

Morningside Elementary

Morningside Elementary 2019 NEED Project

Advisor: Mollie Mukhamedov



We enjoyed using NEED materials this year to study the forms and sources of energy. We performed all the experiments in the Science of Energy unit and then taught other 5th grade students about the forms of energy using those stations. We performed plays from the Energy on Stage curriculum and tried out some of the experiments in the Energy Works unit. We studied the sources of energy and then created posters for an Energy Expo that we held in school and at the Indian River Lagoon Science Festival. We also conducted energy demonstrations at the festival including a solar house. We met a lot of people at the festival and had a chance to teach others what we learned from our NEED project. We hosted an Energy Carnival for our school in the evening when parents and students from all grade levels were invited to attend. Sharing energy stories and making energy bracelets with Kindergarten students was a really fun way to teach little children about energy. This year's project was a huge success and we are thankful to NEED for so many fun ways to learn about energy and the inspiration to teach others and be leaders.

Goal 1: To Learn and Teach the Science of Energy

Energy Content Activities

1. Students studied potential and kinetic energy.
2. Students learned the NEED Energy Chants.
3. Students divided into groups and learned a Science of Energy experiment.
4. Students presented their experiment to other 5th graders.
5. Mr. Prohaska from FPL was a guest speaker about sources and forms of energy.
6. Students used solar ovens to bake solar smores.

Student Leadership

1. Students were in charge of learning their experiment and planning their presentation for other students.
2. Students were given the script to study and the materials and procedure for their experiment.

Resources

1. Elementary Science of Energy Unit
2. NEED Energy Infobooks
3. NEED Energy Chants

Evaluation:

1. Unit test on energy
2. Student interest and participation
3. Teacher monitoring of presentations
4. Feedback from other students about presentations

Learning and Teaching

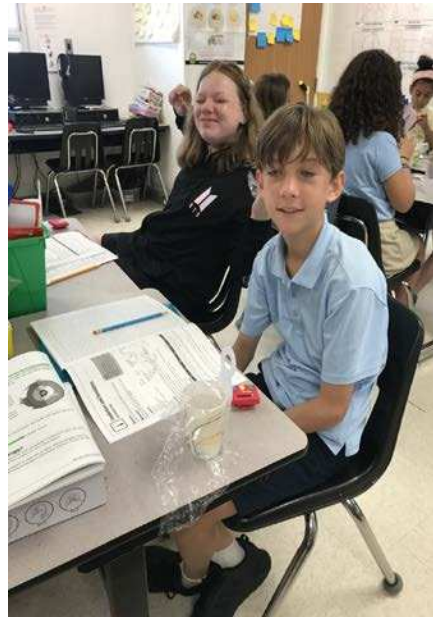


Guest speaker
from FPL: Mr.
Prohaska



Science of Energy

- Station One- Potential and Kinetic Energy
- Station Two- Endothermic and Exothermic Reactions
- Station Three- Radiant Energy Transformations
- Station Four- Thermal Energy and Motion Energy
- Station Five- Chemical Energy
- Station Six- Electrical Energy



Goal 2: To have an Energy Expo at the Indian River Lagoon Science Festival

Energy Content Activities

1. 5th grade students studied a source of energy and created a poster on their source.
2. Students presented their posters to the class.
3. Students attended the Indian River Lagoon Science Festival where they displayed their posters and presented hands on demonstrations for festival attendees.

Student Leadership

- 1.Students were responsible for researching their energy source and designing their poster.
- 2.Students were responsible for running the table for our school at the festival.
- 3.Students were responsible for demonstrating energy transformations to festival attendees.

