



## pe·ren·ni·al

(n.) a plant that produces flowers and seeds more than one time in its lifespan, and thus lasts for more than one year.

From Latin *perennis* meaning continual: per "through" + annus "year"

## The School Grounds Greening Project

brings children closer to nature by enhancing the grounds of Pittsburgh Public Schools with greenery and outdoor green spaces. A partnership of the Western Pennsylvania Conservancy, the Grable Foundation and Pittsburgh Public Schools, this project will bring low-maintenance, sustainable greenery to all Pittsburgh Public Schools by 2012.

## Learning *Beyond* the Classroom Walls



Planting a vegetable garden at Miller.

Whether they host a food garden, perennial bed, or a row of trees, green school landscapes can serve as invaluable learning tools. Vegetable gardens help students connect food to its source and teach healthy eating habits. Trees are amazing structures that filter our air and can be strategically planted to cool buildings or hot pavement. Perennial beds attract a diverse range of species such as butterflies, beetles, and birds, providing first-hand biology lessons.

With recent cuts to public education, transportation expenses for field trips could become increasingly more challenging to fund. Now is the perfect time to take students outdoors as an economical way to offer a substantial, hands-on learning experience.

In this issue of *The Perennial*, you will find a handful of ways in which outdoor learning can be incorporated into existing curricula, at no cost to educators. Check out all that green school grounds have to offer.



A group of 1st Graders cleaning up the garden at Westwood.

# CULINARY ARTS

# MATH

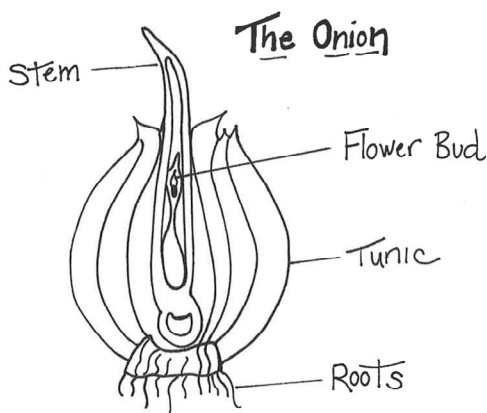
# SCIENCE

## Carrick High School

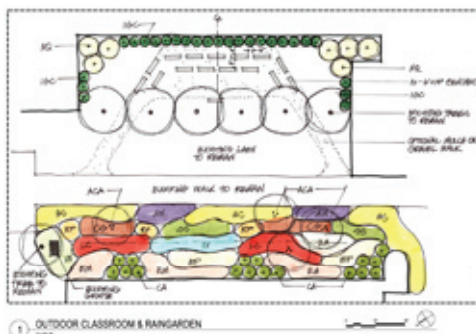
On March 30th, a group of Carrick High School students started the school's first food garden outside of their culinary arts classroom. Under the instruction of culinary arts teacher Diane Rutten, students built 7 raised beds and began planting an assortment of herbs and vegetables. As the crops begin to grow, students will use the fresh produce to cook healthy recipes in the classroom.

Some of the herbs and vegetables Carrick students will be growing include:

- Thyme
- Oregano
- Radishes
- Spinach
- Tomatoes



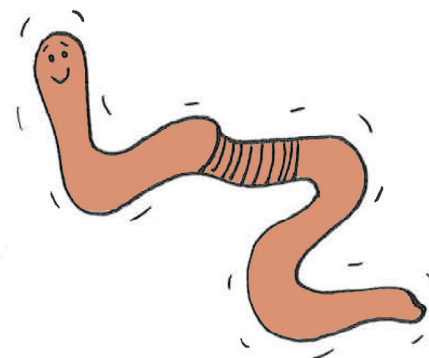
The students at Carrick also planted onions in their garden. Both the bulb and the stem of the onion plant are edible. Students will use both parts of the plant in their cooking.



## Site Plans

Outdoor site plans and blueprints are excellent learning tools. This rain garden plan for Allderdice High School is an example of how math concepts, such as drawing to scale and using ratios, can be applied to real world situations.

Measuring is also critical to planting. Certain plants need greater space to grow to their full potential. Calculating area, perimeter, and diameter are all useful when planting in a new space.



