm Season?

Plant in the Spring

Radishes

Beans

Sunflowers

Beets



Radishes can be planted by seed and harvested in about 40 days!

Less sun: lettuce

More sun: cherry tomato



Photo: AnthonyLevlev, Unsplash



Photo: Dan Gold, Unsplash

Herbs and Flowers to Plant Now

Plant in the Fall:

Parsley
Thyme
Oregano
Sage
Cilantro
Chives



Photo: Chandan Chaurasia, Unsplash

Nasturtium
Sweet Pea
Borage
CA Poppy
Bulbs: tulip, daffodil
Low Water: Rosemary

In a pot ONLY: Mint



Photo: Lisa on Unsplash



Photo: Lucy Kral, Unsplash

Besides Veggies: Herbs and Flowers to Plant Later

Plant in Spring

Photo credit Webdam, ANR



Basil (*late spring*)

Parsley (*early spring*)

Thyme

Oregano

Sage

Chives (*early spring*)



Photo: Lavi Perchik, Unsplash



Photo by Lisa on Unsplash

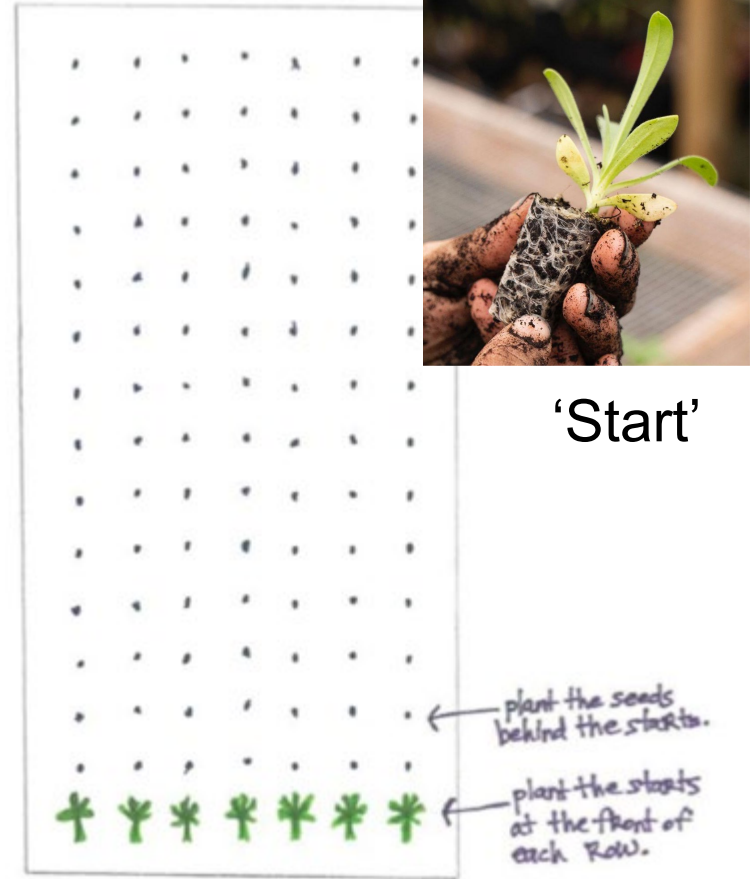
Marigolds, Sunflowers

Low Water: Rosemary

In a pot ONLY: Mint

How to Plant

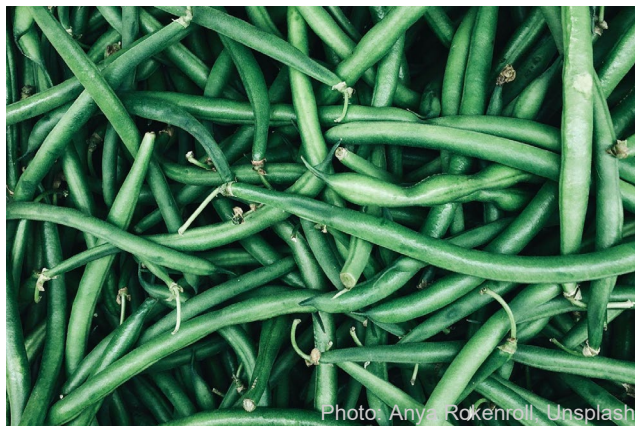
- Amend soil 7-10 days before planting
- Moisten the soil again just before planting
- Plant seedlings at same depth as in pot
- Gently water
- Extend the harvest by planting a start and sowing the same plant seed behind it (Starts are 1-2 months older than seeds)
- Label plant in pencil with name, variety and plant date



Don't Hesitate to Harvest

- Harvest frequently to keep the plant producing
- You are racing against critters to gather ripe fruit

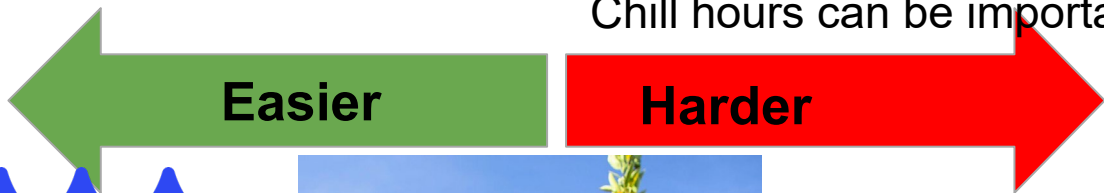
Don't Teach
Critters That
Your Garden
is Their
Smorgasbord










Fruit Trees Can be Fun

Must fertilize regularly
 Shape trees when they're young
 Most need annual/seasonal pruning
 Some trees need annual spraying for pests
 Chill hours can be important to fruit production



- Citrus 
- Persimmon 
- Pomegranate 
- Fig 
- Apples 

- Avocados 
- Stone fruits 
- Banana 

 = water needs



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Themed Garden Ideas

- Pizza garden
- Three sisters garden
- Scent garden
- Pollinator garden with natives
- Square foot garden
- Herb garden
- Succulent garden
- Color wheel garden