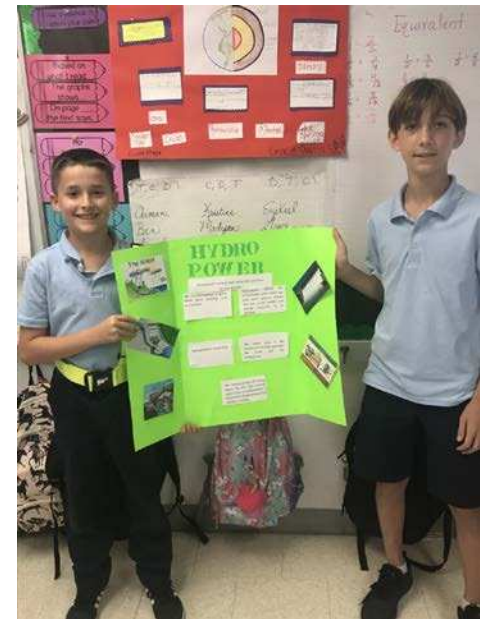
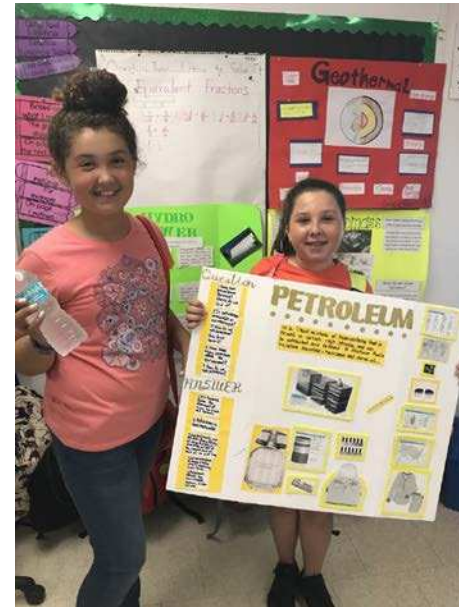
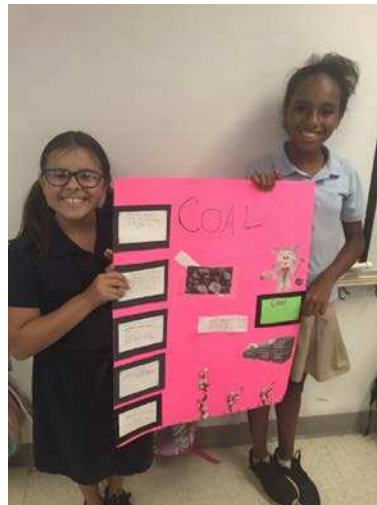
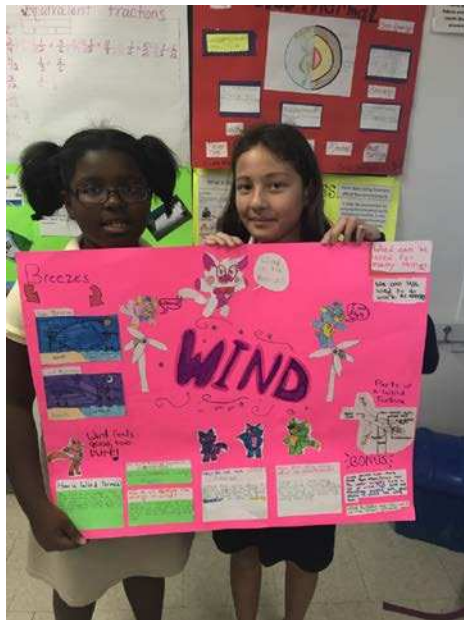
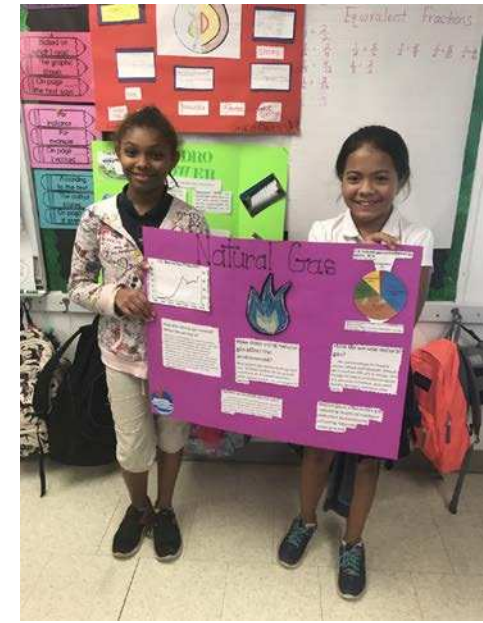
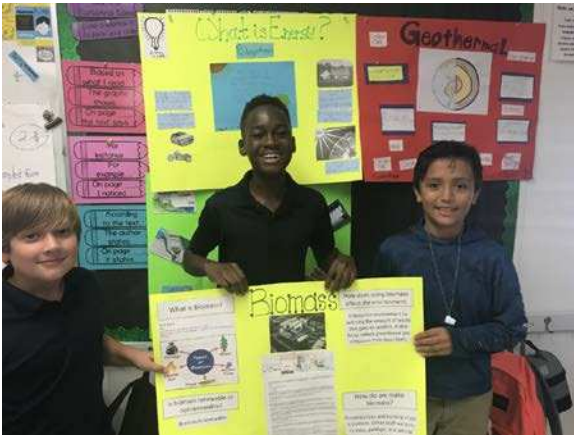
Resources

