



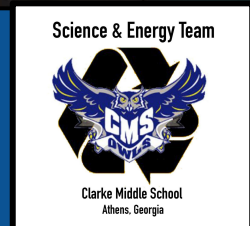
# We're All in This Together!

Clarke Middle started the school year virtually and after 4 instructional model changes, ended the year with hybrid in-person and virtual classes.

The team learned energy basics throughout the year using NEED resources, taking virtual field trips, and consulting with experts via Zoom.

Efforts to educate our new 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 drive-in Ripple Effect Film Festival and created art with conservation themes for display at an art gallery. Energy Education Month started digitally and concluded with virtual and in-person experiences. The team continued to educate by sharing energy lessons all spring long.

Throughout the year the team promoted energy education, resource conservation, and care for others through socially distant community service projects. We are truly All in This Together!



Sponsor: Audrey Hughes

# Teaching Others

## Learning about Forms of Energy

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
  - \*Organized Virtual Field Trips



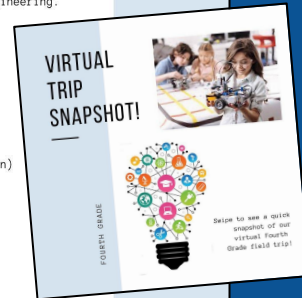
### ABOUT THE TRIP:

Experience UGA has partnered with the UGA College of Engineering to create an exciting virtual field trip for Clarke County Fourth Graders. By going to the Fourth Grade page on Experience UGA: Virtual, teachers, parents, and students will find a Bitmoji classroom with Experience UGA Ambassadors acting as guides. The classroom has various videos and activities to teach students about the different fields of engineering.

#### Content:

- Introductory Video (1.5min)
- Agricultural Engineering Video (8min)
- Biochemical Engineering video (1min)
- Biological Engineering video (1min)
- Electrical Engineering video (1min)
- Environmental Engineering video (1min)
- Computer Systems Engineering video (1min)
- Civil Engineering video (8min)
- Mechanical Engineering Video (13min)
- Strawberry DNA Extraction Video (5min)
- Water Rocket Activity Video (5min)
- Bread in a Bag video (4min)
- COVID-19 Video (3min)

If done all at once, this trip takes about 1-1.5 hours to complete. It can also be done over the period of multiple days, dividing the activities amongst the days.



Virtual Field Trips

# Teaching Others

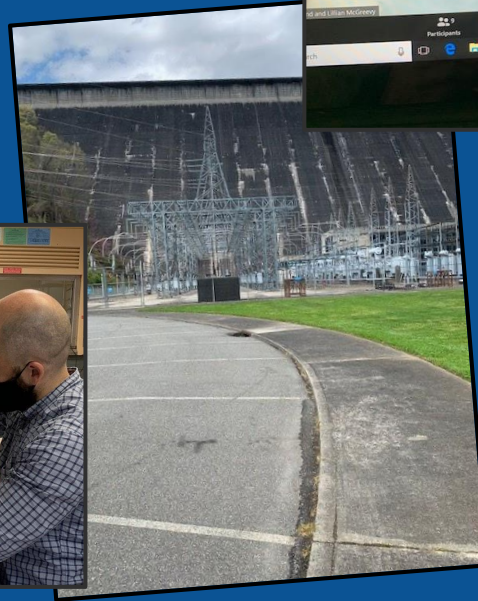
## Goal #1 Evaluation:

- Taught 240 6th graders
- 12 team members learned
- Virtual field trips for ~830 students
- 900+ adults received e-newsletters

TRIP PARTNER:  
COLLEGE OF ENGINEERING



College of Engineering  
UNIVERSITY OF GEORGIA





# 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)
- Primary Resource: NEED's Science of Energy



Recycling  
Christmas Trees





# Recycling Saves Energy & Can Make A Difference!



## Goal #2 Student Leadership:

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

## Evaluation:

- ~830 people learned that recycling saves energy
- ~830 students learned about the Trash Hunger Campaign
- ~830 students recycled waste: food & non-food
- Donated \$4,900 to UNICEF & the Food Bank from recycling proceeds
- Made 48 ornaments from recycled items
- Recycled 67 Christmas Trees

# Grow & Cook Your Own!



Goal #3: Promote the consumption of local foods and cooking at home among Clarke 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.

