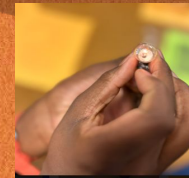


Suitland Elementary



Suitland Elementary students are gaining energy knowledge through a variety of energy task exposures and experiences. The student green team members are from Prekindergarten through 6th grade. The students' goals are to gain new knowledge about energy; identify natural resources; learn about renewable and non-renewable resources; acquire light a bulb experience to share with their families; and attain knowledge about circuits.



Goal 1-To gain new knowledge about energy

Activities and Tasks:

- Students, used motion energy by shaking the sand in the containers and they observed thermal energy in the jars. They checked the temperature of the sand to identify the jar of sand with more thermal energy after making predictions.
- Students experimented with M&M and Jelly beans to gain the concept of renewable and nonrenewable energy.

Energy Content and Resources

- Elementary Science of Energy Guide & Kit :NEED
- Elementary Energy Infobook-What is Energy?:NEED
- Energy, Climate, and You Teacher & Student Guide for Candy Collector Task:NEED
- What is Energy? Energy Types for Kids - Renewable and Non-Renewable Energy Sources-YouTube video

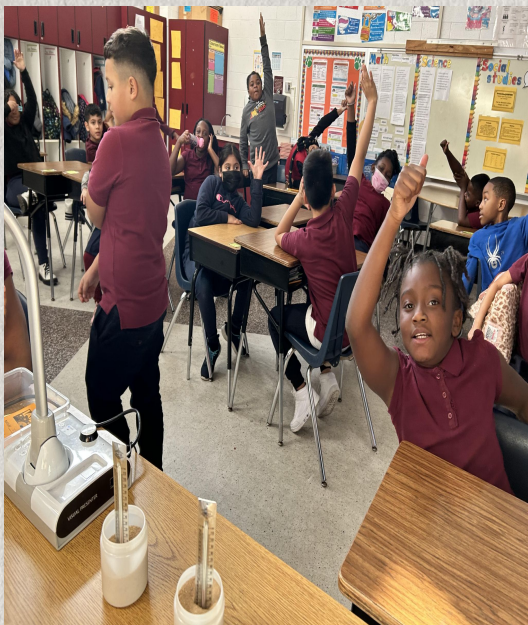
Student Leadership

- Twenty, 4th grade students, independently determined what the temperature outcome will be for the containers of sand
- Twenty, 4th grade students, and 30 student green team members completed the candy collector task after receiving the instruction, and a model from a student leader.

Evaluation

- Students identified motion energy as kinetic energy and discovered that the $\frac{1}{3}$ jar of sand has a higher temperature because of the level of friction caused by the sand that was shaken in the jar, which has more movement room than the full jar.
- Students observed that nonrenewable energy source (M&M) will run out through the candy collector task, and renewable energy(Jelly beans) source will be available, but it should be conserved.

Goal 1-To gain new knowledge about energy (1 of 2)



Students shook the jars of a one-third full jar and a full jar of sand, predicted, and determined the temperature.

Goal 1-To gain new knowledge about energy(2 of 2)



Student green team members complete the candy collector activity.

Goal 2: To identify natural resources

Activities and Tasks

- Student Green team members researched UV Bead by creating a bracelet and locating the best location to plant some tomatoes and peppers.
- Students searched for partially shaded areas.

Energy Content and Resources

- Wonders of the Sun for UV Bead Activity
- Natural Resources eLearning Video Lesson for Kids
- Soil Conservation Coloring Contest:Prince George's Soil Conservation District
- Energy 101 Student Guide-Empower Maryland:Pepco(an Exelon Company)
- What are Natural Resources?(Newsela)

Student Leadership

- 50 student green team members completed the UV Bead(solar beads)
- 200 student green team members maintained the garden regularly
- All of the 5th & 6th grade students (120+) completing pledge form to conserve natural resources with parents' participation
- 20, 4th graders read about natural resources

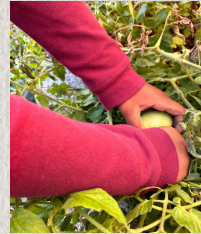
Evaluation

- Students concluded that the planting location with partially shaded light proved to be ideal for tomatoes and peppers from their observation.
- Students recycle in and outside of of their classrooms to reuse, reduce,and recycle because they want to conserve energy.
- 4th grade students completed a quiz from Newsela to confirm new knowledge gained about natural resources

Goal 2: To identify natural resources



Solar Beads
Observation -Yields
Successful
Tomatoes and
Peppers(student
green team
members featured.



