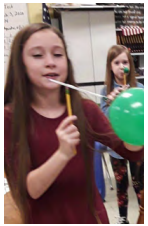
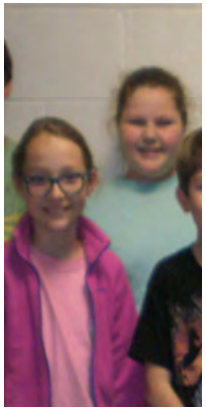
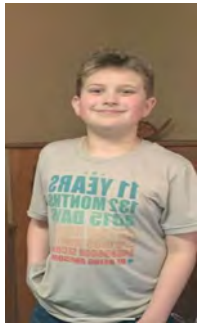
The Energizers of Michie Elementary School
Reduce, Reuse, Recycle

Advisor Ms. Debra Steen

We have conducted and participated in many energy activities. encouraging energy conservation, reducing, reusing, and recycling. We have provided energy conservation tips on our Michie News site. We have reused milk cartons for planting and competitions and collected jeans for the homeless. We have involved our school and community in our recycling program. Encouraging recycling by participating in the Keep America Beautiful recycling contest, and by providing containers for recycling, and recycling aluminum cans. We have been nominated for the Governor's Environmental Stewardship Award and awaiting the results. We have been nominated by our county for an award for our achievements. Our energy efforts in education have helped our county achieve recognition for its efforts in recycling for economic growth. We are making a change in our school, community, and county.







A few of our group. Skylar and Molly were our leaders. Catherine, Molly Grace, Ava, Walker, Layland are pictured above.

Reenergizing Teamwork

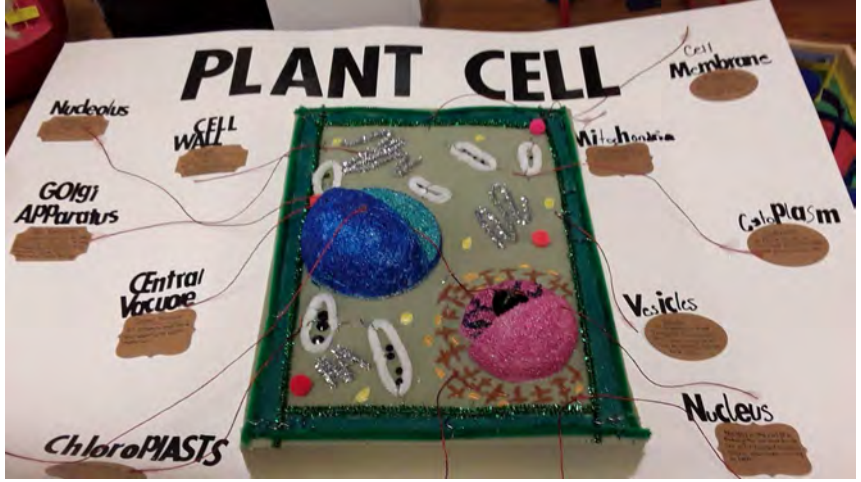
Goal #1 Focus on deepening energy content knowledge

Activities and Tasks: Obtain permission from advisor, take the NEED Energy poll, Participate in energy activities

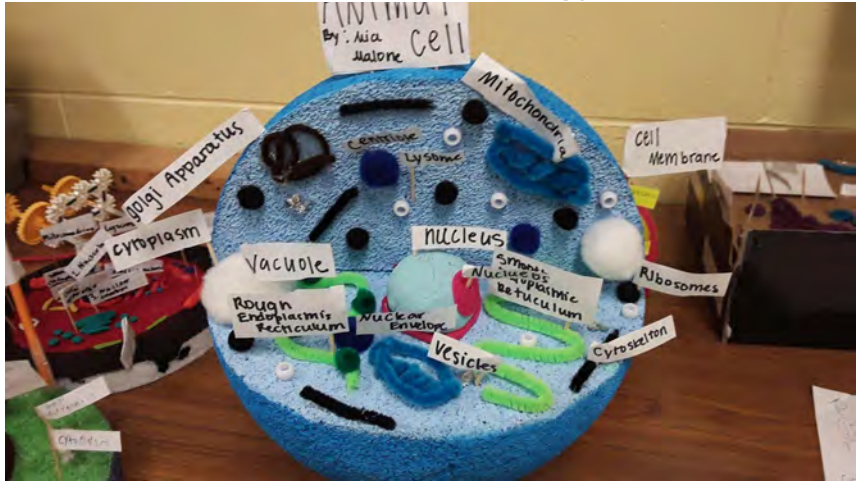
Energy Content and Resources: NEED Energy poll, Teacher resources from Energy Camp, NEED Science of Energy

Student Leadership: 12 students took the poll and 10 to 15 students were involved in most activities

Evaluation: Energy Poll scores were an average of 83%, We were unable to take the last poll. Number reached 250.

