

Gardening for Beginners Week 2: How does your garden grow?



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This week's class

- Review last week's class
- Seedling progress
- Review Garden sketches
- Plant parts & how they grow and reproduce
- Types of Plants
- Researching
- Garden design



Brief Review of Last Week's Class

Any questions or comments related to Last Week's Class?

Seedlings progress

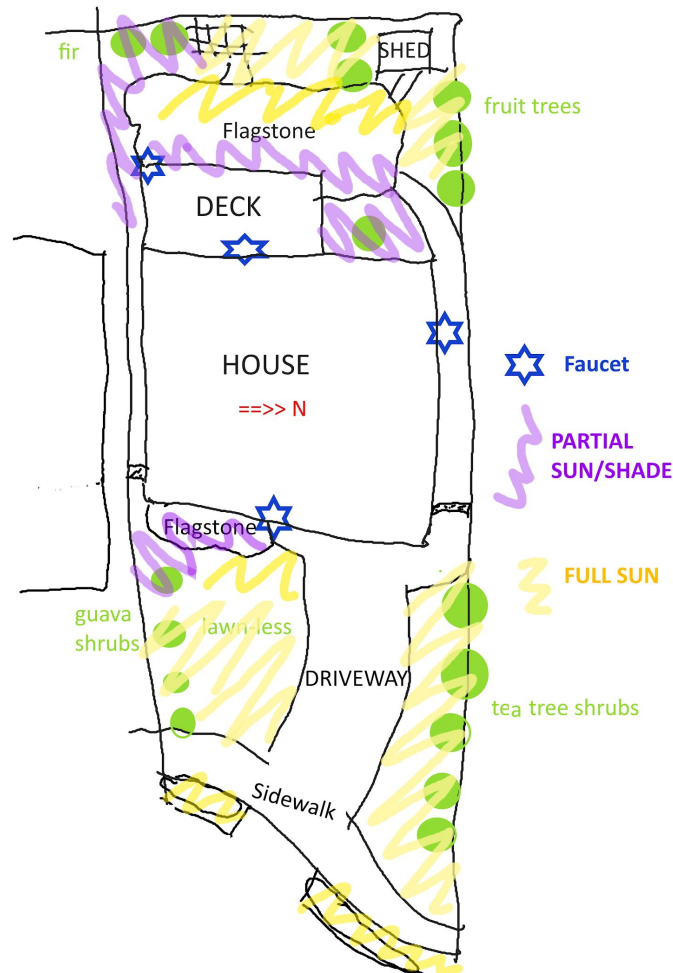
Review Garden Sketches



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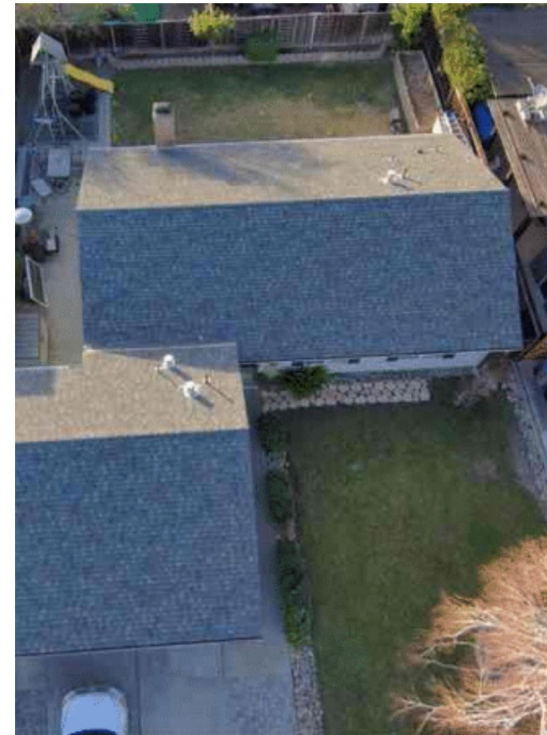
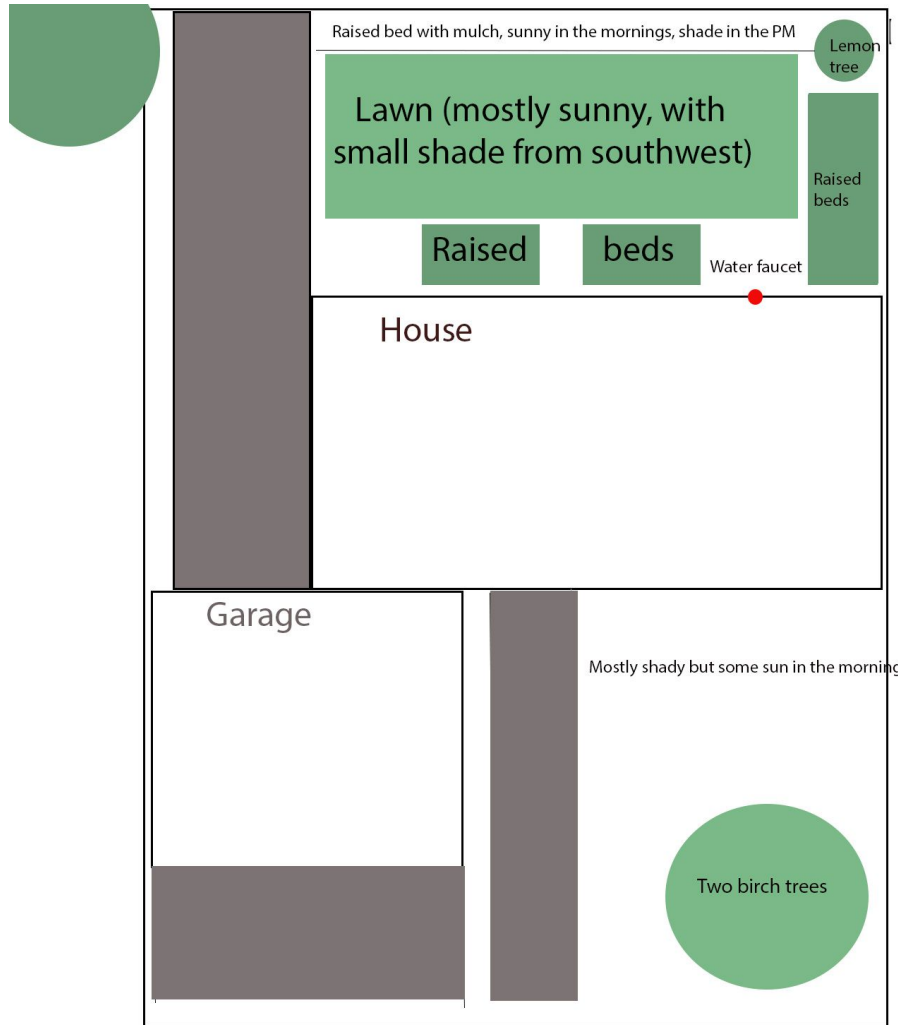
Garden Design by JaneD.



