

SEATTLE P-PATCH



YOUTH GARDENS

*...Bringing the Next Generation of Organic Gardeners into
the local P-Patch*

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P-Patch Youth: Program Area Vision

P-Patch Community Gardens actively offer opportunities for youth to discover food, nature, gardening, and community building. It is our hope that these community gardens are used as a tool to promote safe gardening practices and healthy lifestyle choices to future generations. We encourage youth to be involved in the community garden through assisting in the garden giving plot, renting a plot with a school group or after school program, utilizing the space for service projects, or simply taking a visit to one of the gardens. Partnering with local gardening experts, P-Patch acts as an agent in distributing community gardening knowledge to youth of diverse economic, racial, and ethnic backgrounds. Our youth gardening opportunities strive to incorporate youth into the fabric of the community and foster the growth of active and involved citizens.



P-Patch Youth and Family Gardens

There are several ways youth are already involved in the P-Patch sites. Some youth groups have their own plot which they are dedicated to year round; others work in the common areas of the garden, or assist in the giving garden. These programs prosper thanks to the excellent leadership of Teachers, After School Programs, Girl Scout Groups, Community Members, Americorp Members, and Garden Educators!

DEDICATED YOUTH PLOT

Spring Street P-Patch	Youth Group, Positive Energy, assisting in the Construction and Gardening of dedicated Youth Plot.
Bradner	Dedicated Children's Garden area, run by garden volunteers.
Magnuson	Garden Educator runs a summer educational program in the P-Patch, Garden Explorers. Greenlightgardening.com
Cascade	Plot dedicated to the Kids or parents receiving cancer treatment at the Hutch Research Center
Snoqualmie Rainier Vista	Children's garden plot run by REWA, a nearby after school outreach program.

AFTERSCHOOL PROGRAMS

Maple Leaf	Northgate Community Center Teen Life Program has one plot at the nearby P-Patch.
Marra Farms	School Age Care group from South Park Community Center
New Holly Youth & Family	Garden Classes taught at Vietnamese Friendship Association, once a week with Americorp Volunteer, Tuesday 3:30-4:30, Garden Explorers Club Age 6-14yrs
New Holly Youth & Family	Garden Class taught once a month with Girl Scout Group by Americorp Volunteer, 2nd Monday from 4:30-5:30pm, ages 8-13yrs.

SCHOOL PROGRAMS

Thistle	Year round successful gardening with leadership from Headstart program
U-Heights Center	Elementary age students from U-Baptist Church School assist in plot lead by Teacher.
Roosevelt	Preschool program at New Discovery School has one plot
PineHurst	Teacher and Parent Volunteer with AS 1 Pinehurst have two raised beds used by students.

Picardo	Group of preschoolers from University Prep-Children's art program with two plots
Hawkins	8th grade teacher at Seattle Girls School, runs plot with garden internship for 5th-6th grade girls
Deldridge	7th graders from Denny Middle School have their own plot, with their teacher as a lead.
Immaculate	Science teacher at Lake Washington Girls School assisting in working the raised beds in the garden.
Longfellow Creek	7th graders from Denny Middle School have their own plot, with their teacher as a lead.
Lincoln Park	Group of preschoolers from Fauntleroy Children's Center have two plots in the garden.
Hillman City	Orca School has two plots that they plan to keep even after school their garden is complete.

CHILDCARE PROGRAMS

Picardo	Childcare program has 8 kids and has a regularly used plot.
Greenwood	Donvinh's Childcare Center assists Plot Owner in garden.

GIVING PLOT and COMMON AREAS

Burke Gilman	Girl Scout working on her Gold Star project, has her own plot where she is donating her produce to a Soup Kitchen.
Cascade	Group from Youth Orion work in P-Patch on alternating Fridays for Community Service Hours
Deldridge	Middle School class growing plant starts for Giving Plot at Garden,
Estelle P-Patch	Powerful Schools after school garden program visiting and working common areas.

ANNUAL YOUTH INVOLVEMENT

Picardo	Assist once a year on the Bishop Blanchet freshman retreat held the first week of Feb. Groups of 20+ students/per site.
PineHurst	Assist once a year on the Bishop Blanchet freshman retreat held the first week of Feb. Groups of 20+ students/per site.
Queen Anne	Once a year celebration put on by the garden with children's garden activities.
Ballard	Assist once a year on the Bishop Blanchet freshman retreat, held the first week of Feb. Groups of 20+ students/per site.