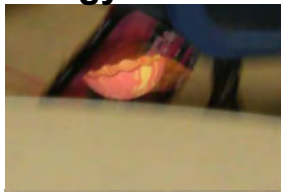


Chemical Energy



Mechanical, Chemical, and Sound Energy

Poppers
How far will they go? They flew high. Mechanical potential energy.



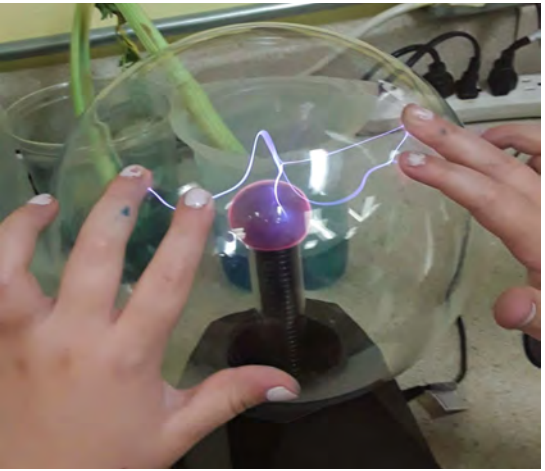
Knex Potential chemical energy. Battery operated ferris wheel.

Sound Energy Rubbing the handles on the water bowl creates sound vibrations which causes the water to rise.

Farm Day
Making butter with mechanical energy.

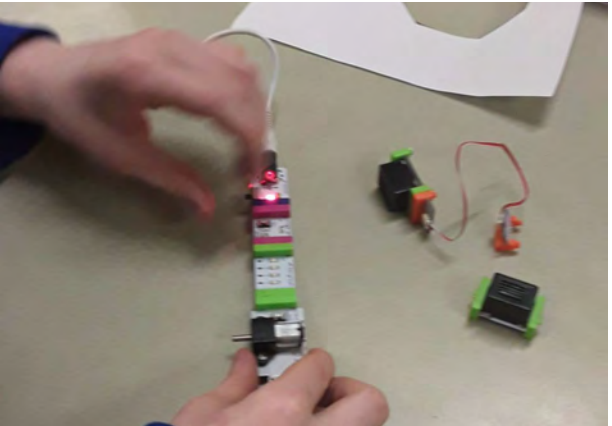
Pinwheel rocket.

Electiricty and Circuits



Plasma Ball
We like to use the plasma ball. We have a light that we light up from the plasma ball. We like to try and shock each other. Discharge of electricity.

Mr. Ron from Pickwick Electric at Farm Day. He is demonstrating how electricity flows through the wires to our houses. He is demonstrating electric safety by showing what happens when lines are down or kites fly into wires.



Little Bit Circuits
We can make lights come on, and sounds. We also have made the light bulb come on using a paper clip and made a switch.

REDUCE

Goal#2: To promote energy conservation by reducing the amount of energy used.

Activities and Tasks: Obtain permission from the principal, consult with our advisor, do school energy audit, write letter for parents, send home website for energy conservation survey (STAR).

Energy Content and Resources: NEED Energy Audit Kit, STAR survey, Renewable resources.

Student Leadership: 11 students conducted school audit, 6 wrote parent letters, 10 passed out parent letters and survey.,

Evaluation: Our students are utilizing our refillable water bottle water fountains saving on the use of plastics. We are still using our solar panels to run our hydroponics. New lights replaced our old fluorescent lights. School energy usage has been reduced. 365 students are affected by the panels, 365 survey letters and recycling letters went home.

Over 30.000 people reached via media, newspapers and letters.

Demonstrating the difference in the light bulbs. Which one uses less energy? The LED, CFL, or the incandescent light bulb.

Our energy efficient water fountains are being used constantly. Each water fountain shows approximately 6000 water bottle refills. Cutting down on the use of water bottles.

Our school replaced all the fluorescent light bulbs left in the school. The cafteria was replaced 5 years ago. The bulbs were replaced by LED light bulbs.