Credit: Leta Bender



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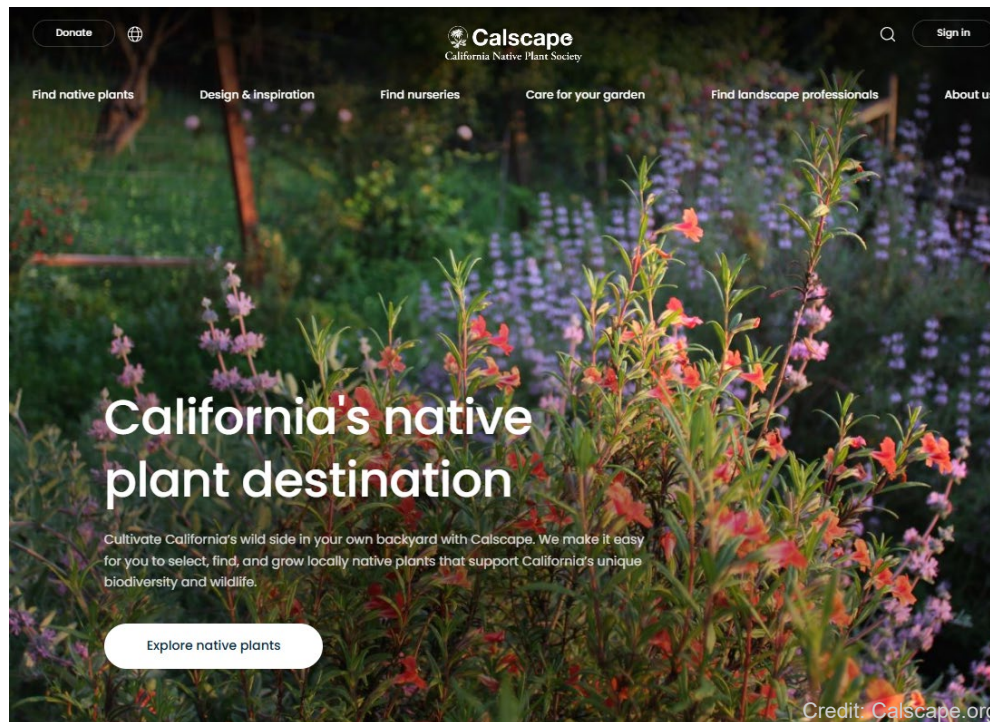


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Great Free Resource for “Right Plant-Right Place”

[Calscape.org](https://www.calscape.org)

Cf. California native plants only. No data on garden produce.



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PESTS: Small and Large!

- Microscopic
- Subterranean
- Airborne
- Crawling
- Digging
- Winged
- Four-legged
- Other plants



Root-knot nematode on tomato

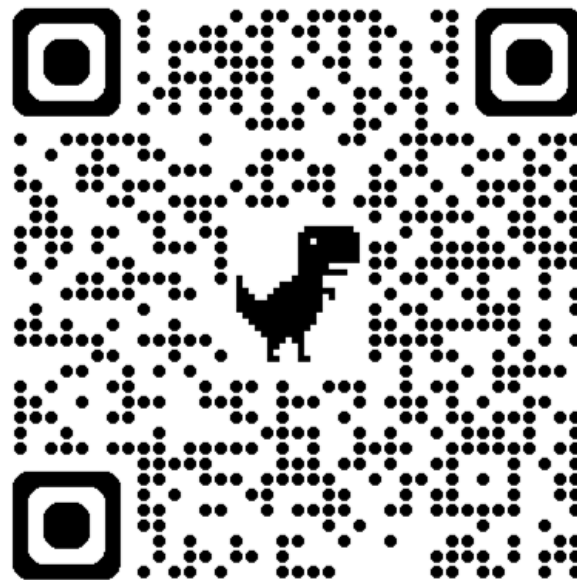


What Is That Thing? What Can I Do About It?

Ask the experts!!

University of California,
Agriculture & Natural
Resources, Integrated
Pest Management

Scientists to the Rescue!



ipm.ucanr.edu



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Insect Pests You WILL Encounter

Oleander aphids



Photo: Ray Conser

Powdery mildew



UC Statewide IPM Project
© 2000 Regents, University of California

Pill bugs



UC Statewide IPM Project
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Hornworms



Brown Garden Snails



Photos: UC/IPM



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Four-Legged Critters You'll Try to Exclude



Photos: UC IPM



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Managing Pests

Integrated Pest Management (IPM)

Environment-friendly approach that combines natural alternatives with other techniques to control and prevent garden pests

Control, not elimination, allows tolerance for some crop damage



Overuse of Pesticides



- Insects can develop resistance
- Can destroy beneficial organisms
- Misuse may harm environment



Weeds Are Also Pests

See a weed, pull a weed



... or use a tool!



Encourage Beneficials



Ladybug
larvae



Ladybug Larvae Eating an Aphid



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Predator Insects

Parasitic Wasp



Wikimedia commons: Ammophila sabulosa



UC Statewide IPM Project
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Assassin Bug



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Predator Insects



Robber Fly

[Fullerton Arboretum](#), Fullerton, Orange County, CA. 9/22/07. © Ron Hemberger



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Predator Insects



Syrphid or Hover Fly



Predator Insects



Tachinid Fly



Predator Spiders



Jumping Spider



Crab Spider



Forceful Spray of Water



Photo: Leta Bender

Photo: UC IPM



Protection Over Raised Beds Excludes 4-Legged and Winged Pests

Lift-Off Cloche



Photo: MGASDC at Torrey Hills



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Exclusion



Photos: MGASDC



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PHoto: MGASDC

To Deter Crawling Pests



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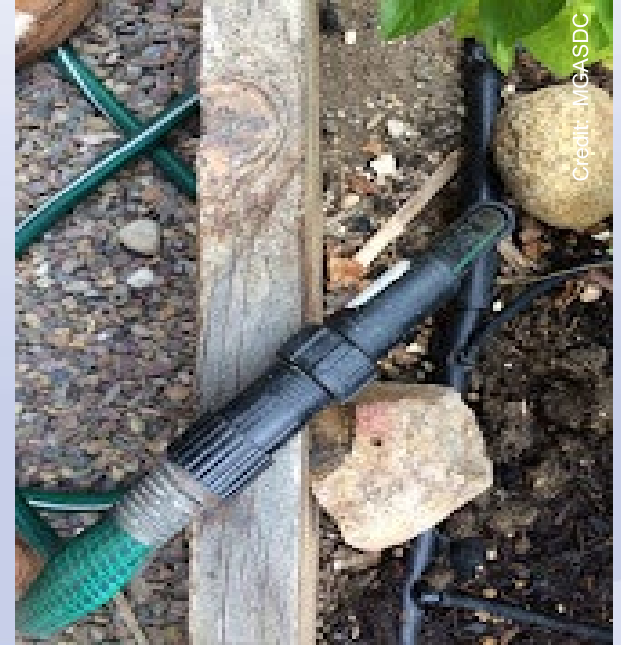


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KEEPING IT GOING: Challenges

- Volunteer issues
- Summer holidays
- Breakage/irrigation leaks
- Materials/supplies/tools
- Administration “support”





Recruiting volunteers

- Parents “age out”
- Busy schedules/teachers stretched thin
- “I’ve never gardened”
- Do I have to teach?
- Background check/TB clearance