P-Patch Gardens for Children: Creating Success & Sustainability from the Start

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Why to Start: Almost every lifelong gardener, park ranger, and every kind of nature lover have this in common: there was a caring adult present at the times and places that sparked their initial wonder about the other living things that share the earth with us. Spending time in a garden with children is one way to help create that spark.

How to Start: It's important to remember that the way of all living things to start small and grow larger. Even 1/2 plot or some big containers provide plenty of space to grow! And there's no need to fit all your activities just into that plot; utilize all the features that are already present in your p-patch! *Start by walking around and taking stock of the resources you already have:*

- Deciduous trees and shrubs show the seasonal cycles of plant growth, and give children the opportunity to observe as they go from dormancy to bud, to leaf and flower, to fruit and seed. Fruit that they can eat is especially interesting to children.
- Trees and shrubs also provide bird habitat, and wonderful opportunities to locate nest boxes so children can witness the magic of parent and baby bird interactions. "Wild areas" on the margins of your p-patch are especially attractive to songbirds.
- Perennial borders and herb gardens attract a variety of beneficial insects to an easy viewing height for children. A great way for children to lose fear of insects, and gain respect and understanding of their importance in the world.
- Whatever resources are already growing at your site can be incorporated into your children's garden activities, and have a connection with many of the activities that you do inside your plot(s)!

How to Grow: Think of your garden as a single plant; it needs a sustained amount of nourishment from many sources over the long term in order to continue growing in good health. Too much nitrogen makes a plant grow fast but weak, and susceptible to problems. Stopping all growth is the beginning of the end for a plant. This may sound like a strange concept, but *make sure that your plans from the beginning include not ever being "finished" with creating a children's garden.*

Designing for Success and Sustainability,

1. First and foremost, make sure you have creative input from children *on every step of the way* in designing the garden, on any major changes to it in the future, and on what you grow each year. When children participate in the forming of ideas, planning, & making decisions, they bond more with the garden and learn more from the experience. The more "ownership" they develop, the more sustainable it will be. Your main design role is to listen. Sometimes ingenious ideas come out "of the blue" to kids, and may seem outlandish at first to you. But take time to consider them- they are probably tremendous ideas that just need a little steering to be doable.

2. Basic design features that belong in or near all children's garden plots:
 - Plenty of room for children to move through the garden paths and pass comfortably without stepping on each other or plants.
 - Soft path surfaces, such as wood chips, pine needles, or straw.
 - A major difference between the surfaces of paths and garden beds that can act as a physical marker/reminder for keeping their feet off of the garden soil.
 - Beds arranged so that children can do activities while observing adult leader(s).
 - An arbor, scarecrow, or some other unmistakable way to mark the entry.
 - A short walk from restrooms.
3. Features that open up even more possibilities and charm:
 - A balance of activity locations between sun and shade.
 - A nearby gathering area where a whole group of children can sit.
 - A nearby picnic table for "plants parts parties", journaling, nature arts and crafts.
 - A nearby covered area or a pop-up canopy tent for rainy days.
 - A worm bin and/or compost bin.
 - "Found objects" as decoration.
 - PVC pipes and Remy for extended-season cloche gardening.
 - A bulletin board or kiosk for displaying garden art, "what's blooming" notices, etc.

Tools can be simple:

- A 5-gallon bucket full of hand trowels, cultivators, gloves, and an old towel.
- Plenty of watering cans, some plastic magnifying lenses, and cloth measuring tapes.

Planting Tips:

- It's easier for children to plant large seeds than tiny ones, but demonstrating and acting out the "pinch and sprinkle" technique with them help a lot with tiny seeds.
- If adults also dispense seeds of all sizes to young children rather than giving out the packets, there will be much less spillage and mass clusters of seedlings.
- Nevertheless, be generous when planting seeds- thinning out and tending the little seedlings is part of the fun and learning!
- When planting starts or thinning seedlings, allow for plenty of time for children to observe and explore the roots of the tiny plants. It's a great opportunity.

