



Action & Advocacy for Energy Education & Sustainability

Science, Energy, & Adventure Team (SEAT) members at Clarke Middle School learned energy basics by using NEED resources, taking field trips, and consulting with experts. Team members advocated for energy education and sustainable practices with elected leaders as well as with school system officials and board members. The team also led by example in the school and community.

The team taught others during the Athens Water Festival, Energy Awareness Month, Insectival, the Vulture Festival, a Camp Amped concert, and America Recycles Day events. Team members supported charities by recycling. They created art and wrote poems with conservation themes. Energy Education Week offered a variety of experiences for students, teachers, and community members. The team hosted booths at Young Scientists Day, the Classic City STEAM Festival, Twilight, and other schools in the district. SEAT organized Family STEM Night at Clarke Middle. Team members completed STEM projects that focused on energy and sustainability. They went into action and advocated for future energy efficient changes for Clarke Middle and our school district!



Clarke Middle SEAT in Athens, Georgia worked to improve energy literacy and championed for a more sustainable future!



Team Sponsors:
Audrey Hughes
& Javan Winston



Teach & Help Others

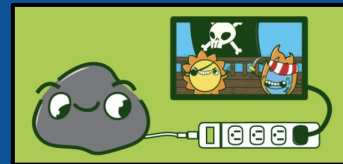
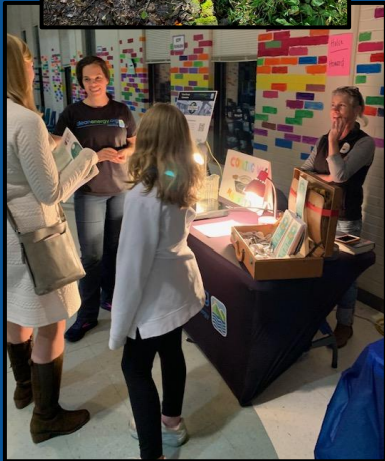
Goal #1: Educate 500 students and community members about energy during the Fall & Winter

Energy Content:

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

Student Leadership:

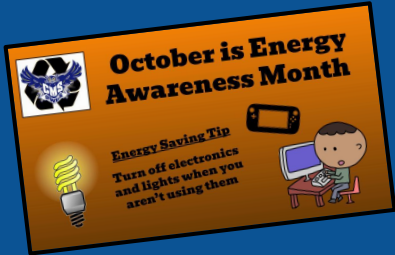
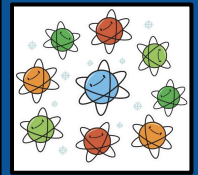
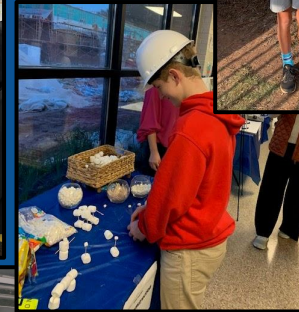
- Wrote & made announcements
- Created & shared Energy Awareness Month Lessons
- Distributed digital newsletters
- Led three Garden Work Days at Clarke Middle
- Organized 7th Grade field trips to the State Botanical Garden of Georgia & UGarden
- Partnered with Rivers Alive to clean local rivers
- Hosted a Family STEM Night
- Organized virtual field trips
- Coordinated guest speakers



Teach & Help Others

Goal #1 Evaluation:

- Taught 705 students at Clarke Middle
- Taught 976 Community Members
- 31 team members learned
- Field trips for 225 students
- 1,000+ adults received e-newsletters
- 52 students volunteered at CMS



Conserve & Save Energy: Reduce, Reuse, Recycle, Repurpose

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

Energy Content:

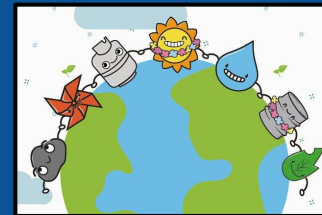
- Learned how recycling saves energy by reducing industrial energy demand & fuel for transportation needs
- Studied how composting reduces waste & saves energy
- Learned how the use of water, recycling, & energy are interconnected
- Promoted the Team's Trash Hunger Campaign (items that can be recycled are collected & sold, then earnings are donated to the World Wildlife Fund, the Food Bank, & UNICEF)
- Sponsored and led America Recycles Day
- Primary Resource: NEED's Science of Energy



@ the Compost Facility & Recycling Center



Recycled Ornaments



America Recycles Day

Conserve & Make A Difference!



