

# Reedy Fork Elementary Energy Wise Need Project

Energy Wise Director:  
Mrs. Tracee Weathersby



- ▶ Our goals:
- ▶ To educate our staff and peers about the importance of conserving energy, water , resources and keeping our earth clean by recycling.
- ▶ To learn about energy and how to conserve it.

▶ Goal 1: To increase student knowledge of energy conservation.

- ▶ We performed a puppet show for the kindergarten classes to teach them about conserving energy.
- ▶ We performed a Star Wars and a skit which discussed how to save energy.
- ▶ We did a kill a watt investigation and studied which bulb was energy efficient.
- ▶ We used the light meter to find out how much light is in different areas of our school.

Goal 2: Reduce, reuse and recycle

We collected recycles every Friday

We made gifts and bird feeders out of recycled materials

Student leadership:

Students made up the skit Tortoise and the Hare to address recycling.

Students created the backdrop for the puppet show.

The kindergarten students answer questions about energy.

Resources used:

- ▶ NEED learning and conserving kit
  - Light meter
  - Kilowatt meter
  - Learning and conserving student guide: kilowatt investigation and light level investigation





# THE PUPPET SHOW

We created two skits, we practiced and presented it to all of the kindergarten students. The first skit was Star wars and it was about energy conservation. The second was about recycling and the story was Tortoise and the Hare.



Morgan  
I learned that if you work together anything can happen. I think the puppet show was amazing and I really enjoyed it.

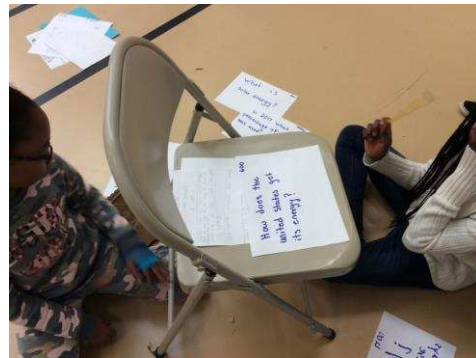


Gabriel  
I enjoyed the show because the kids were having lots of fun. I learned about the show to save energy. I



# Jeopardy!

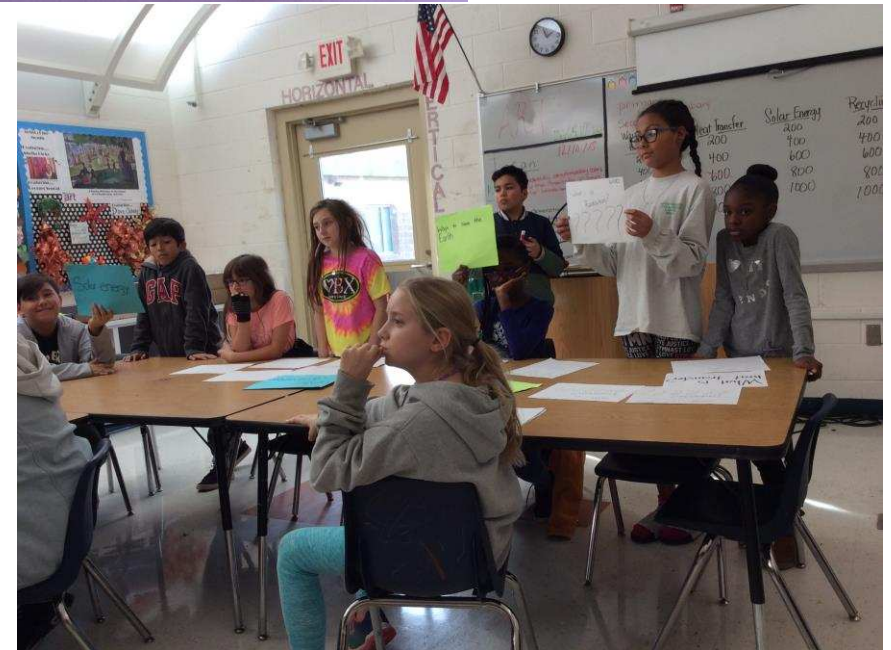
We created a game of Jeopardy for one of our 5<sup>th</sup> grade classes. We went to the computer lab and did the research on our topic. We made up the questions and answers. It was a lot of fun!



