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# Square Foot Gardening at School

Pablo Vimos - Organic Master Gardener

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# Overview



Growing food at school using a simple gardening method while optimizing available space.

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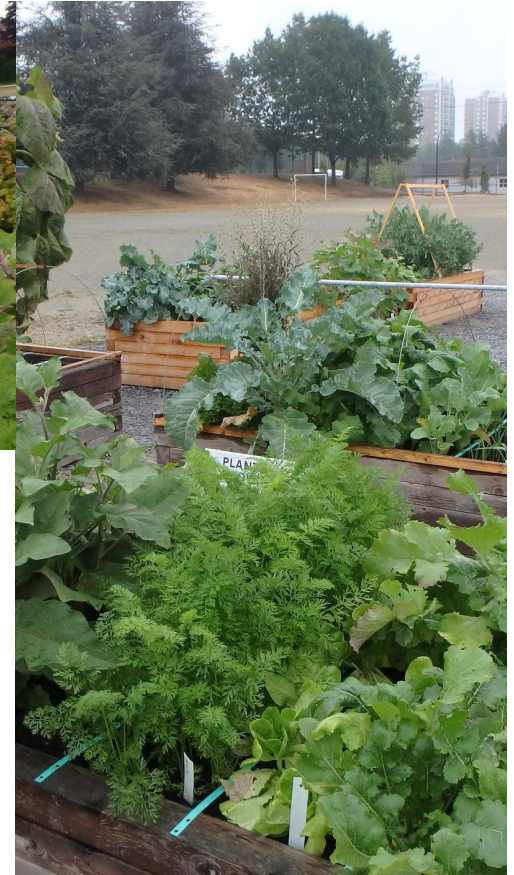
# Take Away

Create a Diverse &  
Dynamic Garden

Cultivate Year Round

Garden as Classroom

Curriculum Integration





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# Pablo

Agronomy &  
Landscape Ecology

Weekly Garden Workshop

- 2 schools Vancouver
- 1 school Burnaby

Master Gardener

- Embark Learning  
Garden - SFU





# Garden Beds



Growing Food on Small Spaces

# Soil

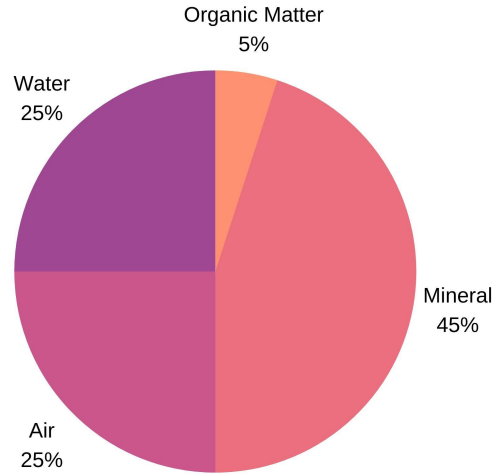
20 - 25% Mineral (sand)

70 - 80% Organic Matter

Rich in Nutrients

Retain Water

Crumbly Structure



Garden Soil, Garden Blend



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# Wood



Vancouver School District



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# Metal



Burnaby School District

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# Plastic



Surrey School District



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# Self- watering



Life Space Gardens



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# Planting Approach

Make a Row (drill)