Maintenance:

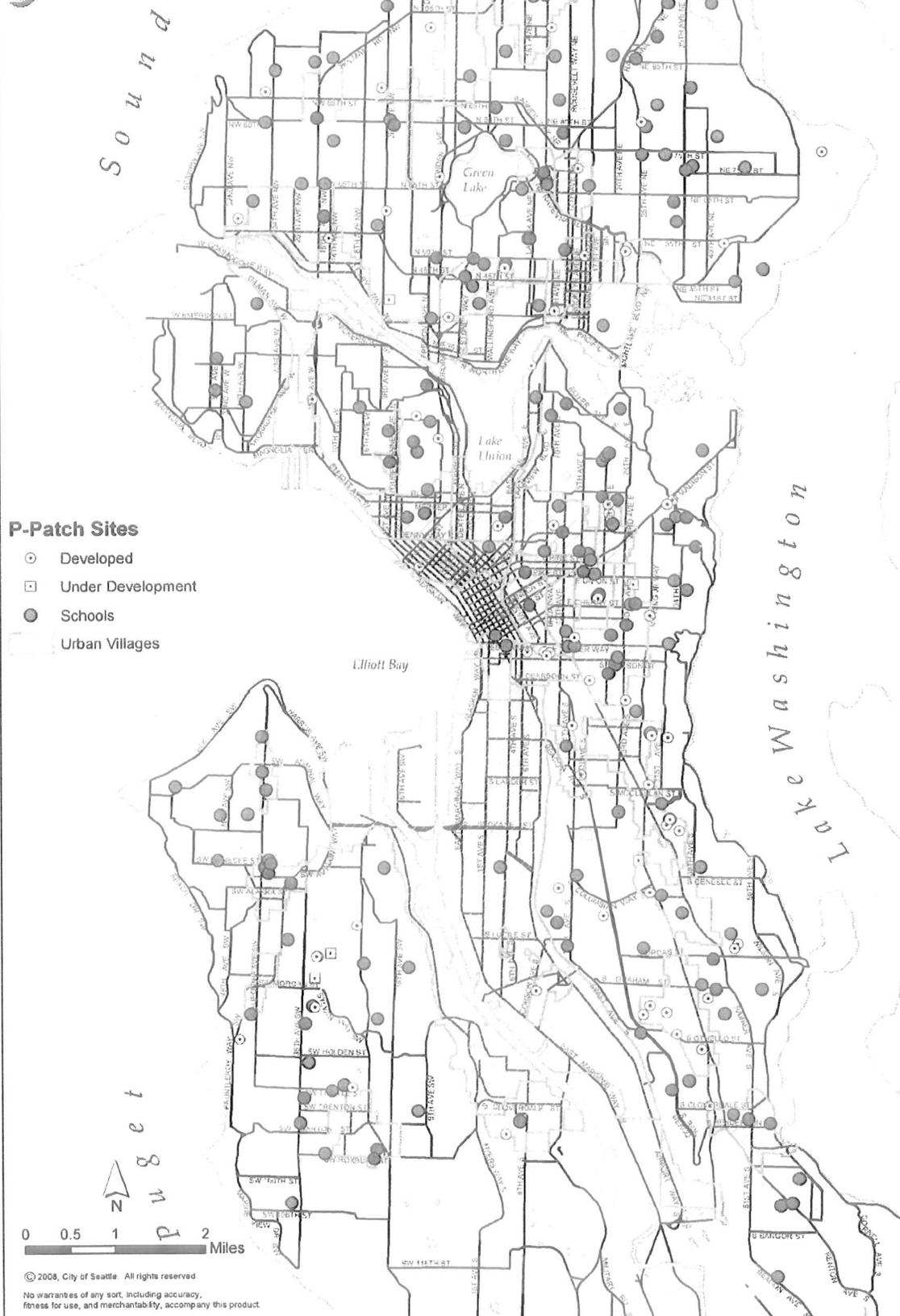
- Don't expect or strive for the garden to be a showpiece. Nature does not need tidiness to thrive, and it's a sign of success for the garden to look used! Remember that the process of gardening is the main goal, not the amount of harvest.
- Try to keep a handle on weeds to keep them from taking over, but utilize them as part of the learning experience whenever possible. Kids are sometimes very confused about why a plant they think is pretty is being called a weed.
- Even small children can do an amazing amount of garden maintenance. Mulching beds, spreading wood chips in the paths, removing spent plants, even weeding. (hint; make games, such as "who can dig the longest root", "which team can fill a bucket")

Last but not least:

There is a garden proverb that says, "More grows in the garden than is sown there".
When a child feels at home in a garden, something wonderful is sprouting!

