

# Suitland Elementary

## Energy Exploration and Conservation Ambassadors



The Energy Exploration and Conservation Ambassadors, applied their knowledge to explore and conserve energy. They shared different ways that they conserve energy at home, and showed how they will inform their families. Then, they learned more about Solar Energy than they had been aware of, and this enabled them to plan a native habitat garden. The team researched different native plants that will convert radiant energy from the sun into chemical energy through photosynthesis, for their school garden. Next, they identified how herbivores and omnivores will store solar energy in their bodies after eating the plants and food made from plants.

The students also experimented with digital pretzel power game, to understand fuel efficiency and carpooling advantages. They shared their activity with some parents who joined to observe the event virtually. Finally, they explored different forms of energy, and they created an Energy Journal based on the day of the activity, to reflect on their energy use, and to evaluate ways they conserved energy. Students' work were shared weekly with the school staff, through emails, to inform, and to make available to teachers to share with their classes. The journal created a venue for the students to become aware of ways they may have wasted energy too because their main goal is to be Energy Conservation Advocates through

# Goal #1 -To share different ways to conserve Energy at home

- **Activities and Tasks**
  - Plan energy conservation signage for home
  - Show or report how they conserve energy
  - Share the benefits of energy conservation with family
  - Create signs to post at different locations in the house
  - Be an Energy Conservation Advocate

- **Energy Content and Resources**

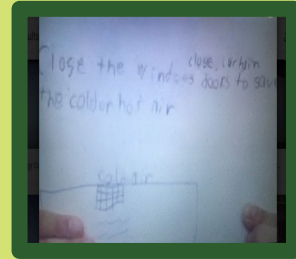
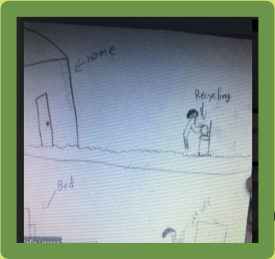
- Elementary Energy Infobook
- Energy website-[www.Need.org](http://www.Need.org)
- Project-Based Learning Brochure(Reading A-Z)
- Saving Energy Around the Home-Energy Efficiency Tips(YouTube)

- **Student Leadership**

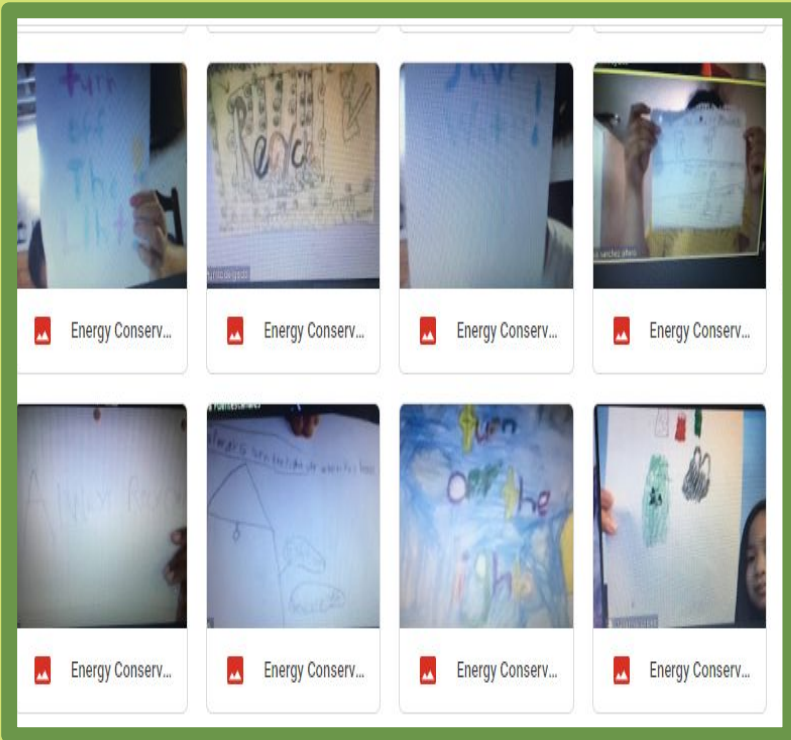
- 20 Students completed the task
- 4 Student Leaders supported their peers

- **Evaluation**

- Students assessed their work and shared out
- A number of students recorded their energy conservation ideas on forms



# Goal #1 -To share different ways to conserve Energy at home



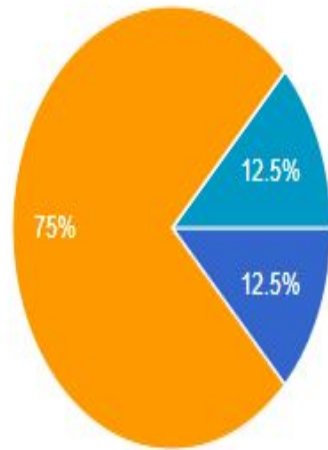
Students created signage they will post in their homes and share with their families.