- 1.Energy Expo Unit
- 2.NEED Energy Infobooks
- 3.Science of Energy hands on experiment materials

Evaluation:

- 1.Teacher monitoring of student presentations at the festival
- 2.Unit test on energy
- 3.Evaluation of student posters for the Energy Expo

Energy Expo- Kids Teaching Kids



IRL Science Festival

Kids Teaching Kids and Adults



Indian River Lagoon Science Festival



What did some of us think of the festival? **WE LOVED IT!** Here are a few responses!



Being part of the science festival was a really fun opportunity to be with my friends, explain our energy project and meet new people. People really enjoyed spinning our energy wheel to get facts or questions about energy.

Being apart of the science festival was a fun experience. It was fun because I was teaching people about energy. Also I think the wheel made it more fun to learn. I created a project on Nuclear energy and taught all about it. Not only I had fun they did too.

TRL Science Festival

Going to the science festival was a great experience. Being able to be on both sides was amazing. We got to explain what alot of key words in science were. People really liked seeing the solar house in the sun. People also liked spinning the science wheel and filled getting science related prizes. On the other side of the science festival we got to go around and do alot of fun activities and learn alot about science. We also got to experience real life experiments. And we got to talk and ask questions about science, which is way better than playing video games. There was alot of fun hands on activities like coding, solar bracelets, making slime and many more.

When I went to the science festival I had a great time. I was teaching hydro power and I thought the people liked coming to our table to spin the wheel and learn about energy. I think the science festival was a blast.

Goal 3: To have an Energy Carnival at Morningside’s “Curriculum Night”

Energy Content Activities

- 1. 5th grade NEED student leaders hosted an Energy Carnival for all students and parents during “Curriculum Night”

Student Leadership

- 1.Students were responsible for preparing the materials for their game and learning how to play it.
- 2.Students were responsible for playing their game with students and parents when they visited the Science lab during Curriculum night.