P-Patches in Relation to the Location of Schools

City of Seattle
 Department of Neighborhoods
 April 23rd, 2008



PLANTING CALENDAR



	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
ASPARAGUS		seed	transplant	harvest (2nd year)								
BASIL					seed	plant starts	harvest					
BROCCOLI					seed	plant starts	harvest					
BEANS (GREEN)					seed	harvest						
BEEFS					seed	harvest						
BRUSSELS SPROUTS					seed	plant starts	harvest					
CABBAGE					seed	plant starts	harvest					
CARROTS					seed	harvest						
CAULIFLOWER					seed	plant starts	harvest					
COLLARDS					seed	plant starts	harvest					
CORN					seed	harvest						
CUCUMBER					seed	plant starts	harvest					
EGGPLANT					seed	plant starts	harvest					
FAVA BEANS					seed	harvest						
GARLIC					seed	plant starts	harvest					
KALE					seed	plant starts	harvest					
LEeks (WINTER)					seed	harvest						
LETTUCE (OMK, RED-SAIL)					seed	harvest						
LETTUCE (SIMPSON)					seed	harvest						
ONION SETS					plant sets	harvest						
PARSNIP					seed	harvest						
PEAS (SNAP)					seed	harvest						
PEPPERS					seed	plant starts	harvest					
POTATOES					plant tubers	harvest						
PUMPKIN					seed	plant starts	harvest					
RADISH					seed	harvest						
SPINACH					seed	harvest						
SQUASH (SUMMER)					seed	plant starts	harvest					
SQUASH (WINTER)					seed	plant starts	harvest					
SWISS CHARD					seed	plant starts	harvest					
TOMATOES					seed	plant starts	harvest					
TURNIPS					seed	harvest						
ZUCCHINI					seed	plant starts	harvest					

Using this Calendar, you can direct seed many plants into the garden, except where noted.

Plant starts, transplants, and seedlings may be purchased from the garden, other nurseries, or other sources. Check the seed packet for planting instructions as well as other notes.

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Plants for Kids (<http://www.seattletilth.org/>)

<u>Perennials</u>	Sweet Cicely	Borage	Rye, oats, barley, wheat
Agastache	Thyme	Brassica flowers	<u>A Few Poisonous Plants</u>
Artichoke	Tulips	Calendula	Aconite
Berries	<u>Annual Veggies and Flowers</u>	Clover	Anemone
Cardoon	<u>Leaf</u>	Cutting flowers for bouquets	Azalea
Chamomile	Basil	Daisies	Buttercup
Chives	Broccoli	Nasturtiums	Calla Lily
Clove Currant	Cauliflower	Red Dead Nettle	Clematis
Comfrey	Chard	Viola, Pansies, Johnny Jump Ups	Daffodil
Culinary Sage	Cilantro / Coriander	Zinnia	Delphinium
Dianthus	Collards	<u>Fruit</u>	Four o'clock
Fennel	Garlic	Beans -- snap	Foxglove
Fruit Trees	Leeks	Beans -- runner	Hyacinth
Honeysuckle	Lettuce	Cucumbers -- lemon	Hydrangea
Hyssop	Onion	Peas	Iris
Jerusalem Sage	Spinach	Peppers	Ivy
Kiwi	Stevia	Pumpkins	Mistletoe
Lamb's ear	<u>Root</u>	Squash	Morning Glory
Lavender	Carrots	Tomatillos	Nightshade
Lemon Balm	Beets	Tomatoes	Periwinkle
Lemon Verbena	Potatoes	<u>Others we like</u>	Poison hemlock
Mint	Radishes	Buckwheat	Rhododendron
Monarda	<u>Flower</u>	Burdock	Spurge
Oregano	Arugula	Cleavers	Sweet pea
Pineapple Sage	Bachelor's Buttons	Mullen	Wisteria
Roses	Bean blossoms	Phacelia	
Rosemary	Black-eyed Susan		
Silver Shield Sorrel			

Local Seattle Youth Gardening Programs/Resources

Seattle Tilth

Seattle Tilth is a nationally recognized non-profit organization dedicated to cultivating a sustainable community, one garden at a time. They have several demonstration gardens, as well as in P-Patches and other community gardens across the region, where they teach people how to improve their environment by using organic gardening techniques.

<http://www.seattletilth.org>
4649 Sunnyside Avenue N, Room 120
Seattle, WA 98103
Phone Number: 206-633-0451
Fax Number: 206-633-0450
Email: tilth@seattletilth.org

Lettuce Link

Coordinate with Seattle-area gardeners to donate fresh organic produce to their local food banks. Each year, hundreds of backyard gardeners and P-Patch volunteers from more than 30 community gardens collect and donate about nine tons of fresh, organic produce for people in need! Produce is distributed to two dozen food banks, meals programs and shelters across Seattle.