Reuse

Goal#3: To promote the reuse of items

Activities and Tasks: Obtain permission from principal and advisor, contact waste management director, save milk and juice cartons, place article in newspaper, send home letters, collect jeans, count and find a place to donate jeans, deliver jeans, plan farm day, obtain volunteers to help.

Energy Content and Resources: Promote recycling, energy conservation, local farmers and volunteers. Providing events like Pickwick Electric and electric safety, puffy stuff biodegradable packaging material, reusing milk cartons for planting, and biodegradable containers for flower seeds.

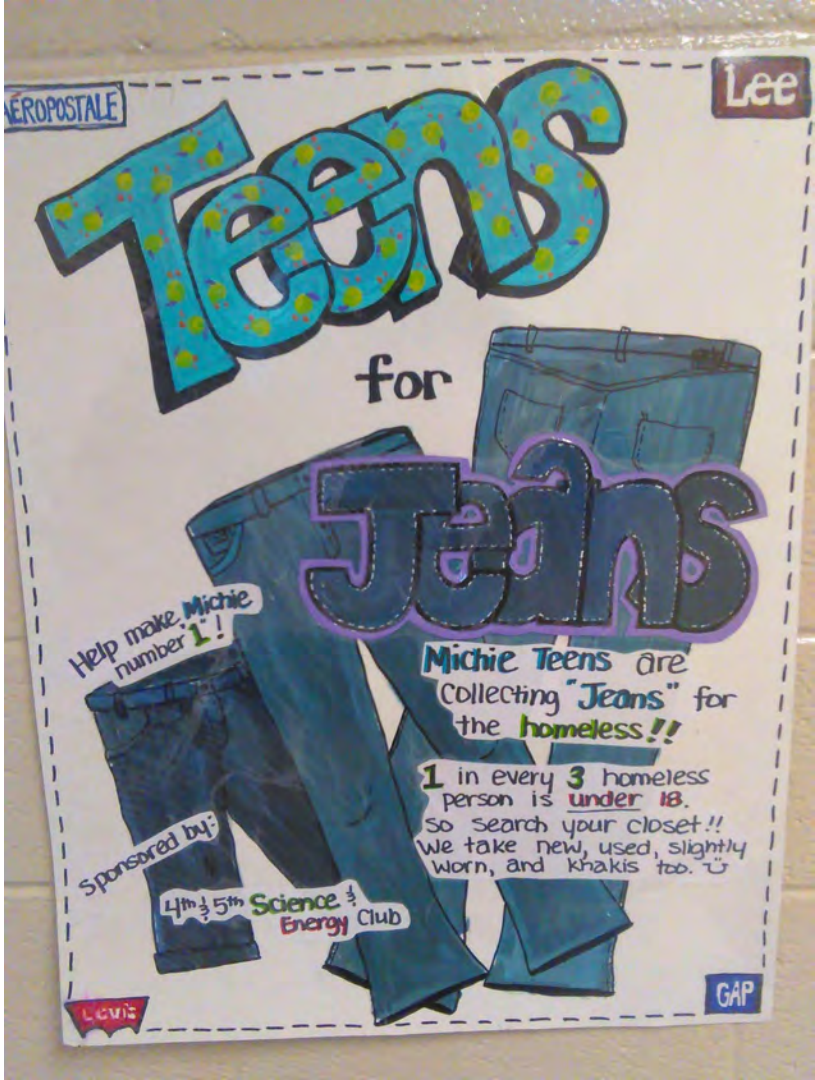
Student Leadership: 2 students talked to principal and advisor. We all help planned farm day and blue jean drive with dividing task. 3 students helped deliver jeans, we all help empty recycled containers.

Evaluation: We collected over 300 pairs of jeans, farm day was a great success and enjoyed by all with recycled milk cartons and many other sustainable products. Approximately 90,000 or more reached through newspaper, media and Ag websites.

Carton to Garden Contest

We ask each K-8th grade student to collect milk cartons for our Farm Day. Each student decorated one carton to plant their tomato plant on Farm Day. The extra cartons were used to plant seed in the green house. We collected over 1900 milk cartons. The top parts that were cut off were recycled.

