

# Krueger Middle School's Green Team goes Energy Conscious!

Advisor Mrs. Triemstra and her Green Team decided to go beyond recycling this year to learn about how our school could be more energy conscious. Students learned about different types and sources of energy including their environmental consequences.

Students then learned how to use less energy through both efficiency and conservation practices. The Green Team followed up by sharing their knowledge with others by hosting a Solar Oven Challenge and an Energy Fair for the community.

# Green Team's Gutsy Goals for Energy

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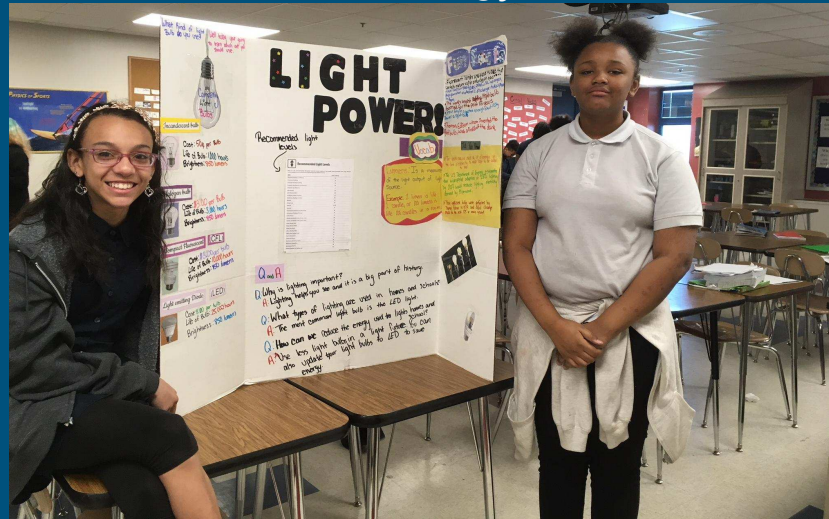


Historically, Green Team was a recycling club that just took the recycling out once a week and promoted recycling throughout the school. This year it became WAY MORE!

- 1) Green Team planned to learn everything we could about energy consumption, at school, at home, and beyond.
- 2) Planned a solar oven challenge for other students to learn about energy too
- 3) Conducted an Energy Audit of the building and made recommendations to staff and students about how to reduce our building's energy consumption
- 4) Held an Energy Fair for community members to teach about all we have learned.

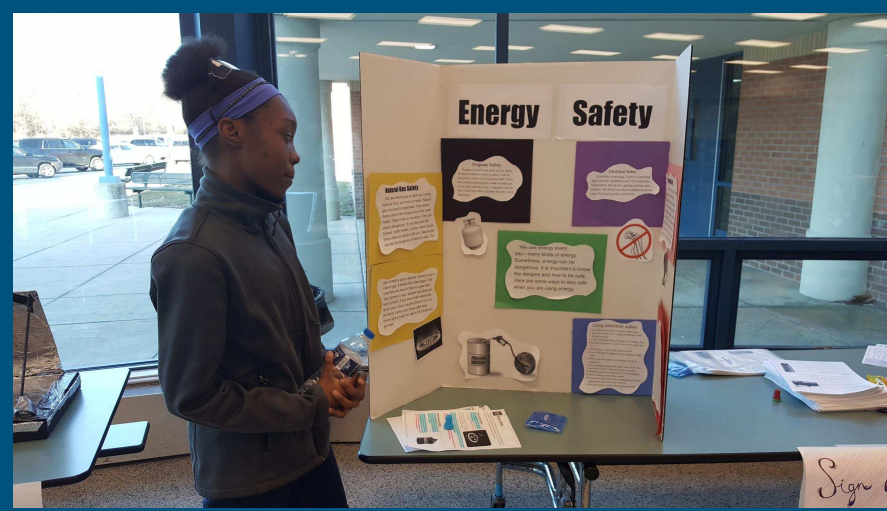
# Monitoring and Mentoring

Students studied how schools use energy and different ways to use. We learned about the differences between Conservation and Efficiency and then shared that information with staff, students and our families at home. Students conducted different tests throughout the building on light levels, temperature and different types of lights to check out how we can save energy. Students also learned how to read different energy labels to become conscientious consumers.



