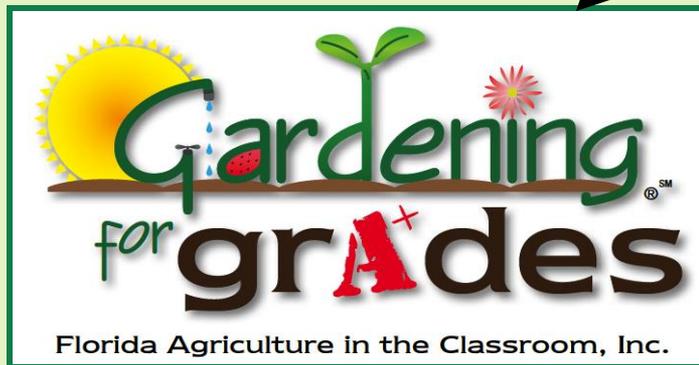




Florida Agriculture in the Classroom, Inc.

<http://www.flagintheclassroom.com>



Keeping Florida Green

Interdisciplinary Curriculum Unit

Benefits of Gardening



Benefits of gardening

- Academic achievement
- Enhances self-esteem
- Environmental stewardship and connection with nature
- Active learning and student engagement
- Life skill development
- Fosters parental involvement

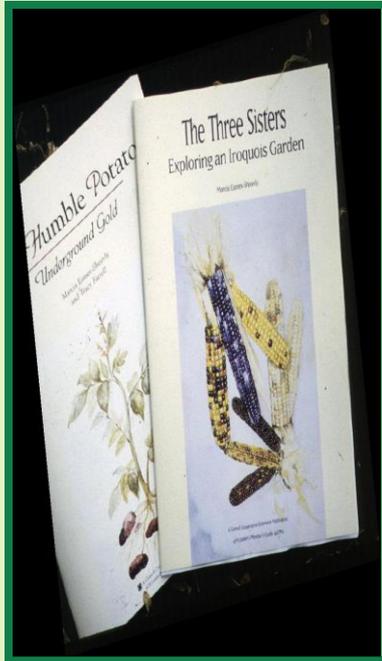




Gardening isn't an add on, but rather an integral part of the whole curriculum.



Connecting to the curriculum



Language Arts: planting journal, read books about gardening, write a story about your seeds

Health: investigate the nutritional properties of fruits & veggies, keep a food diary and physical activity

Math: measure and graph plant growth

Science: predict seed sprouting under different conditions, investigate plant adaptations



Gardening for Grades Lessons

| Activity | Focus | Level | Page |
|---|-----------------------|--------------|-------------|
| It all Begins With Soil | Soil Composition | 4-8 | 23 |
| Acid to Alkaline | Soil Chemistry | 4-8 | 27 |
| We're the Producers! | Photosynthesis | 3-8 | 36 |
| Yo Seeds, Wake Up! | Germination | K-4 | 52 |
| Plan It, Map It | Garden Plan | K-7 | 60 |
| Lettuce Be Different | Diversity | K-6 | 64 |
| Feed Me - Nutritional Building Blocks | Nutrient Requirements | 3-5 | 70 |
| Inch by Inch, Row by Row | Garden Plan | 1-4 | 80 |
| The Million Dollar Can o' Soup or Salsa | Production | 1-4 | 84 |
| Soil Sort | Soil Composition | K-3 | 87 |
| What Are We Eating? | Edible Plant Parts | K-5 | 91 |
| The Roots of Food | Significance of Food | K-12 | 99 |
| Turning Over a New Leaf | Adaptation | K-6 | 103 |

Secrets to Success...

- ✓ Build a team
- ✓ Get administrative/staff support
- ✓ Start small
- ✓ Plan it out and get approval
- ✓ Integrate it into your curriculum
- ✓ Enlist the help of volunteers
- ✓ Get the community involved
- ✓ Celebrate success

What do plants need to thrive?





