

Step 3 – Seek Permission and Community Support

Before breaking ground on your school garden, carefully research your school, county, and city codes and policies. Seek permission from the school district, school and neighborhood before beginning. Ask your school administration about liability concerns and insurance. Liability insurance is often covered under the school's insurance, but questions should be asked about visiting community volunteers. The key to any successful garden project is determined by the time and commitment of those involved.

PTO Support

Teachers -

- Teachers love programs that tie into their curricula & like to have input into what types of programs are run.
- The more ways in which you deliver your message, the more likely it is to be heard - email, newsletter, flyers, website, loudspeaker, notes left in in-box, etc.
- Thank you cards, letters, and phone calls are the best forms of thanks - it helps keep teachers motivated.

Parents -

- Getting parents to join a school's PTO isn't always easy, but it is possible if you use creative ways to increase membership.
 - Host a PTA/PTO sign-up table at our back-to-school open house or class registration event before the start of school.
 - Set up a schedule for promoting memberships during the school year.
 - Sponsor a classroom contest that rewards the class with the most memberships sold.
 - Provide free babysitting at all PTA/PTO meetings.
- Principal & Teachers will know which parents might be interested.

School Board Permission

- Make contact with your school district facilities manager to inform them of your intentions (with pre-approval from your school administrators), and obtain basic information such as what resources might be available.
- Many districts can provide mulch, soil, rototilling and sometimes heavy equipment. They may also have approved plant lists and nurseries where you can receive a discount on plants.

- The School Board must meet specific goals every year. If our program can help meet these goals we have a better chance for success. The following is an example:
 - Exceptional campus leadership
 - An aligned curriculum that uses well defined achievement goals to sustain an exemplary rating.
 - Facilities that are safe, well maintained, and provide for the developmental needs of all students.
 - High quality classroom instruction based on assessment of student progress.
 - A supportive community dedicated to the achievement of our district goals and effective communication.

HOA Approval

- Providence's Homeowner Association ("HOA") is administered by a Board of Directors, consisting of two residents and three developer representatives.

Student & Parent Support

- Include everyone; at times a garden group may seem an exclusive "club" that is owned by certain participants.
- Ask the principal to personally invite parents to help in the garden.
- Public relations are very important. Let people know what you are doing and why to get the everyone involved. A lot of support from varied sources helps to prevent burn out from relying on a few.

Garden Talent Needed!

- **Garden Leaders:** give lessons and instructions.
- **Adult Leaders:** watch students in the garden to ensure safety and other rules are followed.
- **Garden Angels:** watch over the garden during summer and holidays.
- Song leaders, bug experts, seed savers, rock collectors, math lovers, science enthusiasts, storytellers, etc!!!

Step 4 – Create a Learning Garden Committee

Someone has to be responsible for the garden work, finding funds to support the garden, scheduling educational activities, finding and training volunteers, researching and disseminating information. Forming a garden committee from a pool of dedicated people with those skills, will enhance the success of our program.

PTO Leadership

- The PTO will establish a diverse Learning Garden Planning Committee.
- This committee will be comprised of:

School Garden Coordinator: parent in charge of running the garden program. Have the ability to create rapport with teachers, parents and principal. Compiles educational information and programs that can be used in the garden. Dedicates 15-20 hours/week to organization of the garden.

Garden Coordinator Assistants: parents who assist, fill in for coordinator; create and distribute materials. Works with Coordinator to compile educational materials for garden program. Creates and distributes garden program materials to parents and teachers. Research garden programs and activities. Group should be able to donate at least 10-12 hours/week.

Parent Liaisons: parents in charge of contacting parents regarding events. Individuals with a helpful, encouraging and enthusiastic attitude. Contacts parents by phone/email/in-person on a weekly basis; informs them of garden happenings. Organizes dates for parents to help; calls them the evening before to confirm/remind. Donates at least 10 hours/week.

Treasurer: PTO member in charge of monies earned for the garden; may write grants. Keeps the "books". Organizes fundraisers for the garden. Works with committee to decide how to spend garden money. Contacts community members and businesses to ask for donations. Works at least 10-15 hours/week.

Parent/Teacher Volunteers Works 1-3 hours/week.

Construction Professionals

Landscaping Professionals

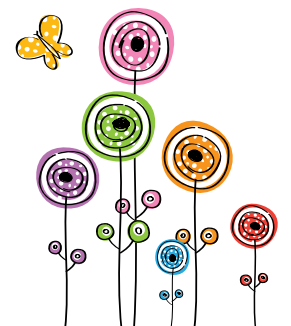
- This committee will present the proposal to the School Board and the Homeowner's Association.
- After completion of the Learning Garden, the PTO will elect a Learning Garden Coordinator each school year to oversee any changes/additions and maintenance needed.

Student Leadership

- Create a student committee to help organize events planned for the garden.
- Ask students to contribute rule ideas.

Community Support

- Utilize the Denton Co. Master Gardener Association. Each year, Denton Co. Master Gardeners must earn a minimum of twelve hours of advanced training and volunteer a minimum of twelve hours on any Master Gardener project to maintain active Certified Master Gardener status.
- Ask professionals in Aubrey to help with information, volunteering and in-kind donations.
- Construction and Landscape professionals can help with site preparation and installation. This includes operating heavy equipment, grading, checking elevations, reading construction plans and showing volunteers where to dig holes. That person would also be able to identify any issues involving installation that can be dealt with in the early stages of design planning.



Step 4 - Create a Learning Garden Committee (cont.)

Some helpful tools are a great way to keep organized. Meetings should be held regularly to keep the PTO and school administrators up to speed on the progress of the garden. Financial information should be made available at all times.

Examples -

BE OUT THERE WE NEED YOU!

_____ is developing a Schoolyard Habitats site to provide habitat for wildlife on _____ grounds and to provide an outdoor classroom for the entire school community to learn in and enjoy. We are looking for volunteers to share their expertise, talent, experience, and interest in creating, enhancing and/or maintaining our Schoolyard Habitats site. Opportunities are endless, and range from one-time planting events to ongoing maintenance and assisting with teacher-led classes outside on the school grounds. Please take a few moments to complete this form so that we can match you with a project that meets your interests and our current needs. Thank you for your time and interest!