Green team
students are
recycling milk
plastic
bottles,contai
ners, paper
and boxes



3rd,4th & 5th
students
completed the
Soil
Conservation
coloring
contest



Pledge form
from Pepco
to conserve
energy
signed by a
6th grade
student and
parent.

Goal 3-To learn about renewable and non-renewable resources

Activities and Tasks

- Students review the 10 Energy Sources.
 - Students watch a video on renewable and non-renewable energy sources
- Student green team students complete the Energy chant.
- 4th graders categorize renewable and non-renewable resources and complete game on renewable and non-renewable energy.
- Students will complete the Candy Collector, a fun game which introduces renewable and non-renewable resources.
- 4th grade students will read about Heat energy for Newsela.

Energy Content and Resources

- The 10 Energy Sources:NEED
- Elementary Energy Infobook:NEED
- Aunt Sarah and the Amazing Power Story-an Energy safety tale in English and Spanish:BGE, an Exelon Company
- Energy Games and Icebreakers(Candy Collector, Energy Chant):NEED
- NEED Energy Chant video:NEED
- Game on renewable and non-renewable :<https://www.ecosystemforkids.com/games/renewable-and-non-renewable-energy-game.html>
- Heat and Light Energy Transfer 4th grade Interactive slides(Prince George's County Public Schools)
- What is Energy? Energy Types for Kids - Renewable and Non-Renewable Energy Sources:Youtube Video
- What is Heat Energy?- Newsela

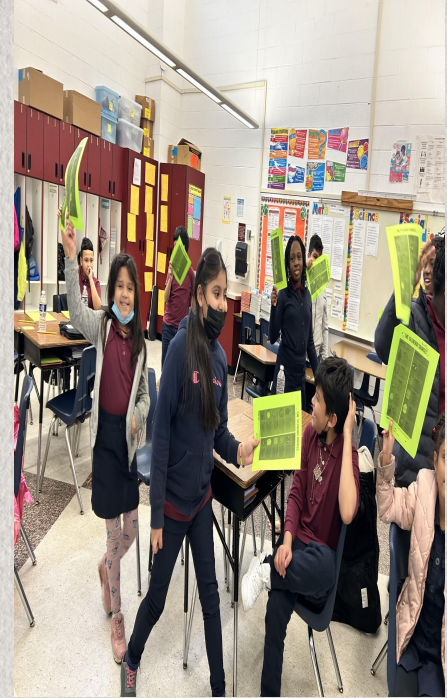
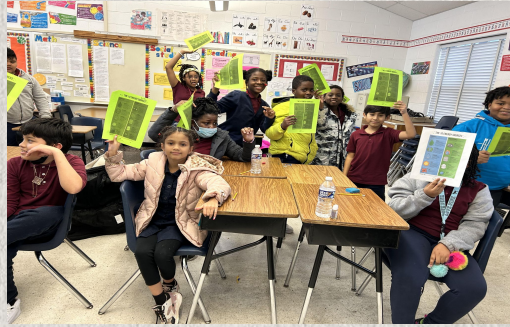
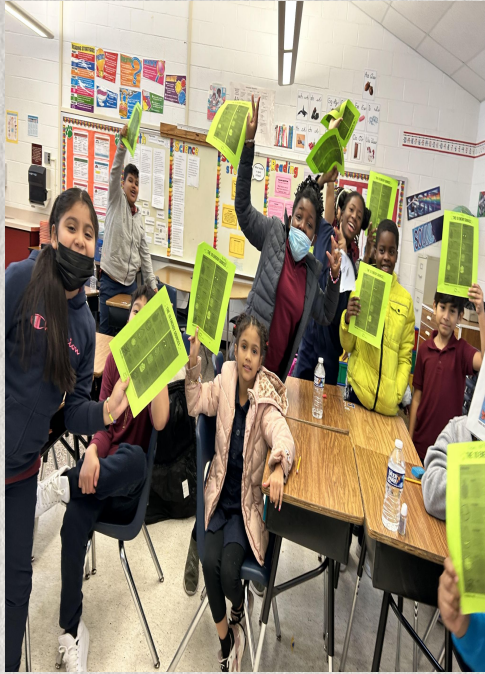
Student Leadership

- Twenty,4th grade students and thirty student green team members learned about renewable and non-renewable resources and completed a game to confirm what they know.
- 24 student green team members and a 4th grade class of 6 students completed the Energy chant.