Garden Site Checklist (pp. 8-9)

1) Light requirements

- a. Number hours of sunlight
- b. Position of garden

2) Water requirements

- a. Access to water
- b. Hose, wands, water cans

3) Space

- a) Spacing
- b) Number students



Garden Site Checklist (cont'd)

4) Soil

- a. Composition
- b. Type
- c. Nutrients



5) Time

- a. Planning
- b. Funding
- c. Building
- d. Maintenance





Gardening Basics: Light

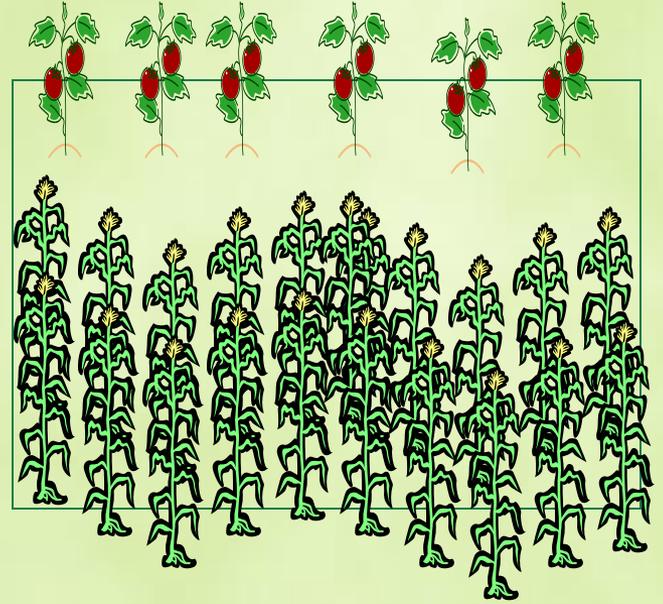
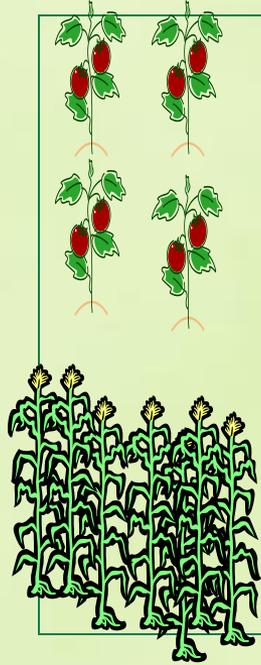
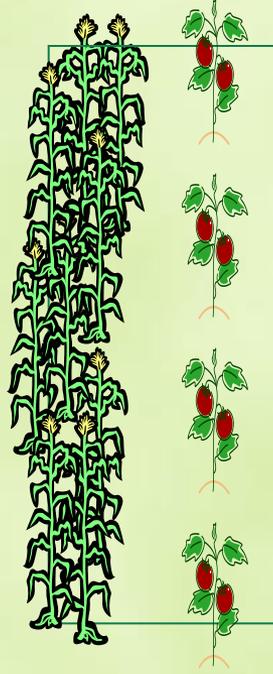
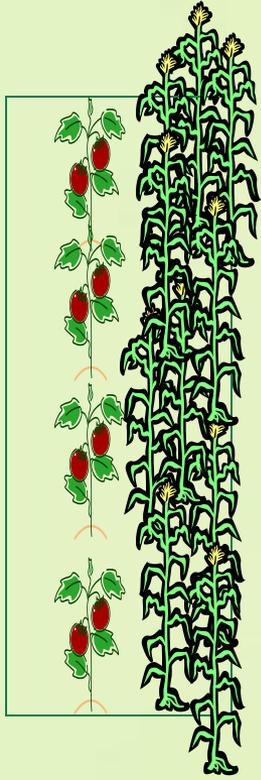
Find a sunny spot: 6-8 hours of full sun a day



