

Saint Agnes Catholic School

Project Title: Greener Campus and Energy Outreach

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The 4th/5th grade Energy Club wanted to make our campus more green and we wanted to share with educators and the community why energy education is important to students. To make our campus more environmentally sound we decided to tackle the idling that occurs on our campus which pollutes the air both inside and outside our building and we wanted to begin a composting program. We spoke to our Facilities Manager, our Kitchen Manager and our Administration about these concerns and how best to make a difference. We raised money to fund idle free signs for our campus and to purchase a compost bin. We interviewed our bus drivers, collected data on how long cars and buses idle, and we researched what the health risks are of idling. We created a sign for our kitchen staff to use to begin composting and collected data on how much compost will reduce what goes into our landfill. We are speaking to our PTO and our Administration to reduce idling at school. We have spoken on our school news about idling and composting and we are presenting these topics at our science fair to teach all the students about these concepts. We spoke to Miller Transportation, the company that supplies buses and drivers for all the Catholic Schools in the Archdiocese, about the environmental impact their buses create across the city. We will be assisting in the training of all bus drivers in August when the bus drivers get ready for the new school year. Our cafeteria staff have begun composting and have been assisting in training all staff in the kitchen to ensure this program is successful. Lastly, we presented with NEED at the CCLC Multi-State Conference in Louisville, KY as well as to Miller Transportation for whole city policy changes in Louisville, KY.

Goal #1

Our first goal is to reduce idling on our campus for both our cars and our buses.

Activities and Tasks:

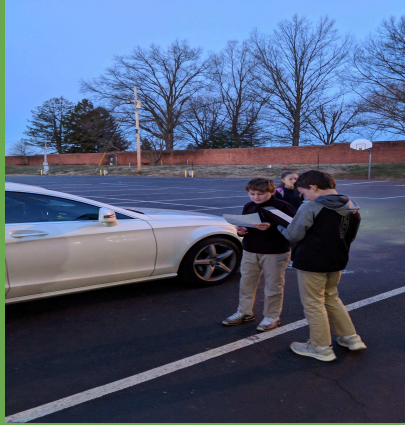
- Research idling and its health risks
- Collect data on length of time cars and buses idle
- Talk with Administration and Facility Manager about solutions
- Raise money to purchase IDLE FREE Signs
- Educate parents about the environmental impact from idling
- Interview bus drivers about their idling and policies with bus company
- Visit and present to Miller Bus Company regarding idling and their policy
- Share information gathered with the school community at our Science Fair

Energy Content and Resources:

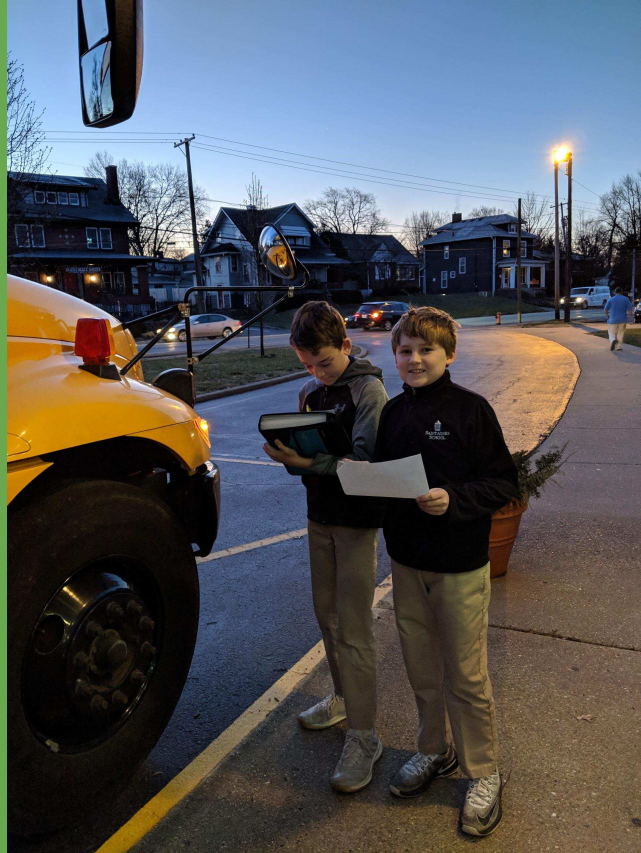
- Mr. Tom DeSpain - Facility Manager
- NEED and KGSB websites

Goal #1 Continued

Student Leadership: Student energy team members completed research, collected data, took pictures, created a slideshow, interviewed the bus drivers, and our Facility Manager. Members took all this information to create a presentation for our PTO and for the bus company about reducing idling and the effects idling has both on the people in the buildings as well as the air outside. Energy team members created an information board to present to staff, students, and parents from our community at our science fair on May 1, 2019. Energy club members held a bake sale to raise money to purchase IDLE FREE signs to install on our campus. Energy team members went to Miller Bus Company to discuss with them about a no idle policy for our school but also for the entire Archdiocese of Louisville for whom they drive. Miller has now invited these students to lead part of the bus driver training for next school year. This presentation will be held in August 2019. This training will train all drivers for the Catholic Schools in Louisville.



Collecting Data on how long buses and cars idle on our campus.