Warm Bodies & Cash/Materials

Recruiting ideas:

- Parent foundation
- “Aged out” parent loyalty
- Local garden clubs
- Phone/text tree
- One-time projects (follow up)



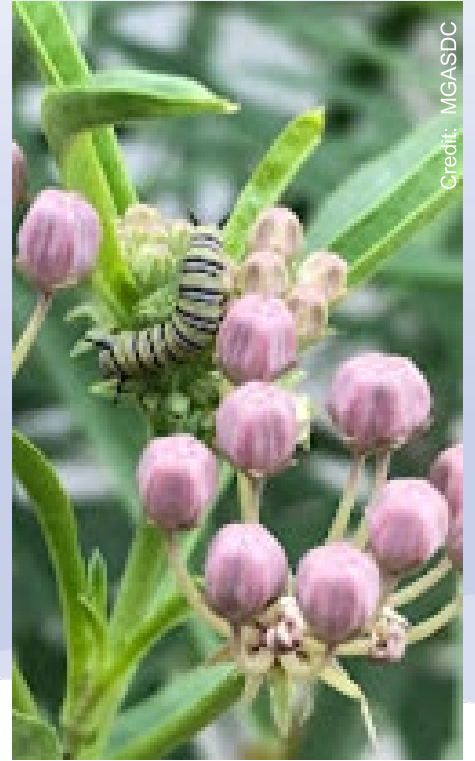
Credit: Leta Bender



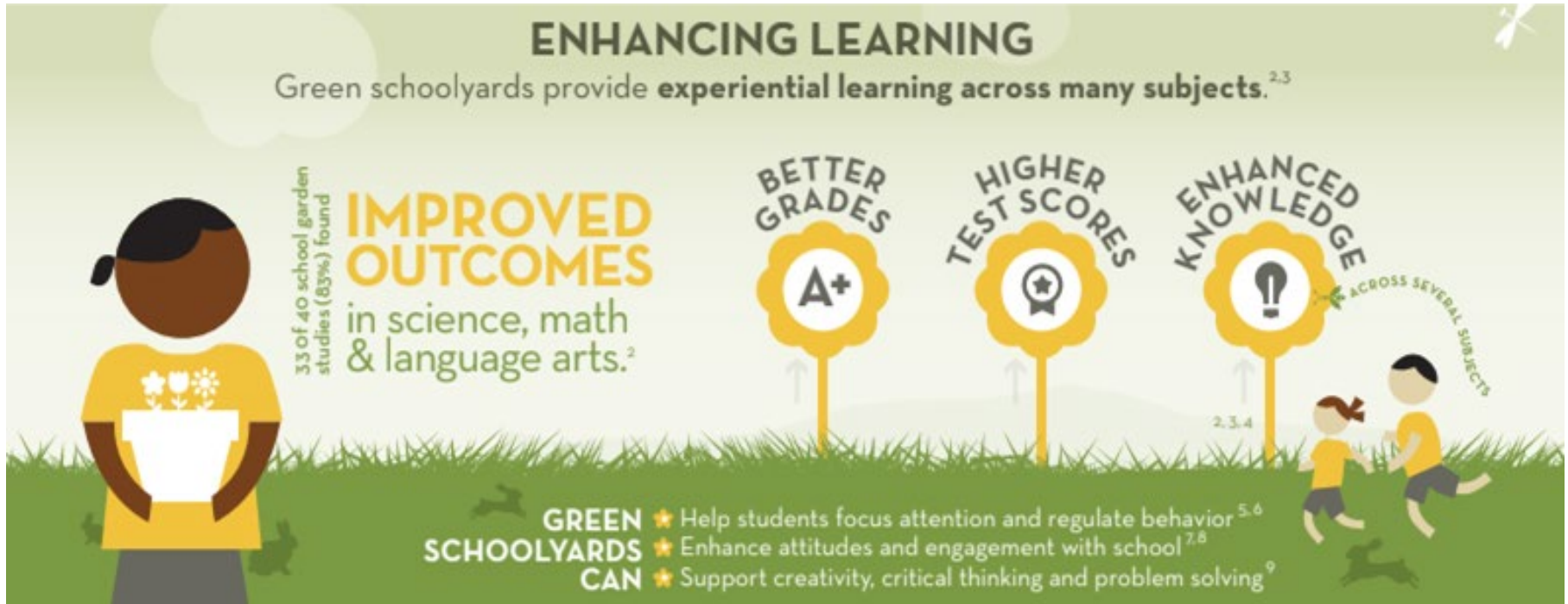
TEACHING IN THE GARDEN

4

- Why go Outside?
- How to Begin
- Setting Rules and Garden Layout
- NGSS Lessons for the Garden
- Grade Level Garden Lessons
- More Resources



Enhanced Learning Outside



Source: Children & Nature Network



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Outside = Fewer Behavior Problems



Source: Children & Nature Network



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How to Begin

- Garden = unique learning environment; neither recess nor indoor classroom
- Foster ownership, offer choices; include students in creating rules and expectations
- Let students do the work and decide what to do in the garden
 - What to grow, where to grow it
 - Let them make mistakes and learn from them



Set Rules in the Garden

Get Their Agreement on Simple, Clear Expectations

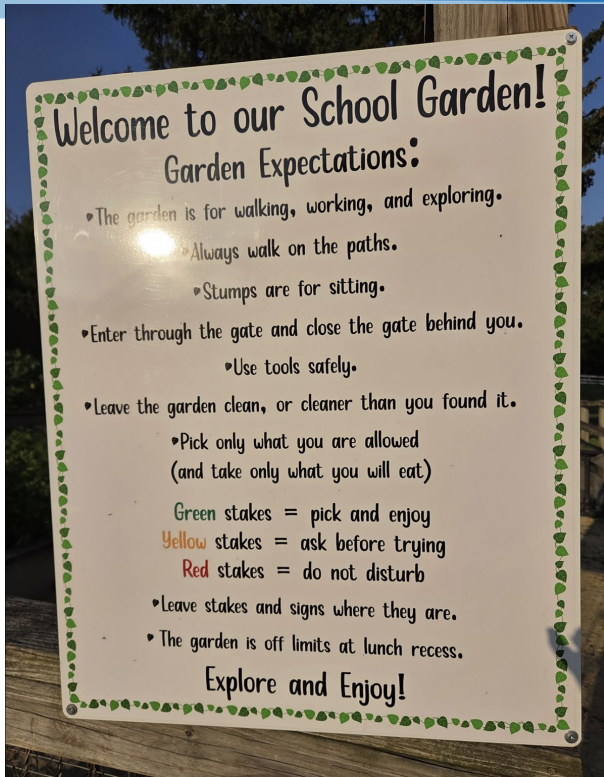


Photo: Upland Garden Club

Rules can cover:

- where students can and can't step
- treatment of plants and each other
- how to taste foods in the garden
- encouraging trying new things
- being adventurous

Review the rules each time you take students outside.