Name: _____ Date: _____
 Address: _____
 Phone Number: _____
 E-mail: _____
 Current/Former Occupation: _____

What do you hope to gain from volunteering with this project? Why are you interested?

Areas of Interest/Expertise (Please check all that apply):

<input type="checkbox"/> Gardening (general)	<input type="checkbox"/> Trees	<input type="checkbox"/> Earth Science
<input type="checkbox"/> Horticulture	<input type="checkbox"/> Researching	<input type="checkbox"/> History
<input type="checkbox"/> Landscaping	<input type="checkbox"/> Site Planning	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Native Plants	<input type="checkbox"/> Site Preparation	<input type="checkbox"/> Art
<input type="checkbox"/> Composting	<input type="checkbox"/> Site Maintenance	<input type="checkbox"/> Language Arts
<input type="checkbox"/> Ponds/Wetlands	<input type="checkbox"/> Gathering Supplies	<input type="checkbox"/> Writing
<input type="checkbox"/> Butterflies	<input type="checkbox"/> Fundraising	<input type="checkbox"/> Nature
<input type="checkbox"/> Birds	<input type="checkbox"/> Public Speaking	<input type="checkbox"/> Mentoring
<input type="checkbox"/> Insects	<input type="checkbox"/> Politics/Activism	<input type="checkbox"/> Hands-on Activities
<input type="checkbox"/> Reptiles and Amphibians	<input type="checkbox"/> Natural History	<input type="checkbox"/> Education
<input type="checkbox"/> Mammals	<input type="checkbox"/> Biology	<input type="checkbox"/> Other _____
<input type="checkbox"/> Flowers	<input type="checkbox"/> Ecology	

Check age group _____

<input type="checkbox"/> Preschool (Ages 3-5)
<input type="checkbox"/> Early Elementary (Ages 6-8)
<input type="checkbox"/> Late Elementary (Ages 9-11)
<input type="checkbox"/> Jr. High (Ages 12-14)
<input type="checkbox"/> High School (Ages 15-18)

BE OUT THERE WE NEED YOU!

List any specific skills/training/classes/knowledge/hobbies that you have that may relate to our Schoolyard Habitats project.

Work style:
 I prefer to Work in Team Work Independently Either


Availability:
 What days of the week are you available? _____
 Which hours are you free? _____
 How often would you like to volunteer? _____

Other comments?

THANK YOU!

Sample Checklist for Planting Day

- Get Schoolyard Habitats plan approved by school principal, other appropriate school staff and committees.
- Identify materials and resources needed for this planting phase
- Devise a plan for getting the school community involved
 - Solicit teachers' ideas for student activities
 - Create roles with specific responsibilities
 - Encourage staff involvement by identifying and/or assigning specific tasks/roles
- Solicit volunteer help and donations from school community
 - Construct necessary structures such as raised beds, walkways, etc.
 - Clearly mark pathways and areas for foot traffic.
- Prepare habitat area for planting
 - Add topsoil/humus if necessary
 - Take before and after photos to visually capture your progress
 - Rake and smooth out soil beds
 - Dig holes for trees and shrubs
- Create a checklist of all the materials you will need to have available on planting day (trowels, shovels, wheelbarrows, hoses, watering cans, etc.)
- Promote your event to local print, television and radio media
- Coordinate the delivery/purchase of trees, shrubs, and plants
- Prepare a planting day schedule/program for participants and distribute to all those involved
 - Designate which classrooms or grades will plant which areas and when. With planting in shifts can help the process flow smoothly.
 - Ask parents/volunteers to arrive early on the planting day to dig holes for trees and make final preparations of the habitat areas to be planted.
 - Pair older students with younger students to assist them with planting.
 - Prepare activities to engage students in habitat work and play.
 - Celebrate success by ending the day with a community gathering. This event could include students sharing poems, songs, and artwork inspired by the Schoolyard Habitats project.
 - Prepare a back-up plan in case of rain (indoor activities such as building bird and bug boxes can be a perfect way to continue to work towards habitat goals despite bad weather).



Sample: A Slice of a Mid-Project Planning Schedule

GOAL	OBJECTIVE	ACTION STEPS	RESOURCES NEEDED	MISSING RESOURCES/ HOW TO LOCATE	WHO IS RESPONSIBLE? WHO WILL HELP?	START DATE	END DATE
Build Raised Beds	Provide accessible garden plan for students in wheelchairs	Identify and contact volunteers to help with construction Plan building day with 4th-6th graders Pick up donation from lumberyard	People who have woodworking experience Planter bed designs Truck for lumber pick-up	Call Boy and Girl Scout talk to PTA; place ad in parent newsletter for volunteer help and use of truck Have students research designs	Berry will coordinate volunteers; 4th-6th teachers will coordinate student involvement; Woodshop teacher will assist and provide tools.	Feb 15	Mar 10
Keep Facilities staff informed and involved in SYH project	Make SYH project successful through teamwork and clear communication	Prepare and present an update report on current status of SYH project at the Facilities staff meeting			Habitat Team members and two 8th grade students	Feb 18	Feb 25
Make the best use of community resources	Accomplish as much as possible while spending as little as possible	Complete applications for grants with upcoming deadlines: nature center, EPA, and native plant society	Photos of site; Documentation of student work	Borrow camera from art teacher; Ask students to write about what they have learned through the SYH project; include letters with app's to funder	Grant-writing committee; English teacher and principal will review	Feb 20	Mar 31

Step 5 - Acquire Funding

Consider a flexible budget for the school garden, one that can change as funds and resources become available. Start by budgeting for small projects that will quickly produce visible results. Prioritize your expenses. Which items are essential to the start up of the garden? Keep in mind: the first year of a garden is usually the most expensive year due to installation costs. Make a wish list of garden materials to advertise in the school newsletter, on public bulletin boards and in the newspaper. Create an accounting system for revenues and expenses, decide on the office location and mailing address for the garden project.

