



Sustainability & Service

Science, Energy, & Adventure Team (SEAT) members at Clarke Middle School learned energy basics by using NEED resources, taking field trips, and interacting with experts. The team led by example in the school and community.

The team taught others during the Athens Water Festival, Energy Awareness Month, Insectival, the Vulture Festival, America Recycles Day, Young Scientists Day, Community Night, and Twilight. Team members led Family STEM Night and completed STEM projects that focused on energy and sustainability.

Team members collected the school recycling, supported local and national level charities, and volunteered with service organizations. Energy Education Week was a week of learning experiences for students, teachers, and community members. SEAT members promoted sustainability and service with their NEED project work all year!



Clarke Middle SEAT in Athens, Georgia worked to improve sustainability through energy education and conservation while serving others!

Team Sponsors:
Audrey Hughes & Danny Mingo



Learn, Teach, & Serve

Goal #1: Educate **500** students and community members about energy during the Fall & Winter

Energy Content:

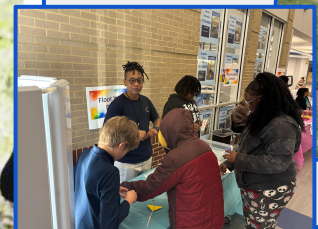
Learned using NEED resources: Science of Energy, Energy Carnival, Energy BINGO, and Energy Infobooks

Student Leadership:

- Created and shared Energy Awareness Month Lessons
- Served as volunteers at Rivers Alive, an animal sanctuary, a senior center, Habitat for Humanity, and more!
- Hosted a Family STEM Night
- Coordinated guest speakers
- Distributed newsletters

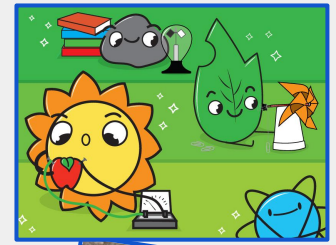


Eleanor Morgan, a student at Clarke Middle School, poses for a portrait during the annual Rivers Alive cleanup on Saturday, Oct. 11, 2025, at Dudley Park in Athens, Georgia. The cleanup took place at several locations along the Oconee River in the Athens-Clarke County area. (Photo/Lily Kate Akins; @lilykate_photos)





Learn, Teach, & Serve



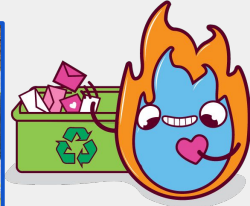
Goal #1 Evaluation:

- Taught **740** students at Clarke Middle
- Taught **1,020** Community Members
- **35** team members learned & served
- **356** people attended Family STEM Night
- **1,000+** adults received e-newsletters
- **96** students volunteered at CMS





Recycle for Good: Save Energy & Serve!

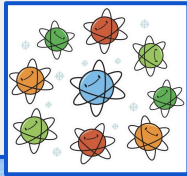


Goal #2: Conserve, save energy, and resources by reducing, reusing, recycling, and repurposing
Energy Content:

- Learned how recycling saves energy by reducing industrial energy demand and fuel for transportation needs
- Studied how composting reduces waste and saves energy
- Learned how the use of water, recycling, and energy are interconnected
- Collected classroom and office recycling each week
- Led a collection drive for the animal shelter
- Promoted the Team's Recycle for Good Campaign (items that can be recycled are collected and sold, then earnings are donated to the World Wildlife Fund and the American Red Cross)
- Sponsored and led America Recycles Day
- Primary Resource: NEED's Science of Energy



Recycle for Good!



Goal #2 Student Leadership:

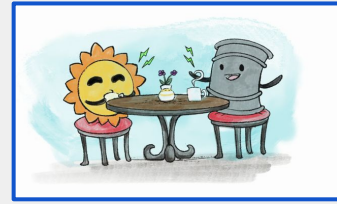
- Recycled and donated earnings to charities
- Reused and recycled clothing, toys, and more at the Holiday Market
- Recycled Christmas Trees
- Recycled cell phones for Gorillas on the Line
- Educated others about what we learned
- Made posters to promote the Recycle for Good Campaign

Evaluation:

- Recycled **64** Christmas Trees
- Recycled **58** cell phones
- **1,485** people learned that recycling saves energy
- **740** students learned and participated in the Recycle for Good Campaign
- Collected **150** pounds of pet food and **65** towels for the animal shelter
- Donated **\$650** to the World Wildlife Fund & the American Red Cross from recycling proceeds
- Recycled **2,056** pounds of mixed stream waste
- Donated **\$1,250** for homeless families to have a Christmas Dinner



Grow & Cook Your Own Food + Eat Lower on the Food Chain!