School Garden Rules Ideas

Garden Etiquette

1. Plant in soil do not play with it
2. Do not step on plants
3. Garden soil should not be walked on; otherwise it compacts and plants won't grow
4. Walk in the garden area, do not run
5. Always water gently or it will wash away seeds and plants

Excerpt from *Plant a Seed, Watch it Grow*

Tools

1. Keep tools out of pathways
2. Pointed tools should be laid down with points in soil
3. Keep tools below waist
4. Never use tools as toys
5. Share tools
6. Always clean tools before placing in designated area
7. Clean up litter

Safety Rules for Gardeners

1. Rocks are for walking on
2. Tools are to be kept below the waist
3. Water your plants, not your friends
4. Stay in the garden with your teacher
5. Touch everything, pick nothing (Unless you ask first)
6. Bugs are busy! Watch them work
7. Be safe and have fun!

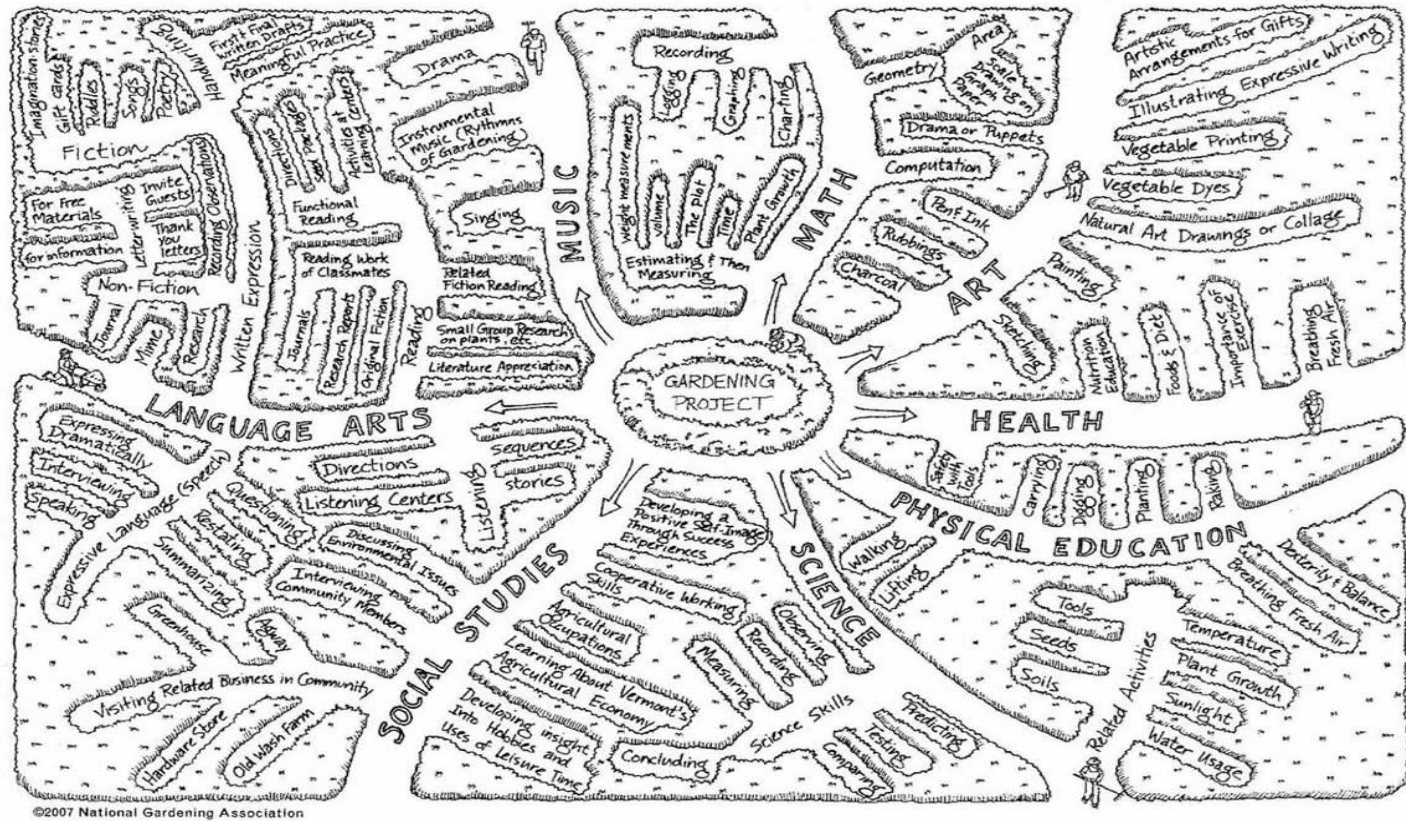
Safety Rules from VIP Village in Imperial Beach



What subjects can be taught in the garden?

ALL OF THEM!!

Garden study plan reprinted with permission from the National Gardening Association (NGA). For more information on youth gardening contact NGA, 1100 Dorset Street, South Burlington, Vermont 05403; www.garden.org.



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How to Teach Children in an Outdoor Classroom

Ideas from *Taking FOSS Outdoors*

Students will be a bit wild and unaccustomed to learning outside. Outside typically means recess for children. With practice students will understand how to behave and how to learn while in an outdoor classroom. Expect better behavior outside with repeat experiences.

Outdoor Classroom Rules

- Setting rules before going outside is important. Have students help decide the rules.
- Create a document with rules, call it a contract and have students sign it.
- If rules are broken, student is given a warning. Next time the student is returned to the classroom and taken out of nature.

Boundaries

Define for them where they can go and what they should be doing.

