

Adventures in growth



Outside of a can, a box or a fast-food bag, some children have no idea where their food comes from. But Beecher's Tucker Elementary kindergartners do.

"My kindergarten class began

with an empty grow lab (and) limited knowledge of how a plant grows," said Roberts, an educator for more than 15 years. By the end of the year, though, her students had raised peppers, gathered eggs, harvested and tasted fresh radishes, treated parents to a "dream salad" luncheon and witnessed the construction of garden beds in their school's courtyard.

To start her project series, Roberts turned to Dave and Carol Groat, MSU Master Gardeners who were already working with Roberts in the grow lab program. The Groats visited the classroom regularly to help children raise plants, as well as teach lessons on land forms, decomposition and watersheds. Working with the Physical Education – Nutrition (PE-Nut) program, Roberts also featured healthy snack sessions in her classroom.

After sowing mung beans, house plants and peppers in the lab, students used rulers to measure plant growth, which they documented with illustrations and sight words. The kindergartners practiced gardening steps – and their reading skills

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**- Shelly Roberts,
Tucker Elementary
kindergarten teacher**

– by acting out *The Carrot Seed* story by Ruth Krauss. Then their gardening adventures branched out into the community.

"When the students visited the Harvesting Earth urban farm in the neighborhood, they experienced the larger version of their grow lab," said Roberts, who is also a Master Gardener. Farm owners Jacky and Dora King took kindergartners on a tour of their solar greenhouse, where they showed children how to dig and wash radishes. Students also fed chickens, collected eggs and played in the water spray from the farm's garden hose.



In the classroom grow lab, which included a water tier, students created a small-scale pond with plants such as duckweed and water lettuce, along with snails and fish.

"They learned how the waste produced by the fish and snails fertilized the plants," Roberts said. After caring for fish and observing changes in their classroom pond, students took the experience outdoors by visiting the pond and nature trail at Beecher High School, another district school involved in Discovering PLACE projects. High school students became teachers for a day, helping students unearth and examine creatures living in the garden beds and giving students a lift to peer at nests in birdhouses along the trail. Kindergartners

also helped pick up trash along the trail.

Building Tucker's courtyard garden crowned the series of growing experiences. The Groats took the lead in constructing the beds and readied the gardens for planting, aided by students' family members, staff and even Shelly Roberts' husband, Ed Roberts.

After observing the flora and fauna at For-Mar Nature Center and Arboretum, children worked with Rosemary Thiebaut, a For-Mar naturalist, to make leaf-imprinted stepping stones for their garden. Since then, the courtyard garden has become a summer sanctuary for produce such as tomatoes, peppers, cucumbers, watermelon and pumpkins.

The year's lineup of projects emphasized partnerships between the school and the community. It also fostered collaboration among community partners. For example, when Mike Yancho Jr., of Holly's Trim Pine Farms needed help unloading soil for the fabric-lined garden beds, Jacky King drove a backhoe from his farm through the Beecher neighborhood to lend a hand.

Through the experience, students gained a better understanding of food origins and their community. The project has also been an opportunity for professional growth.

"Being a part of Discovering PLACE has allowed me a wealth of resources never before experienced as a teacher," said Roberts. "This has helped me to take my profession - and ability to serve my school families - to a whole new level."



After growing house plants in the classroom grow lab (left), Tucker Elementary kindergartners dug radishes – which they learned were a tasty treat – at Jacky and Dora King's Harvesting Earth Educational Farm.

Discovering PLACE is a resource to help Flint-area urban schools create hands-on curriculum projects to connect youth with their communities. Discovering PLACE offers mini-grants, teacher resources and a network of support for educators to establish these projects. One of eight hubs in the Great Lakes Stewardship Initiative, Discovering PLACE is an extension of University Outreach at the University of Michigan-Flint.



Tucker kindergartners discover fowl at Harvesting Earth Education Farm, where they fed chickens and collected eggs (left). At the Beecher High School nature trail and pond (right), students examined critters unearthed from garden beds and helped pick up trash near the pond.

Looking ahead

Tucker Elementary's new courtyard garden, which can be seen from surrounding classrooms and the school's main hallway, is expected to meet a need for fresh food in a community with few grocery stores or farm markets.

Teacher Shelly Roberts and Robert Howard, another Tucker teacher, will use the courtyard garden as an outdoor classroom next year, when Roberts plans to incorporate food preservation techniques into the curriculum.

"The access to healthy food will increase and the overall health of the community will increase," said Roberts. "Like Johnny Appleseed, we hope to plant this seed that will take off in the community."

Discovering PLACE support

The Tucker Elementary project started with a year of Discovering PLACE professional development, as well as community partner brainstorming sessions to identify and develop a project based on student and community needs. Discovering PLACE awarded teacher Shelly Roberts and Tucker Elementary School a grant for more than \$2,000 for gardening tools and construction materials. The grant also funded student visits to For-Mar Nature Preserve and Arboretum, the Beecher High School Trail and Harvesting Earth Educational Farm. Discovering PLACE support continued during the project through a designated mentor who worked regularly with educators and conducted on-site workshops.

Community Partners

- Dave and Carol Groat, MSU Extension Master Gardener program
- Dora and Jacky King, Harvesting Earth Educational Farm
- Mike Yancho, Trim Pine Farms
- Virginia Sparkman, PE-Nut (Physical Education – Nutrition) program
- Rosemary Thiebaut, For-Mar Nature Preserve and Arboretum
- Kitty Bryon, Wojo's Garden Splendors

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