Evaluation

- 4th graders categorize renewable and non-renewable resources.
- Student green team completed the Energy chant independently.
- Student green team members named the 10 Energy sources.

Goal 3-To learn about renewable and nonrenewable resources(1 of 3)



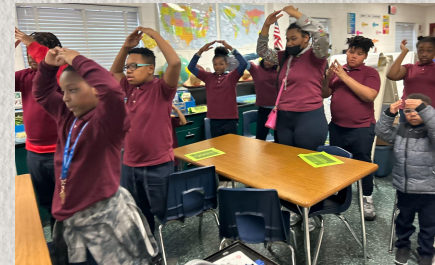
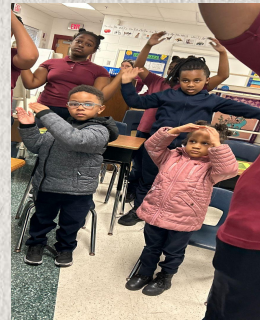
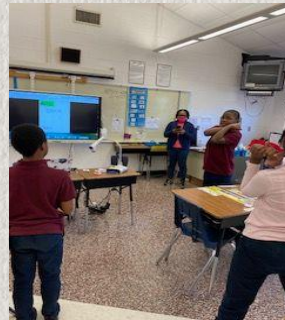
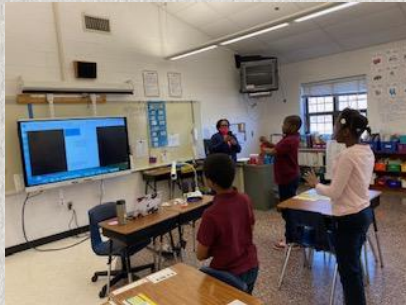
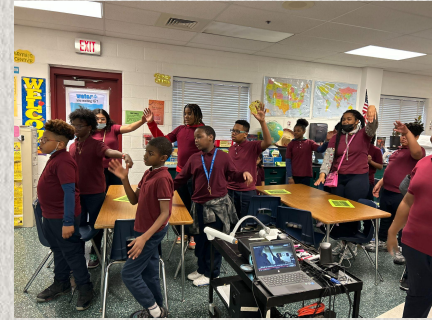
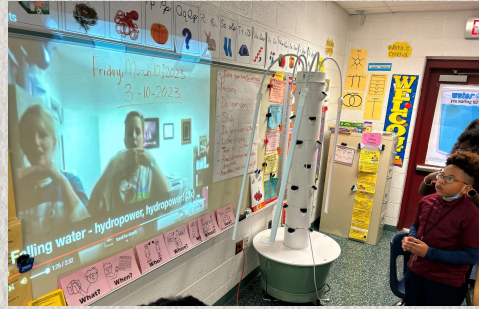
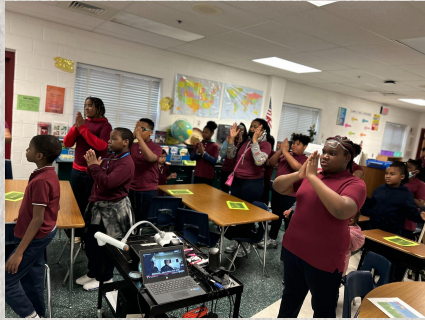
4th graders learned about the 10 Energy sources.

Goal 3-To learn about renewable and nonrenewable resources(2 of 3)



Student green team members are experiencing using up non-renewable resource(M&M) and understanding renewable energy(jelly beans)will always be reused.

Goal 3-To learn about renewable and nonrenewable resources(3 of 3)



Student green team members and a 4th grade class are completing the hand motions for the Energy chant.



Goal 4-To acquire light a bulb experience to share with their families

Activities and Tasks

- Students learn how an electric light bulb works.
- Students experiment with lighting a bulb.