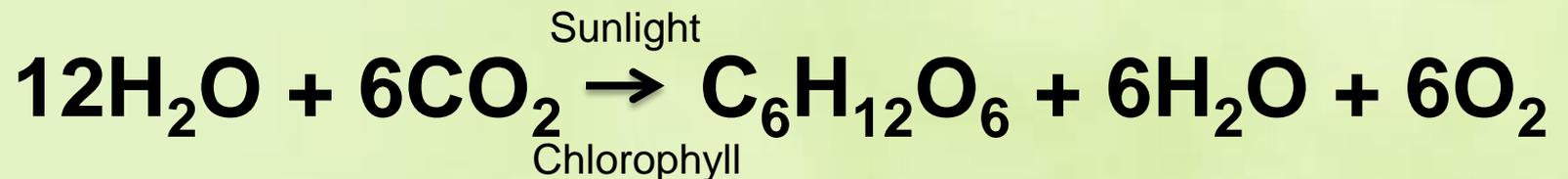
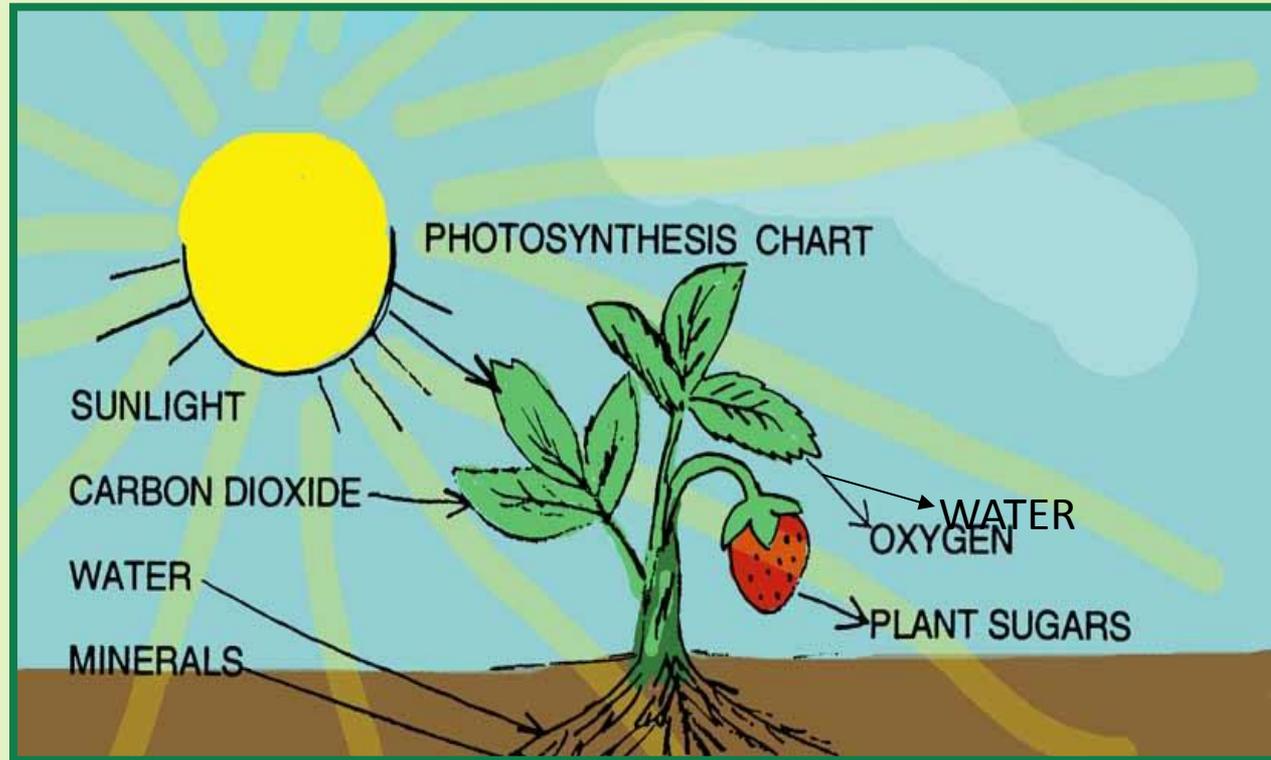
Location, Location, Location

Rows run north - south





Photosynthesis



We're the Producers! (pg. 36)