Timing

- Travel - Consider travel time when planning a lesson outside. 10 minutes to prepare, line up, and arrive in the garden depending on the distance.
- Instructions - When outside, review the rules, describe boundaries, describe the challenge and give out materials.
- Investigation time - break into pairs or groups and work on the project. Break a classroom into 3 groups with 2 more teachers/volunteers to lead the other 2 groups. Rotate groups after 20 minutes or as long as attention span. Example: 1 group does the main lesson, 2nd group does weeding, 3rd

Use this Two-Page Document to Guide You and Your Volunteers on How to Be Outdoors



Set Up Your Garden

- Some items to stock in your garden
- Create a donation list for parents
- Apply for grants now



Images: pixabay.com

Image: Kidsgardening.org

photo: Leah Taylor





Managing and Effective Outdoor Classroom

- Cooperative learning, small groups, rotate responsibilities
 - Provide shade
 - Use clipboards with pencils attached
 - Train students on using tools
 - Observe/connect with veteran garden instructors and Master Gardeners
- Recruit volunteers
 - Label beds, plants, etc.
 - Share prep duties
 - Coordinate schedules





Garden Care: Matching Garden Chores to Grades

- **K** - Trash/ leaves pickup; sweep or rake, water, find bugs; deadhead, harvest, sow, sort
- **First Grade** - all of the above AND weed abatement (teach which weeds they should remove)
- **Second Grade** - all of K and 1 with expanded weed/pest knowledge and abatement, composting, planting starts
- **Third Grade** - expanded use of hand tools
- **Fourth Grade** - using long-handled tools and compost care
- **Fifth Grade** - Garden Ambassadors to teach younger students how to garden





Outdoor Classroom Management

- Utilize small groups: optimally 3 groups of 10 students
- Recruit 2 additional volunteers to run a total of 3 stations
 - Volunteers absent? Use older students as mentors/buddies
 - Or fewer stations
- Spend 20 minutes on each station
- Use a bell to signal rotation

Three Stations

- 1. Garden lesson**
- 2. Garden Care**
weeding, cleaning, trimming, dead-heading, planting, watering
- 3. Tasting station**



School Garden Planner

August or Summer - before school starts		September		Tastes: tomatoes, figs, basil, passionfruit	
Planning	week	Lessons: None	Planning	week	Lessons: 4 garden visits
Plan your curriculum and get seeds from MG			Finish garden clean up	1	Set garden rules, have a garden tour, scavenger hunt, tools intro (Tools and Us pg87)
Think about garden needs, make a list of supplies needed			Amend soil - contact MG to get suggestions/recipe	2	Seed germination video (in classroom), Garden Care and So What? Sow Seeds! p 168
Host a volunteer garden work party to clean up garden			Leave one bed unamended to support Compost lesson	3	What plants need discussion and/or Photosynthesis_MG lesson
Line up garden volunteers			Planting seeds: kale, lettuce, broccoli, chard & sugar snap peas, beets	4	Water We Doing? p 176
Apply for garden grants to secure funding			Harvest garden seeds from spent plants		
October		November		Tastes: persimmons, pomegranates, green beans	
Planning	week	Lessons: 4-5 garden visits	Planning	week	Lessons: 3-4 garden visits
Grants are closing - apply!	1	What Good is Compost? p 96	Insect inspections (aphids)	1	How to check for insects demo
Worm introduction: care of worms and harvesting their castings	2	The Great and Powerful Worm	get radish seeds and planting flats	2	Changing seasons discussion Collectors Corner p 195; Set table; Leaf rubbing
Plant starts of seeds planted last month	3	Butterflies - discuss if present, The Butterfly Flutter By, p 257	Feed worms	3	Radishing Radish Party p295
Collect seeds from spent summer crops for future planting or seed lessons	4	Follow up: What Plants Need Lesson; Make garden signs, store harvested seeds in paper envelopes		4	Harvest activities
	5	Pumpkin activities			

Month by month guide of how to garden with your students

Details garden activities and lessons tailored to your San Diego school garden

Source: MGASDC



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Plant a Seed, Watch it Grow

Master Gardener Association of
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Welcome

Getting Started ^

Benefits of the School Garden

Building a Garden Team

Funding the Garden

Recruiting, Training and
Recognizing Volunteers

Creating a Garden Plan v

Deciding What to Plant v

Preparing the Garden Beds v

Enriching Soil v

Ready, Set, Plant v

Maintaining the Garden v

Integrating Curriculum
with the Garden v

History and Acknowledgments

Welcome

Plant a Seed, Watch it Grow: A Web Guide for School Gardens Master Gardener Association of San Diego County

Welcome to Plant a Seed, Watch it Grow, an online guide developed by the School Garden Committee of the Master Gardeners Association of San Diego County to help you plan, design, and maintain a school garden. It will guide you from learning how school gardens benefit students to integrating curriculum with outdoor, hands-on experiences.



Source: MGASDC

Online School Garden Guide

Plant a Seed, Watch it Grow

[https://MasterGardenerSD.org/
Schools/Plant-A-Seed/Contents](https://MasterGardenerSD.org/Schools/Plant-A-Seed/Contents)



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Practice, Practice, Practice

Expect early garden visits to be bumpy

Outdoor classrooms need experience to get right

With time kids will understand the behavior expected in your outdoor classroom



photo: Meredith French, MGASDC



Curriculum Resources

Search these sites for additional lessons/ideas

- **Life Lab** -see For Educators section
- **Whole Kids Foundation** - Garden Lesson Plans
- **American Heart Association** - see Resources in Garden Community pages
- **Community GroundWorks** - Wisconsin School Garden Network
- **Center for EcoLiteracy** - Big Ideas Food, Culture, Health, Environment grades K-12
- **San Diego Children and Nature** - local lessons with our environment in mind
- **Slow Food USA** - School Garden Curriculum pack
- **Environmental Educators Leaders Network** - Local school garden network

Let your Master Gardener know what you'll study - they'll help provide lessons and ideas

Resources: Access Today's Presentation and Review Even More Free Lessons and Activities!

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SCHOOL GARDENS
Grant information, request a consultant,
educator resources & more



Video lessons,
workshops,
curricula,
gardening
books, guides
to plan,
design,
maintain

A large black and white QR code is centered on a white rectangular background. A black silhouette of a dinosaur is superimposed in the center of the QR code. This white background is set within a green rectangular frame, which is itself set within a larger blue rectangular frame.

UC Master Gardeners
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“Plant a Seed, Watch it Grow”



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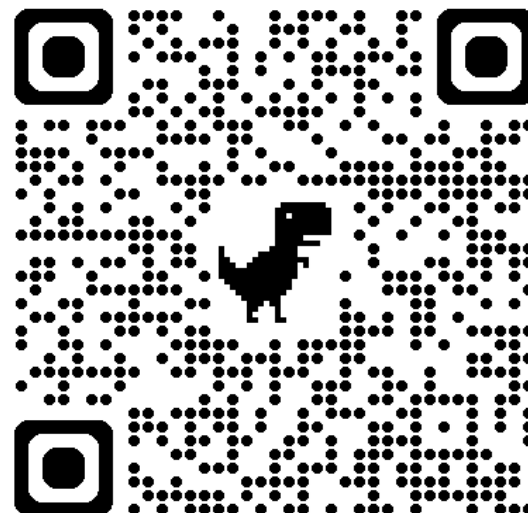


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Even MORE Free Resources...