# Goal #1 -To share different ways to conserve Energy at home

How are you conserving(saving) energy at home?

8 responses



- By saving water
- Using energy-saving bulbs
- Turning off lights when it is not needed
- Recycling
- By insulating my house
- By shutting down my laptop when it is not being used

**Students share ways they are conserving energy at home.**

# Goal #2 -To plan a native plant garden that benefits from Solar Energy



## ● Activities and Tasks

- Learn different ways solar energy is important
- Identify native plants that will suit their school garden
- Share their reasons for their plant choices


## ● Energy Content and Resources

- Wonders of the Sun Student's guide
- Energy website-[www.Need.org](http://www.Need.org)
- Nature plants for your naturehood(YouTube)

## ● Student Leadership

- 8 Students completed the task
- 2 Student Leaders supported their peers

## ● Evaluation

- Students shared and discussed their plant choices that will receive and transfer energy.
  - Students confirmed the plants of choice as native plants for the school's Energy Ecosystem
- 

# Goal #2 -To plan a native plant garden that benefits from Solar Energy.

Ja'da

I like the Butterfly weed because it looks cute and it has a lot of colors I got the picture from google.



Ingrid

Rose Mallow

I like Rose Mallow because I like the kind of color it shows .



These students selected the native plants, Rose Mallow and Butterfly Weed. They learned that radiant energy will convert to chemical energy through photosynthesis.

# Goal #3 - To identify how Energy moves from primary producers to consumers

- **Activities and Tasks**

- Learn different ways solar energy is important
- Identify primary producers and consumers
- Share how the food chain starts

- **Energy Content and Resources**

- Wonders of the Sun Student's guide
- Energy website-[www.Need.org](http://www.Need.org)
- Energy Transfer in Food chain(YouTube)

- **Student Leadership**

- 11 Students completed the task
- 2 Student Leaders supported their peers


- **Evaluation**

- Students shared their choices
- Students checked their knowledge by completing a Kahoot game-Energy and the Ecosystem

# Goal #3 - To identify how Energy how move from primary producers to consumers

Christopher

The butterfly is the consumer



Primary Consumer      Primary Producer

This slide features a blue background with a white horizontal line at the top. On the left, the name 'Christopher' is written in white. Below it, the text 'The butterfly is the consumer' is displayed. Two images are shown side-by-side: a photograph of a monarch butterfly on a yellow flower, and a botanical illustration of several different flower species. Below the images, the labels 'Primary Consumer' and 'Primary Producer' are written in white.

Randy Martinez

This plant is a Primary Producer .

This bee is a primary consumer. That use motion energy.

Students identified primary producers and primary consumers in the food chain.



# Goal #4 -To show Fuel Efficiency and Carpooling advantages



## ● Activities and Tasks

- Learn about fuel efficiency
- Identify and select vehicles with fuel efficiency
- Complete a digital pretzel power game

## ● Energy Content and Resources

- Fossil Fuel to Product Guide
- Transportation Trio Activity Book
- Energy website-[www.Need.org](http://www.Need.org)
- Kids Envision Fuel-Efficient Cars of the Future(Youtube)

## ● Student Leadership

- 10 Students completed the task
- 2 Student Leaders supported their peers

## ● Evaluation

- Students shared their understanding by completing the graph
  - Students reported their understanding of the task on the Jamboard
- 

# Goal #4 -To show Fuel Efficiency and Carpooling advantages

Every pretzel equals one gallon of gasoline. For every gallon that you eat, move forward as many miles as your Miles Per Gallon (MPG) states. Type an 'x' in each cell to move forward one mile.

MPG	HOME	TO >				
38	HOME	TO >	█			
	HOME	< FROM				
58	HOME	TO >	█			
	HOME	< FROM				
23	HOME	TO >	█			
	HOME	< FROM				
25	HOME	TO >	█			
	HOME	< FROM				

What did the Digital Pretzel Power help you understand?



Fuel-Efficient Car

It helped me with the miles and it made it easy. Randy Martinez

I like the pretzel activity because it helped me understand energy saving. rosa 5th

The digital pretzel power help me to understand about the miles a car uses and how far it can go if it save energy. genesis

It helped me know how many gallons of gas I need. Yahaira Fuentes

I like the pretzel because it help me of the cars . Rosa Sanchez 5 th

It helped me understand how much gas is needed for the cars and how many miles it can run. yadira fuentes

Students are learning about fuel efficiency and carpooling, to conserve energy. A few parents observed and commented on the activity because they joined the event's zoom link with their children.