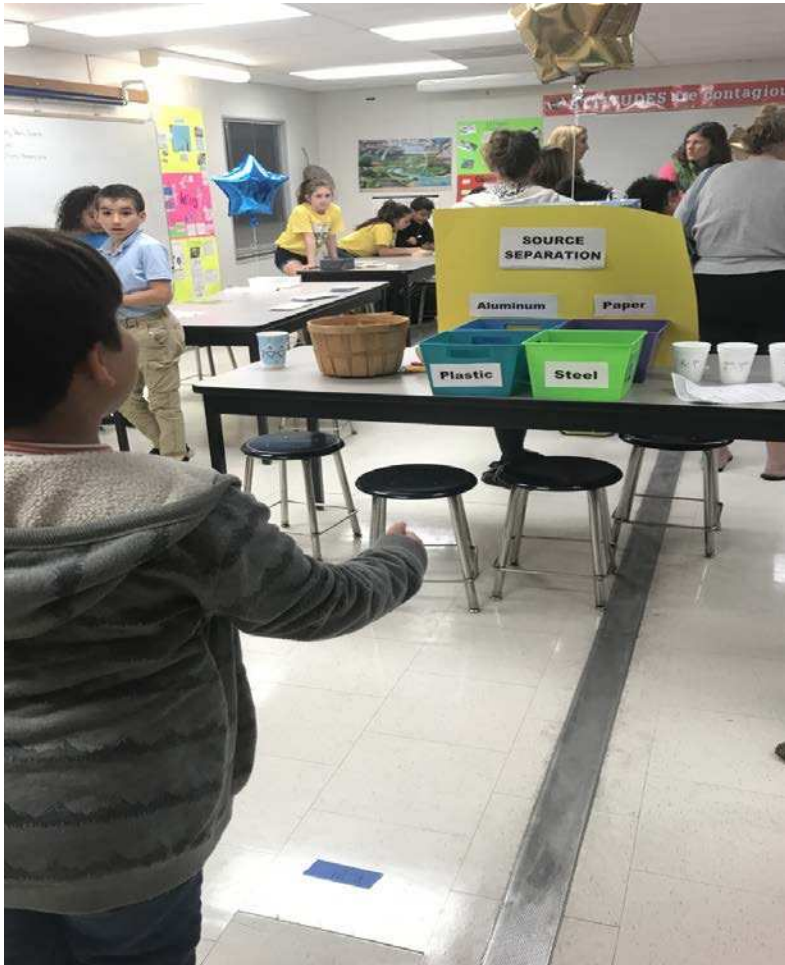
Resources

- 1.Energy Carnival Curriculum
- 2.Materials for Carnival Games & Candy

Evaluation:

- 1.Teacher monitoring of students playing the games during the carnival
- 2.Reactions from students and parents about the carnival

It was all fun and games at our Energy Carnival!



