



# Preserve, Protect, & Power Through!

Clarke Middle and Hilsman Middle Science, Energy, and Adventure Team members partnered to learn energy basics throughout the year using NEED resources, taking virtual field trips and consulting with experts.

Efforts to educate the 2 school team began in August, then we expanded to educating others during the Athens Water Festival, Energy Awareness Month, and America Recycles Day events. During the winter months, team members created energy and water conservation films for the Ripple Effect Film Festival and created art with conservation themes for display at an art gallery. Energy Education Month offered digital and in-person experiences to students and teachers. The teams hosted booths at HilFest, Young Scientists Day, a community STEAM Festival, and organized a STEM Fair at Clarke Middle. The team continued to educate by sharing energy lessons all spring long.

Throughout the year the team promoted energy education, preservation and protection of natural resources, and powering through by helping out whenever needed!



# Teaching Others



Goal #1: Educate 500 other people about energy during the Fall & Winter.

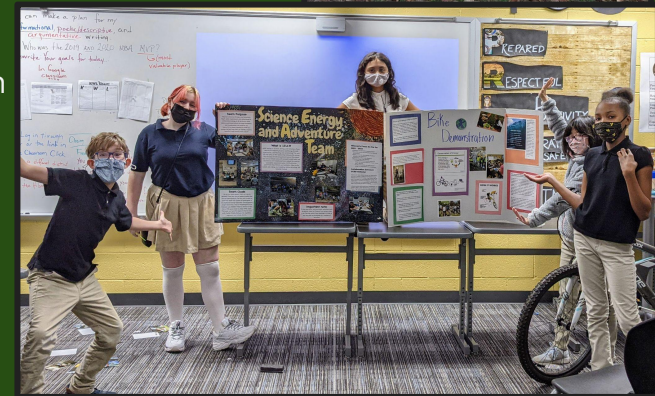
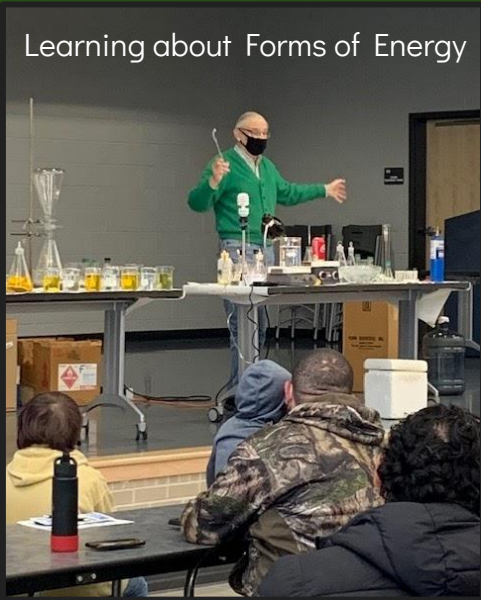
## Energy Content:

- \*Learned about NEED
- \*Learned about energy 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
- \*Hosted a Family STEM Night
- \*Organized virtual & in-person field trips
- \*Coordinated guest speakers

Learning about Forms of Energy

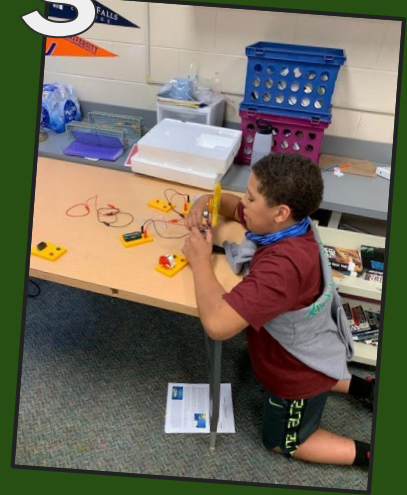
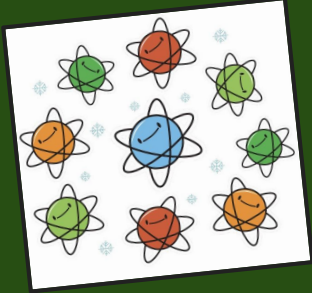


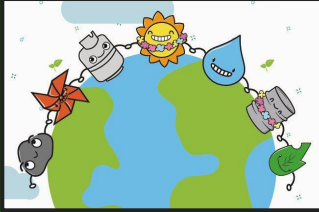


# Teaching Others

## Goal #1 Evaluation:

- Taught 647 @ Hilsman
- Taught 745 @ Clarke
- Taught 965 Community Members
- 30 team members learned
- Field trips for ~ 1,392 students
- 975+ adults received e-newsletters





# Recycling Saves Energy

Goal #2: Conserve energy & resources by recycling.