Recycled Ornaments &
Pet Gear for the Animal Shelter



Recycling & Helping



Recycling
Christmas Trees

Goal #2 Student Leadership:

- Recycled & shipped items for the Trash Hunger Campaign
- Made recycled ornaments and collected pet care items for the Animal Shelter
- Recycled Christmas Trees
- Composted food waste
- Facilitated lunchtime share bowls
- Educated others about what we learned
- Created bulletin boards

Evaluation:

- 1,708 people learned that recycling saves energy
- 705 students learned about the Trash Hunger Campaign
- 705 students recycled waste
- Donated \$145 to the World Wildlife Fund, Food Bank, & UNICEF from recycling proceeds
- Made 180 ornaments from recycled items
- Recycled 72 Christmas Trees



Grow & Cook Your 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 & studied NEED's Transportation Fuels
- Learned how to grow, harvest, & prepare local foods

Student Leadership:

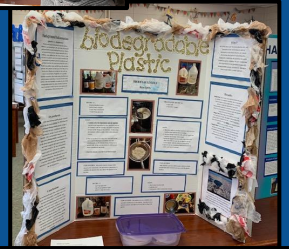
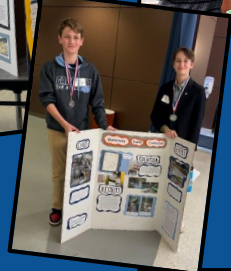
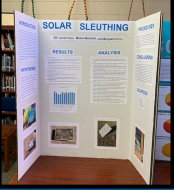
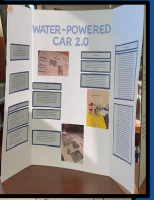
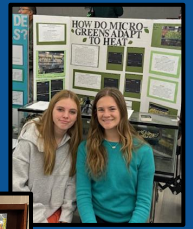
- Maintained the school garden & greenhouse
- Cooked with local foods
- Experimented with vegetarian & insect-based dishes
- Advocated for serving local and vegetarian foods more often with district nutrition staff

Evaluation:

- Local foods are served 2x per week
- Local & vegetarian foods are available more often
- We ate lower on the food chain 4x at our meetings



Energy & Sustainability 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:

- 31 students completed in the Water Tower Engineering Challenge
- 27 students completed energy and sustainable resource STEM Fair projects

Evaluation:

- 58 students experimented, investigated, and invented designs to improve energy efficiency and sustainability





Energy Education Week

Goal #5: Educate 1,000 people about energy & energy conservation during Energy Education Week & the month of March

Energy Content:

- Used NEED's Science of Energy, Coal, & Electricity to create lessons for students in grades 6-8

Student Leadership:

- Lobbied the mayor to declare Energy Education Week in Athens
- Shared energy education lessons with 48 teachers & 712 students
- Displayed Art & Literary Works at an Art Gallery
- Field Trips to the Carter Center & MLK Historic Site
- Shared Energy Education Week lessons all over Athens



Energy Education Week Trip to the Carter Center and an Energy Education Week Proclamation!



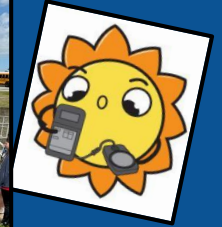
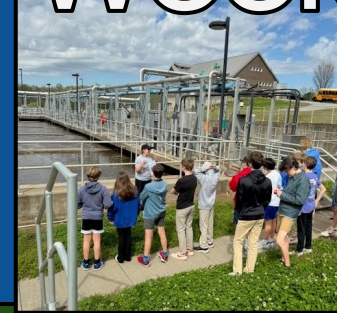


Energy Education Week

Goal #5

Student Leadership:

- Created & taught lessons for other K-8 students
- Sent lessons to educators during the month
- Helped with maintenance tasks @ CMS
- Shared information about Energy Star & energy basics



Evaluation:

- Shared information with 167 adults directly
- Taught ~1,024 students
- Taught at least 3,600 others in-person and remotely with student created art & literary works via Athens-Clarke County Government's webpage, and displays at the Lyndon House Art Gallery

Clarke Middle School
Energy Education Month

Energy Education Week = March 25-29
World Water Day = Friday, March 22
Earth Hour = Saturday, March 23 @ 8:30 pm

NEED
Putting Energy into Education

SAVE OUR WORLD

EVERY DROP COUNTS
REDUCE YOUR USE

RECYCLE
RECYCLE
RECYCLE
GIVE A HOOT!