Gaining Support at the School

- **Diorama** - In order to gain visual excitement, a diorama will be built to show everyone that comes to the school what an exciting project we are working on.
- **The Change Jug** - Place a 5 gallon jug by the front entrance so kids can drop in spare change.
- **The Money Tree** - Money will grow on this tree! Hang a large paper tree by the money jug to show our progress as more money is acquired through fundraising.

In-kind Donations

Before seeking in-kind donations double check the grant requirements and guidelines to find out how to document in-kind donations. Make a list of things that could be done with in-kind donations instead of using up grant funds.

- **The Home Depot** - The Home Depot provides opportunities for associates, suppliers and community members to contribute their time, talent and resources while creating meaningful impact through Team Depot, our associate-led volunteer program.
- **Contact local businesses.** Many times a business allocates a yearly budget towards helping non-profits, you might be able to get services or supplies for free or at cost.
- **Contact schools.** Colleges and sometimes high schools will give students credit for helping with a non-profit organization that is within their career choice. Many high school students seek volunteer opportunities to increase their ability to gain scholarships for college.

- **Post a free wanted ad on www.craigslist.org.**

Be specific with your request, leave a contact name and phone number and instructions for potential in-kind donors.

- **Publish a wish list** of in-kind goods needed in your monthly newsletter.

Fundraising

- **Engraved brick sales**, bake sales, yard sales, coin drops, car washes, selling flower bulbs, T-shirts, silent auctions and raffles, concessions sales of food and beverages provide exposure for your project at community sporting events and festivals.
- **Host a Garden Party** - include a Hat Contest, silent auction, Garden Party favors, ask a local choir to perform, ask local businesses for donations for a silent auction and ask a local restaurants/catering co. to cater the event.
- **Entrepreneurial Project** - a plant sale, marketing cut flowers, fresh produce, salsa, herbal soaps or garden crafts.
- **Bingo Night** Bingo nights are always popular so try a Bingo night fundraiser. Same as normal bingo; sell cards and call numbers in your school gym or cafeteria. Instead of money for prizes, give away items donated from your local businesses and be sure to give them recognition for them.
- Spring Carnivals, Fall Festivals, Earth Day, Arbor Day, Labor Day, Veterans Day, holiday craft fairs and Farmer's Markets.



*Kindergarten & 1st Grade Fundraiser
Fall 2011*



Why Fundraise with U-Mix-It Safe Spray®?

It's Eco Friendly, Educational & Healthy

U-Mix-It Safe Spray's Green and Clean Fundraising™ program will assist your group in generating incredible profits, while helping to protect people and our planet by reducing exposure to harmful chemicals, improving indoor air quality, preventing pollution to our waterways, reducing landfill waste, conserving energy, and curbing emissions.

As consumers become more cost-conscious and concerned with health and environmental issues, it is imperative for communities to find alternatives for current fundraising practices such as candy bar and cookie dough sales. Green and Clean Fundraising™ is the perfect eco-healthy alternative and complies with the federally-mandated School Wellness Policy. Our fundraising team will provide resources to supplement your fundraiser, including classroom curriculum and community press release templates.

A "Win-Win" opportunity

U-Mix-It Safe Spray's Green and Clean Fundraising™ program will help our planet, help people, and help your group make a lot of money, without any risk. That's right, this is a "win-win" fundraising program with NO upfront or minimum purchase requirements. In fact, your group can even sell back extra products your group does not sell.

Getting Started

Our Green and Clean Fundraising™ program is easy to get started right away, using either of our convenient and successful methods:

The Pre-Ordering Method

Order your U-Mix-It Safe Spray products before your fundraiser begins. Pre-ordering lets students and organizations show off the recipe imprinted spray bottles to potential donors. This method will allow your donor to receive their U-Mix-It Safe Spray products immediately. Any U-Mix-It Safe Spray products that you do not sell may be returned for money back.

Order Form Method

Order forms can be downloaded and printed directly from our web site, or we can send a packet to your group. Order forms include product specifics, quick facts, and an easy ordering guide. Use this form to take orders for the duration of your fundraiser. Once your orders are complete, call a representative from our office and fax in your order. This method allows you to order exactly what you need without having any returns.

Single bottles earn 80%, Green & Clean 3 Packs earn 60%, Green & Clean 4 Packs earn 54%.

Fundraising With Flowerbulbs

Help a Good Cause & Bring Beauty to Your Home & Neighborhood!

I want you to know that our fundraiser was a total success! Thank you so much! Not only did the boys sell a lot of bulbs and make a lot of money, but importantly, the whole thing went off without a hitch. The bulbs were easy to sell, the order was easy to place, and most importantly, the right quantities of the various bulbs we ordered all arrived on the same day. Thanks again! We'll be back next year!
Carmen Bedburn, Coordinator
Lovelace Golf Club, Lowell, MI

Program Highlights

- **50% PROFIT** – Your organization keeps 50% of every dollar sold.
- **FREE SHIPPING AND HANDLING** – On all materials and products.
- **FREE BONUSES** – You will receive a FREE pack of bulbs with a retail value of \$9.95 for every \$100 submitted to Van Bourgondien.
- **FREE PLANTING INSTRUCTIONS and DELIVERY BAGS** – For all your customers.



A 15 Glamini Gladiolus Mix \$10.00
These petite beauties are a spectacular addition to any garden. They are half the height of standard Gladiolus, but still have the bright colors that stand out. Ht. 20-25". Bloom July-Aug. Zones 9-10; elsewhere dig and store in a frost free area.



B 4 Tango Lilies Mix \$10.00
These flowers are enormous and vibrantly colored with each variety lavishly speckled in unique formations. Ht. 30-45". Bloom June-Sept. Zones 4-10.



C 4 Hostas Mix \$10.00
This mix of shade-loving hostas will provide sparkling color in your garden year after year. Ht. 18-26". Blooms early spring-late fall. Zones 3-9.