## Worms

Soil can house an abundance of living organisms, from edible plants to microorganisms too small to see without a microscope. A high population of worms often indicates good soil quality. As they move, worms improve soil quality by increasing the amount of water and air in the soil. As they eat, worms break down organic matter, like grass and leaves, and leave behind castings that provide valuable fertilizer.



Diane Rutten is the culinary arts teacher at Carrick High School. By acquiring a grant from the Consortium for Public Education she was able to build 7 raised beds to grow food for her students to use in class.

## Plants Get Thirsty Too

Plants need only a few ingredients to survive: air, sunlight, nutritious soil, and plenty of water. As the warmer months approach, schools' new trees and shrubs will need additional water. Luckily, watering is easy to do and can be a great way for students to get outdoors and to learn more about nature.

### How to spot a thirsty plant:

- Leaves are brown or browning and dry to the touch
- The soil at the base of the plant is dry on top, and a finger's length down
- Limbs are drooping and soft

### Watering tips:

- 1) Focus on a plant's root system. Saturate the root ball thoroughly; this is the plant's main means of soaking up water and vital nutrients.
- 2) The best time to water is in the morning. Water evaporates more quickly during the afternoon, which could leave a plant dehydrated. Watering at night increases the likelihood that a plant will develop a fungal infection.
- 3) Deep, less frequent watering is best. Shallow, frequent watering is not as effective. Water plants 6"-12" deep to encourage root growth and prevent evaporation.



## Become a School Tender TODAY!

"School Tenders" are volunteers who help care for the new plants provided by WPC at Pittsburgh Public Schools. A School Tender's duties consist of three simple steps:

- 1) Watering
- 2) Weeding
- 3) Continued monitoring

**WPC needs new School Tenders for the spring and summer season!**  
Interested? Contact:

David Wilson - 412 586 2416 - [dwilson@paconserve.org](mailto:dwilson@paconserve.org)

# GREENSOURCES for your school

Are you a teacher, parent, or administrator looking to expand upon a greening project at your school? Our *Greensources* section offers excellent opportunities to help better connect your students to the natural world.

## Western Pennsylvania Conservancy

[www.waterlandlife.org](http://www.waterlandlife.org)

WPC can provide students, teachers, and community members who help maintain their school's greenery with many free resources, including:

- Watering tools such as buckets and Gatorbags
- Common Weed Identification Guide
- Plant Maintenance Guide and Maintenance Schedule
- Gardening gloves

To request any of the above items and for more information contact: David Wilson  
412-586-2416  
[dwilson@paconserve.org](mailto:dwilson@paconserve.org)

## Annie's Homegrown Grants

[www.annies.com/grants\\_for\\_gardens](http://www.annies.com/grants_for_gardens)

If you are looking to start a garden from scratch at your school, Annie's is a great resource to try. Grants are available to groups whose projects focus on community and school gardens or sustainable agriculture.

## America the Beautiful Fund: FREE seeds

[www.america-the-beautiful.org](http://www.america-the-beautiful.org)

To request free vegetable seeds, fill out an application form and write a brief letter to the America the Beautiful Fund describing your garden project.

## Youth Garden Grants Program

[assoc.garden.org/grants](http://assoc.garden.org/grants)

Sponsored by Home Depot, the Youth Garden Grants program awards funding to schools for education-based garden programs. Funding can be put toward plants, tools, and educational materials.

## Captain Planet Foundation Grants

[www.captainplanetfoundation.org](http://www.captainplanetfoundation.org)

The Captain Planet Foundation awards grants to projects that are educational and that engage students in hands-on projects intended to improve their school and community environment.



## The Western Pennsylvania Conservancy's Mission

The Western Pennsylvania Conservancy protects and restores exceptional places to provide our region with clean waters and healthy forests, wildlife and natural areas for the benefit of present and future generations.

The Conservancy creates green spaces and gardens, contributing to the vitality of our cities and towns, and preserves Fallingwater, a symbol of people living in harmony with nature.

## Western Pennsylvania Conservancy



Thanks for all you do to make our school environments greener and healthier for all!

**For more information please visit:**

[www.WaterLandLife.org](http://www.WaterLandLife.org)