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Garden Design by KatL



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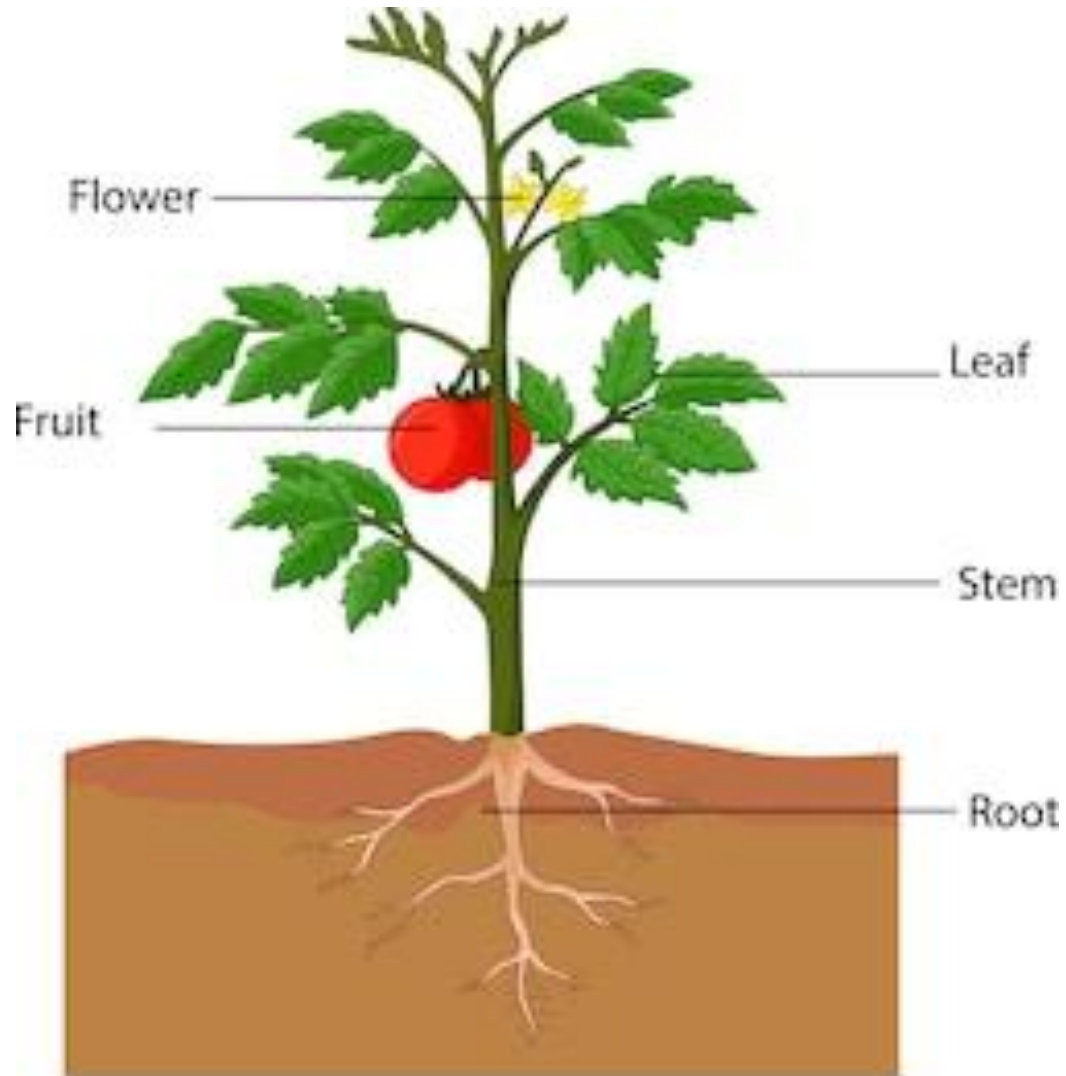
How Plants Grow & Reproduce