I think it was awesome but the class was thinking hard with the questions. They had some struggles I know next time they will do much better



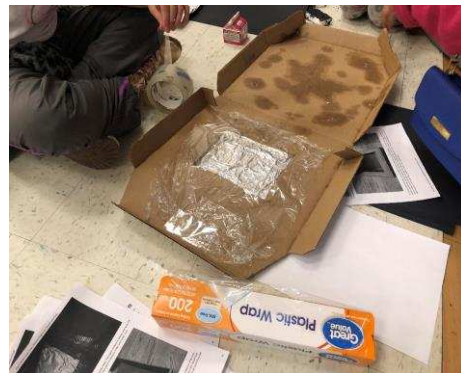
Jeopardy was awesome!  
And I think that it helped the 5<sup>th</sup> graders in their Science.





# Solar Oven

We built two solar ovens out of pizza boxes. We learned that solar power is strong enough to cook food. We went outside and cooked s'mores in them. Yummy!





# RECYCLING

All year we collected recycles from every classroom in the building. Recycling is important for our environment.



# Making Gifts out of Recycled Materials

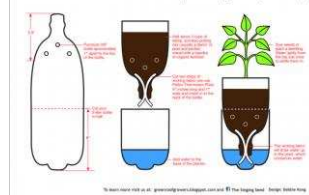
I think the reef is a nice touch. And that it looks good in the office!

We made gifts for our teachers out of recycled materials. We used two liter bottles and made a sub-irrigated planter.

I think the reef that we made out of recycling was so cool. I also loved that we are making plants for the teachers. I love everything!!!!!!❤️



How to make a 2-Liter SIP (sub-irrigated planter)





# Gift for the Front Office

We also made a wreath out toilet paper rolls for the front office.





# Bird Feeders



We made two bird feeders for our school. They were made from recycled juice boxes. The birds are loving them!






# Note Cards

We made note cards which encouraged recycling, energy conservation and water conservation. We passed them out to parents at the beginning of school.

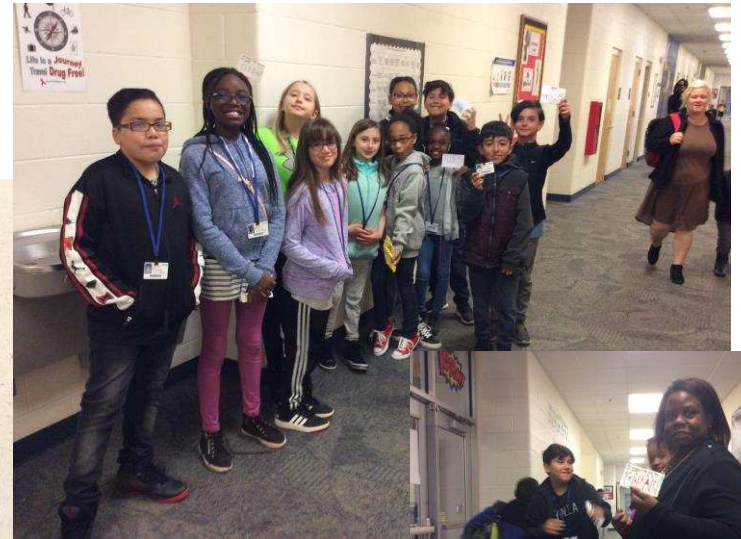
I Think that the  
Note Card thing  
was funny and fun



I think the notecards was  
a awesome Idea. We was running up  
to them to get there attention  
They looked at us and smiled.