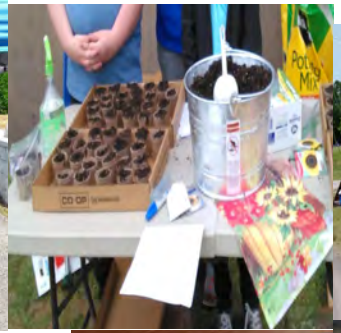
One out of every 3 homeless person is under 18. We collect jeans to give to the homeless and people in need in our community. Our school and community work together to collect the jeans. When school let out we had collected 300 pairs of jeans and had already donated 200 of the jeans. One of the two places we donate the jeans too has closed temporarily and is not taking donations. As soon as they open up again we will deliver the rest. The jeans can be new, or worn. Most of our jeans were worn so they are being reused.



Farm Day is an annual event with emphasis on farming and recycling. Students in K-8 collected at least two milk cartons and decorated one of them. Reusing these cartons as a container to plant tomato plants. The rest collected were used to plant seed in the greenhouse. There is also a booth with puffy stuff that the Energizers run that is biodegradable and made out of milo plants manufactured in the state of Tennessee.

Smoky the Bear says "Only you can prevent forest fires."

Filling biodegradable containers with soil.



Bees

Listening to Do Bees Make Butter while making butter.

RECYCLE

Goal#4 To promote recycling at home, school and the community.

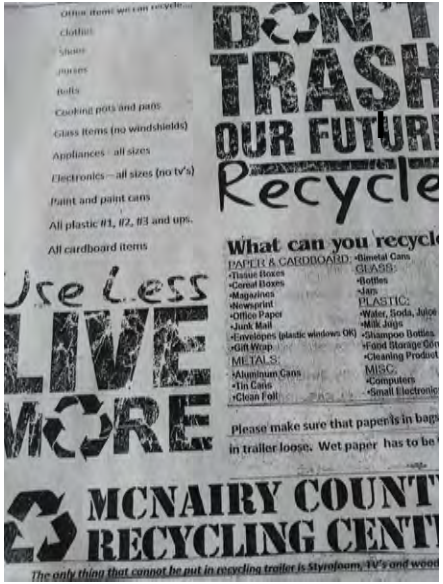
Activities and Tasks: Obtain permission from principal, contact our county waste management director. send notes home, enter the aluminum can recycling contest and the Milk Carton Contest for reuse for garden purposes, and Farm Day, Participate in the PepsiCo Recycle Challenges. We participated in the Keep America Beautiful Competition.

Energy Content and Resources: Renewable resources, promote energy conservation,

Student Leadership: 12 students sent parent letters, 2 student contacted newspaper, 5 students advertised on Michie News,

Evaluation: We were nominated for the Governor's Environmental Stewardship Award and are awaiting results. We held an America Recycles day in November. We participated in two PepsiCo Recycle Contest, the Al the Can Roundup, Because of personnel changes in our recycling center our trailers ended up not getting weighed for the Keep America Beautiful contest.

We estimated over 75,000 reached.



Our recycling trailer and the letter we sent home.

Recycling Aluminium Cans

We had over 3740 pounds for 2018 and we had 3503 pounds for 2019. We were collecting for 2020 when schools closed. We had a couple of thousand pounds but the person we worked with at the recycling center resigned so we don't have a final total.

Our county has access to a recycling trailer and they came for Farm Day. Students went inside the trailer and were given a bag that contain recycling information. They were told different ways that they could recycle. Grades K-4 thru 8th grade visited the trailer during the day.

PepsiCo Recycling

We participated in the PepsiCo Recycling competition. We participated in the weight and the poster competition. We don't know how we did in the weight competition. They cut the competition short and they haven't released the winners yet. We have recycled 23,096 lbs. this year. We also distributed 5 PepsiCo recycle containers in our school.

Our recycling poster for the poster contest.

The Energizers have had a good year and are already looking to next year. We are awaiting results from the PepsiCo challenge. Our county nominated us for an award this year and we are waiting to here from it. We help our county with the education component of our program, and our recycling being used for a part of our county Green Rating, our Michie School News on You Tube, newspaper articles in three area newspapers and their websites , notes we send home from school, and word of mouth we have reached tens of thousands of people. Our recycling program has increased the amount that is recycled to the extent that they have to empty our recycle trailer sometimes twice a week but at least once a week. We have placed another recycle trailer because of the interest in recycling. We have made changes in our school building that will make us more energy efficient. We hope to keep building our program and encouraging others to recycle.

Because of school closings some of our pictures and documentation are on the school computer.

Resources:

NEED Elementary Poll
NEED Energy Works
NEED Home Energy Kits
NEED Energy Audit Kits
NEED Energy Books and online resources
State of TN Energy Camp NEED Activities