Carnival Game

Leader

Energy Equations

Sincere

Energy Jumble

Madyson

Energy Pictionary

Tyler

Energy Sleuth

Wyatt

Energy Knockdown

Ben

Source Separation

Lola

Top Five

Chloe

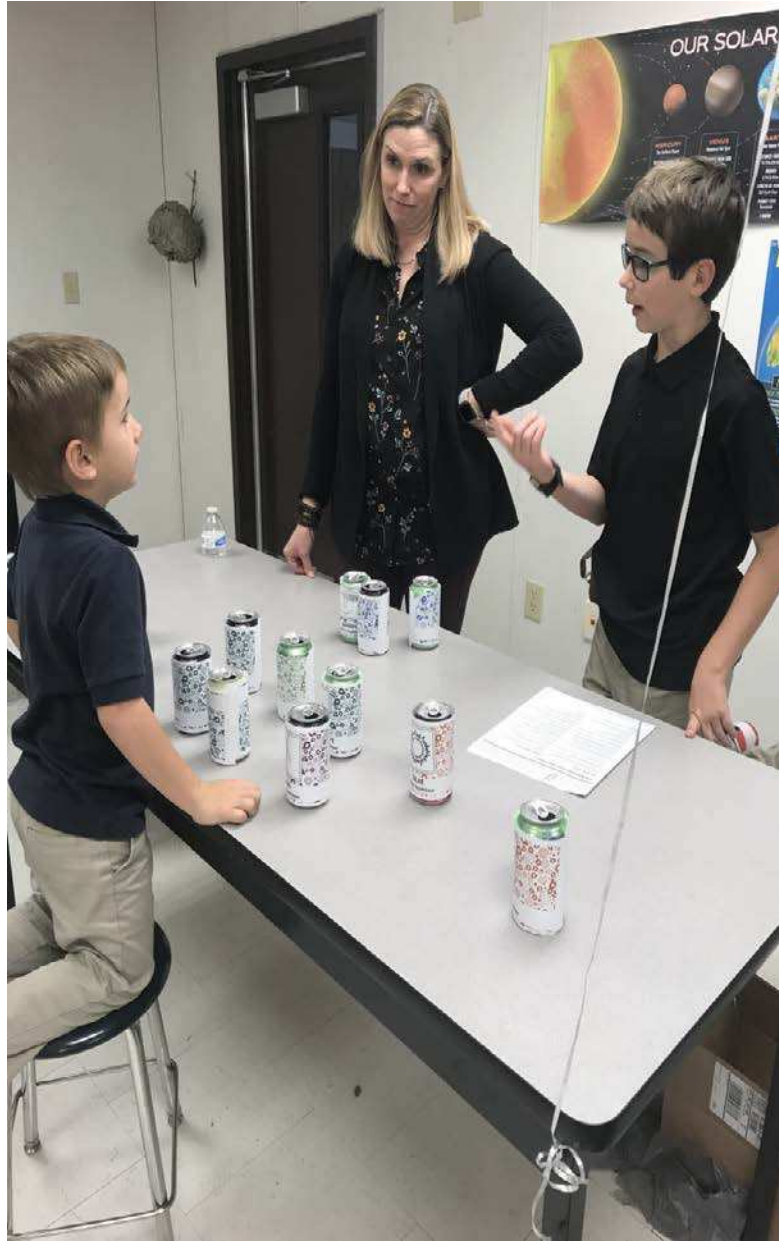
Wheel of Energy

Paul

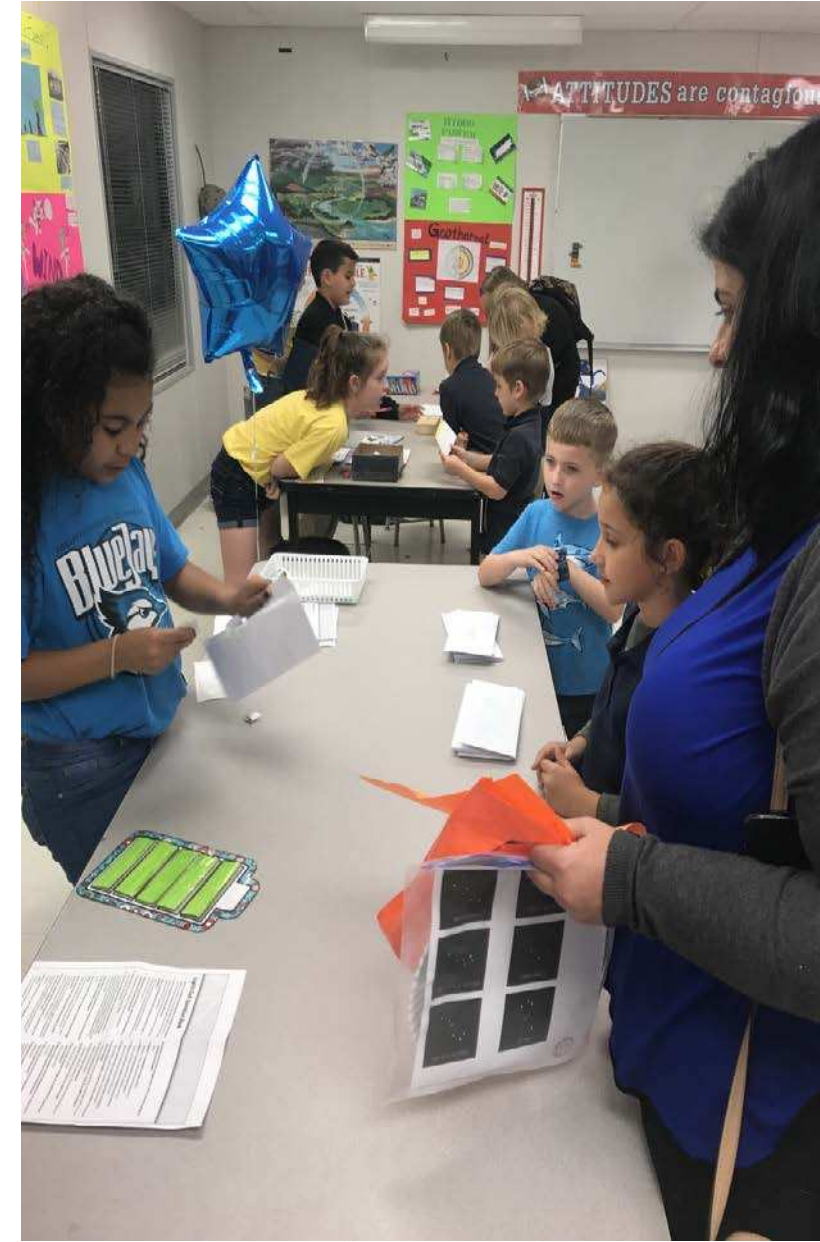
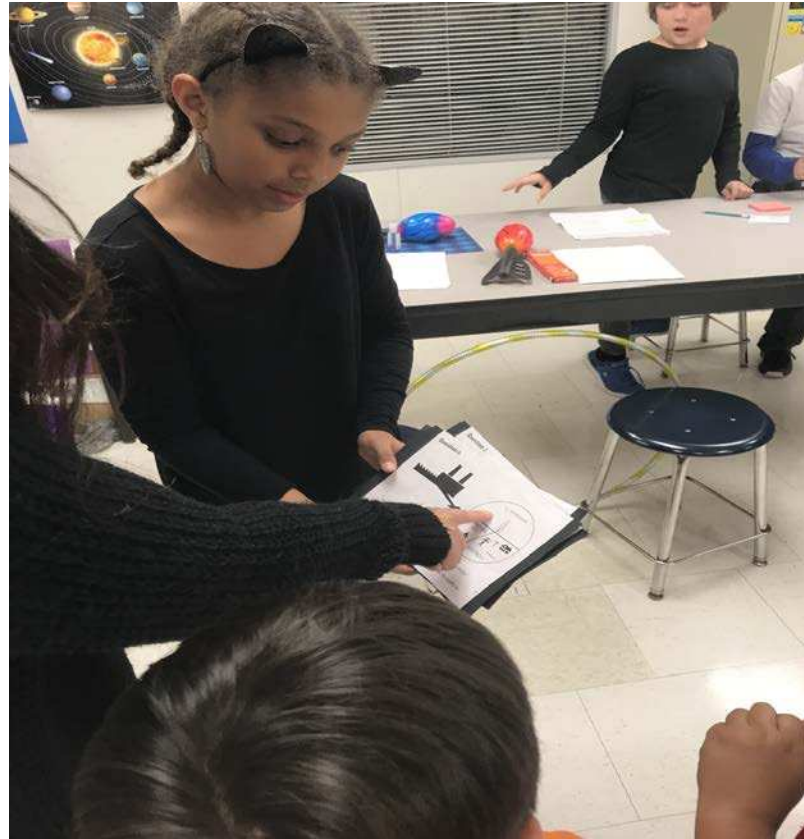
Lights Out!