Energy Content and Resources

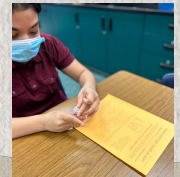
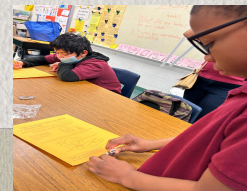
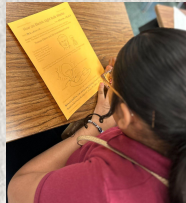
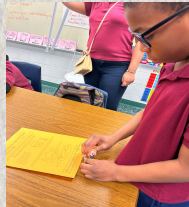
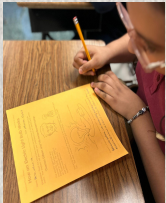
- Elementary Energy Infobook:NEED
- How an Electric Light bulb Works:Teacher Created Resources Inc.-Social Studies Through the Year

Student Leadership

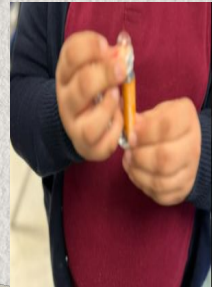
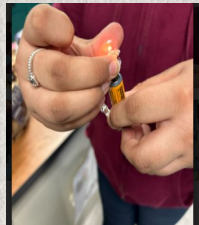
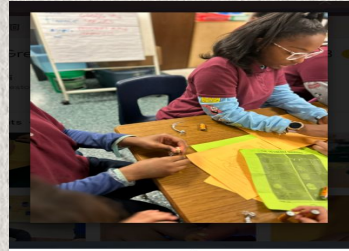
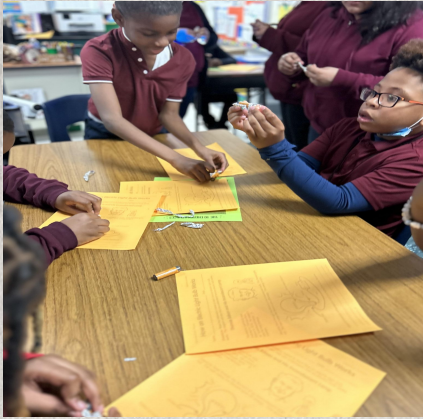
- 30 Student green team members experience lighting a bulb, and work with peers requiring assistance completing the task.
- Students participate in the Light a Bulb task at the school's Stem fair.
- 30 student green team members were provided a clear ziplock bag, the light bulb direction, 1.5v battery, 1.5v bulb, and a piece of foil to take home to share the experience with their families.

Evaluation

- Students completed the worksheet about Thomas Edison and His Incandescent Lamp and shared in writing how Edison's invention of the electric light bulb helped the world .
- Several students reported having a great experience sharing their knowledge with their families.

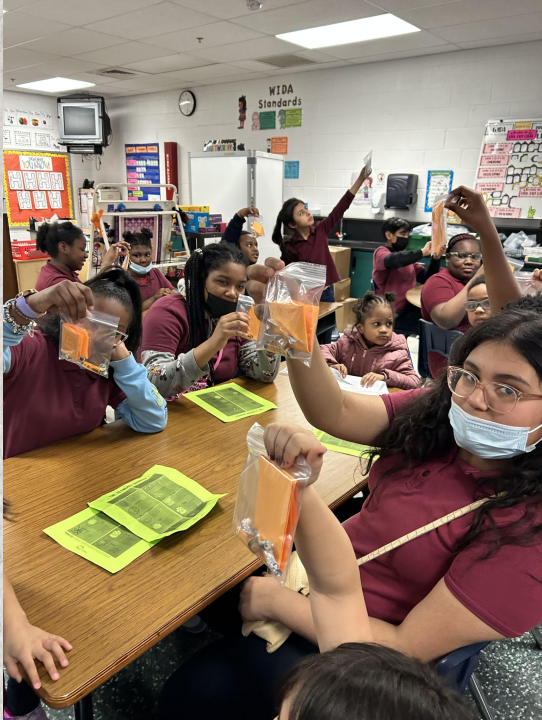


Goal 4-To acquire light a bulb experience to share with their families (1 of 2)