Drop seeds into row

- 1.5 cm small crops
- 2.5 cm large crops

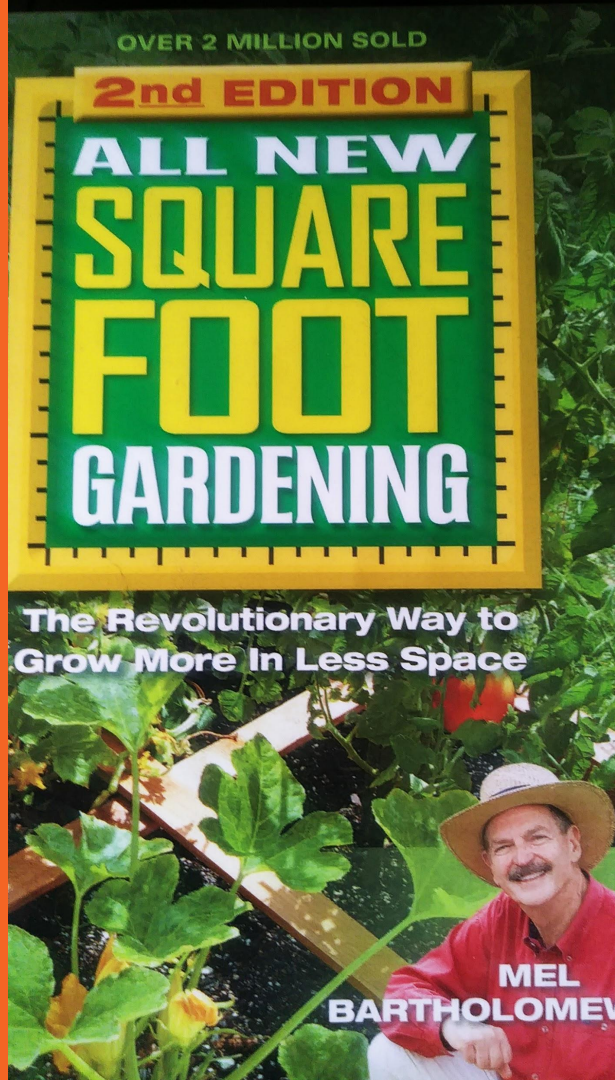
Row Spacing - 30 cm

Thinning to right distance



Single Row & Double Row

S F G







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# SFG Basics - Garden Bed

- Build a garden bed using wooden boards.
- Fill with garden soil which is weed free and free of stones.
- Divide garden bed into 1ft by 1ft squares (or 30cm by 30cm).
- Add a Grid by nailing string across the box.
- Plant each square with a different crop, using close spacing.
- As soon you harvest a square, plant it with a different one.





# SFG Basics - Planting Space

SMALL PLANT (S)		MEDIUM PLANT (M)	
Arugula Beet (small) Carrot Onion Set Mesclun Parsnip Radish Scallion Turnip (small)	16 	Beet (large) Mustard Onion Bulb Pak Choi Pea Spinach Turnip (large)	9 
LARGE PLANT (L)		EXTRA LARGE PLANT (XL)	
Fava Bean Garlic Kohlrabi * Lettuce Shallots Swiss Chard	4 	Broccoli * Brussels Sprouts * Cabbage * Cauliflower * Collard * Kale *	1 
		* seedling	

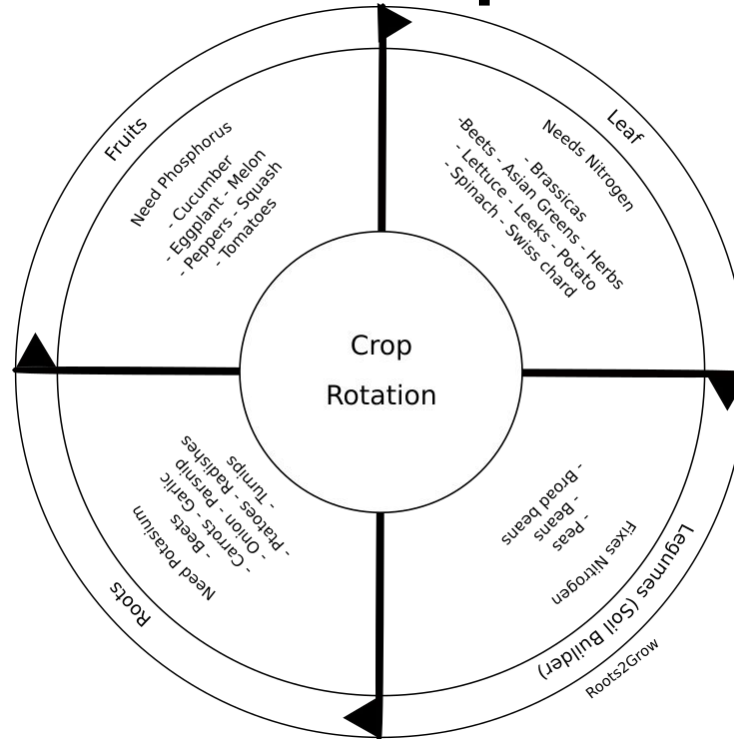


# SFG Basics - Companion Planting

Vegetable	Good Companion	Bad Companion
<b>Bean</b>	Carrots, Corn, Cucumber, Cauliflower, Cabbage, Eggplant, Peas, Potato, Swiss Chard, Marigold, Nasturtium, Oregano	Chive, Onion, Garlic, Leek, Shallots
<b>Carrots</b>	Beans, Peas, Leaf Lettuce, Chives, Onions, Leeks, Rosemary, Sage, Tomato, Peppers, Thyme	Dill
<b>Peas</b>	Carrots, Turnips, Radishes, Cucumbers, Corn, Beans, Most Vegetables & Herbs	Onions, Garlic, Shallots, Leeks, Tomato, Potato, Squash