Kidsgardening.org



UC MG YouTube
Video Resources



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Need Help for a School Garden?

<https://www.MasterGardenerSD.org>

Click on the School Gardens section and 'Request a Garden Consultant'



Funding Your School Garden



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5

FUNDRAISING

- **What are your gardening needs?**
 - Prioritize what you need/want
 - Itemize and cost them out
- **Where are the resources?**
 - Cash
 - Supplies
 - Volunteers
- **How do I get them?**



First Step: Create Your Garden Budget

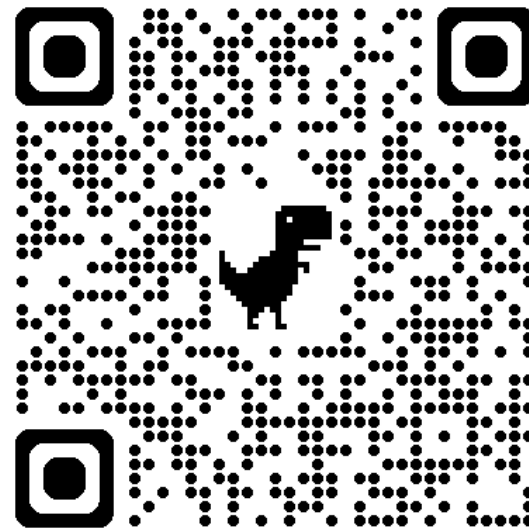
Planning your Garden Budget		
	Cost	Comments
Initial Garden Purchases		
Hose	\$ 25	
Watering cans	\$ 10	will need a few of these
Shovels, hoe, rake, pickaxe	\$ 100	5 tools at the cost of \$20 each
Broom, dustpan	\$ 15	
Handheld trowels, digging fork, scoop	\$ 160	\$8 for 20 tools
Irrigation timer, battery operated	\$ 35	
Irrigation system	\$ 100	variable cost depends on system
<i>The Growing Classroom curriculum book</i>	\$ 40	
Soil	\$ 200	cost per 10X4 ft bed
Soil amendment	\$ 60	compost and worm castings
Fertilizer	\$ 20	
Seeds	\$ 20	
Neem/hort oil or soap	\$ 10	
Initial Garden Purchases	\$ 795	
2nd tier needs		
Garden shed	\$300-1500	
Compost bins	\$48-130	homemade or subsidized through city/county
Wheelbarrel or cart	\$ 80	
Storage shelves	\$ 85	
Seasonal Needs - twice annually		
Soil amendment	\$ 40	cost per 10X4 ft bed
Fertilizer	\$ 20	compost, worm castings, manure
Seeds	\$ 20	
Plants	\$ 50	
	\$ 130	
Nice to Haves		
potting bench	\$ 300	
outdoor sink	\$ 100	



Show Me the Money!!

Potential \$\$ Sources

- Parent Teacher organizations
- School Fundraisers
- School Garden Associations
- Community Non-Profits
- Master Gardeners (via our consultant to your school garden)



**Kids Gardening External Funding
Opportunities & Application Support**



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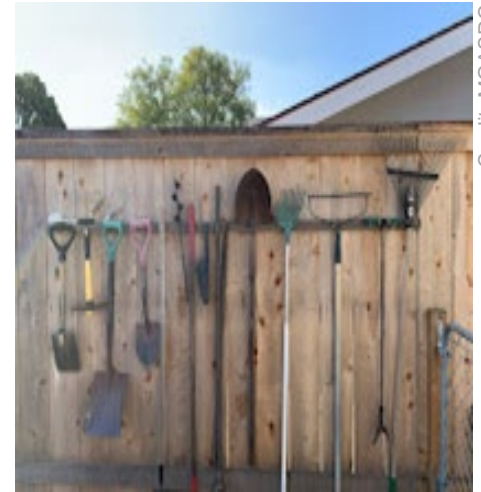
Tips for Getting Funding

- Start a list of your garden program's possible funding sources—make notes!
 - Probably need multiple sources to get started
- Scour the internet for information about the funding source *and its mission*—how does your school garden fit into that mission?
- Who to contact?: face-to-face, email, text or phone
 - Attend a meeting to meet and greet?



Follow up with Funding

- What is their process to apply for grants?
 - Form on website?
- Hone your writing skills: anticipate their “W” questions (what, where, who, when, why)
- Attach images: sketch, site photos to display your vision



Credit: MGASDC



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Cultivate That Funding Source!

- Keep detailed records of purchases
 - Don't combine with personal items
- Follow up with more photos of project
 - Before, in-process, finished
 - No photos of minors w/out parent consent
- Invite them to visit!



Photo: Webdam, ANR



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6 IMPROVING & ACCOMMODATING

- Expanding your operation
- Seed starting suggestions
- Complying with the ADA



Adding Structures to Your Garden?

- Composting
- Greenhouse
- Seating, tables, shade
- Seed library
- Seed starting area
- Specialty garden
- Square foot garden
- Tool storage

Do the right thing by accommodating disabilities with any improvements you make



Credit: MGASDC



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Expanding Your Program: Planting from Seeds

Advantages:

- cost
- selection
- health
- avoid root shock
- storage potential

Disadvantages:

- space
- longer to grow
- supplies/ equipment
- protect seedlings



Growing Timeline: To Serve Produce in Cafeteria

Most produce needs 1-4 mos. to grow in school garden

Quickest to grow: radishes can be grown in 30 days!

Typically successful in cool season: lettuce, swiss chard, broccoli, beets, carrots, kale, peas, kohlrabi, bunching onions, celery, strawberry, tangerines

Typically successful in warm season: cherry tomatoes, zucchini, beans, cucumber, apples



Credit: Joelle Kohn



Communicate with your school garden what they need most in your cafeteria!



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Seed Starting Summary

Soil temperature important

Seeds cannot dry out

Seeds are alive: don't store
in a hot shed or car



Tricks: pour boiling water on parsley and carrot seeds to aid germination
Soak pea seeds a couple hours before sowing



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Growing from Seed

Start in trays

When temperature too cold, seeds are few or expensive or you don't want to lose them



Photo: Jen Theodore, Unsplash

- Use moist “seed-starting” soil mix
- Depth matters. Plant seeds at 2-4x the depth of the seed width
- Provide a warm, bright space to germinate
- Cover with perlite to avoid damping off
- Keep moist but not wet
 - Mist in beginning but bottom water after germination
- Soaking, heat mat and/or dome aids germination
 - Remove from heat and dome after germination
- Liquid fertilize when second set of leaves appears
- Thin: Give them space as they grow
- Harden off for a few days
- Transplant on a cool evening

Growing from Seed During the Cool Season

Start in the beds

Beets, carrots, radish



- Depth matters. Plant seeds at 2-4x the depth of the seed width
- Cover with burlap or straw to aid germination/ protect from heavy rain
- Keep moist—not wet (adjust for rainfall)
- Use Sluggo Plus to abate sowbugs, pillbugs
- Liquid fertilize when second set of leaves appears
- Thinning: Give them space as they grow

Patience! Most seeds germinate within 10-14 days but some take 21 days.