<http://www.solid-ground.org>
1501 North 45th Street
Seattle, WA 98103
Phone Number: 206.694.6754
Fax Number: 206.694.6777
Email: lettucelink@solid-ground.org

Seattle Youth Garden Works

Seattle Youth Garden Works empowers homeless and under-served youth through garden-based education and employment. We are a market gardening program for youth ages 14-22 in the University District and South Park neighborhoods.

<http://www.sygw.org/>
5700 Sixth Ave S, Ste 207
Seattle, WA 98108
Phone Number: 206.632.0352
Fax Number: 206.632.0355

Magnuson Jr Explorers

These reasonably priced classes and camps are for children ages 4-7, and sponsored by the Magnuson Park Community Center. We are so fortunate to have the Magnuson Children's Garden and P-Patch as the "headquarters" for our main outdoor learning and play, both of which are full of interesting plants and wildlife all year round. And both are close to the nearby trails, grasslands, and other features of this wonderful park that we use for our exploration hikes.

<http://www.greenlightgardening.com/>

Master Gardeners

WSU King County Extension provides many resources for home gardeners. In addition to the services of over 600 Master Gardener volunteers, Community Horticulture faculty and professional staff are available to provide expert advice. WSU Extension also provides extensive online gardening resources.

<http://mastergardener.wsu.edu/>

Phone Number: 206.205.3122

Clean Greens Farm and Market

Based on 22 acres of leased land in Duvall, WA, this innovative project was begun by the Black Dollar Days Task Force, an organization dedicated to creating economic opportunity and equity in Seattle's low income communities.

<http://www.cleangreensfarm.com/>

Marra Farms

Marra Farm is a model urban community farm engaging people in sustainable agriculture and education while enhancing local food security. Tucked into the South Park neighborhood of Seattle, it has 4 acres of historic preserved farmland.

<http://www.solid-ground.org/Programs/Nutrition/Marra/Pages/default.aspx>

1501 North 45th Street

Seattle, WA 98103-6708

Phone Number: 206.694.6746

Fax Number: 206.694.6777

Email: suem@solid-ground.org

Local Youth Gardening Grant Opportunities

Before delving into the big world of grants and applications take a look around the local sector. There is plenty of resources right around your neighborhood, and often companies are more than willing to help in your endeavors. The first step would be to draft a letter of request. Be specific with what you need and where it will be used. It should also contain information about the program you are running. Submit this letter to local community companies. Try and make personal contact with the individuals so these companies can put a face with the request.

Seattle Neighborhood Matching Fund- Four Opportunities

-Large projects Fund: is for projects which take up to 12months to complete and need more than \$15,000 up to \$100,000

-Small and simple Project fund: is for projects that can be completed in 6 months or less and seeking awards of \$15,000 or less.

-Tree Fund: neighborhood groups can apply for 10 to 40 trees for planting along residential planting strips.

-Neighborhood outreach and Development fund (including Small Sparks): Makes awards for projects that involve new people in the neighborhood organizations or activities.

National Youth Gardening Grant Opportunities*

The Healthy Sprouts Awards

Gardener's Supply Company supports school and youth garden programs that teach about nutrition and the issue of hunger in the United States. To be eligible for the 2008 Healthy Sprouts Awards, your school or organization must plan to garden in 2009 with at least 15 children between the ages of 3 and 18. This year we will present awards to 20 schools or organizations.

Seeds for Education Grant Program Invites Applications

Wild Ones is a not-for-profit organization dedicated to the use of natural landscaping with native plant species as an ecologically better alternative to traditional landscaping practices. Schools, nature centers, and other nonprofit and not-for-profit places of learning (including houses of worship) with a site available for this stewardship project may apply for an SFE grant. Cash awards range from \$100 to \$500 each. Complete grant program information as well as resources on natural landscaping are available at the Wild Ones Web site.

2009 Youth Garden Grants

The National Gardening Association is happy to announce that The Home Depot has returned to sponsor the Youth Garden Grants for 2009. For this cycle, NGA will award 125 grants.

The Lorrie Otto Seeds for Education Fund

Small grants to schools and other educational organizations committed to creating natural landscapes using native plants.

Mantis Awards

Mantis sponsors this award program in support of charitable and educational garden programs that enhance the quality of life in their host communities. NGA will select 25 gardens to receive a Mantis Tiller/Cultivator. We welcome applications from all nonprofits; past winners include community gardens, schools, ministries, colleges, master gardening groups, and hospices.