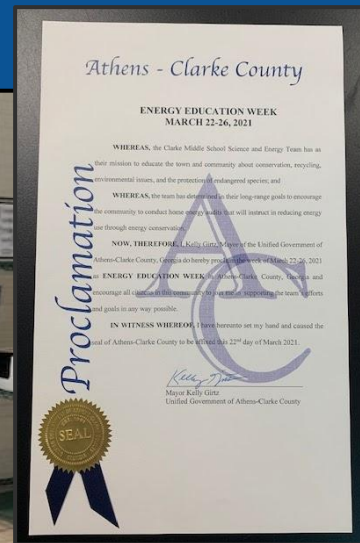
Energy Content:

- 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 virtual field trips for 7th graders to the State Botanical Gardens & UGarden
- Shared energy education lessons with 62 teachers and 830 students
- Displayed Art Work at a Gallery
- Helped neighbors and Essential Workers
- Shared Energy Education Week lessons on the Town Hall webpage

## Energy Education Week Proclamation!



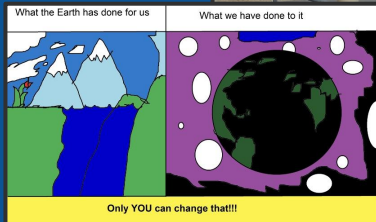
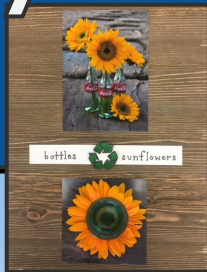
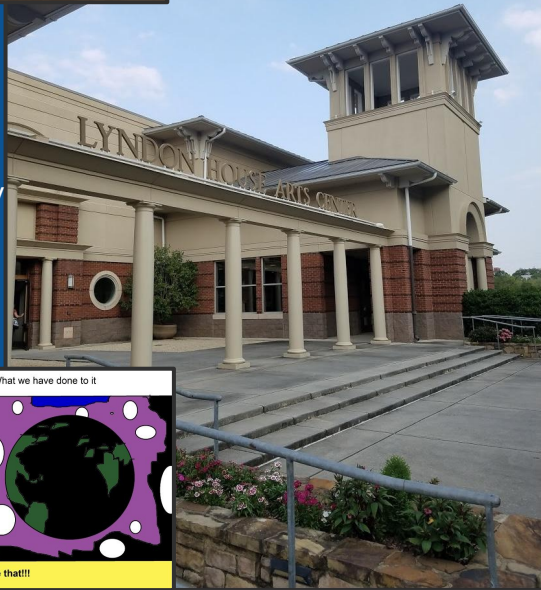


# Energy Education Week

Goal #4

Each image would open to a digital-friendly Energy Education or Resource Conservation Lesson!

Student  
Art Work  
on Display  
at an  
Art Gallery!

A large graphic for Clarke Middle School's Energy Education Week 2021. It features a central white box with the school's name and event dates. Surrounding this box are various energy and environmental logos and illustrations, including a smiling Earth, a water drop character, a recycling symbol with an owl, a raccoon, the NASA logo, an Energy Hog, and a NEED logo. The background is blue with a grid pattern.

**Clarke Middle School**  
**Energy Education Week 2021**

World Water Day = Monday, March 22  
Energy Education Week = March 22-26  
Earth Hour = Saturday, March 27 @ 8:30 pm

SAVE OUR WORLD

Georgia Power

EVERY DROP COUNTS  
REDUCE YOUR USE

REUSE  
RECYCLE  
GIVE A HOOT!

NEED  
Putting Energy  
into Education

NASA

EnergyHog

# Energy Education Month

Goal #4



## Student Leadership:

- \*Created & planned lessons for other students
- \*Sent lessons to students during the month
- \*Added energy conservation flyers to student lunch bags for meal deliveries
- \*Helped with recognitions and 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 625 adults
- \*Provided information energy conservation information for 750 families via meal bag inserts
- \*Taught 830 students in science classrooms
- \*Taught others remotely with student created films via Athens-Clarke County Government's webpage & the Ripple Effect Film Festival



Helping those on the front line.

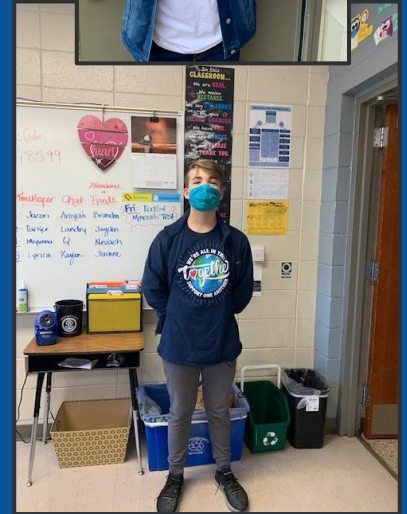
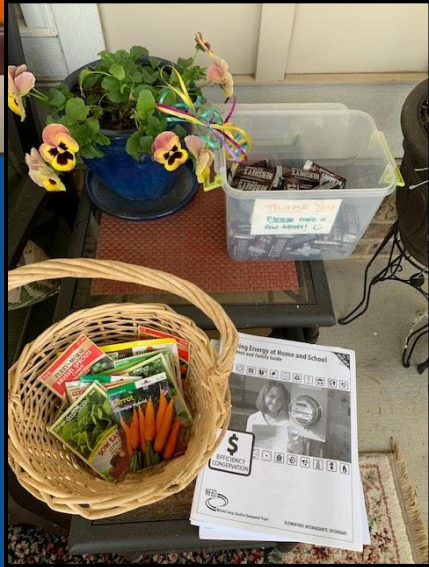