Unless someone  
like you cares a  
whole awful lot,  
nothing is going  
to get better.  
it's not.

— dr. seuss

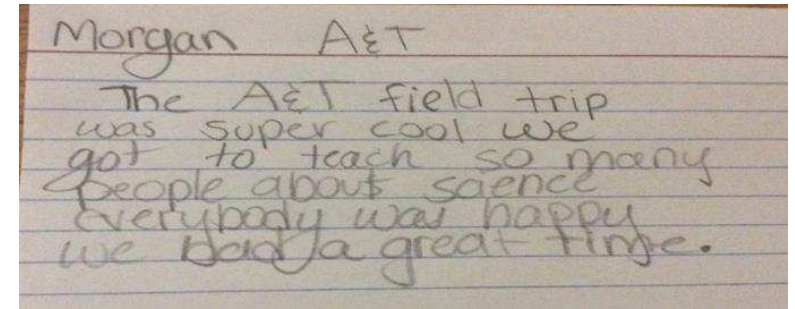
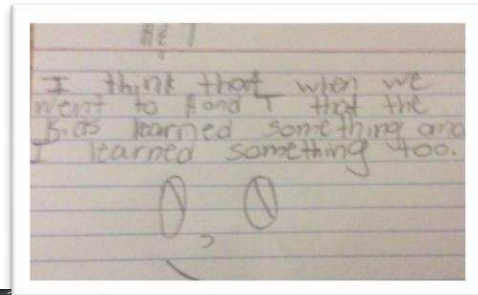




# Presenting at the Energy Fair: Kinetic and Potential Energy



- ▶ We were asked to present at the Annual Cert Energy Day at North Carolina A&T State University. We were given the topic of Kinetic and potential energy. We presented to middle and Elementary school students from Guilford County.





# Need Activities

## Recommended Light Levels

Below is a list of recommended illumination levels for school locations in foot-candles. These illumination levels align with the recommendations from the Illumination Engineering Society of North America.

AREA	FOOT-CANDLES	Notes
Classrooms (Reading and Writing)	50	Ready fork
Classrooms (Drafting)	75	16
Computer Labs (Keyboarding)	30	17
Computer Labs (Reading Print Materials)	30	17
Computer Labs (Monitors)	3	12
Labs-General	50	27
Labs-Demonstrations	100	10
Auditorium (Seated Activities)	10	61
Auditorium (Reading Activities)	50	26
Kitchens	50	31
Dining Areas	30	19
Hallways	20-30	31
Stairwells	15	28
Gymnasiums (Exercising and Recreation)	30	67
Gymnasiums (Basketball Games)	75	51
Locker Rooms	10	25
Libraries and Media Centers (Study Areas)	50	40
Libraries and Media Centers (Other Areas)	60	65
Shops (Heavy Work)	30	18
Shops (Medium Work)	50	45
Shops (Fine Work)	75	16
Offices (Reading Tasks)	50	15
Offices (Non-Reading Tasks)	30	18
Teacher Workrooms	30	30
Conference Rooms	30	78
Washrooms (Grooming Areas)	30	13
Washrooms (Lavatories)	15	23
Maintenance Rooms	30	24
Building Exteriors and Parking Lots	1-5	1309



### Light Bulb Investigation 1

**Objective**  
Students will be able to compare the heat output of an incandescent bulb to a compact fluorescent light bulb.

**Materials**

- 2 Lamps
- 1 Incandescent light bulb
- 1 Compact fluorescent light bulb
- 2 Thermometers
- Tape

**Question**  
How does the heat output differ between an incandescent and compact fluorescent light bulb?

**Hypothesis** We think that the fluorescent bulb will be hotter than the led bulb.

**Procedure**

1. Place the incandescent bulb in one lamp and the compact fluorescent bulb in the other.
2. Place the lamps on a table about 20 cm away from a blank wall. The light should face the wall.
3. Tape the thermometers to the wall so the lamps shine directly on them, as shown in the diagram above.
4. Record the thermometer readings in the chart below.
5. Turn on the lamps. Record the thermometer readings at 2-minute intervals for 10 minutes.
6. Calculate and record the change in temperature for each bulb ( $\Delta$  = change). Compare.

