

Brains + Brawn = Beauty

By Ellen K. Flury and the Mango Mantids Students

Palmyra residents took a second look as they saw a mountain of mango-colored T-shirts marauding through the mud in front of the middle school. What was this unusual phenomenon? The seventh-grade Mango Mantids team members were landscaping one wing of the Palmyra Middle School on April 22, 1999, Earth Day.

A new unit of study on landscaping began last school year when George Eberly, the team's science teacher, stated, "I want to plant some trees." The rest of the team teachers agreed and decided to adopt the project as an interdisciplinary unit. School interdisciplinary units are designed to be used by a team of teachers for several years while being enjoyed by different groups of seventh graders. Students experience different elements of the units in each of their academic classes, thus creating an authentic model of incorporating skills to complete tasks. These skills are the "brains" part of the project. The actual implementation, in this case the physical act of planting trees and plants, is the "brawn".

The unit on landscaping addresses not only the required curriculum of the middle school, but also follows the team philosophy of recognizing the students as maturing persons. This unit has chosen to reinforce the conservationist views of the

often-quoted Oliver Wendell Holmes, who said, "When we plant a tree, we are doing what we can to make our planet a more wholesome and happier dwelling-place for those who come after us, if not for ourselves."

"I believe by beautifying our school, we make ourselves more complete as individuals."

— Calley Grace

Palmyra Middle School, the daytime place for its students, has benefited from the work of students and teachers. Last school year, the seventh-grade team of landscapers went to the high school and district office grounds for their unit project. This year, construction progress at the middle school allowed for the unit project to take place on the students' home turf. "One of our goals is to build school and team pride," said Mrs. Pam Keller, team leader, "and we feel we have accomplished that through our project on the middle school grounds."

"Now, instead of trampling over the flowerbeds, students will appreciate what they have achieved. Students can now understand that through hard work and teamwork they can make a difference. In ten

years, the Mango Mantids students will be able to drive by and see the landscaping job they did as seventh-graders. The memories of that exciting year will come alive as they remember how muddy, wet, and tired they were after planting.

— Amanda Brown & Amber DeGroat

Students have been working on their landscaping idea all year. In the fall, they walked on field trips to the high school site and to Long Nursery in Palmyra to research plants and trees for possible use. Long Nursery staff assisted the students with research information, and designing the plots for each homeroom, supplied all of the plants and trees at wholesale cost, and helped with the final planting.

"Before the process started, the Mantids thought this would be a breeze, but we were wrong. The tough work began when we went to Long Nursery to research the plants. An important part of the process was selecting plants that would thrive in the environment in which they would be planted. We needed to find plants that would grow in a mostly shaded plot."

— Adam Buck, Jason Keil, and Core Lamoureux



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With research information in hand, the project moved inside for the winter months. Lessons specific to the middle school curricula are an integral part of the landscaping unit. In math class, students learned to budget through estimation by preparing proposals of plants to utilize from their research at Long Nursery. Individual prices were added for the home-room plot total then the costs of trees, fertilizer, mulch, and herbicide were added. The estimation was a crucial part in the project.

Environmental concerns can be seen throughout the unit. Students practice language skills as they write thank-you letters to those individuals and organizations that assisted the team. As a service learning project, the landscaping unit puts social studies concepts of community involvement into action. "The students are learning to work cooperatively with each other and with a broader portion of their society," said social studies teacher Mr. Jim Shearer. Parents, Long Nursery, the school district, the Palmyra Garden Club, and a grant from the Pennsylvania Urban and Community Forestry Council all worked together to support the community in partnership.

"In this project, we were connected to the community in many ways. Parent, teacher, and student volunteers came to school on an April Saturday morning to prepare the plots for planting. They cleared the land of debris, weeds, and grass. Then they mixed fertilizer and soil together."

— Alicia Stakem & Emily Stephens

"The Garden Club of Palmyra donated money and helped with selecting the trees to plant. They also wanted to stir the interests of the young people in Palmyra about gardening. The Pennsylvania Urban & Community Forestry Council was a big part in the process of raising money. If it hadn't been for these organizations, the students would not have been able to perform this Earth-loving task!"

— Kate Cowan, Lauren Lacey, Ryan Martin, and Lauren Petrino

Throughout the year, students have learned about preserving the environment by collecting, crushing, and recycling cans. The profits from this venture were used in the costs of the landscaping project. "We want our students to realize the importance of recycling in this world of which we are the caretakers. This project shows students first-hand how our lives are interconnected to that of our environment. The children also get a taste of what hard work it is to maintain a living thing," expounded Mr. George Eberly, science teacher and project manager.