Soil

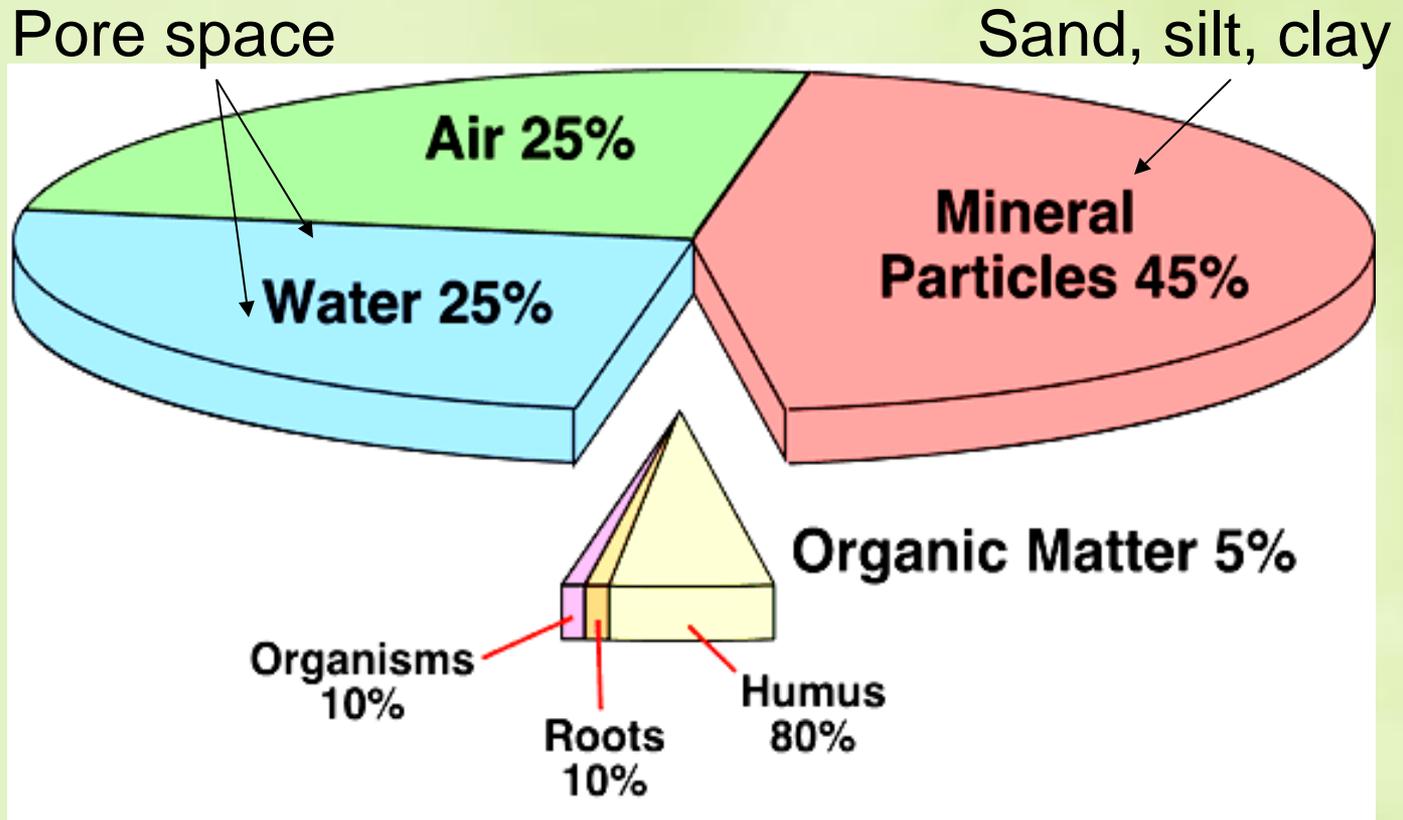
A thin layer of material on the Earth's surface in which plants have their roots. It is made up of weathered rock and decayed plant and animal matter. Soil formation takes place when air, water, plant life, animal life, rocks, and chemicals interact.

It All Begins With Soil (pg. 23)

Soil Sort (pg. 87)



Soil Components



Soil And Space (NFL)

Perc Thru The Pores (FLP)

Soil Texture

Soil properties like texture (sand, silt, clay), drainage, and chemistry are used to distinguish different types of soil.