D 4 Decorative Dahlias Mix \$10.00
You'll marvel at the size and color of this specially selected mixture. Deer resistant! Ht. 30-45". Bloom Aug.-first. Zones 8-10; elsewhere dig and store in a frost free area.



E 3 Pink & White Phlox Mix \$10.00
This wonderful combination will draw every butterfly in the area to your garden. These make great cut flowers. Ht. 24-30". Bloom June-Sept. Zones 3-8.

2nd & 3rd Grade Fundraiser Fall 2011

Van Bourgondien is one of the largest and most reputable flower bulb and perennial suppliers in the country. All of our bulbs and perennials are top quality, an excellent value, and guaranteed to grow. We are committed to helping your organization make its fundraiser a total success.

Why Are Flowerbulb Fundraisers So Successful?

The answer is simple. . . everyone loves flowers! Plus, the low price points make it easy to sell. Over the years thousands of schools, churches, clubs, and organizations have had amazing success with our Fundraising with Flowerbulbs program.

Why would I want to use the Online Program?

Our Online Fundraising program is a fast, easy, and convenient way for members of your organization to raise money beyond your community. After your group's webpage is set up and members (like you) have been added, all you have to do is share your personal link with your friends, family and neighbors, and ask them to support your organization by making a purchase. Then sit back and watch your profits grow! Van Bourgondien will ship the order directly to your customers, with a flat-rate shipping charge of only \$5.00, and your organization will earn 50% of all merchandise you sell! Your group's website also keeps track of the purchases made on behalf of each member, as well as for the organization as a whole.

Step 6 – Build the Garden According to Plan

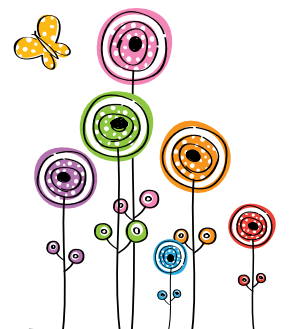
This is the big moment when teachers, volunteers, students and their parents pool their resources and build this permanent addition to the school. Planting days are a great opportunity for the whole school community to participate in the creation or enhancement of the Schoolyard garden site. This is an excellent chance to get those who have not yet been involved excited about the garden project. Those involved in the actual construction and creation of a project are more likely to take ownership in the initiative and participate in the future (or at least not be opposed to future phases of the project).

Let's Get Started!

- Planting days take a fair amount of organization and planning to ensure that students, teachers and volunteers all have an assigned role and know what they are supposed to do.
 - Utilize the parents to install the garden. There are plenty of tasks for all kinds of different people, from digging in the soil to writing letters to calling local businesses for donations to picking up donated materials.
 - Once the funds have been raised we can purchase supplies to start the garden. Your garden committee can help organize a workday when all the funding is in place and materials are ordered.
 - There are many community members who can help make this a positive experience. Often middle and high schools have community service organizations – invite them to help.
 - Be sure to let the local paper and your government representatives know about the community project.
 - Make a fun day out of it, have a cook-out and celebrate your efforts.
 - Hold a groundbreaking ceremony and ask the Mayor to officiate.
2. **Review the site design plan for the garden with the group, including what plants go where.** Go over general planting instructions (e.g., hole size, watering, mulching, etc.). Consider planting a shrub or plant as a demonstration. Review tool and safety issues as needed.
 3. **Divide students into groups.** Assign each group a certain area of the garden to plant. If possible, assign a volunteer to assist each group. Give the students area/plant specific instructions including how far apart plants should be spaced.
 4. **Begin planting.** Remember, enthusiasm is contagious, so have a great time digging in the dirt!
 5. **Have students make label plant markers.** Available at nurseries and garden centers, these markers should be written in permanent ink. Place in appropriate spots throughout the habitat to identify plants and educate visitors.
 6. **Place additional elements.** Following the site design plan, have students place other elements in the garden (e.g., benches, birdfeeders, etc.).
- Note:** Have water, sunscreen and a first-aid kit available. Take appropriate rest breaks.

Procedure

1. **Gather all required equipment.** Plants should be purchased ahead of time. If possible, take students on a field trip to a nursery to purchase the plants. The site should already be prepped.



Step 7 - Layout the Students Gardening Activities

The opportunities for hands-on learning through exploration, experimentation and nurturing can be especially beneficial for children with special needs. Gardens provide "real world" examples and experiences that boost learning for students who thrive on practical instruction. Activities in the garden can be adapted for various skill levels and allow children to connect with nature and each other in unique and important ways. Watch to see if gardening "vocabulary" seeps into usage amongst your students and colleagues. The organic language of gardening is so much "greener" and more life-affirming than the techno language of computers.

Garden Activities

- Leaf Rubbings
- Garden Collage
- Using Your Senses in the Garden
- Garden Weather Station
- Art in the Garden
- Lunch in the Garden
- Music in the Garden
- Spring Seed Starter Club

Reading Activities

- Family Reading Night
- Garden Journal - examples: change you noticed in the garden, something new you tried in the garden, write a description of the garden from the point of view of the root, stem, leaf, or flower of a plant.
- Students Read to Each Other - Older students are given the opportunity to read to younger students or vice versa.
- Quiet Reading Time - Students use the garden to engage in quiet reading time.
- Storytellers - Invite parents or local storytellers to come to the garden and read to students.
- American Indian Heritage Month in November - Hero Stories of the Great Plains.

Contests

- Third Grade Cabbage Program - Again this year Bonnie Plant Farm will be giving a \$1,000 scholarship to one lucky third grader in each state for participating in our

third grade cabbage program.

- Smokey Bear/Woodsy Owl Poster Contest
- Poetry Contest - 2011 Theme - "Fields of Daffodils" Now is the time to excite and encourage our youth to express their thoughts & ideas through different types of poetry. Kindergarten through 9th grade.
- Youth Sculpture Contest - Encourage youth to keep our planet green and to get involved with saving our planet by using trash as art. 4th through 8th grade.