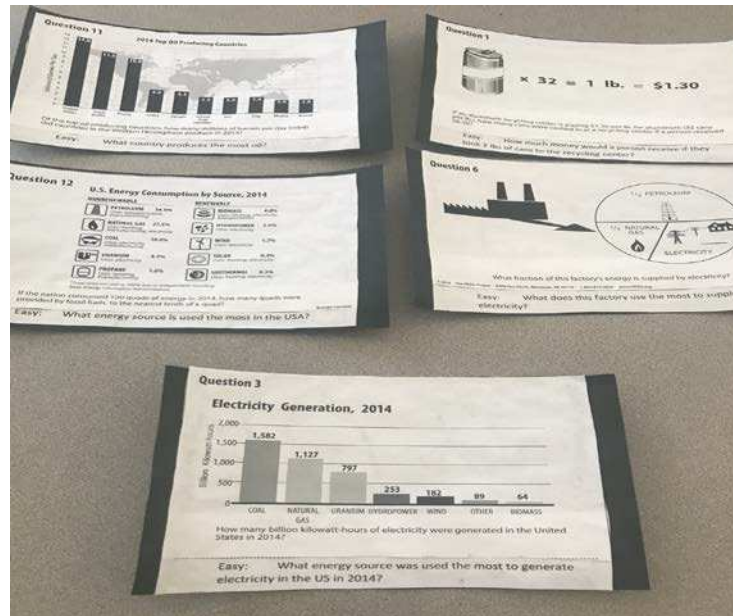
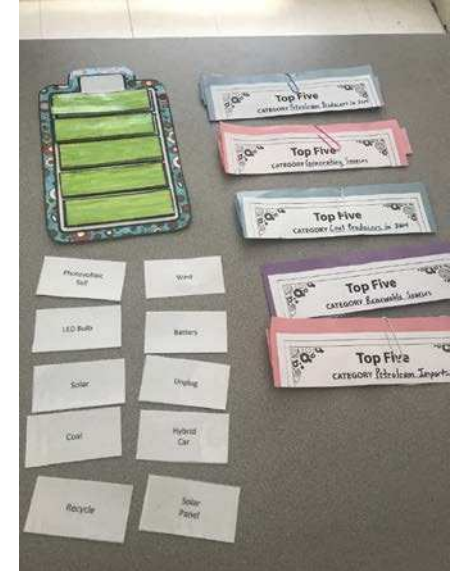
Toni





**Learn, teach,
have fun!**



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Goal 4: Share Energy Stories and Sources of Energy curriculum with classes in our school

Energy Content Activities

1. 5th grade students prepared an Energy story from the Energy Stories and More curriculum to share with Kindergarten classes.
2. Share energy source info-books and activities with classmates.

Student Leadership

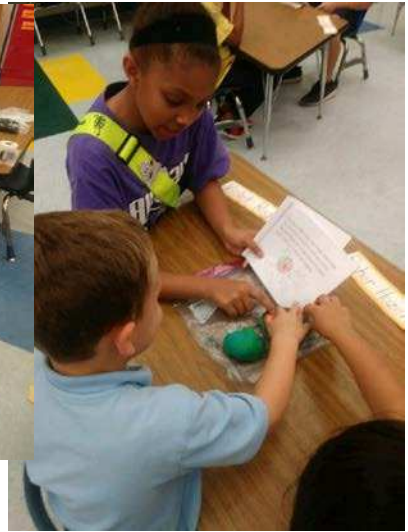
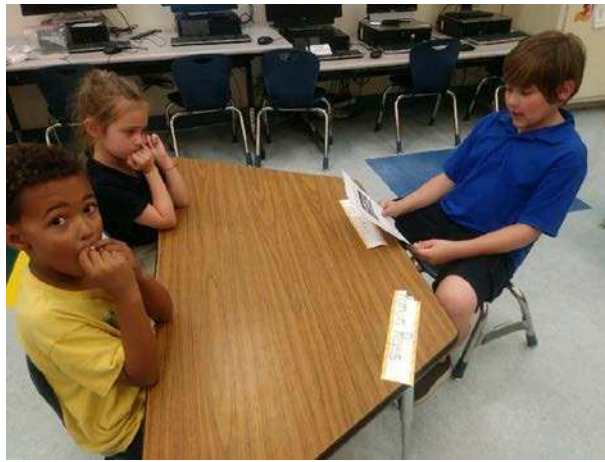
1. NEED student leaders prepared an Energy story to read to Kindergarten students.
2. Students made solar bracelets with Kindergarten students
1. Students share the energy source info-book pages with classmates and assisted in the matching activities for energy sources that go with the info-book pages.

Resources

1. Energy Stories and More
2. NEED Elementary Energy info-books
3. Solar beads and pipe cleaners for bracelets.

Evaluation:

1. Teacher monitoring of students while sharing the energy stories and info-book activities
2. Unit test on energy
3. Evaluation of student work from the activity pages



Sharing Energy Stories

Sincere made a model to go with "Who Am I"



Making Solar Bracelets



Kids teaching kids about energy