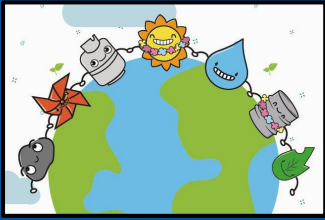
Georgia Power

NASA

EnergyHog

Each image was linked to an Energy Education Lesson!

Goal #5



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





Share Energy Information!

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

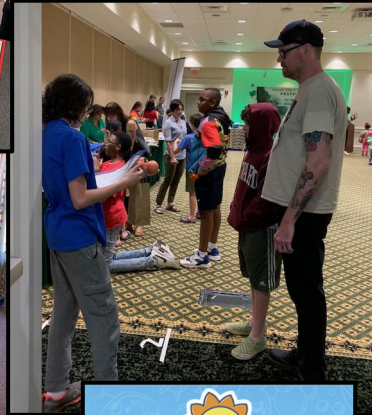
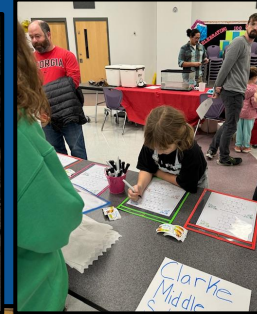
- Learned energy basics, energy sources, & energy conservation information from NEED resources

Student Leadership:

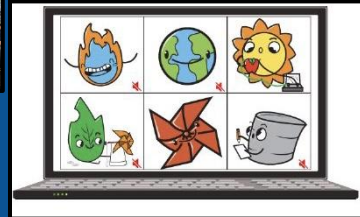
- Advertised & hosted booths at these events: Athens Water Festival; Barrow, Holston, & Clarke Middle Family STEM Nights; Insectival; Vulture Festival; Classic City STEAM Festival; Green Life Exhibition; Twilight; & Camp Amped Concert
- Lobbied elected officials at the local, state, & federal level about energy education & conservation
- 4 Team members serve on the Clarke County School District Sustainability Committee

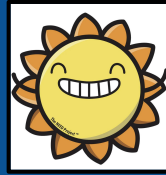
Evaluation:

- Shared information with 6,407 people
- Collected 364 Energy Star Pledges



Goal #6 Share Energy Information Everywhere!





Energy Efficient New Clarke Middle ...Opening in August!

Goal #7: Influence officials to build a more energy efficient Clarke Middle School

Energy Content:

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

Student Leadership:

- Advocated for energy efficiency and solar panels with city leaders, school board members, district officials, & the architectural team
- Served on the CMS Building & CCSD Sustainability Committees
- Collaborated with the Educational Energy Collective to get solar panels on all district schools in the future
- Received a pledge from CCSD for solar at the new CMS
- Conducted a school energy audit & created a conservation plan

Evaluation:

A new, energy efficient Clarke Middle School will open in August of 2024!



Learn About Energy

Goal #8: Increase our energy content knowledge

Energy Content:

- Learned from NEED, Energy Star, NASA, EIA Energy Kids, the Carter Center, National Geographic, Georgia Tech, UGA, and UNICEF resources
- Learned about energy from experts visiting our school, on field trips, & in virtual interviews

Student Leadership:

- Invited virtual and in-person guest speakers
- Organized and took field trips
- Extended our learning with self-selected Science & Engineering projects

Evaluation:

- Average score on the Energy Poll before instruction = 34.5
- Average score on the Energy Poll after instruction = 94.62





The **Science, Energy, & Adventure Team** at Clarke Middle is a team of active kids advocating for energy education, resource conservation, and the need for a more energy efficient Athens, Georgia!

They get into action to learn, investigate, and create ways to help others become educated about energy and sustainability. They advocate for meaningful energy use changes and sustainable practices in our community and around the world.

They care about people, pets, and other living things that we all share the planet with!