Goal #3: Promote the consumption of local foods, cooking at home and eating lower on the food chain at Clarke Middle to reduce processing and transportation energy demand

Energy Content:

- Read and studied NEED's Transportation Fuels
- Learned how to grow, harvest, and prepare local foods

Student Leadership:

- Worked in the school garden
- Managed the Fork Farms hydroponic system
- Cooked with local foods
- Experimented with vegetarian dishes
- Advocated for serving local and vegetarian foods more often with district nutrition staff

Evaluation:

- Local foods are served **2x** per week
- Vegetarian foods are available more often
- Ate lower on the food chain **6x** at our meetings



STEM Projects



Goal #4: Investigate, create, and invent STEM projects with energy and sustainability themes

Energy Content:

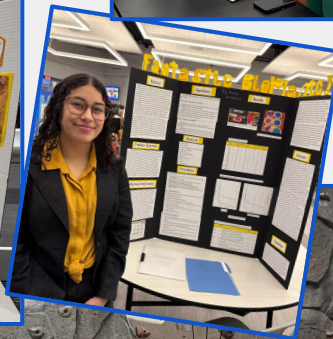
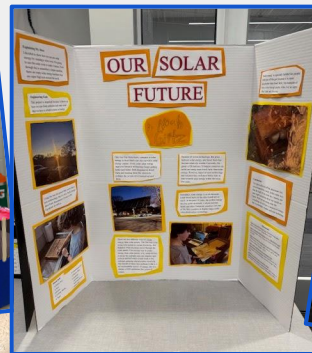
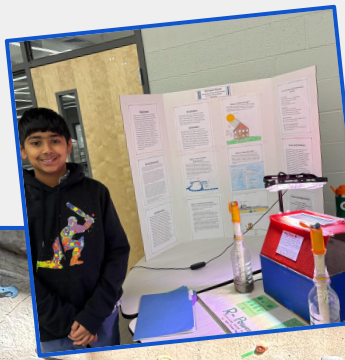
- Used NEED's Science of Energy, Energy & Our Rivers, Energy Around the World, Transportation Fuels, Wind for Schools, & Energy From the Sun

Student Leadership:

- 18 team members entered designs in the Water Tower Engineering Challenge
- 28 team members completed energy and sustainable resource STEM Fair projects

Evaluation:

- 46 STEM projects to experiment, investigate, and invent designs to improve energy efficiency and sustainability were created





Energy Education Week

Goal #5: Educate 1,000 people about energy and sustainability during Energy Education Week

Energy Content:

- Used NEED's Science of Energy and more curriculum units to create lessons

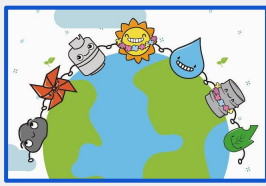
Student Leadership:

- Visited and lobbied the Mayor to declare Energy Education Week
- Shared in-person and digital energy lessons with teachers and students
- Displayed EEW Art and Literary Works



Images linked to EEW Lessons!





Energy Education Week



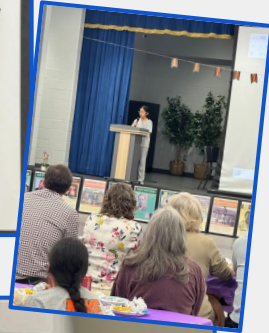
Goal #5

Student Leadership:

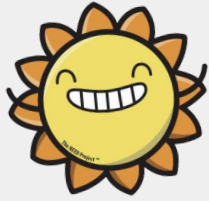
- Created lessons for PreK-8 students
- Worked with the Carter Center to create a Georgia History lesson focused on Carter's work with energy and the National Energy Act for 8th grade students
- Spoke about energy and tabled a learning station at CMS Community Night
- Conservation Field Trips: Water, Energy, and Wildlife

Evaluation:

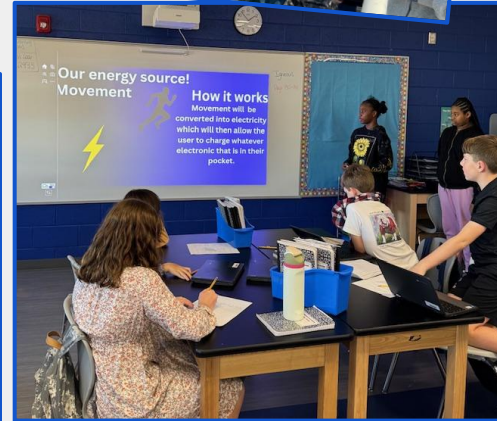
- Shared information with **219** adults directly
- Taught **~782** students with a variety of lessons
- Taught at least **2,500** others with student created art and poetry on ACC Government's web page and displays at the Lyndon House Art Gallery



Goal #5



Kids Teaching Kids FUN Energy Lessons: @ Barrow, Holston, CMS, & More!





