

★ AWARDS

- Outstanding Achievement in Local Government Innovation Award from the Alliance of Innovation, presented at the Transforming Local Government Conference, Tacoma, WA (2018)
- The North Carolina Source Water Protection Award for Education & Leadership March 17, (2016)
- The Underwriters Laboratories Innovative Education Award and 2016 Finalist by the North American Association of Environmental Educators



FUNDING FOR BETC

- USDA National Institute of Food and Agriculture Grant (NIFA) \$30,714 (2012-2014)
- Smith Richardson Foundation \$50,000 (2016-2017)
- The Longleaf Collective \$18,500 (2017)
- National Association of Conservation Districts \$50,000 (2016-2017)
- Duke Energy Foundation STEM Grants, Durham Public Schools Career & Technical Education \$35,000 (2018), \$40,000 (2019)
- Duke Energy Water Resources \$26,500 (2017)
- Southeastern Sustainability Director's Network \$195,000 (2020-2021)
- USDA National Institute of Food and Agriculture Grant (NIFA) Piedmont Conservation Council \$150,000 (2020-2021)

BETC COMMUNITY IMPACT & INNOVATION

LANDOWNERS

- Invest in local student green infrastructure workforce development
- Improve drainage and erosion issues
- Increase property value

LOCAL GOVERNMENT

- Leads collaborative water quality improvement efforts
- Expands environmental literacy in the classroom
- Provides field experience in green infrastructure

SCHOOL SYSTEM

- Improves student performance through experiential instruction
- Instills social responsibility in students
- Enhances students' sense of community

STUDENTS

- Gain exposure to horticulture & stormwater management job skills and experience
- Learn leadership and entrepreneurial skills
- Improve self-esteem
- Receive community service opportunities
- Increase environmental stewardship

BETC PARTNERSHIPS

- Durham Public Schools CTE Program
- Durham City & County Youth Works Program
- Friends of the Hub Farm nonprofit
- Piedmont Conservation Council



BETC

Bionomic Education Training Centers

A STRATEGIC PLAN INITIATIVE BY



DURHAM
PUBLIC SCHOOLS



DURHAM PUBLIC SCHOOLS

919-560-0558

www.dconc.gov/swcd

201 E. Main St. Durham, NC 27701

WHAT IS BETC?

Bionomic Educational Training Center (BETC, pronounced "Betsy") provides funding, work experience, practical math and science lessons and green infrastructure training for Durham Public School students. BETC is a youth workforce development training program that addresses water quality via storm-water retrofit design and implementation. Students are educated about urban stormwater pollution and Best Management Practices (BMPs) to improve water quality, as well as irrigation and off-grid solar power technology.

These lessons provide an opportunity for students to explore 21st century career fields that pay a livable wage.



A seasonal crop of native perennials grown at one of the local high schools



BETC CURRICULUM

AGRIBUSINESS



Specialized BETC program curricula has been developed and incorporated into middle and high schools in Durham. Classroom and hands-on lessons include an eleven-day unit on soil and water analysis that reinforces concepts in the Environmental and Agriscience courses, and a 30-day unit on engineering rain gardens and rain water harvesting.

GROWING & SELLING



Students propagate, sell and install native plants for rain gardens, critical area plantings and riparian buffers in the community.



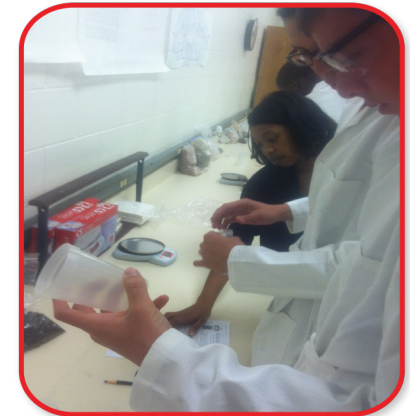
ENGINEERING RAIN GARDENS

Students learn how to engineer, design, and install rain gardens and discover why they are important in improving local stream health.



INSTALLING RAIN GARDENS

Students install and maintain rain gardens during the school year and through a summer internship program.



Students complete soil and water analysis tests.

SOLAR TECHNOLOGY

An off-grid solar system was installed with a grant from the National Institute of Food and Agriculture. Students use the solar power for greenhouse lights to grow their plants.

IRRIGATION TECHNOLOGY



A Sentinel Controller and Davis weather station were installed at the Southern School of Energy and Sustainability. This system allows the DPS maintenance staff to monitor water usage and save 20 to 50% of water use on the athletic fields.