

Norristown Area School District, Riverbend Environmental Education Center win award

By Riverbend Environmental Education Center, For The Times Herald

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GLADWYNE >> The Pennsylvania Department of Environmental Protection (DEP) announced that 21 organizations across the state were awarded the prestigious 2017 Governor's Award for Environmental Excellence. Among those deserving organizations is Riverbend Environmental Education Center in partnership with the Norristown Area School District for Building STEM Skills through Aquaponics — a collaboration launched with the district in 2015. The Riverbend-developed, peer-reviewed aquaponics curriculum has been delivered for two consecutive years now, giving 500 Norristown seventh graders the opportunity each year to learn about ecosystems, farming and sustainability.

Riverbend Executive Director Laurie Bachman says, “An important goal for Riverbend is to use aquaponics as a vehicle for building STEM skills for students since it is those skills that can lay the foundation for future academic and career success. In 2016-2017, the program has taken off in the Upper Merion School District and with additional schools in the region. Not only does the curriculum advance STEM principles in an exciting and relevant way, it strives to increase environmental science literacy, another major program goal.”

Aquaponics is the combination of aquaculture and hydroponics, the science of growing fish and plants together in a single integrated, soilless system. Though still in the early stages of its development, it is widely determined to be among the most sustainable agriculture methods, using just 10 percent of the water required by traditional agriculture. With an estimated human world population of more than 9 billion people by 2050, experts predict water and food scarcity to be increasingly common, making aquaponics a timely topic.

Inquiry-based science learning is a hallmark of the program in which middle schoolers guided by their teachers grow plants and fish in classroom systems. The systems use 50-gallon aquariums and are installed in all seventh grade classrooms across three middle schools.

For the Norristown Area School Districts, it builds on an already-successful partnership begun with the district in 2006 in which nearly 15,000 Norristown elementary and

middle school students have participated in hands-on science and environmental education provided by Riverbend. “Aquaponics is the perfect tool for engaging inquiry into a wider range of science and environmental topics,” said Janet Samuels, Superintendent of Norristown Area School District, who led the launch of this program in her district. “Not only does this new, dynamic resource address Pennsylvania Academic Standards, it encourages the critical thinking needed to solve the problems of the future.”

“The Environmental Excellence Awards show just how many Pennsylvanians, from fourth-grade students to factory owners, care deeply about the air, land, and water in their communities,” said Governor Wolf. “We all benefit, as their commitment to tackling important environmental challenges improves our quality of life statewide.”

ABOUT RIVERBEND ENVIRONMENTAL EDUCATION CENTER

Riverbend Environmental Education Center is a 501(c) (3) non-profit organization located at 1950 Spring Mill Road in Gladwyne. Its preserve made up of diverse natural habitats is located on 30 acres and is open seven days a week for visitors. Riverbend offers a full menu of environmental education programs including school curriculum, teacher training, school field trips, exploration camp, public programs, weekly nature classes and special events.