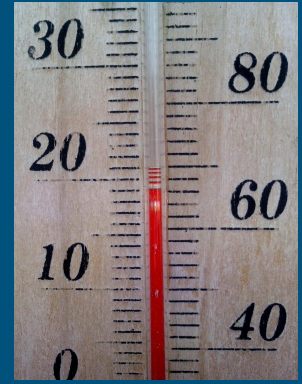
# Student Displays

In class, students researched different sources of energy and made presentation boards to tell 10 facts, 2 cons and 2 pros for their chosen type of energy. Students had to use at least three credible sources for their information including NEEDS Energy Info Books. Some boards were chosen for display at the Energy fair.





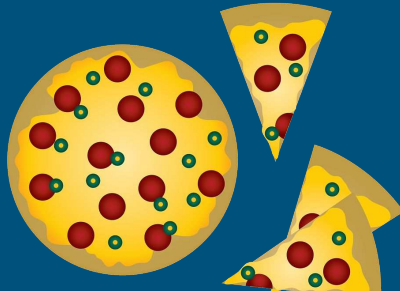
# Green Team sponsored a Solar Oven Challenge as an extracurricular STEM activity for the whole student body



**The Challenge:** To build the best solar oven. The best solar oven will be the oven that goes up the most degrees Farenheit after sitting in the sun for a two hour period. In the event a tie, the oven that uses the least amount of materials will win.

**The Prize:** \$60 gift card to the first place team, \$40 gift card to the the 2nd place team and \$20 gift card to the third place team. Gift Cards will be to place of winners choice. Top teams will be featured at Krueger's Energy Fair on March 15th.

**The team:** Teams can be one to four Krueger Middle School students. Teams need to sign up with Mrs. Triemstra on Wednesday, February 21st on the Colt's carpet during the lunch/activity time hour. Only the first thirty teams will receive supplies and be allowed to come to the three build sessions.



# More Solar Oven Challenge details

**The materials:** Each team will receive:

- 1 set of basic directions that can be modified
- 3 feet of Heavy duty aluminum foil
- 1 pizza box
- 1 turkey roaster bag
- 2 sheets of black construction paper
- 1 paper plate



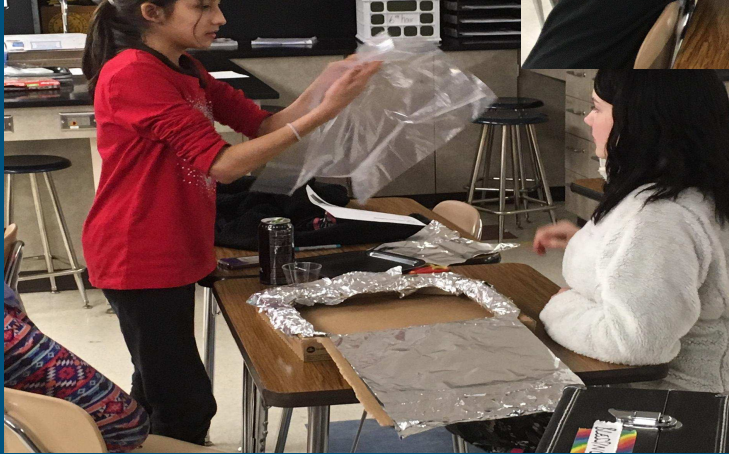
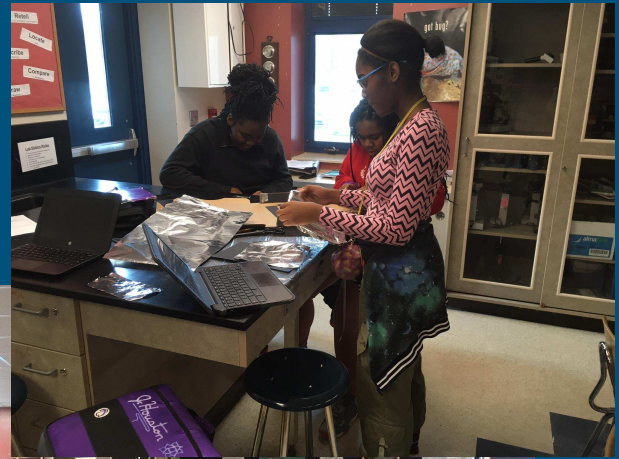
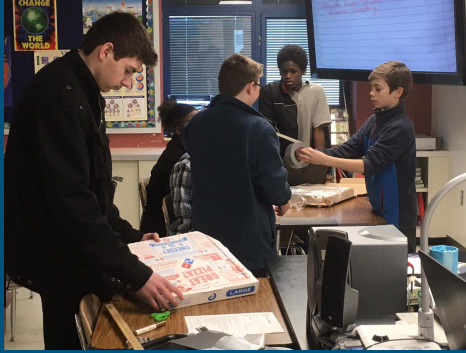
Thank you Pizza Hut and Dominos for  
Donating Pizza Boxes!