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Parts of a Plant



shutterstock.com • 212615491



Growth in plants occurs within groups of rapidly dividing cells called **meristems**. Most plants have apical meristems located on the tips of the green shoot and also on the tips of roots below ground.



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How do trees grow?



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Trees grow at the tips of their branches instead of the base of the trunk, a carving in the tree would actually remain at the same height

Carving your name/face in a tree is never a good idea.

Remember, the bark is much like your skin; it protects the tree from the environment,



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Tree Root Growth



Mimics Top
Growth

NO!!

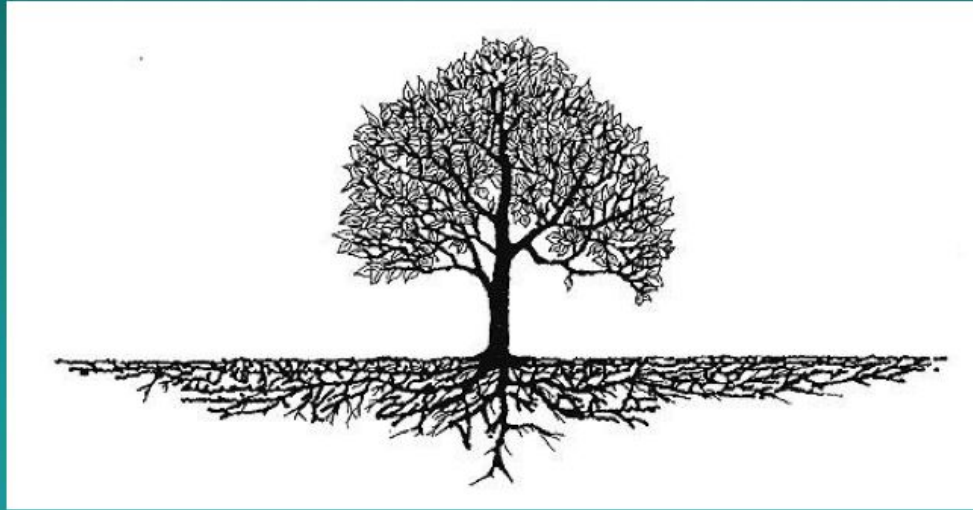
from: <http://cesacramento.ucanr.edu/files/206880.pdf>



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More Typical Tree Root Growth



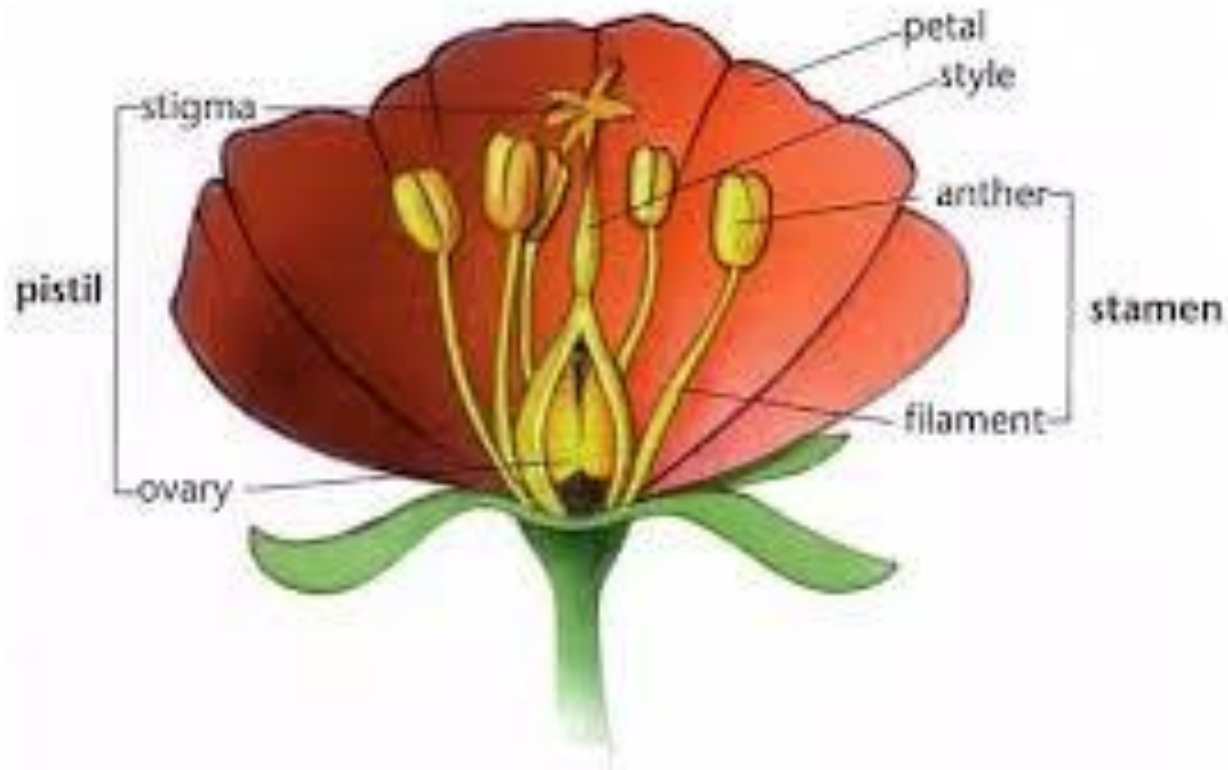
from: <http://cesacramento.ucanr.edu/files/206880.pdf>