Experiments

- Reverse Garden - Starting with garbage and investigate what "biodegradable" means. Instead of planting seeds and bulbs and watching plants and flowers sprout blossoms, bury different kinds of garbage for this science experiment and observe them as they decompose.
- Capturing Leaf Vapor - This experiment focuses on measuring the amount of water vapor that a leaf releases into the air in a week.
- Bottle Composting - Create a compost container out of several 2-liter soda bottles. Fill the compost columns and observe over several months.
- Make a Worm Farm - Worms can do wonders for the garden: they aerate the soil and their castings are an excellent fertilizer.
- Releasing beneficial insects into the garden - Praying Mantis eggs and Ladybugs are available at good nurseries. Watching the life cycle of butterflies and silkworms in the classroom can tie in with the life cycle in the garden.

Cross-Discipline Learning

The application of the real world is the most powerful tool in our educator toolbox, and what better way to understand a philosophy about cultivating land than to do it? Real-world application is where learning is synthesized.

Reading | English | Language Arts

Kindergarten –

- Reading children’s literature on plants, gardens or nature
- Exercises in following directions when planting or caring for the garden

Grade 1 –

- Reading children’s literature on plants, gardens or nature
- Writing and talking about the garden; asking questions about what is happening in the school garden

Grade 2 –

- Reading children’s literature on plants, gardens or nature
- Writing and talking about the garden; asking questions about what is happening in the school garden

Grade 3 –

- Reading children’s literature on plants, gardens or nature
- Writing and talking about the garden; asking questions about what is happening in the school garden

Grade 4 –

- Reading children’s literature, both fiction and nonfiction on plants, gardens or nature
- Writing and talking about the garden; giving a written or oral report on the garden

Grade 5 –

- Reading children’s literature, both fiction and nonfiction on plants, gardens or nature
- Identifying literary devices in such literature
- Writing and talking about the garden; giving a written or oral report on the garden

Reading List Ideas

- *The Garden Project* by Margaret McNamara
- *Roots, Shoots, Buckets & Boots: Gardening Together with Children* by Sharon Lovejoy
- *A Seed Grows: My First Look at a Plant's Life Cycle (My First Look at Nature)* by Pamela Hickman
- *The Magical Garden of Claude Monet* by Laurence Anholt
- *Monarch Magic!: Butterfly Activities & Nature Discoveries* by Lynn Rosenblatt
- *Shanleya's Quest: A Botany Adventure for Kids Ages 9-99* by Thomas J. Elpel
- *Harvey The Earthworm* by Vandy Shrader
- *Let's Grow with Allie Gator* by Jane Gerver
- *Busy Tree* by Jennifer Ward
- *Whose Garden Is It?* by Mary Ann Hoberman
- *Jack's Garden* by Henry Cole
- *Investigative Learning with The Private Eye* by Kerry Ruef
- *In the Garden: Who's Been Here?* by Lindsay Barrett George
- *Growing Colors* by Bruce McMillan
- *Red Sings from Treetops: A Year in Colors* by Joyce Sidman
- *From Flower to Fruit* by Anne Ophelia Downden
- *Measuring in the Garden (Math Around Us)* by Tracey Steffora
- *A Bug Collection: Four Stories from the Garden* by Max Lucado
- *The Oak Inside the Acorn* by Max Lucado
- *First Garden: The White House Garden and How It Grew* by Robbin Gourley
- *The Reason for a Flower* by Ruth Heller

Cross-Discipline Learning (cont.)

Plant-based activities, gardening, and environmental studies provide great opportunities for implementing National and State Science Education Standards. Such opportunities go far beyond the basic study of plants themselves to include life cycles, ecosystems, soil, weather, organisms and many science process skills such as measuring, charting, collecting data and reporting.

National Science Standards - Essential Knowledge and Skills

Kindergarten –

- Uses senses to find out about surroundings and her/himself
Explains how different senses give different information
- Chooses magnifiers to help see things that could not be seen without them
- Cares for organisms to know that most living things need water, food and air

Grade 1 –

- Chooses magnifiers to help see things they could not see without them
- Cares for organisms and concludes that plants and animals both need to take in water, and animals need to take in food. In addition, plants need light
- Investigates organisms to know that different plants and animals have external features that help them thrive in different kinds of places

Grade 2 –

- Observe, investigate, describe and explain the properties, structure, and origin of the earth system, the solar system and the universe
- Conducts investigations to know that soil is made partly from weathered rock, partly from plant remains and also contains many organisms

Grade 3 –

- Collects evidence from selected habitats to know that changes in an organism's habitat are sometimes beneficial to it and sometimes harmful
- Infers that for any particular environment, some kinds of plants and animals survive well, some survive less well and some cannot survive at all
- Concludes that insects and various other organisms depend on dead plant and animal material for food
- Reasons that almost all kinds of animals' food can be traced back to plants
- Produces evidence to explain that some source of "energy" is needed for all organisms to stay alive and grow

- Investigates organisms to know that they interact with one another in various ways besides providing food. Concludes that many plants depend on animals for carrying their pollen to their plants or dispersing their seeds

Grade 4 –

- Observes that organisms interact with one another in various ways besides providing food. Investigates ways that many plants depend on animals for carrying their pollen to their plants or dispersing their seeds
- Conducts a long-term investigation to know in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all
- Deduces that over the whole earth, organisms are growing, dying and decaying, and new organisms are being produced by the old ones

Grade 5 –

- Examines environments to know for any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all
- Gives examples of how some source of energy is needed for all organisms to stay alive and grow
- Examines various fossils to know they can be compared to one another and to living organisms according to their similarities and differences. Some organisms that lived long ago are similar to existing organisms, but some are quite different

Cross-Discipline Learning (cont.)

Students can discover the relationship between people, plants and products as they use their sense of smell to participate in sensory activities investigating the multiple uses of specific plants. Scout out the physical and spatial characteristics of the garden by highlighting geographic tools, physical systems and the relationship between people and places.