It All Begins With Soil (pg. 23)

Clay

Silt

Sand

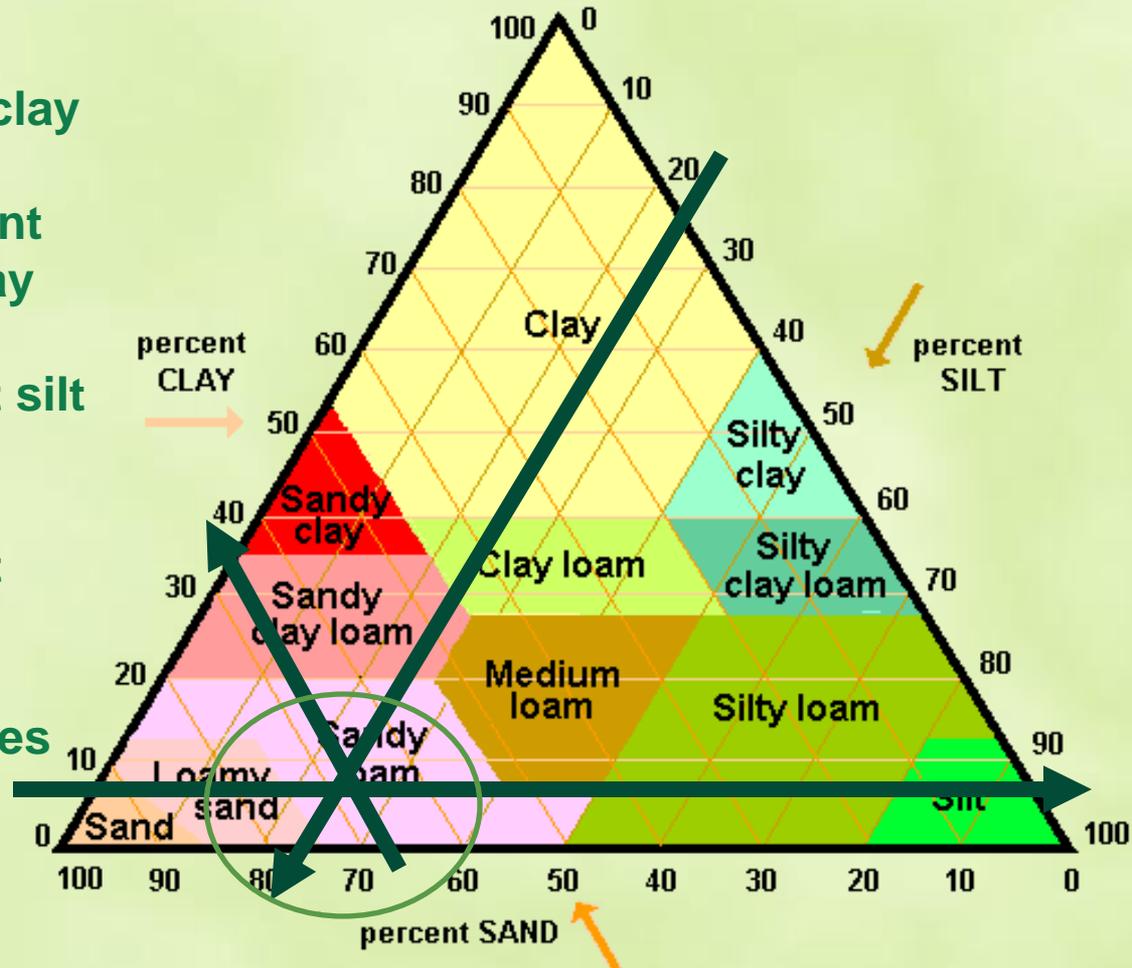
Organic Matter



Determine your soil type

Soil Triangle (pg. 25)

1. Estimate % sand, silt, clay
2. Draw a line from percent sand (67%) to percent clay
3. Draw line from percent silt (25%) to percent sand
4. Draw line from percent clay (8%) to percent silt
5. Soil type is where 3 lines intersect



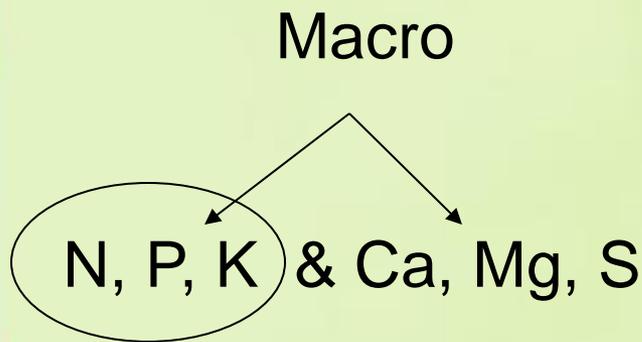
Plant Nutrients

(Pg. 17 Feed Me: Nutritional Building Blocks)