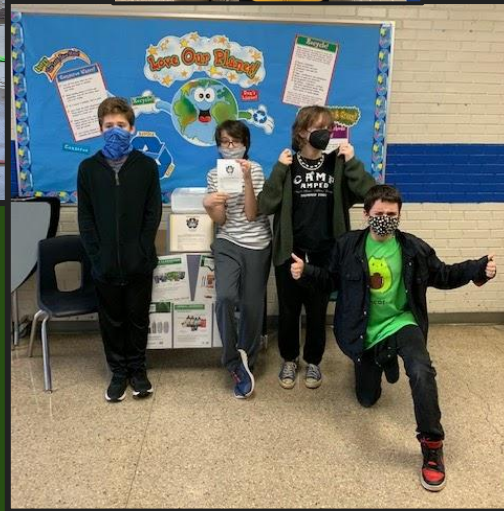
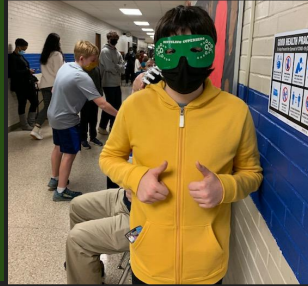
## Energy Content:

- Learned how recycling saves energy by reducing industrial energy demand & fuel for transportation needs
- Learned 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 - earnings are donated to the Food Bank & UNICEF)
- Promoted America Recycles Day
- Primary Resource: NEED's Science of Energy





# Recycling Saves Energy & Can Make A Difference!



## Goal #2 Student Leadership:

- Recycled & shipped items for the Trash Hunger Campaign
- Made recycled ornaments for the Animal Shelter
- Recycled Christmas Trees
- Composted food waste
- Taught others what they learned
- Created bulletin boards

## Evaluation:

- ~1,392 people learned that recycling saves energy
- ~1,392 students learned about the Trash Hunger Campaign
- ~1,392 students recycled waste: food & non-food
- Donated \$5,300 to UNICEF & the Food Bank from recycling proceeds
- Made 152 ornaments from recycled items
- Recycled 140 Christmas Trees



# Grow & Cook Your Own!



Goal #3: Promote the consumption of local foods and cooking at home among Clarke & Hilsman Middle students to reduce 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
- Wrote letters to district-level nutrition staff about serving local foods in the cafeteria

## Evaluation:

- Local foods are served 2x per week
- Local foods are available for more to consume





# Energy Education Week

Goal #4: Educate 1000 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
- Organized a series of field trips to the State Botanical Gardens & UGarden
- Shared energy education lessons with 136 teachers and 1,392 students
- Showcased conservation films at the Ripple Effect Film Festival
- Displayed Art Work at a Gallery
- Shared Energy Education Week lessons on the CCSD webpage

Energy Education Week  
Meeting with Mayor Girtz and  
Energy Education Week  
Proclamation!





# Energy Education Week

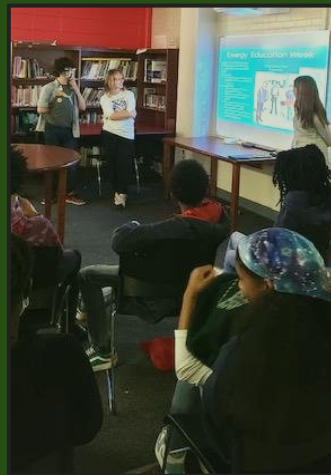
Goal #4



In-Person &  
Digital Lessons  
+ Community  
Presentations!



Learning and Celebrating all week long!



**Clarke Middle School**  
Energy Education Week 2022

World Water Day = Tuesday, March 22  
Energy Education Week = March 21-25  
Earth Hour = Saturday, March 26 @ 8:30 pm

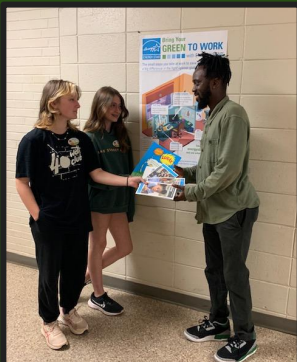
Each image would open to a digital Energy Education Lesson!





# Energy Education Month

Goal #4



## Student Leadership:

- \*Created & planned lessons for other students
- \*Sent lessons to students during the month
- \*Helped with maintenance tasks for essential workers
- \*Worked with community partners for a conservation Film Festival
- \*Shared information with adults about Energy Star and energy basics



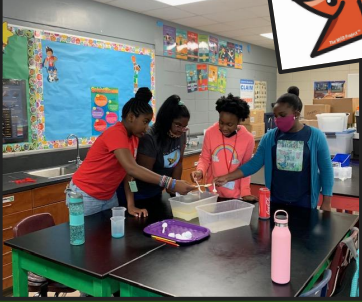
## Evaluation:

- \*Shared information with 386 adults directly
- \*Taught 1,392 students in science classrooms
- \*Taught at least 492 others in-person and remotely with student created film via Athens-Clarke County Government's webpage & the Ripple Effect Film Festival





# Kids Teaching Kids FUN Energy Lessons: at CMS, HMS, & More!







# Energy Star Info & Pledges

Goal #5: Collect 250 Energy Star Pledges & energy conservation information with 500 people.