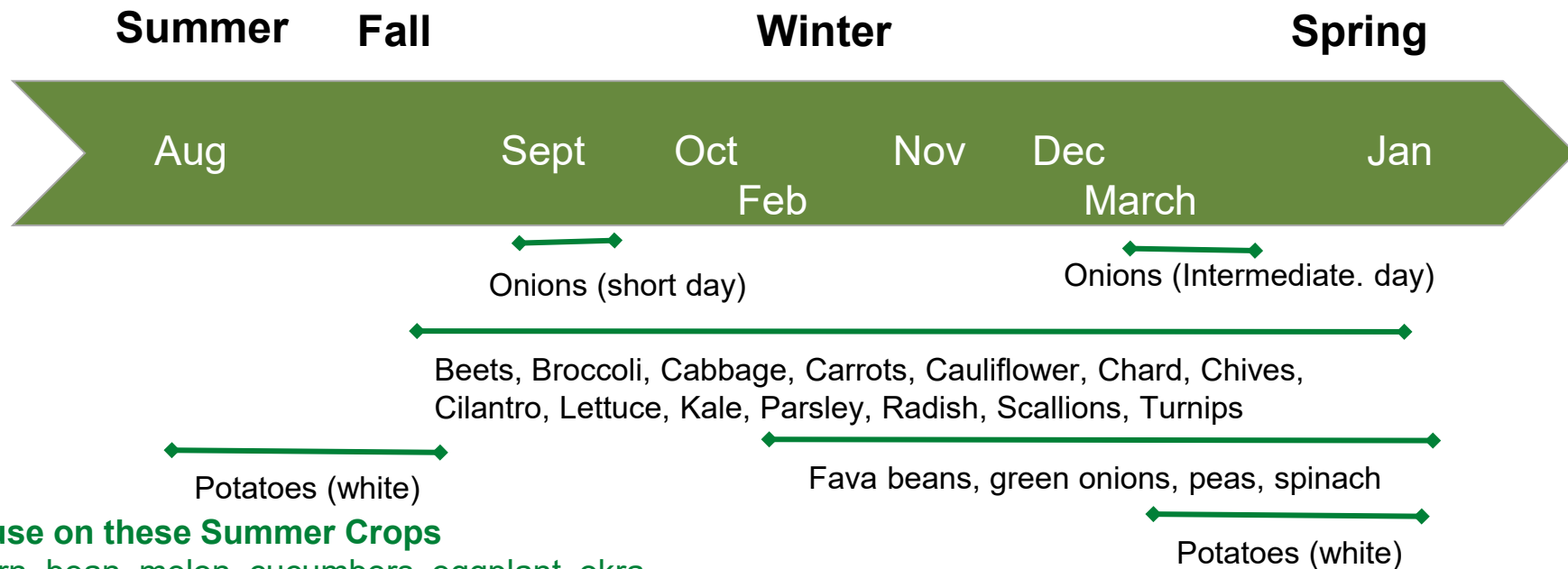


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What Seeds to Plant During Cool Season



Pause on these Summer Crops

Corn, bean, melon, cucumbers, eggplant, okra, peppers, squash, tomato, sweet potato



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[More Info: Our website Resources/Vegetable Planting Guide](#)

Growing from Seed During the Warm Season

Start in the beds

Corn, melon, squash, beans, beets, carrots, radish, cucumbers



- Depth matters. Plant seeds at 2-4x the depth of the seed width
- Cover with burlap or straw to aid germination and slow evaporation
- Keep soil moist—not wet
- Use Sluggo Plus to abate sowbugs, pillbugs
- Liquid fertilize when second set of leaves appears
- Thinning: Give them space as they grow

Patience! Most seeds germinate within 10-14 days but some take 21 days

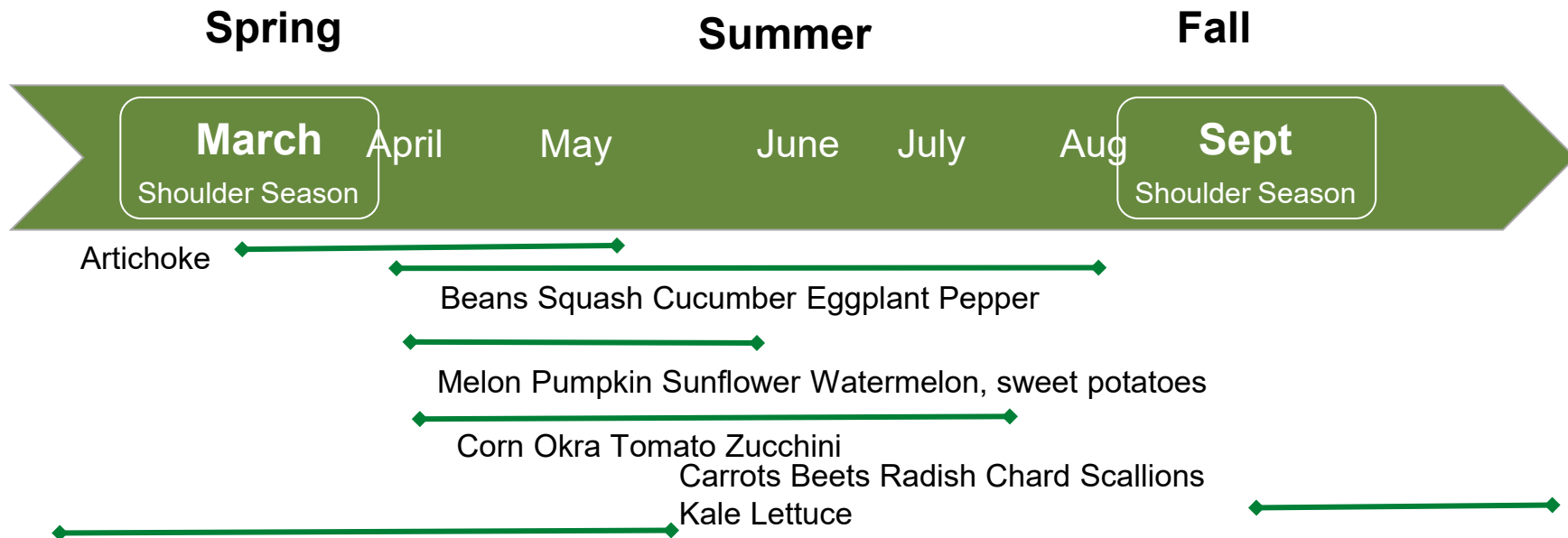


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What Seeds to Plant During Warm Season