**Data**

BULBS	TEMPERATURE (CELSIUS)						
	0 MIN	2 MIN	4 MIN	6 MIN	8 MIN	10 MIN	$\Delta T$
Incandescent	76	82	87	90	92	96	
Compact Fluorescent	76	84	89	89	91	93	

**Conclusion**  
What did you learn about the heat output of an incandescent bulb and compact fluorescent light bulb? Use data to support your answer.  
We learned that the fluorescent bulb was hotter than the other bulb. The incandescent was not to touch.





# Awards and Comments

We received an award for the district wide poster contest and the gifts we made from recycled materials was presented on GCS News.

## Elementary

Southwest Elementary  
Monticello-Brown Summit Elementary  
Gibsonville Elementary  
Shadybrook Elementary  
Allen Jay Elementary  
Colfax Elementary  
Reedy Fork Elementary

## Middle

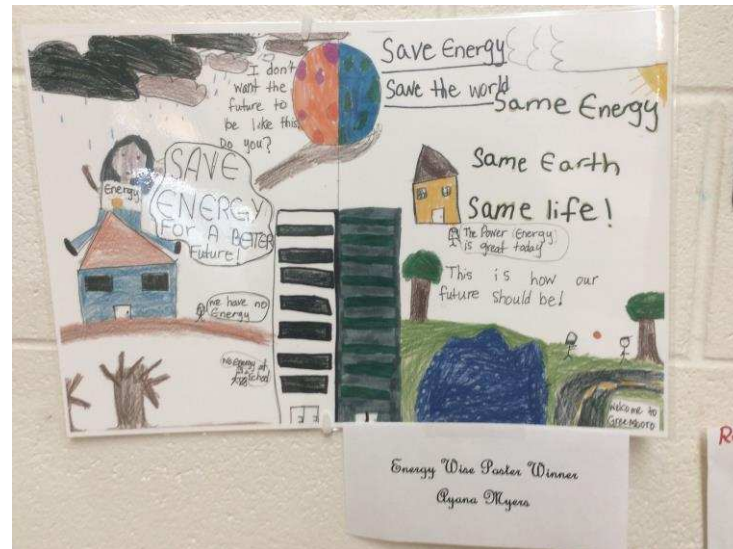
Hairston Middle

## High

Smith High  
Early College at Guilford  
Southern High

## Specialty

Newcomers School  
Project SEARCH – Moses Cone  
Project SEARCH – High Point Regional



## *Reedy Fork Elementary*

The Reedy Fork Elementary Energy Wise team made sub-irrigated planters out of recycled 2-liter bottles for the 5th grade teachers. The team also created bird feeders made out of recycled orange juice cartons for the principal, and a wreath made from paper towel rolls for the office.



# Final Thoughts

## A Note from our Principal and the Head Custodian Mr. Rodriguez

### Energy team

Schroeder, Denise

As I sit working at my desk, thanks to the Reedy Fork Energy Team, I am able to look out my window to watch the birds in the feeder eating bird seed. The team used recycled materials to make the feeder. Students also get a chance to see the birds when they visit my office. The office has been spruced up by new wreath which was made by energy team as well. The team works together to help make our school beautiful by recycling weekly as well. The students take their job serious and we are so proud of them.

### Rodriguez McKinney, Kristian R

I'd like to say thank you and that I appreciate everything that the energy wise team has done this school year. You all have been a great help for the custodial staff and around the school. Keep up the hard work!

Mr. Kristian

## Our Thoughts....

- ▶ We learned the importance of conserving energy. Recycling and re-using items. We also learned how to be a team and work with our classmates on different projects. We enjoyed being a part of Electric Shock!