**The Rules:** Teams can build at home or at school. Build time will be provided Thursday Feb. 22 and March 1 and 8 in Room 103 from 2:30-3:30. Rides must be here promptly at 3:30. Late rides can result in disqualification from the contest. Students building at school will also have access to the following materials: tape, scissors, glue, rulers, markers, string, etc...

Teams can make modifications to the directions and add additional materials other than those provided if they see fit. All ovens must open for a thermometer. All questions should be directed to Mrs. Triemstra.

**The Deadline:** All ovens must be turned in for testing by March 8th at 3:30. Tests will be held on the first sunny week day after March 8th.

# The build...





# THE RESULTS...

1st Place: Bobby 7th grade

2nd Place: Taylor, Autumn, Christina 8th grade honors team

3rd place: Lezley, Bailee, Rosa 8th grade



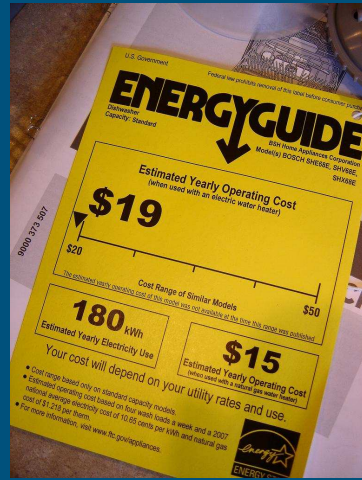
45 students  
Participated  
in 15 teams



# Energy Audit

Students participated in an Energy Audit throughout the school with an Energy Manager from NEED to see how well our building uses energy and decide what we could do differently.

Students visited a classroom, a commons area, the boiler room, the gym, and the cafeteria kitchen. Students also got to go outside and tour the brand new solar field and see how it works just as it went operational.