Energy Content:

- Learned energy basics, energy sources, & energy conservation information from NEED resources in print & at [www.need.org](http://www.need.org)

Student Leadership:

- Advertised and hosted booths at these events: ACC Water Festival, Hilfest, STEM Night, ACC STEAM Festival, & the Ripple Effect Film Festival
- Lobbied representatives and the mayor about Energy Education

Evaluation:

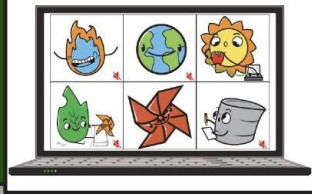
- Shared information with 3,650 people
- Collected 578 Energy Star Pledges





# Sharing Energy Information Everywhere!

Goal #5







# Energy Efficient New School ...Coming Soon!

Goal #6: Influence officials to build a more energy efficient Clarke Middle School.

Energy Content:

- Learned energy basics, energy sources, & energy conservation information from NEED resources in print & at [www.need.org](http://www.need.org)

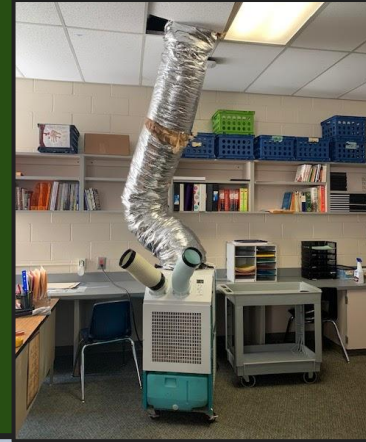
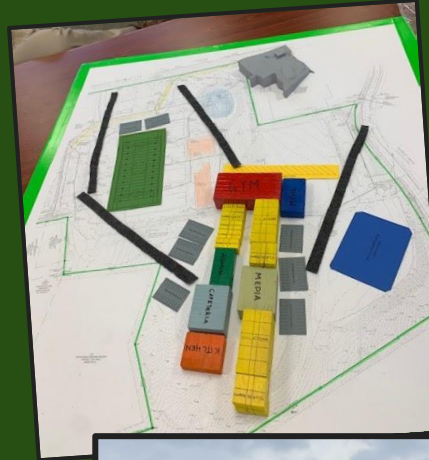
Student Leadership:

- Lobbying city leaders, school board members, district officials, & the architectural team
- Serving on the Building Committee and EnVision Athens Committee

Note: Clarke Middle is the oldest middle school building in the school district.

Evaluation:

A new energy, efficient Clarke Middle School is scheduled to open in 2024!



# Learning About Energy



Goal #7: Increase our energy content knowledge.

## Energy Content:

- Learned from NEED resources during the school year at team meetings, & in science classes
- Learned about energy from experts visiting our school, on field trips, & virtual interviews
- Learned from Energy Star, NASA, EIA Energy Kids, National Geographic, & UNICEF resources

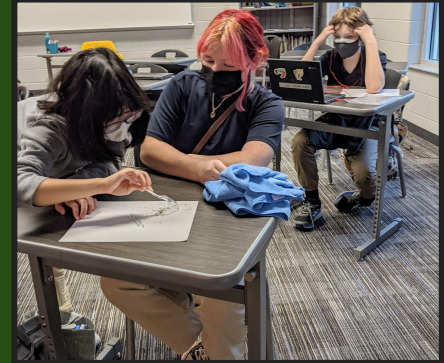
## Student Leadership:

- Invited virtual guest speakers
- Organized field trips
- Extended our learning with self-selected projects

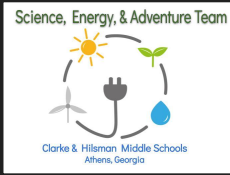
## Evaluation:

- Average score on the Energy Poll before instruction = 33.25
- Average score on the Energy Poll after instruction = 88.75

| Student | Pre   | Post  |
|---------|-------|-------|
| 1       | 30    | 85    |
| 2       | 35    | 80    |
| 3       | 25    | 90    |
| 4       | 20    | 85    |
| 5       | 15    | 85    |
| 6       | 35    | 90    |
| 7       | 20    | 95    |
| 8       | 25    | 90    |
| 9       | 10    | 85    |
| 10      | 40    | 95    |
| 11      | 55    | 100   |
| 12      | 50    | 95    |
| 13      | 45    | 90    |
| 14      | 30    | 85    |
| 15      | 35    | 85    |
| 16      | 20    | 80    |
| 17      | 45    | 90    |
| 18      | 50    | 95    |
| 19      | 55    | 90    |
| 20      | 25    | 85    |
| Average | 33.25 | 88.75 |







# Preserve, Protect, & Power Through!



The Science, Energy, & Adventure Teams at Clarke Middle and Hilsman Middle are an energized first year partnership spreading the message of energy education, resource conservation, and the need for a more energy efficient Athens, Georgia!

The team learned and shared all of the ways energy can be created, plus ways to conserve resources. Energy education is important so that local and global energy needs can be met now and in the future.

Electrified students **Preserve, Protect, and Power Through!**