Pause on these Winter Crops

Broccoli Sprouts Cabbage Chives Collards Celery Endive
Fava Kohlrabi Leeks Onions Parsley Parsnips Peas
Potatoes Spinach Turnips

[More Info: Our website Resources/Vegetable Planting Guide](#)



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Watch Your Plants Grow

- Inspect & water seeds 2x daily if not on automatic irrigation
- Remove burlap when seeds sprout/ mulch with straw
- As plants grow bigger, water deeper and less often, when top 1" is dry
- Vines need supports (tomatoes, cucumbers, squash, beans, peas, melons)
- Harvest often



Photo: Webdam, ANR



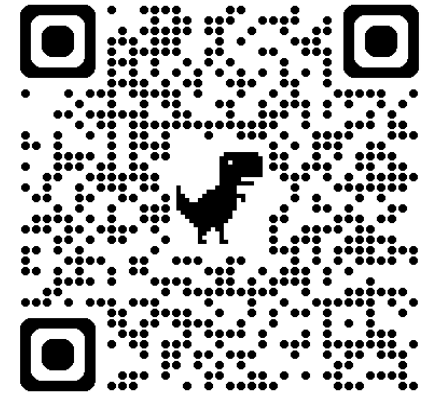
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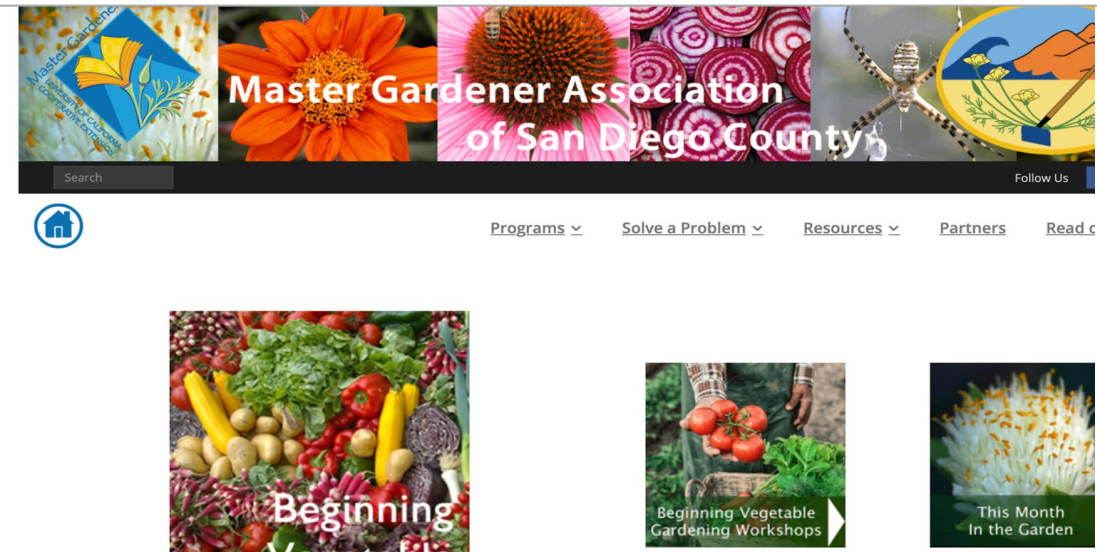
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For Further Advice and Instruction

Hotline Help: (858) 822-6910 or
help@mastergardensd.org



MG School Gardens



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Make Your Garden Accessible

Implement the
Principles of
Friendly, Inclusive
Gardening



Credit: UniversalDesignStyle.com



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Designing

Friendly

Inclusive

Garden Spaces.



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Bed Specifics



Photo: Leta Bender



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Building a Raised Bed

Why raised beds?

- Drainage
- Irrigation
- Portability
- Pest Control
- Accessibility
- Avoids soil compaction
- Ownership of bed defined



Accessibility – Raised Beds

- Optimum bed should be 24” inches high.



- Beds should be narrow. 24” from the path edge to the center is ideal.



Accessibility – Raised Beds

- Length of the beds may be any convenient size.
- Pathways should be 5' wide



Photo: Leta Bender



Edge Materials



Do Not use
Railroad Ties



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Raised Beds with Stone Sides



Photo: Stephen Cantu



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There Are Many Possibilities



Enclosed Raised Beds



Photo: Silver Springs Community



Photo: MGASDC at Torrey Hills



Some Shape Ideas



Photo: midwestgardentips.com



Photo: MGASDC



Photo: Gradinka Zaedno



Alternatives



Photo: privateschoolreview.com



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Galvanized Oval Stock Tank

**2 ft. W x
1 ft. H x
4 ft. L**

**.....
40 gallon
capacity**



Image: Tractor Supply Co



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Possible Path Materials



Photos: Leta Bender



- Mulch or bark
- Straw



Photos: MGASDC

- DG (decomposed granite - without pea gravel is ideal for people's mobility)



Ergonomics



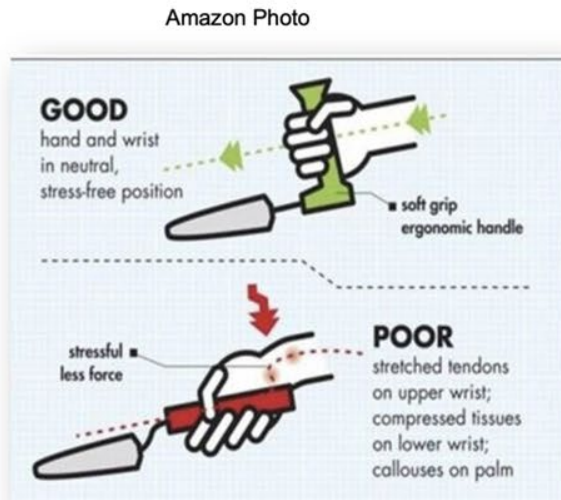
gardeners.com



Amazon Photo



Amazon Photo



Amazon Photo

The Green Head



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The Right Tool for the job



Safety first
Beware of your surroundings

Homemade Tools.net



Pinterest Photo



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Labor-Saving Devices

Use a wheeled trolley to minimize back-and-forth trips.

Store your tools in easy reach



Photo: Kylee Bauble



Gardeners Supply



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FINALE..... CARPE DIEM!!!

QUESTIONS AND DISCUSSION!!

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Image: Canva

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