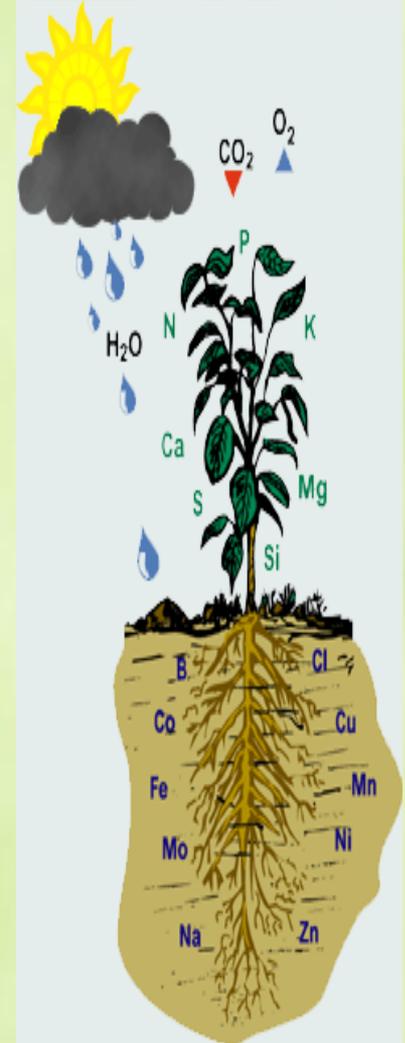
Non-mineral elements: air & water

Mineral elements: soil



Micro

B, Cu, Fe, Cl,
Mn, Mo, Zn, Ni



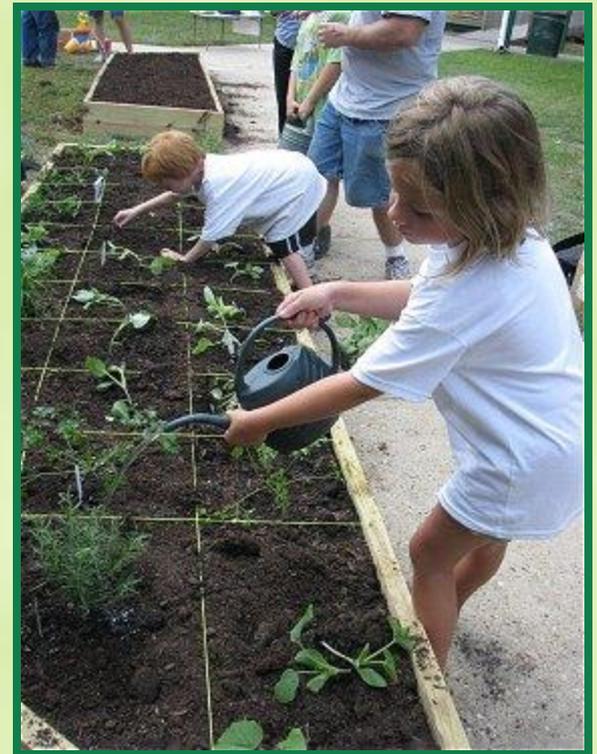


Water requirements

How: Hand watering or hose
Sprinklers
Cup/bucket watering

How often: At least 3
times per week

When: Mornings are best





S p a c e

- Type of garden
- Warm vs cool season plants
- Spacing
- # using the garden



Type of Garden

(pgs. 15-17)

1) Container options...

Broccoli plant in 12 inch pot

Window box gardening

Pizza garden in a plastic pool

2) Hydroponics

3) Raised beds



Decide on a size



3 ft. or 4 ft. wide x ? ft.
~ 10 inches deep
2 decking boards, stacked



What to plant? When to plant?