Social Studies

Kindergarten –

- Identifying garden plants that are used or have been used by various cultures
- Relate folk tales, fables, and myths to the garden
- While discussing family roles of various cultures, highlight agriculture and/or gardening practices

Grade 1 –

- Relate legends, myths, stories, and fables to the garden
- Apply what is learned about rules of conduct and work to behavior in the garden
- Relate study of elements of culture to the plants and activities in the school garden; grow plants used by various cultures

Grade 2 –

- Apply rules of conduct, rights and responsibilities to behavior in the school garden
- Introduce botanical/garden/agricultural details into study of the diversity of backgrounds of Americans; grow plants from other cultures in your school garden
- Use the garden to illustrate simple economic concepts

Grade 3 –

- Highlight gardens, plants, agriculture, and nature in study of cultural diversity. Grow plants from these cultures in the school garden
- Consider how inventions and new developments in agriculture have influenced gardening practices used in the school garden

Grade 4 –

- Use the garden to illustrate economic concepts such as effects of supply and demand
- Grow plants from Africa and Asia

Grade 5 –

- Discuss botanical/agricultural contributions by various cultures and grow some of the plants discussed

Geography

Kindergarten –

- Compare a simple map of the garden to the actual garden
- Create and identify symbols to represent features on the garden map

Grade 1 –

- Compare a map of the garden to the actual garden
- Use a map legend to identify features on the garden map
- Observe the weather and seasons effect on the garden

Grade 2 –

- Create simple maps of the school garden
- Collect data on weather and seasonal changes in the garden

Grade 3 –

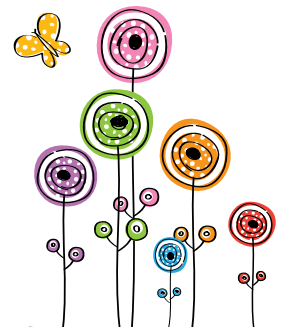
- Create map of school garden using relative locations: distance, scale, and map symbols
- Discuss the neighborhood and/or community involvement in the school garden
- Collect data on weather and seasonal changes in the garden

Grade 4 –

- Create a scale map of the school garden
- Collect data on weather and seasonal changes in the garden. Discuss their impact on the school garden
- Use the garden to describe interaction of climate, weather, soil, and natural vegetation

Grade 5 –

- Highlight crops and other plants that moved with human migrations; grow some examples
- Collect data on weather and seasonal change in the garden; compare this to historical patterns



Cross-Discipline Learning (cont.)

The garden provides a plethora of opportunities to practice basic mathematical functions such as calculations, comparisons and measurements using hands-on activities. You can then translate collected data into a wide variety of charts, graphs, and reports. Unlike textbook examples that may not relate to students' experiences, math becomes both practical and relevant when students implement concepts they have learned in the classroom in a real-life garden setting. This is especially true when they see how applying math, such as calculating how many seeds to plant in a pot or determining the amount of fertilizer to use, affects the growth of their plants.

Math

Kindergarten –

- Measuring the schoolyard garden, both before and after construction, with various non-standard units
- Identifying shapes in the garden
- Recording the daily temperature on a classroom chart

Grade 1 –

- Measuring the schoolyard garden both before and after construction with non-standard and standard units
- Identifying two- and three-dimensional shapes in the garden
- Collecting data on daily temperature in the garden and recording it on a classroom chart
- Recognizing patterns in the garden

Grade 2 –

- Measuring the garden in metric units
- Dividing garden beds to gain understanding of simple fractions
- Measuring the daily temperature and recording it
- Identifying symmetry and asymmetry in the garden

Grade 3 –

- Measuring the perimeter and area of the garden
- Measuring temperature of air and soil in the garden
- Dividing garden beds into fractional units
- Identifying geometric shapes and concepts in the garden

Grade 4 –

- Measuring the garden and creating a map to scale
- Identifying geometric shapes and concepts in the garden
- Using the garden measurements to demonstrate fractions and decimals
- Create a graph to illustrate data from plant studies, such as a bar graph to show the number of seedlings that sprout or a line graph to show the growth of a plant over time

Grade 5 –

- Measure perimeter and area of the garden using metric units
- Calculate the volume of soil in a plant bed
- Create graphs to illustrate data from plant studies in the garden
- Identify geometric shapes and concepts in the garden

Step 8 – Define a Year-Round Garden Plan

Track your school garden's growth through photos, student artwork and poems and a journal. Create and display a calendar of gardening activities: planting dates, special events, volunteer schedules, etc. Keep your garden in the spotlight by sharing your photos, accomplishments and milestones in the school newsletter and on bulletin boards and by holding harvest celebrations. Let your local media know about your successes.

Fall (september, october, november)

- Check and repair irrigation
- Inventory tools
- Weed garden paths and open areas & cover in deep layers with wood chips or other path material
- Make & check plant labels
- Collect plant material and fill compost bins
- Plant perennial flowers and shrubs
- Pick and enjoy the apple harvest

Winter (december, january, february)

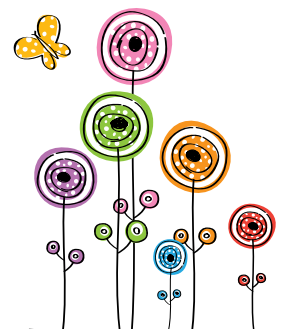
- Prune trees & shrubs
- Rejuvenate perennial areas by adding compost around plants
- Cut back dead flower stalks on all perennial herbs and ornamentals
- Add compost and mulch around base of fruit trees
- Collect plant material and fill compost bins
- Cover plants that are frost sensitive
- Stay ahead of winter weeds
- Maintain worm composting

Spring (march, april, may)

- Flush, check, and make any repairs or modifications to irrigation systems
- Watch for and treat aphid and other insect pest problems
- Remove dead flowers to keep new blossoms coming
- Reapply mulch around perennials if needed to protect against summer heat
- Mulch heavily around any annuals that you want to maintain through the summer
- Collect plant material and fill compost bins

Summer (june, july, august)

- Set up watering schedule
- Water and weed
- Cut back dead flower stalks on all perennial herbs and ornamentals
- Collect plant material and fill compost bins



Partners

There are several non-profit organizations and schools whose involvement would be beneficial to our project.