# SFG Basics - Crop Rotation



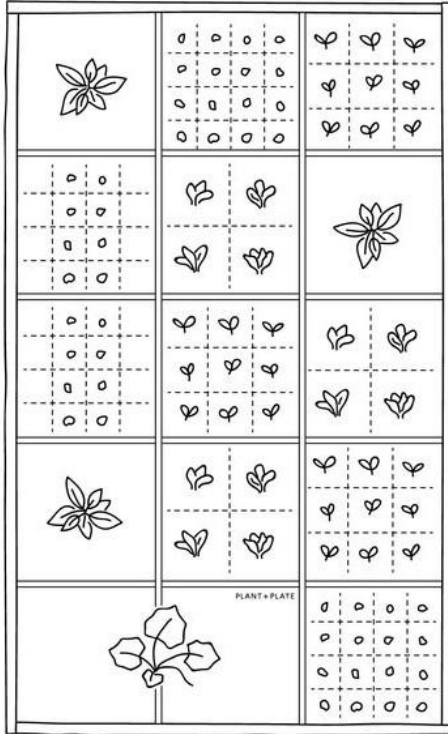




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# SFG Basics - Station Sowing

- Make shallow holes for seeds, no deeper than a fingernail.
- Drop seeds in holes and cover with soil. For most crops 1-2 seeds are enough, but for carrots and parsnips use 4-5 seeds.
- For very small seeds use a pinch of seeds (mustard).
- Split seedlings when transplanting (onions, beets, peas, corn).
- Water the soil, not the plant.



# SFG @ SCHOOLS

## Adjustments

- No Grid.
- Use Square Seeding.
- Plant 2-3 sq with same crop.





# Think Squares, No Rows



1	4	9	16
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16 carrots, radish, scallions  
9 beets, spinach, turnips  
4 lettuce, pac choy, garlic, corn  
1 cabbage, broccoli, kale

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# Hoop houses

- Excessive Rain /Snow
- Cold Air (night frost)
- Wind

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## Garden Year Round



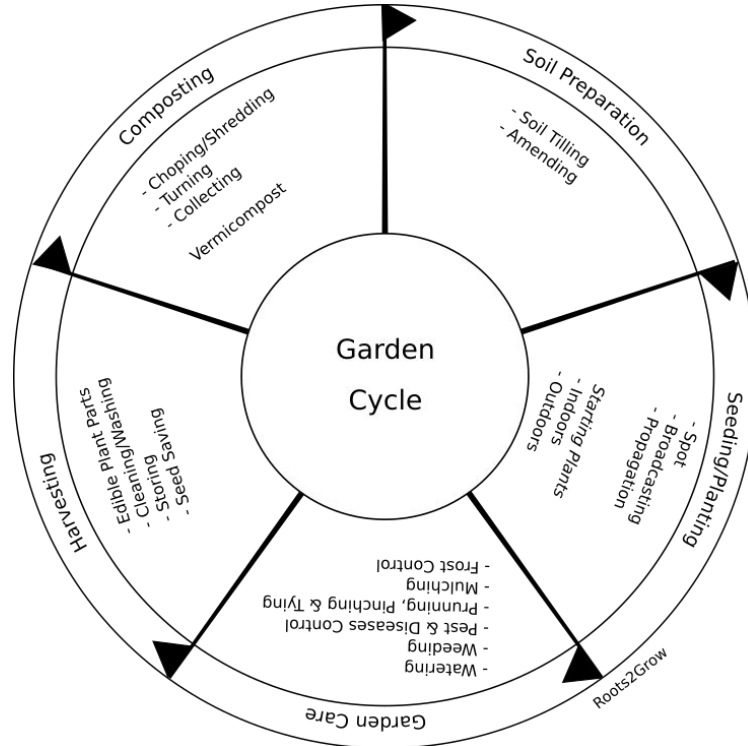


# Curriculum Links





# Curricular Ideas







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# Curricular Ideas

- Mathematics - Array, Calculate number of seeds per square and deduce number of seeds for all squares to plant.
- Cycle - Plant life cycle, Water cycle in the soil, CO<sub>2</sub> cycle and photosynthesis.
- System - Effects of energy transfer on food production. Greenhouse effect.
- Science - Pollinators, Pollination and seed production, Asexual reproduction.

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# Thank You!





# Roots To Grow

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