Hooked on Hydroponics Awards

Classroom hydroponics offers eager students loads of opportunities to explore concepts across the curriculum, from biology to economics. Winning programs receive a compact hydroponics package that includes everything required to grow plants successfully indoors. This award is sponsored by the "The Grow Store" in conjunction with the Progressive Gardening Trade Association. To learn more and download an application

Western Growers Foundation

Each school awarded will receive up to \$1500, a drip-tape irrigation system, seeds, books and educational resources for teachers

Lowes Outdoor Classroom Grants Program

Awards grants up to \$2,000 to at least 100 schools. In some cases, grants for up to \$20,000 may be awarded to schools or school districts with major outdoor classroom projects.

Orchard Supply Hardware

Provides grants up to \$1,000 for the creation of school gardens.

America the Beautiful Fund

Grants of 100 to 1,000 seed packets are offered on the basis of availability and relative need. America the Beautiful Fund also offers *The Green Earth Guide* containing illustrated gardening instructions and ideas on involving the whole community in your project. For nutritional information, harvesting, storage and eating tips they offer *Gardening for Optimal Nutrition*. With an annual membership contribution you will also have access to technical assistance via their toll free member hotline, newsletter and announcements of special events and grants.

Bonnie Plants 3rd Grade Kids Cabbage Program

3rd grade classes can request "oversized" cabbage plants as part of the cabbage program. Participating students have the chance to win a \$1,000 scholarship.

US Potato Board

Ten grants of \$2,500 each will be awarded to public elementary schools in the United States for equipment and/or educational programs that help move children toward healthier diets and improve their overall wellness. The grant program allows schools to allocate funds toward the improvement of either the nutrition or physical activity of students or both, depending on what their students need the most. School administrators, food service staff, teachers, and parents are invited to submit an application for the grant program on behalf of their elementary school. Visit website for further information and a grant application form.

There is a Washington State Potato Board also

*<http://www.kidsgardening.com/grants.asp>

King County Master Gardener Learning Boxes

Each Learning Box is a "classroom in a box" that contains a multitude of supplies such as videos, hand lenses, Petri dishes, curricula, posters, storybooks, puppets, etc. Each kit also contains a detailed handbook with background information, diagrams, worksheets, teaching tips, and dozens of lesson plans for educating various ages of children and adults. A folding luggage cart is also provided with each kit, to make it easy to transport. The list below details the main concepts that each kit can be used to teach, and one of its special features.

<p><u>Roots and Shoots Kit</u> Anatomy and Function of Roots, Stems, and Leaves, Uses by Humans, Basic Botany and ID. Includes Plant Parts Flannel Board.</p>	<p><u>Insects Kit</u> Beneficial and Pest Insects, Anatomy, Identification, Habitat, and Conservation. Includes Metamorphosis Model.</p>
<p><u>Seeds and Flowers Kit</u> Anatomy and Function of Flowers, Fruits, and Seeds, Uses by Humans, Seed Saving, Basic Botany and ID. Includes Seed Sampler Box.</p>	<p><u>Pollinators Kit</u> Bees, Bats, Hummingbirds, Benefits and Habitat Needs, Conservation and Preservation, Flower Anatomy and Pollination.</p>
<p><u>Native Plant/Wildlife Habitat Kit</u> Benefits of Natives, ID of Natives and Noxious Weed, Backyard and Schoolyard Habitats. Includes Survivor Game.</p>	<p><u>Soil and Compost Kit</u> The Soil Food Web, Composition, Soil Building and Mulching, Decomposition, Composting Methods and Bins. Includes Soil Samples.</p>
<p><u>Trees Kit</u> Forest Layers and Habitat, Botany and ID, Role of Wildfire, Use by Animals and Humans. Includes large Tree Slice and "Ollie the Owl".</p>	<p><u>Worms Kit</u> Worms and other Decomposers, Benefits and Anatomy, Worm Bin Building and Maintenance. Includes Model Worm Bin.</p>
<p><u>Observation Chamber</u> Removable panel reveals see-thru sides for plant growing, soil layer model, or temporary worm home. Can be used with another kit.</p>	<p><u>Mini Worm Bin</u> Approx. 3 cubic ft., removable panel reveals see-thru side for up close worm observation. The only kit with an 8-week checkout period.</p>
<p><u>Water Kit</u> The Water Cycle, Wetlands, Water Quality and Conservation, Habitat, and Critical Thinking Exercises. Includes Model Watershed.</p>	<p><u>Recycling Kit</u> Reduce, Reuse, and Recycle, Examples of Recycled Materials, and Craft Making. Includes Model Landfill.</p>

If you are interested in checking a kit out at the Renton Office contact:

Elaine Anderson at Elaine.anderson@kingcounty.gov

For checking out a kit at the Center for Urban Horticulture contact:

Jo Richardson at Jorichardson@comcast.net

What can you do with Youth in the Garden?