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Parts of a Flower



Pollination via Butterfly

POLLINATION



FLOWER 1



FLOWER 2

Types of Plants



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Annual plants



Perennial plants



[Photo](#) by Zaqy CC BY 2.0



17
Photo by Marianne Mueller

Plants that reseed

Lupines (perennial) and California poppies (annual)



Annual and perennial weeds

Sow thistle, annual



[Photo](#) by free photos CC BY 2.0

Bindweed, perennial



Photo from University of Missouri Extension

Deciduous



Photo by Marianne Mueller

Why do leaves turn colors and fall off in the fall?



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Evergreen



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Photo by UC College of Agriculture
and Environmental Sciences

Determining type of plant



[Photo](#) by Memphis CVB CC BY-ND 2.0

Determining type of plant

Sweet pea 'Blue Celeste'

Lathyrus odoratus, Annual, Full sun

6-8' tall. Plant 4-5" apart. Fragrant ruffled sweet pea in a luminous silky pale blue color.

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CAREX species - Berkeley Sedge (formerly

C. tumulicola) Berkeley Sedge

Grass-like Perennial. Drought, deer and bog tolerant. Clump-forming, evergreen ornamental grass. Good ground cover under trees; tolerates abuse. Inconspicuous brownish flowers. Attracts butterflies. Native to Berkeley, CA. Height: 18-24" (usually 8 to 12"). Spread: 18-24". Exposure: sun or shade. Water: moderate. USDA Z8.

7 58816 00291 5 CARTUM4 VI-27118
150926

Snow Crown Cauliflower Hybrid

18-24" tall. Plant 24-30" apart. Early Snowball type is pure white, round and flavorful, weighing up to 2 lbs. each.

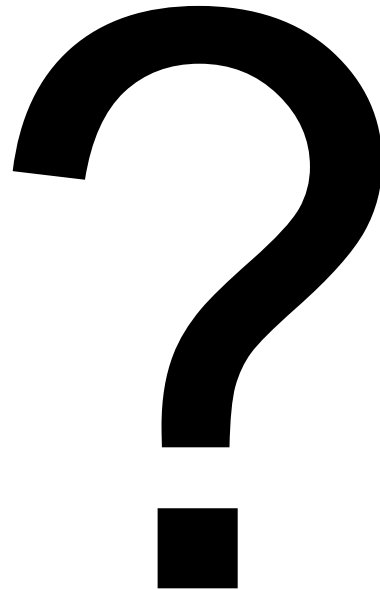
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Review - What do plants need



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What do plants need

- Sun
- Water
- Soil
- Appropriate Climate
- Space



Researching plants

Louise



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Researching Plants

- Nurseries
- Arboretums & gardens
- Garden tours
- Take photos
- Get names (common, latin)
- Help Desk, send photo



Berger Native Demonstration Garden



High Density Orchard at Emma Prusch Farm Park, San Jose

Be aware...

Internet searches will often lead to eastern US or UK gardening sites. These may recommend plants that won't thrive in our California climate.