# Energy Education Month

## Kids Teaching Kids

### FUN Energy Lessons: at CMS & More!







# Energy Star Info & Pledges

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

Energy Content:

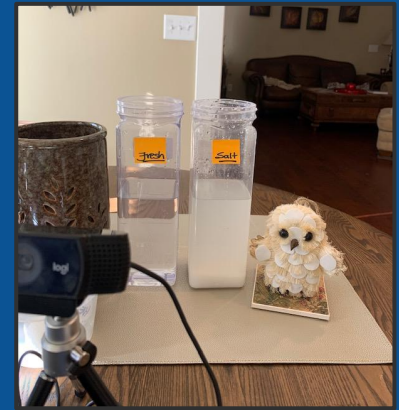
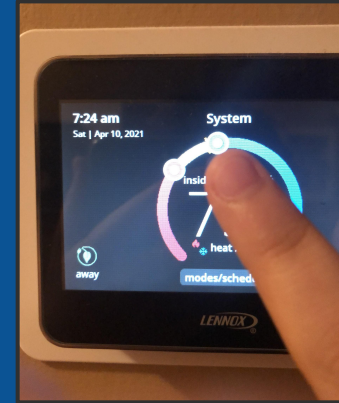
- Learned energy basics, energy sources, & energy conservation information from NEED resources in print & at [www.need.org](http://www.need.org)

Student Leadership:

- Advertised at these virtual events: ACC Water Festival, Green Life Expo, & Ripple Effect Film Festival
- Lobbied representatives and the mayor about Energy Education

Evaluation:

- Shared information with 919 people
- Collected 507 Energy Star Pledges



## Cumulative Savings Breakdown\*

Greenhouse Gas Emissions:	14,218,193 lbs
Pledge Actions:	5,143
Dollars:	\$1,134,284
kWh:	7,584,261
BTUs:	15,043,061,169

# Sharing Energy Information Everywhere!

Goal #5



On-line!



From the Meal Delivery Bus!



In-Person!



Downtown!





# 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!



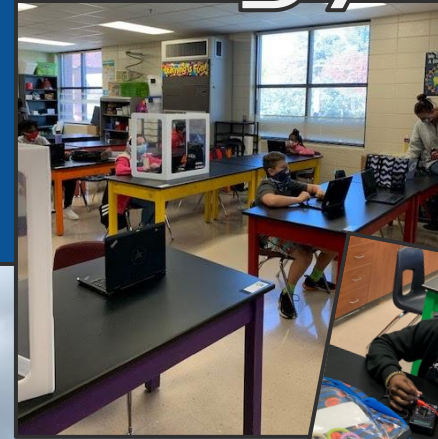


# Learning About Energy

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:

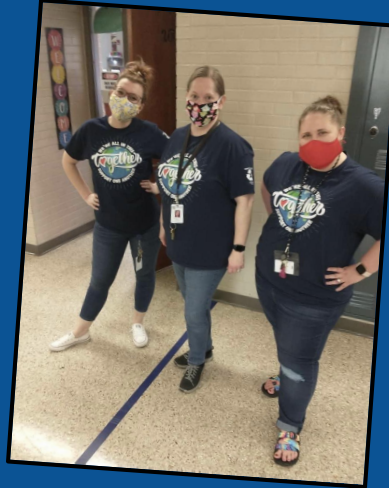
- Average score on the Energy Poll before instruction = 26.25
- Average score on the Energy Poll after instruction = 89.16

Student	Pre	Post
1	35	90
2	30	80
3	35	85
4	25	85
5	20	90
6	30	95
7	25	90
8	20	85
9	15	85
10	25	95
11	30	100
12	25	90
<b>Average</b>	<b>26.25</b>	<b>89.16666667</b>





# We're All in This Together!



Clarke Middle's Science & Energy Team is an energized first year team spreading the message of energy education, resource conservation, and the need for a more energy efficient Clarke Middle School! 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 resource needs can be met everyday and during a public health crisis.

We are all in this together! Support one another!