"Our team recycled soda cans for money for this project. We also did this because it is good for the environment. Recycling cuts down on pollution because the cans do not go to landfills. Instead, they are melted down and reused for many purposes. We had fun participating in the recycling. In addition to earning money for our project, we also showed that we care about the world."

— Matt Johnson and Phillip Steinke

Even the team name of the Mantids makes an environmental connection. Mantids refers to praying mantis insects, which are beneficial to humans and plants. The team philosophy strives to work with connections all year.

Developing an awareness of the aesthetic value of landscape design is another team goal. "To recognize and value beauty, in nature as in art and literature, is to allow oneself the ability to rise from within above outward circumstances," stated Mrs. Ellen Flury, the language arts teacher. This project fosters such an appreciation.

After a build-up of work and anticipation Earth Day arrived. The day before had brought downpours, and the ground was wet, ready to be mud. Students arrived at school with tools to place in front of their homeroom plots. Ponchos, boots, and even plastic bags over shoes paraded into the middle school for last minute directions. Dave Lehman of Long Nursery was on hand to deliver the plants, supervise, and guide. Teachers supervised and participated in the landscaping process. Students did the bulk of the physical work.

"It took all morning to dig holes and plant the shrubs. Our team got our hands dirty with the project. A select few, mostly muscular folks, were designated as the "dirty dozen" to dig the holes for the big trees to be placed throughout the front lawn area of the school wing. Several team parents were on hand to help serve snacks to the hungry workers during a break for lunch in the stadium. In the afternoon, we watered the plants, lay down newspaper, mulch, and fertilizer. The

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day took a lot of work, but it made a difference at the middle school."

— Lauren Aldinger, Rebecca Mellinger, Mallory Runkle, McKensi Trythall, and Laura Woomer

The outside of the middle school was not the only place where a difference was made. Cooperating in such close, visible work added a new sense of appreciation for each other.

"It was hard to work as a group because you had to talk to people you don't usually talk to." "We worked hard all day, evenly dividing the work we had to do. It brought us closer together as a team and a grade." "After the day was done, and all was complete, it left us with a feeling of accomplishment. It helped me not only to agree with others, but to communicate with other people and realize that I need to take the time to listen to others." "The landscaping was well worth the effort. As long as I live, I will never forget that day. When I'm older, I'll walk by and see the landscaping and say, I remember when we worked together as a team to accomplish that!" "The day, though hard and long, gave us a chance to get away from the books. "Kids who don't do that well with book work had a chance to excel with hands-on work."

— Quotes collected by Uchenna Nwoke and Tara Stager

Students at all levels of the seventh-grade academic ladder participated in the project. "This is a wonderful opportunity for students to see that all children have strengths to offer the group," offered Mrs. Amy Hines, the team inclusion teacher who specializes in working with students with learning disabilities. Working together with each other, and nature, and valuing all of the elements involved, represent the true focus of this interdisciplinary team project.

"Through this project we have learned to appreciate nature for what it is. What nature does by itself is hard to copy. When doing this project, we learned to take care of our forest. What we did in one day would take far longer in the wild. From this project, we've found out how precious our environment is. This project has benefited more than just our school. Our school has gotten a fresh new look of attractiveness, and that brings more pride to the students who attend here. The human race will continue to benefit from the fresh air these trees and plants are producing every day."

— Trista Lalli

One goal of interdisciplinary study is for the students to begin to make the connections themselves. Trees, nature, and science connect with hard physical labor to produce a work of beauty.

"By equally balancing the color, shape, and size of plants we used, the Mango Mantids were able to create a picturesque environment in front of our middle school. In plots with mostly green, we added splashes of vividness with bunches of perennials. The variety of plants is another important factor we considered to make our landscaping project more eye-catching. We used sizes from the tiniest liriopie to the mighty hemlock to make our planting job unique. By successfully completing this challenging task, our seventh-grade team has shown the community that the beauty of nature can uplift the spirit."

— Alexia Temme & Johanna Teske

In keeping with the team focus of addressing the maturing of the whole student, our landscaping project fulfills a powerful need. Our students have had to learn concepts in order to apply them in a very firm, concrete way. They have developed an appreciation for beauty, nature, community, and self. It falls in line with the words of the famous author Washington Irving, "He who plants an oak looks forward to future ages, and plants for posterity. Nothing can be less selfish than this"