We Recommend



10 Varieties of Rhododendrons to Try in Your Yard (+ Growing Tips)

11 Photos



Gorgeous Landscapes

22 Photos



Choosing the Right Crape Myrtle for Your Landscape



Growing Virginia Creeper Vine



Southern 'Swamp Thing' Goes National

Improve Internet search by adding key terms:

.edu .org UCANR

drought-tolerant, low water, California native
Zone 9, Sunset zone 15

“groundcover plant zone 9b site:UCANR”

“grow okra California site:edu”



Complete Plant Information

An example from CalScape

<https://calscape.org/loc-38.065,-120.597>

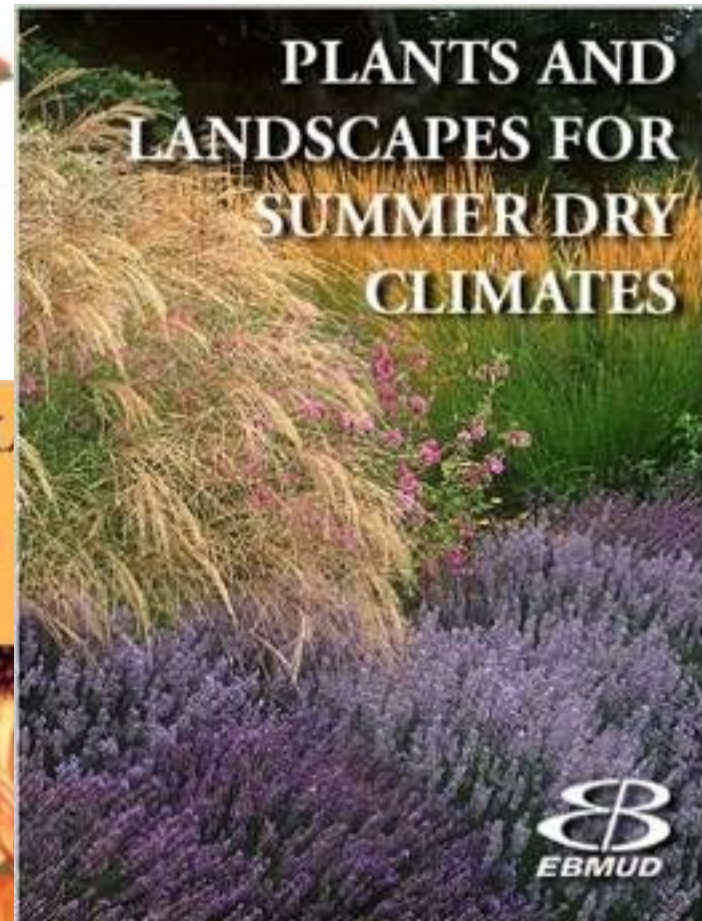
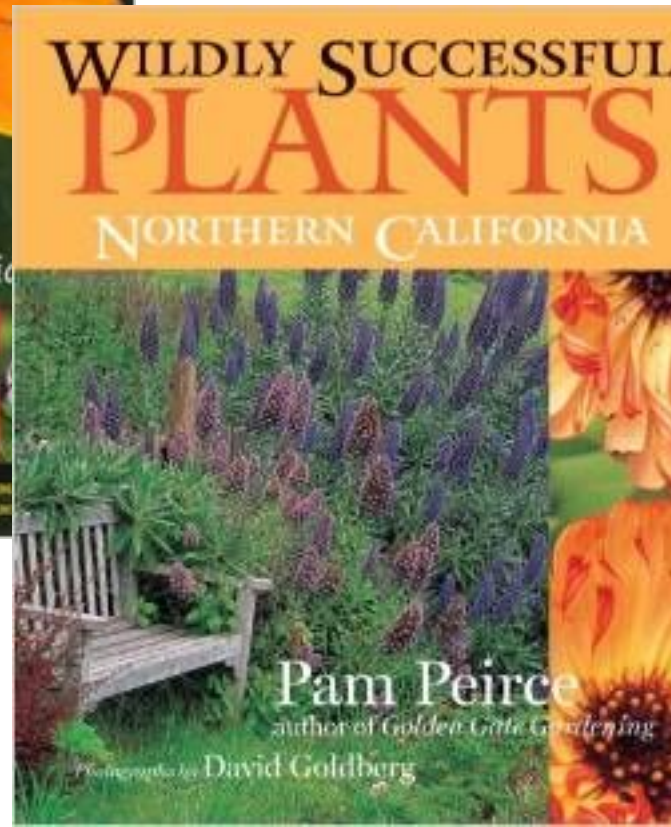
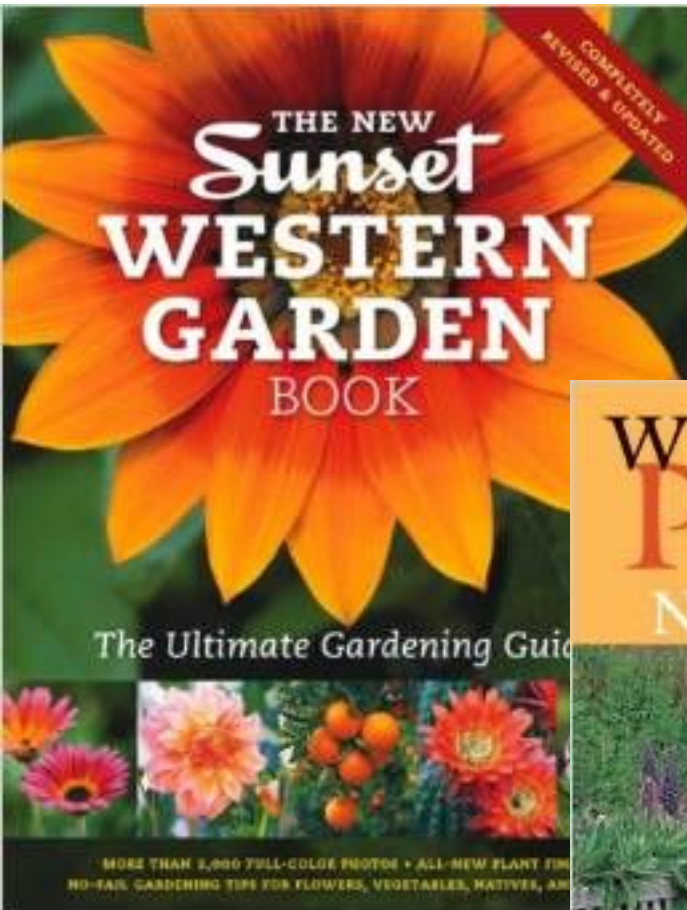
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Some of our favorite sources