# Goal #5 -To explore different forms of energy by creating an Energy Journal

- **Activities and Tasks**
  - Learn about different forms of energy
  - Identify different forms of energy used
  - Create an Energy Journal

- **Energy Content and Resources**

- Elementary Energy Infobook
- Wonders of the Sun Teacher's Guide
- Energy website-[www.Need.org](http://www.Need.org)
- Energy and Different Forms of Energy with Examples(Youtube)

- **Student Leadership**

- 12 Students completed the task
- 3 Student Leaders supported their peers

- **Evaluation**

- Students shared their understanding by completing a journal
- Students reported their understanding of energy on a jamboard

# Goal #5 -To explore different forms of energy by creating an Energy Journal

Edwin

The energy form I used were electrical energy ,motion energy and chemical energy.I used my Chromebook and my ipad. I watched youtube on my ipad and I played games in my PS4 and I did my homework and used zoom on my chromebook. I also ate Ramen and I was with my dog.



Kalani

My Energy Journal



Electric Energy

Chemical Energy

Motion Energy

Motion Energy


I used my computer. I ate some food. I walked around my house. and I played with my cat.

Students assessed their energy use in a day, to determine how they can conserve some forms of energy, such as electricity..


# Goal #5 - To explore different forms of energy by creating an Energy Journal

Elias


## My Energy Journal



Chemical Energy



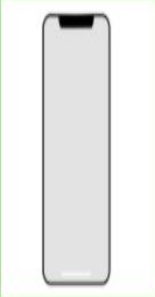
Electrical Energy and Motion Energy




Motion Energy and Thermal Energy

Christopher


## My Energy Journal



I used electrical and motion energy.



I was using Motion and Chemical Energy



I used electrical and motion

Students assessed their energy use in a day, to determine how they can conserve some forms of energy, such as electricity..

# Goal #5 -To explore different forms of energy by creating an Energy Journal

**Yahaira**

I learned that there are different kinds of energy. I also learned that you can use energy in many ways.

Source	Percentage
Coal	33.2%
Natural Gas	23.2%
Renewable	43.6%
Biomass	1.8%
Hydropower	1.1%
Wind	0.2%
Solar	0.1%
Geothermal	0.1%
Other	4.3%

What did you learn about energy?

There are different kinds of energy like lava lamps uses electricity energy and if we had no energy we would not see the lights-Edwin

I learned there are different types of energy like heat and light.  
Yadira

Yadira

Students shared what they know about different forms of energy.

# Projects shared with school staff at Suitland Elementary

Hello,

I hope this email finds you well. Please select and invite a representative from your class to join the **student green team**, tomorrow, from 3 to 3:45 p.m. We will meet every Thursday, and the zoom link is below. Students will meet to identify and discuss Energy in the Ecosystem. Please see the presentation link of some of the work that the students have completed and the next topic they will be addressing. Thank you! Have a wonderful day!!

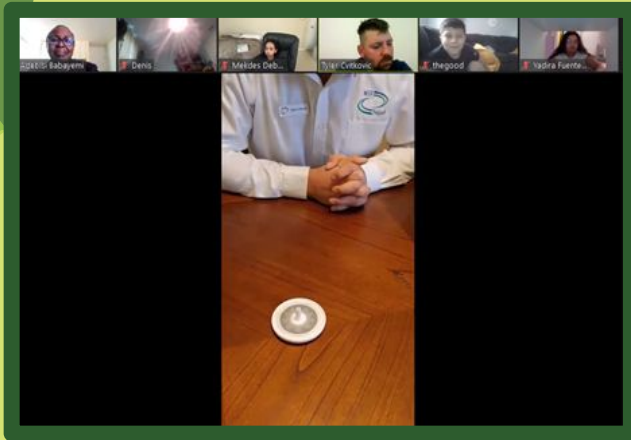
Join Zoom Meeting

<https://pgcps-org.zoom.us/j/86354529869?pwd=OU94UkQDN3B0TC1pQHZlcnFHWlVtcwZz09>

Meeting ID: 863 5452 9869

Passcode: 7U4miu

[https://docs.google.com/presentation/d/1Z7fYDUU6YhD0xV763KkKs8rDaww4Vkc3RlR\\_T\\_g/edit?usp=sharing](https://docs.google.com/presentation/d/1Z7fYDUU6YhD0xV763KkKs8rDaww4Vkc3RlR_T_g/edit?usp=sharing)



Students requested Energy saving tips during an Energy Efficiency and Conservation session with a NEED Energy Audit Personnel.