(Pgs. 111-126)

| Warm Season (Feb-May) | Cool Season (Sept-Jan) |
|----------------------------------|-----------------------------------|
| Tomato | Radishes |
| Pepper | Greens |
| Beans | Spinach |
| Eggplant | Onions |
| Cucumber | Lettuce |

Seeds vs. Plants

(Pgs. 111-126)

Carrots: SEEDS

Lettuce: either

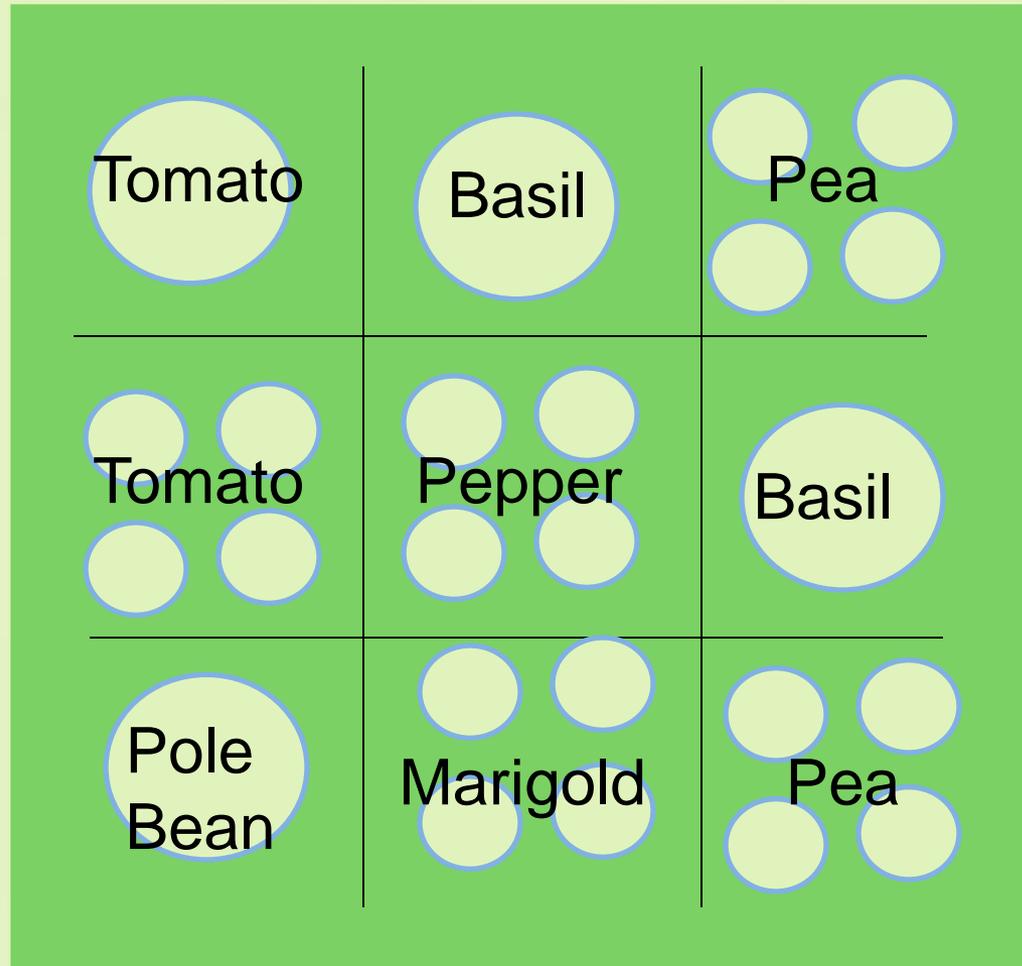
Cabbage/Broccoli: either

Strawberry: PLANTS

Radish: SEEDS

Onions: PLANTS

Beans: SEEDS



Spacing? Days until harvest?
(Pg. 58)



Time

- a. Planning Your Garden
- b. Funding
- c. Building/Construction
- d. Maintenance

Plan It, Map It (pg. 60)



Funding (Pgs. 9-11)

- Florida Agriculture in the Classroom
- Florida Farm Bureau Grant
- Other sources: Lowes, Home Depot



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AGRICULTURE KEEPS FLORIDA GREEN

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Lisa Gaskalla, Executive Director