Plant lists by situation or function

100 PLANTS THAT

PLANTS THAT ATTRACT BUTTERFLIES

Butterflies are welcome visitors to most gardens, bringing beauty and motion as well as pollinating plants. Choose plants from this list and you can encourage these winged visitors to stay awhile. Butterfly larvae (caterpillars) need food plants; adult butterflies need nectar plants. Sunny areas that are sheltered from the wind and contain amenities such as leaf litter, rock crevices, brush piles, damp places, and even weeds are the most welcoming of gardens for butterflies, as are sun-warmed boulders with shallow, water-filled basins in the top. When you choose plants, keep in mind that not every plant will attract butterflies in every region. And avoid using pesticides, even organic formulations.



Western tiger swallowtail on a leopard lily (*Lilium pardalinum*)

Butterfly Larvae, Perennials and Annuals

- Achillea millefolium** p. 132
Common yarrow
☼ ☼ A1-A3; 1-24
- Alcea rosea** p. 142
Hollyhock
☼ ☼ 1-24
- Ammi majus** p. 150
Bishop's lace
☼ ☼ ALL ZONES
- Antirrhinum majus** p. 155
Snapdragon
☼ ☼ A1-A3; 1-24
- Asclepias** p. 172
☼ ☼ ZONES VARY
- Aster** p. 176
☼ ☼ ZONES VARY
- Dicentra** p. 287
Bleeding heart
☼ ☼ 1-9, 14-24
- Digitalis** p. 289
Foxglove
NEEDS, ZONES VARY
- Eriogonum** p. 306
Wild buckwheat
☼ ☼ ZONES VARY
- Foeniculum vulgare** p. 324
Common fennel
☼ ☼ ZONES VARY
- Helianthus** p. 355
Sunflower
☼ ☼ ZONES VARY
- Linaria** p. 415
Toadflax
☼ ☼ 1-24
- Lupinus** p. 423
Lupine
☼ ☼ ZONES VARY
- Malva** p. 433
Mallow
☼ ☼ 1-9, 14-24
- Mimulus aurantiacus** p. 443
Sticky monkey flower
☼ ☼ 5-9, 14-24
- Penstemon** p. 490
Beard tongue
☼ ☼ ZONES VARY
- Ruta graveolens** p. 581
Rue
☼ ☼ 2-24
- Sidalcea malviflora** p. 603
Checkerbloom
☼ ☼ 2-9, 14-24
- Sorghastrum nutans** p. 608
Indiangrass
☼ ☼ 1-24
- Veronica** p. 647
Speedwell
☼ ☼ ZONES VARY






101 PLANTS THAT



Passiflora 'Incense'



Holodiscus discolor



Spiraea japonica 'Magic Carpet'

Butterfly Larvae, Groundcovers and Vines

- Fragaria** p. 325
Ornamental strawberry
☼ ☼ ZONES VARY
- Humulus lupulus** p. 366
Common hop
☼ ☼ A2, A3; 1-10, 14-21
- Passiflora** p. 476
Passion vine
☼ ☼ ZONES VARY
- Wisteria** p. 655
☼ ☼ ZONES VARY
- Butterfly Larvae, Trees**
- Aesculus** p. 136
Horsechestnut
☼ ☼ ZONES VARY
- Betula** p. 195
Birch
☼ ☼ ZONES VARY
- Cornus** p. 262
Dogwood
NEEDS, ZONES VARY
- Crataegus** p. 269
Hawthorn
☼ ☼ 2-12, 14-17
- Malus** p. 433
Flowering crabapple
☼ ☼ 1-11, 14-21
- Pinus** p. 507
Pine
☼ ☼ ZONES VARY
- Platanus** p. 512
Plane tree
☼ ☼ ZONES VARY
- Rhamnus** p. 554
NEEDS, ZONES VARY
- Populus** p. 525
Poplar
☼ ☼ ZONES VARY
- Prosopis** p. 529
Mesquite
☼ ☼ 10-13, 18-24
- Prunus** p. 531
NEEDS, ZONES VARY
- Pseudotsuga menziesii** p. 537
Douglas fir
☼ ☼ A2, A3; 1-10, 14-17
- Quercus** p. 544
Oak
☼ ☼ ZONES VARY
- Salix** p. 582
Willow
☼ ☼ ZONES VARY