Share Energy Information!



Goal #6: Collect **250** Energy Star Pledges and share energy conservation information with **500** people

Energy Content:

- Learned energy basics, energy sources, & energy conservation information from NEED resources

Student Leadership:

- Tabled booths at these events: Athens Water Festival, Twilight, Insectival, Vulture Festival, Community Night, and Twilight, + Family STEM Nights at Barrow ES, CMS, and Holston ES
- Lobbied elected officials at all levels about energy education and conservation
- **4** Team members served on the Clarke County School District Sustainability Committee

Evaluation:

- Shared information **8,235** times with others
- Collected **257** Energy Star Pledges

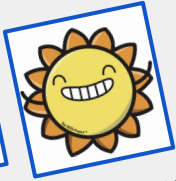




Share Energy Information Everywhere!

Goal #6





Solar is at the new Clarke Middle!

Goal #7: Influence officials to build a more energy efficient Clarke Middle with solar power

Energy Content:

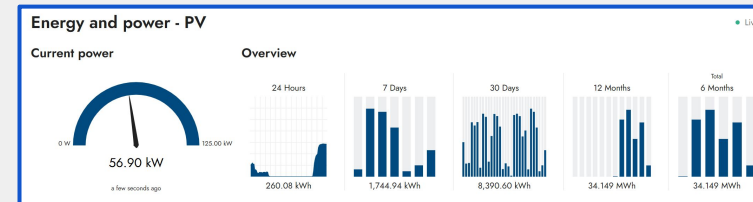
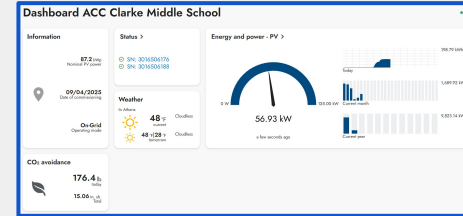
- Learned energy basics, energy sources, and energy conservation information from NEED resources

Student Leadership:

- Advocated for energy efficiency and solar panels with city leaders, school board members, district officials, and the architectural team from 2020-2025
- Served on the CMS Building & CCSD Sustainability Committees
- Still working to get solar panels on all district schools in the future
- Conducted an energy audit and worked on a conservation plan

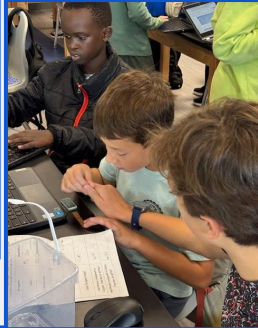
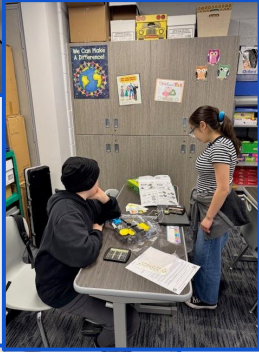
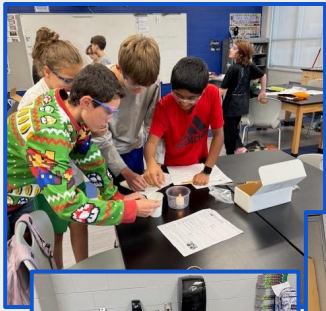
Evaluation:

- A new, energy efficient Clarke Middle opened in **August of 2024!**
- Solar Panels for Clarke Middle started working in **September of 2025!**
- **4** solar arrays provide **~15%** of the energy needed for CMS!





Learn About Energy



Goal #8: Increase our energy content knowledge

Energy Content:

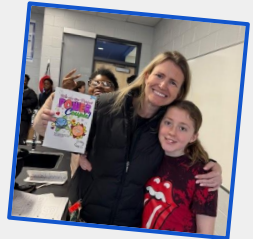
- Learned from NEED, Energy Star, NASA, EIA Energy Kids, the Carter Center, Georgia Tech, Piedmont University, ACC Solid Waste, ACC Sustainability Office, ACC Water Conservation Office, Georgia Power, Jackson EMC, and UGA
- Learned about energy from experts visiting our school, on field trips, and interviews

Student Leadership:

- Invited virtual and in-person guest speakers
- Organized and took 5 field trips
- Extended our learning with self-selected STEM projects

Evaluation:

- Average score on the Energy Poll before instruction = **25**
- Average score on the Energy Poll after instruction = **84.5**





Sustainability & Service

Science, Energy, & Adventure Team members learned, investigated, and created meaningful ways to help others become educated about ways to improve sustainability. **SEAT** promoted sustainability through energy and resource conservation while serving others in the school, community, and world!