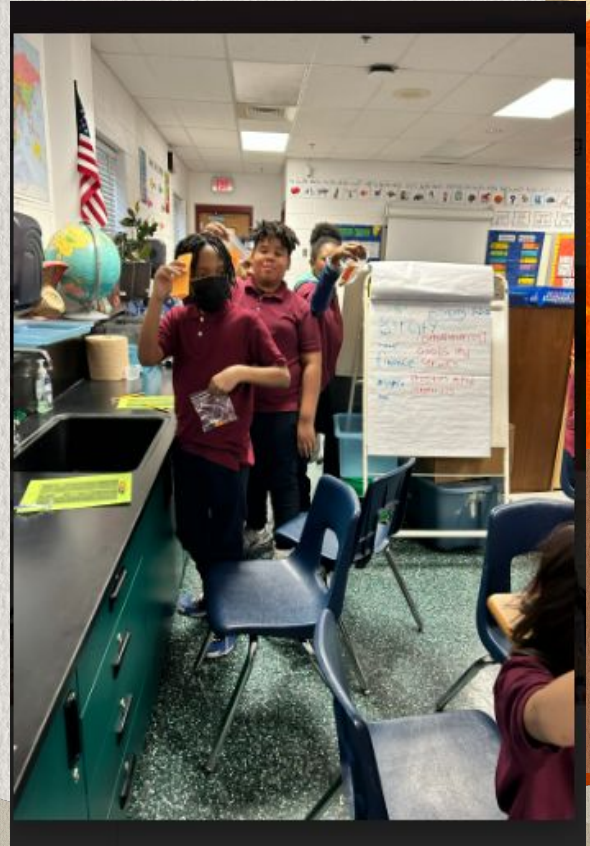


Green team students are experiencing lighting a bulb.

Goal 4-To acquire light a bulb experience to share with their families (2 of 2)



Student green team members share their bags with the light a bulb content they will be sharing with their families.



Goal 5-To attain knowledge about circuits

Activities and Tasks

- Student green team members learn about circuits by watching a video.
- Student green team members experience how light diodes work by creating sidekick circuit.

Energy Content and Resources

- Elementary Energy Infobook
- *Sidekick Circuits* Guide:NEED
- Sidekick Circuits Kit:NEED
- Electrical Circuits - Series and Parallel -For Kids:Youtube

Student Leadership

- 40 student green team members worked independently to learn about circuits.
- Students successful with creating a power source using the circuit template, mini-LED bulbs, button battery, and copper tape and they supported their peers.



Evaluation

- Students understand that all the parts which create a circuit has to connect so that the power can flow, and their bulb(s) can light.
- Students received ziplock bags to save their experiment content and share their new knowledge with their families.

Upcoming
Events

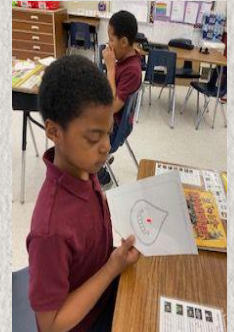
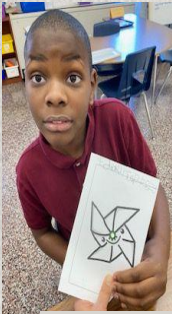
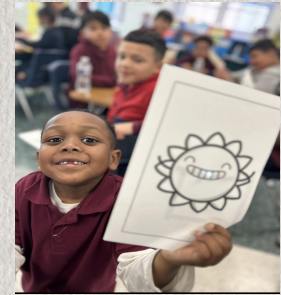
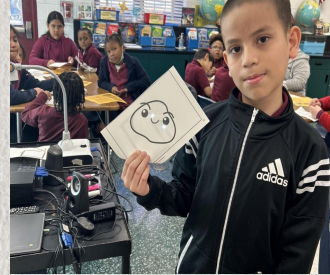


Share Earth day reminder with families on April 22,yearly, on our school's communication app-ClassDojo.



On April 22,students and their families will be reminded to celebrate earth day everyday. In May 2023- students will have an energy fair and invite the community and an energy audit to gain first hand experience about energy saving and waste at their school, and learn to share ways to conserve energy at school and at home.

Goal 5-To attain knowledge about circuit



After learning how circuit works, the students built their own circuits. The students were successful in creating a sidekick circuit.