Adult Butterflies, Annuals and Perennials

- Achillea** p. 132
Yarrow
☼ ☼ A1-A3; 1-24
- Agapanthus** p. 137
Lily-of-the-Nile
☼ ☼ 4-9, 12-24; H1, H2
- Agastache** p. 137
☼ ☼ ZONES VARY
- Antirrhinum majus** p. 155
Snapdragon
☼ ☼ A1-A3; 1-24

Design

Denise



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Where to find ideas

UC Davis Arboretum

3 designs for a 10x10 planting area

- California natives
- Low maintenance
- Wildlife

<https://arboretum.ucdavis.edu/tags/planting-plans>



Where to find ideas

SouthBayGreenGardens.org

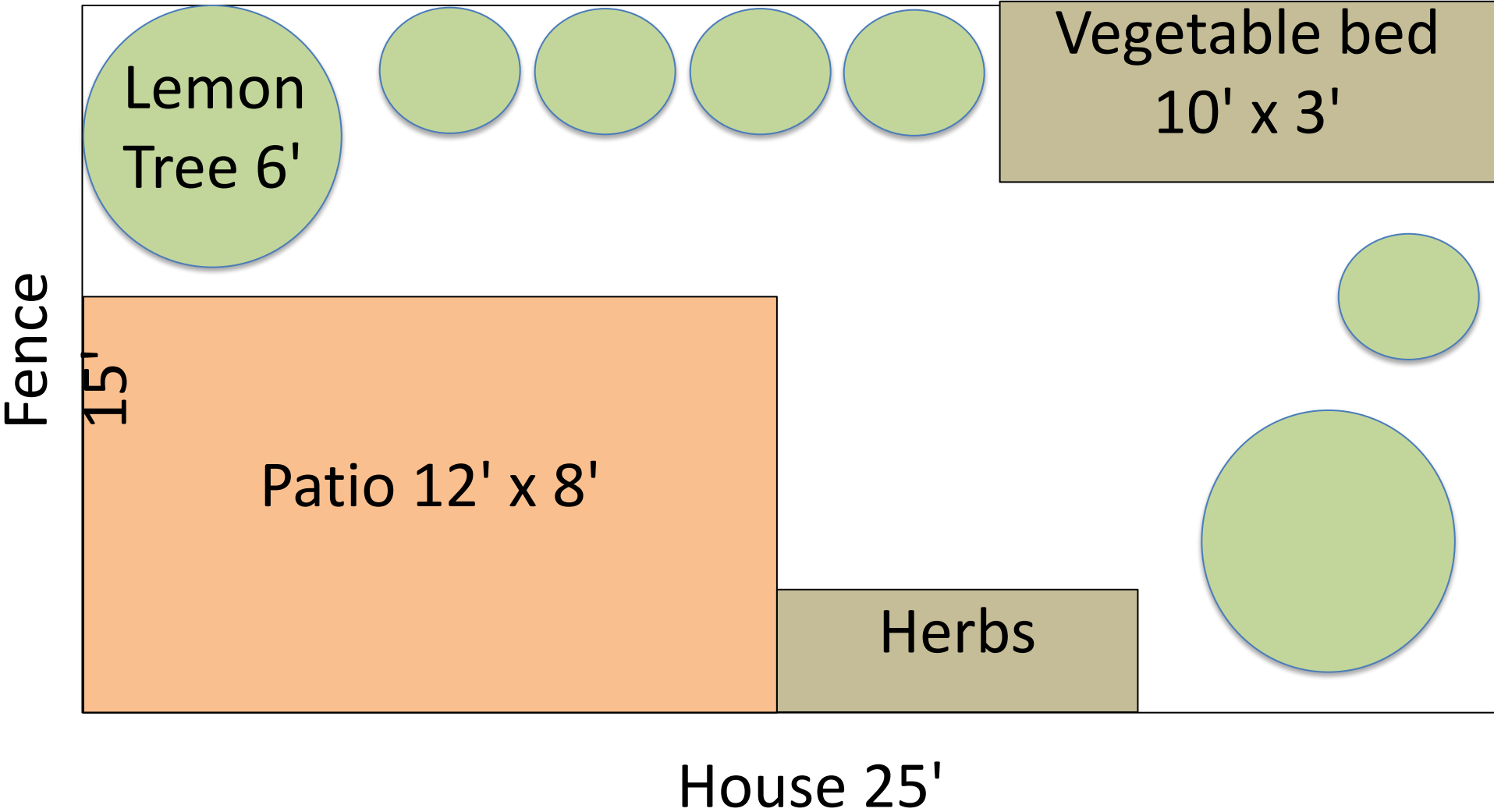
Sample designs for

- Small sunny yard
- Edible garden
- Dry creek garden
- more...