Quick Lesson Plans Utilizing the Garden

Terrariums

During colder months students can build mini greenhouse for indoors. Using two clear plastic cups, sand, charcoal and potting soil. Talk with students about what they think a plant would need to grow in the winter. Students will only have to water these plants once because the water will cycle through the water cycle-explain. Sand and charcoal help with water filtration. Have students share where they will be keeping there plant safe-preferably where they can get as much light as possible. *GR K-6*

Dirt Challenge

To have students get over there sometimes fear of dirt, play in the mud! Make mud either in a bucket or contained area. Have students place there feet or hands in the mud. It can get a little messy but students get a kick out of dirt! Be sure to have a hose or cleaning bucket and towels for students to clean up. You can have students write a journal or poem around what it felt like. They can have their names, or pictures, placed on a "Dirt Challenge" poster board. *GR K-3*

Garden Journals

Have students make their own garden journals for the season. They can document their gardening experience through pictures poem and writing. Using cardstock or cardboard for outside covers, colored construction paper, hole punch and heavy duty string. The journal can be used to document a seed planted, adopted plant, or entire garden layout. Students can keep track of growth height, watering schedule, and harvest date. *ALL AGES*

Garden Scavenger Hunt

Compile a list of items students need to find in the garden, you can associate points to each item or simply have them check off if they find the item. Equip students with rulers, bags, magnifying glasses, bug catchers etc. Examples could be: Stem 8" long, weed root, smooth stone 3" wide, flower with six petals, etc. Have students circle up at the end of allotted time and share what they found, could not find, and why they think they could not find certain items. *GR 1-5*

Lady Bug Stones, Lady Bug Search

Discuss why lady bugs are good for the garden and how they help. Go on a lady bug search around the outlying areas of the garden, carefully catching any ladybugs and bringing them back to the garden. Older students can do a survey of the amount of ladybugs they find in a garden compared with outside the garden. Discuss outcomes. Smaller students can search for smooth stones at least four inches around and can paint these stones like a ladybug. They can be used to decorate the garden or paperweights. *GR K-4*

Labeling Signs

During colder months one can do some garden planning. Ask students what they would like to plant in their garden this spring. Suggest themes, salad garden, taco garden, pizza garden, or fairy garden. Make a list of veggies students would like to plant in the garden. Distribute cardstock and have students volunteer to make labeling sign to be placed in the garden. Students can use paint, colored pencils, crayon, and markers. Encourage students to make signs colorful and legible. They can be collected and laminated for future use! *ALL AGES*

Building a Trellis

Peas after Presidents Day, and beans when it gets a little warmer! Both can be trellised for maximum use of garden space and production. Older students can design a trellis, looking at different styles (metal, wood, bamboo, plastic, tepee or ladder). Discuss pro's and con's to each option and decide on best options. Offer pictures as examples *GR 6-HS*

Weed Tally

Ask students what they think a weed is. Discuss with students that a weed is a plant that is simply in the wrong place. Why don't we want weeds in the garden? Give each student a section of the garden and tell them to collect as many "weeds" and keep count. They then can log the number of weeds on a poster board with their name, date, and number of weeds they collected. *GR K-3*

Plant/Weed competition

After discussing what plants need to survive (sunlight, water, and soil). Have several 4" cards with each plant need. Divide the class into two groups "weeds" and "plants". Round one: plants are in even rows, where they can not move. Place plant needs on the ground, students have five seconds to pick up as many cards as possible, staying in one place. Record how many each student collects. Round two: plants are still in even rows but weeds are added (weeds do not have to be in rows they can go where ever they want) students are again given 5 seconds. Record the data and compare results. Similar game can be played (older students) with plant nutrients: Nitrogen, Potassium, and Phosphorus. *GR 1-5*

Bird Survey

Why are birds important for the garden? Why are they a nuisance to freshly planted gardens? Students will be conducting a bird survey of the garden and surrounding area. Partner up students with a clip board, pencils and paper. Students make a tally mark for every bird they see and a circle for every bird nest. Explain that birds may get frightened of noises so students should be quite, set boundaries for the survey, suggest students take different locations to make sure they don't count the same birds twice. *GR 1-5*