# Energy Audit Findings

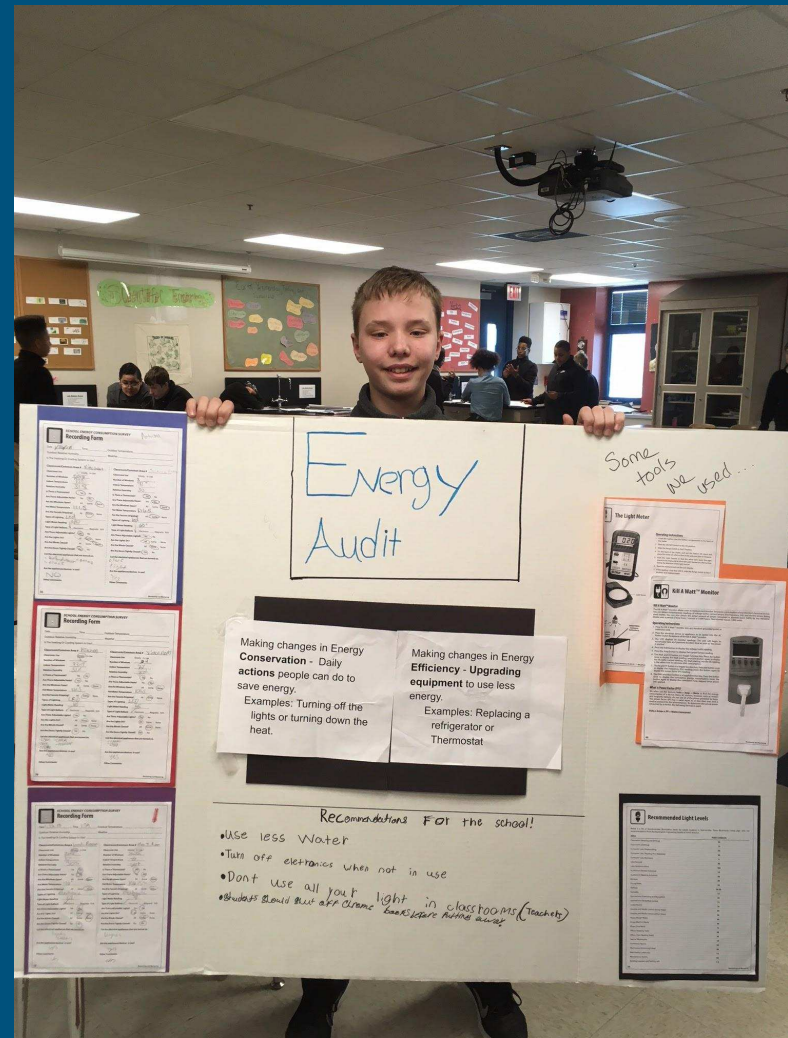
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Students discovered our school has a lot of energy savings devices already such as LED lights, lights on motion sensors, and flat screen tvs instead of projectors.

Recommendations from students for changes included:

- Using only one set of lights in classrooms
- Turning off lights and electronics when rooms are not in use
- Students powering down chromebooks between classes
- Turning off chromecarts on weekend

# Students presented their findings at the Energy Fair



# Solar Panel Ribbon Cutting Ceremony

Michigan City Area Schools invested in Solar Panels for most of the district this year. Our school was lucky enough to receive a field. Our students were the first set to get to go out and see them during our Energy Audit. The Green Team was invited to the Ribbon Cutting Ceremony for the whole district. The winners of the solar oven challenge got to show their projects as well as some of the students with boards for the energy fair.

Link to News Coverage:

[http://www.thenewsd Dispatch.com/news/article\\_dd0f8224-02ce-5661-81d7-6b693b43570b.html](http://www.thenewsd Dispatch.com/news/article_dd0f8224-02ce-5661-81d7-6b693b43570b.html)

Link to Video about Solar Panels:

<https://youtu.be/2B2WaKGBv2U>



# Energy Fair

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Students put together an amazing Energy Fair for the community featuring games, prizes, Information booths, vendors and more! Here's a list of the table assignments for the fair:

## Student Tables:

Table 4: Passports (enter to win a \$50 gas card from BP)

Table 1-3 and 8 games

Table 16: Prize Table

Table 20: Energy Audit kids

Table 21: Energy safety and contracts

Tables 22: Solar oven challenge winners

Table 23: Solar/wind student project displays

Tables 24-25: Energy source display boards

## Vendor Tables:

Tables 9, 10: Performance Services

Table 12: Paneccia Heating and Cooling

Table 6: Kankakee Valley REMC

Table 14: Nlpsco

Table 5: MCEA

Table 11: Pro Services Hardware Company

Table 7: YMCA

# Energy Fair Outcomes

Performance Services (the solar panel company) came to our energy fair and brought a solar panel with them!

Over 200 students, parents, and community members from around the district (including a City Council member) attended

NJHS, Green Team, Student Council and other students from classes ran the fair

Link to the News coverage of the Event:

[http://www.thenewsd Dispatch.com/news/article\\_9d37da31-1c8f-5193-b683-3fd02c2d80e3.html](http://www.thenewsd Dispatch.com/news/article_9d37da31-1c8f-5193-b683-3fd02c2d80e3.html)

Link to Energy Video from the fair:

<https://pressmc.wistia.com/medias/bgjp1xzlu4>



# Energy Fair Pictures!!!!