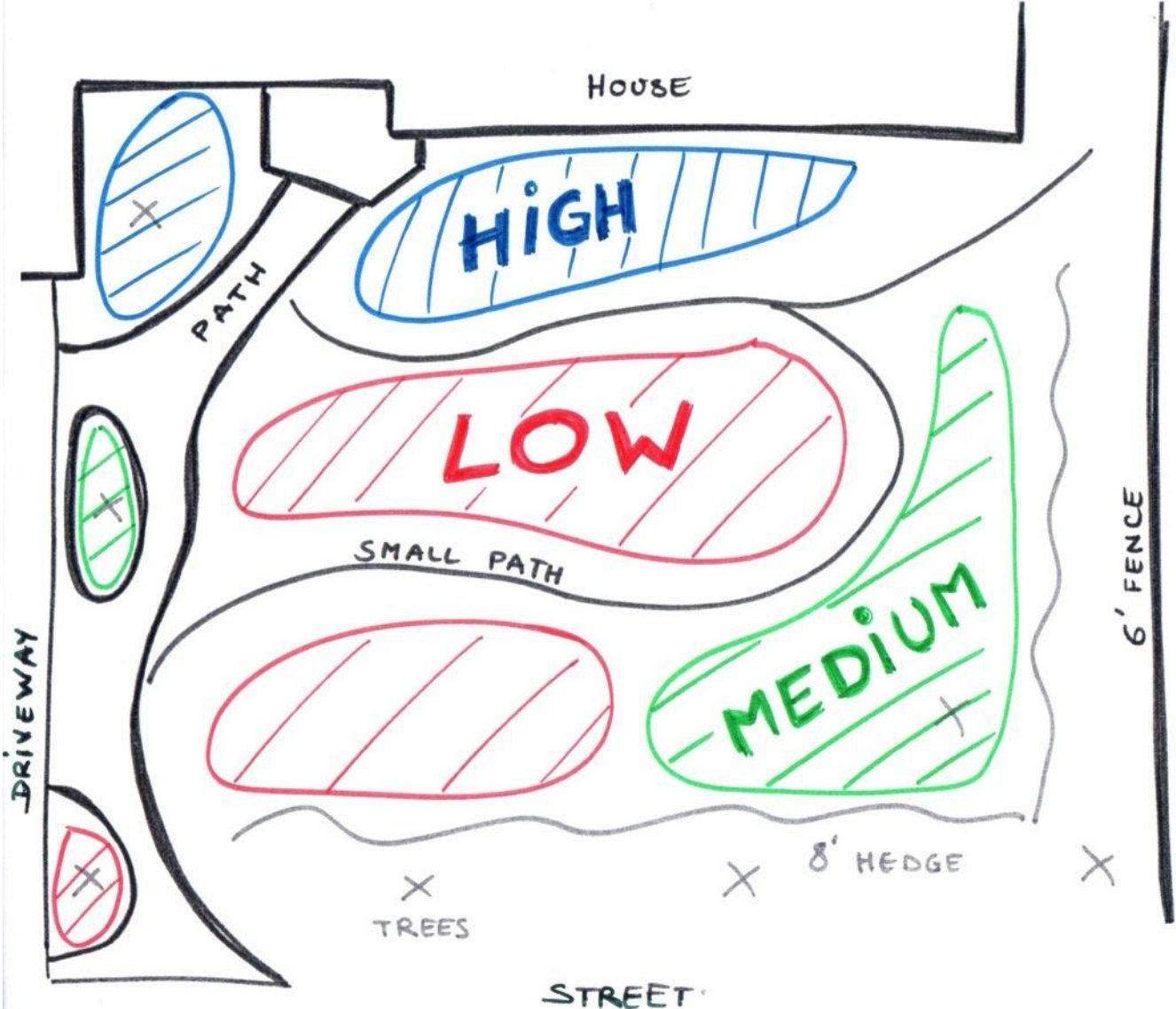
<https://www.southbaygreengardens.org/landscape-designs>



Sample planting diagram



Hydrozone



For next week: Scavenger hunt

Using the resources on your handout, find the following:

1. Your USDA climate zone
2. Bird attracted to Pineapple Guava
3. An interesting garden design (or planting plan)
4. Scientific name of Seaside Daisy
5. A small deciduous tree native to California
6. A vegetable to grow in the fall, winter, or spring (not summer)



For next week: Make a plant list

- A wish-list of 4-5 plants you might like to grow
- You could include plants already in your yard that you want to learn to maintain
- Research and write down their sun, soil, space, and water requirements



For next week: Make a plant list

More considerations:

- **Does it attract birds, bees, butterflies, or other beneficial creatures?**

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Click “Garden Help” then “Waterwise Plants”

- **Plant lists**

Google “list of plants for _____”

For example, “list of plants for a california shade garden”

Handout

Thank you for coming



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Sample planting diagram

All-Star Planting Plan (not to scale)

You can see this planting plan at maturity along Garrod Drive just outside the UC Davis Arboretum Teaching Nursery (across from Vet Med).

This planting plan and three others are available for download at arboretum.ucdavis.edu. Click on Arboretum All-Stars for a plant database, planting plans, where to purchase, and more.