Bird Treats

Winter is a hard time for birds. Although most migrate to warmer places some stick around. Have students collect pinecones so make bird treats for those that stayed around. Students tie a long, durable string around the pinecone, using lard (or peanut butter if no student is allergic) cover the pinecone with a thin layer of this sticky substance, roll cones in birdseed and hang from tree. To transport sticky treats home, wrap in tin foil or recycled newspaper. *GR K-3*

Bugged Out

Discuss/Ask why we need bugs in our garden! Several educational books, ranging in age appropriateness, "The Icky Bug Alphabet Book" "Hide and Seek Science, Where's that Spider" Students can pick there favorite insect and draw a chalk picture of the insect and explain why they are important. Students can go on a bug search! Explain that bugs are living creatures and we must respect and return them to nature. *GR K-3*

Compost Worms

What is compost and why is it important to the garden. Borrow a working compost worm bin from Seattle Tilth and have students get up close with red wiggler worms. Explain difference between red wigglers and night crawler worms. Have students measure and name worms, draw a picture and label the different parts of a worm (head, anus, segments, and clitellum) Guess how much a worm eats each day, and how much we would have to eat if we were worms? Students can have an apple snack and add the core to the worm bin! *ALL AGES*

What a Seed Needs to Grow Experiment

Using what a seed needs to grow as a variables- water, sunlight, air and soil, have three cups, with one of each of these variable taken away: one container that will not be watered, one that will be kept in the dark, one in a zip lock bag, and one where the seed is planted in a sponge. Wheat Grass seeds work well because of the fast germination times, within a week. Discuss the outcomes and why some seeds may have grown even if they didn't have all variables (desert plants, hydroponics, shade loving plants). *GR 3-6*

Map the distance food travels

Have three bags, with three pieces of produce in them. Each bag will contain a scenario on how that piece of produce arrived in the class room, one bag will contain a vegetable from the local garden. Have students use string and push pins on a world map to trace how far the food traveled. Discuss the problems with food traveling so far, why it is hard to eat local year round, and solutions. Older students can calculate carbon footprints of food. Example of Scenario: Banana from Ecuador-collected on a farm, trucked to Quito, shipped to L.A. by boat, trucked to WA, driven home from grocery store. *GR 3-HS*

Where's that Veggie from?

Have students pick out their favorite vegetable or fruit. Then ask them where they originated from, what type of weather is ideal to grow them in, would they grow in WA? Discuss where students could find this information (Library, Internet, Gardeners). Have samples of produce (or pictures) from the garden and have students match where this produce originates from. *GR 4-HS*

Green Smoothies

Here is an awesome recipe to get kids to eat the last of that fresh spinach from your garden! They might be a little leery of the green color, but after they taste it, they will be screaming "add more spinach!"

1 banana

2 cups orange juice

2 cups freshly picked spinach

1 ½ cups frozen fruit (Strawberries, Mangos, or Pineapples)

Spinach is a great source of dietary fiber. It is known to be an excellent source of iron, calcium, and vitamins A and C. *ALL AGES.*

Garden Chores

Students should help with the maintenance of the garden through the year. This will create a sense of ownership in the garden. From watering with canisters, mulching, weeding, turning compost bins, planting seeds, transplanting starts, gathering sticks, to drawing the garden map, constructing stepping stones, and posting garden rules. Explain how to do each task, along with the importance. Ask to students to imagine what would happen if no one ever did a particular task. *ALL AGES*

Plant Part Cooking Stir-Fry/Potstickers/Garden Salad

Have students choose what they would like to prepare using the six different plant parts (leaf, stems, flowers, fruit, roots, seed). Discuss the function of each plant part. Students can divide into groups and make their own recipes. Example Plant Part Potstickers-

INGREDIENTS

1/2 head Napa Cabbage, cleaned and cored

1/2 cup carrots, peeled and diced

3 Tbs shallot, onion, or green onion, minced

1 Tbs garlic, minced

1 Tbs ginger, minced

1/2 small can water chestnuts, drained

10-20 wonton wrappers

2 Tbs water, reserved

1 Tbs vegetable oil

PREPARATION

1. Cut cabbage into 1" pieces.

2. Add remaining prepped vegetables.

3. Smear water on the edges of the wrapper. Fold and seal.

4. Drizzle oil into hot pan. Fill pan with potstickers, ensuring enough cooking room.

5. Sauté potsticker on each side.

6. Add water and cover pan to steam ingredients. Allow to steam 3 minutes.