REAL School Gardens

503 Bryan Avenue • Fort Worth, TX 76104

817-348-8102

Jeff Cross - jcross@realschoolgardens.org



REAL School Gardens is a grassroots gardening program that helps children by supporting elementary school communities as they design, install and sustain outdoor classrooms (gardens).

In North Texas alone, we support 74 schools, ensuring that more than 41,000 children and over 2,600 educators have daily access to nature through school gardens. Our goals are to create safe outdoor spaces to engage young children, to use nature to enhance student learning, encourage family and community involvement in schools, and to create vibrant, sharing networks of educators and partners who commit to putting school gardens at the heart of urban neighborhoods.



Helping Your Community to Dig In: Designing Your School Garden

Our garden designers can work with your school team to create a design for an outdoor classroom that meets your teaching and learning objectives. We use both pre-design consultations and a collaborative process, also known as a design charrette, to engage a small team or your broader school community, including students, parents, local businesses and community groups. The result is a garden plan unique to your school.

The plan will be accompanied by a materials list, vendor contacts to facilitate purchase of materials and hiring of skilled labor, estimated project costs and phasing options. This information will help each school to identify fundraising targets and/or opportunities for gift-in kind donations. We will also provide tools and sample letters to identify and coordinate community volunteers. By involving the broader community, your garden will be supported by a group of invested volunteers and will likely be sustainable for years to come.

Training Teachers to Inspire Young Minds: Educational Services

Our outdoor education experts can provide school districts or schools a half-day, full-day or after-school professional development session for teachers, equipping them to use a school garden - or simply the outdoors - as a classroom. Our educators will prepare and deliver this training based on your school's teaching objectives, and consider your specific garden design.

REAL School Gardens is a Texas Education Agency-certified provider of CPE credits and has seven years of expertise in training teachers using TEKS-based curriculum. Some examples of trainings we have facilitated include: Digging for the TEKS, Question the System: Alternative Energy in the Outdoor Classroom, A Garden of Writers, Compost Compilations and The Art and Science of School Gardens.

Partners (cont.)

The Ft.Worth Botanic Garden's education department offers a variety of programs for children and adults. These programs offer the opportunity to explore the Garden either with an experienced guide, on your own, or to attend one of the many classes offered onsite. All our school programs are written to TEKS and TAKS objectives.

Botanic Garden - Fort Worth, Texas

The Fort Worth Botanic Garden, the oldest botanic garden in Texas, is the ultimate destination for self-guided field trips. Explore ponds, creeks, wooded acres, meadows and twenty-six specialty gardens on our 109 acres. Try our physical fitness objectives designed for various age groups. Come join us for a great learning experience that's TEKS and TAKS compliant and lots of fun! You'll discover a world of beauty and nature in our 109-acre classroom.

Guided Garden Tours - All Grades \$50 per class of 30

Trial Garden - Observe plant research in progress! Meet a Master Gardener & learn about the Garden's plant research.

Cottage Garden - Step back in time - learn the history & importance of cottage gardens.

Children's Vegetable Garden - Get up close & personal with vegetables! Meet a Master Gardener & learn how to care & cultivate vegetables.

Perennial Garden - What is a perennial? Meet a Master Gardener & learn why these plants are so magnificent!

Rose Garden (Blooming in April and October) - Tour the beautiful & historic Rose Garden! Learn about roses & the garden's role in Fort Worth history.

Texas Native Forest Boardwalk - Explore a forest in Fort Worth! The boardwalk features 13 interactive stations and topics including invasive species, tree rings, decomposition, biodiversity, photosynthesis and sustainability.



Garden Explorations - Classroom program with field investigation \$75 per class of 30

Tops 'n' Bottoms – Grades K-2

What part of a plant do we eat? Learn about vegetables by enjoying a garden storybook, exploring the Children's Vegetable Garden, and planting a vegetable seed to take home.

Weather Wonders – Grades 2-3

What is weather? Learn about the water cycle and how to measure temperature, wind & rain at the Garden's weather station.

Life in the Rainforest – Grades 3-5

Why are rainforest so important? Explore the Garden's amazing conservatory, learn about plant adaptations, and create a terrarium to take home.

Butterflies in the Garden February 27-April 4 • Booking begins in December School programs available Monday - Friday \$100 per class of 30

Tops 'n' Bottoms – Grades K-2

Bring your students to the Botanic Garden for an educational adventure which extends learning beyond the classroom. A special program is available to school groups that register in advance. The teacher-guided program introduces students to the butterfly's life cycle and behaviors to prepare them for their visit to the conservatory with live butterflies. Outdoors in the Botanic Garden, students observe plants through the eyes of a pollinator to learn about the adaptations of plants and animals.

*We worry about
what a child will
become tomorrow,
yet we forget that
she is someone today.
-Stacia Tauscher*



Partners (cont.)

Finding other schools in Texas with gardening programs would be a great way for students to communicate with others kids in different parts of Texas or the United States. Relationships can grow through common interests, and the garden is no exception.

National Gardening Association

www.garden.org

For more than 35 years, the National Gardening Association (NGA) has been working to renew and sustain the essential connection between people, plants and the environment. As a nonprofit leader in plant-based education, our vision is to make available free educational plant-based materials, grants and resources that speak to young minds, educators, youth and community organizations, and the general gardening public in five core areas; education, health and wellness, environmental stewardship, community development, and home gardening.

Why School Gardens?

Learning comes alive for students and teachers in a school garden setting. Whether indoor under lights or outdoor in the fresh air, there is no subject that can't be taught through plant-based education.

Gardens create dynamic, ever-changing, natural environments suitable for learning on every level. From reading and language arts, to science, math, and nutrition, to cross-cultural understanding and human rights exploration, everything is possible in the school garden hands-on laboratory.

With bales of straw for chairs, clipboards for desks, and the garden for a classroom, textbook lessons literally come to life as butterflies metamorphose, plants grow through their life cycle, and vegetation decomposes. Students measure and record plant growth, harvest and eat fresh veggies on the spot, create sensory poetry, and experience the joy of natural exploration and discovery.

There is no doubt that gardens are powerful educational tools, providing opportunities for children to experience the natural world as they develop academic skills and gain first-hand knowledge that leads to healthy and sustainable lifestyles. However, it may be surprising to learn that students who participate in gardening programs grow in other ways, too: they develop positive attitudes and behaviors that enhance the quality of their lives. And they learn important sociological skills such as cooperation, tolerance, appreciation for similarities and differences, and a global understanding of diverse cultures.

Cesar Chavez Elementary

2600 Hart Road • Little Elm, TX 75068

Kristi Baker • 972-294-1670 • kbaker@leisd.wv

Number of Kids Involved: 800

Square Feet of Gardens: 3000

We are just starting our school garden. We are in the process of grant applications, seeking donations, organization and planning. We have a huge, full sun area in North Texas. It is a flat area in between 2 wings of an elementary school. We plan to build raised beds using lumber or railroad ties as well as using barrels and other large containers. We would like to be able to build and create a multi-use garden as an outdoor lab, weather station, health applications, etc. Please send any ideas and resources!!! Thanks and happy gardening.

We are a school outside of Dallas. We have k-4 with several bilingual classrooms. We would love to participate in an exchange with another school!

Woodway Elementary

325 Estates Blvd • Woodway, TX 76712

Sarah McCormick • 254-399-8847

sarah_l_mccormick@yahoo.com

Number of Kids Involved: 500

What began as a simple beautification project with a couple of planters has grown into a multifaceted project that includes an Outdoor Classroom of planting beds; six bird habitat/feeding stations; a Monarch Waystation/ Butterfly Garden; three memorial gardens, a Character Garden, a Patchwork Quilt Art Garden, a Compass Rose Garden, a Red, White and Blue garden and the beginnings of a Pocket Preserve.

We are interested in Long Distance/Compressed video links. We are interested in schools in other geographical regions of Texas.

Comments from Schools with Garden Programs

"I used to visit and revisit it a dozen times a day, and stand in deep contemplation over my vegetable progeny with a love that nobody could share or conceive of who had never taken part in the process of creation. It was one of the most bewitching sights in the world to observe a hill of beans thrusting aside the soil, or a rose of early peas just peeping forth sufficiently to trace a line of delicate green". ~Nathaniel Hawthorne, *Mosses from an Old Manse*

Our Garden Project has had a profound impact on our school community. Students stop me in the hall to ask when they can work in the garden. They are proud to show off their efforts. From small seeds started in classrooms to a bounty of harvested vegetables, the positive effect has been addictive. Becoming a garden captain is an honor and a privilege, with many students competing for the right to be on the gardening team.

— A. Hinchliff, Oscar Mayer Magnet School, IL

The children took turns going outside to monitor the development during the week, in addition to the regular gardening times. They also had opportunities to problem solve and resolve conflicts early on, while determining specific plant placement.

— J. Mallory-White, Joliet Montessori School, IL

Our gardening project has become one of our most successful school programs. It has changed the culture of our school and provided positive experiences for every student. We are so fortunate!

— M. Masucci, Poland N. Elementary School, Poland, OH

Our community is in awe of our project. Kids are excited and have requested home gardens. Children can't wait to work, eat, plan, pick bugs. We are extremely proud of our students and families who have worked all summer to create a wonderful garden.

— M. Noonan, Alden-Hebron Elementary School, Hebron, IL

The Discovery Curriculum and garden at Wissahickon has nurtured a student body that regularly demonstrates enthusiasm for learning, responsible and respectful behavior, and academic success. The school's Discovery teacher works collaboratively with each classroom teacher to design units that complement the core curriculum by using elements of the natural world to connect learning across disciplines and grade levels. This approach gives students ownership of the project and provides opportunities for in-depth explorations of real life problems. Students comments include: 'I'm an eggplant scout' and 'Parsnips are my favorite vegetable now and I'm going to tell my daddy to eat them!'

— J. Nyce, Wissahickon Charter School, PA

Children are excited about gardening. Our garden has been a wonderful supplement to our curriculum. The kids have enjoyed the process from seed to harvest. We have also been able to share our veggies with other kids in our school! Another impact, teachers continue to see improvement in bag lunches: less junk food, more fruits and vegetables.

— E. Sherman, Wood County Health Department, WI

My students earned the reputation of being able to get anything to grow. They really took pride in the school grounds and anything dealing with the greenhouse. I saw an extreme boost in self confidence and pride in their accomplishments. A wonderful opportunity for the students as my class has a wide mix of students who struggle in regular classes. Thank you for this opportunity.

— R. Stephen, North Albany Middle School, OR

Parents share with us that their children tell them that gardening is their favorite class at school. They do not want to miss garden days and come home talking about the great things they got to do and all that they learned by participating in gardening activities. My students come to the garden during their recess and lunch breaks, preferring to investigate or help out with a variety of garden chores during times they could otherwise be playing. I think this is a true testament to the power of the garden - when given a choice of free time, the children choose to be there over any other options.

— J. Hampton-Walker, Larchmont Charter School, CA

We always check-in and check-out when we work together in the garden. A lot of times our students are despondent, grumpy, negative, etc. before they start working in the garden. Yet, typically by the time we check-out (at the end of our time in the garden) most of the students are expressing feelings of contentment, happiness, calmness, lessened anxieties, etc.

— M. Astin, Inner Harbour, GA

"Normally I don't like to get dirty. But this is different," claimed a female 7th grader building a raised bed. The garden programs involve students who might otherwise slip through the cracks. The garden has improved the whole school's morale. Sunflowers and ripe cherry tomatoes break the monotony of the grass that once grew between classroom wings. Students are amazed by the garden's bounty, which includes raspberries, blueberries, and strawberries.

— J. Miller, Chico Food Network, CA