The questions we are trying to answer are:

- How long do busses and cars idle at our school/campus?
- Do buses idle longer than cars?
- How does idling affect the air quality?
- What can we do to prevent idling?
- What are other schools doing?

Bus

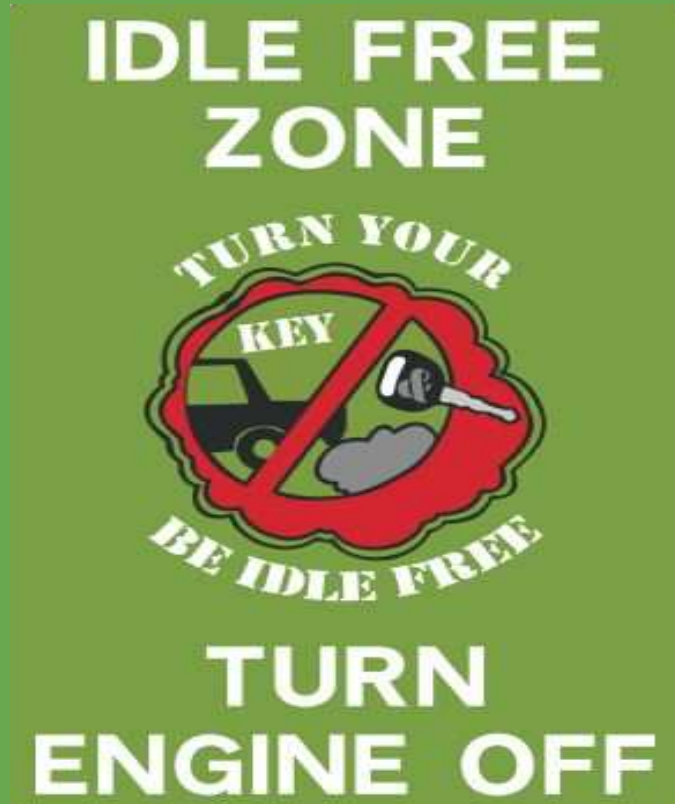
Day 1	Day 2	Day 3
2/21/19	2/28/19	3/14/19
28 minutes	36 minutes	11 seconds

We think that on warmer or colder days more people may idle more because of the weather. We also think that the cars we do have down for idling may have idled longer because we were only out there a certain amount of time.

Car

Day	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	Row 7	Average
1	23 min.	7 min.	15 min.	9.5 min.	10 min.	5 min.	7 min.	11 min.
2	5 min.	7 min.	5 min.	2 min.	3 min.	5 min.	3 min.	4.3 min.
3	10.5	2 min.	9 min.	0	0	0	0	3.07 min.
4	34 min.	17 min.	0	0	0	0	0	7.3 min.

We ordered signs to post around our school and we had a meeting with Miller Transportation in Louisville. We will soon be hosting a science fair to share with students, families and the community.



Goal #2

To reduce the amount of waste from our cafeteria.

Activities and Tasks

- We researched what other schools do.
- We researched what can be composted and what can't be and made a chart for the cafeteria staff to use.
- We researched how to compost and time required as well as cons to composting.
- We interviewed the cafeteria manager to discuss what they do and would be willing to do.
- We collected data on how much we could reduce our waste by composting.
- We discussed how to get the compost to our compost bin and composting our grass clippings and yard waste with our Facility Manager.
- We met with Administration to be sure we could enact these ideas.
- We held a bake sale to raise money for a compost bin.
- We held a t-shirt sale to raise money, too.

Energy Content and Resources:

- Interviews with Cafeteria workers and bus drivers
- Master Gardeners Association input on composting
- KG&HS resources online
- Energy sources from NEED.org

Goal #2 continued

Leadership:

Students on the energy team gathered information from a variety of resources (speakers, research, collection of data, interviews with Cafeteria Manager and Facility Manager, and the Master Gardeners) and created a presentation. They talked to the cafeteria staff to make a plan on composting and recording the weight of the compost daily. They created a chart to hang in the cafeteria to tell what can be composted and they coordinated with all the students in both 4th and 5th grade to bring in food items to sell at our bake sale. Students also spoke on our school news about composting and why we want to do this. We used the funds to purchase a compost bin and worked with our Facility Manager to help get the compost from the kitchen to the bin as well as where to put it.

Bake Sale Pictures



Compost Data

Date	Composting
March 19, 2019	8 1\2 Pounds
March 20, 2019	3 Pounds
March 21, 2019	5 Pounds
March 25, 2019	3 Pounds
March 26, 2019	4.5 Pounds
March 27, 2019	2 Pounds

Composting



Goal #3

Our third goal was to speak publicly about NEED and about the impact energy education has on students and the opportunity NEED gives us to share our view regarding important issues in our communities.

Activities and Tasks:

- We created projects that are important to our school community and researched how this impacts our campus.
- We asked to speak with agencies related to our goals such as Miller Transportation, our school Governance committees, PTO, School Board, Summer Picnic Board and we reached out to NEED to form a partnership and speak at the CCLC conference in Louisville, KY.
- We created power points and presented to all of the above groups
- We researched our topics and gathered data to support our views.



Goal #3 continued

Energy Content and Resources:

- NEED.org
- Information and data from above goals
- NEED information books
- KGHS website - greenschools.ky.gov

Student Leadership

Each member of the energy team took on an area of the project to lead. Some were in charge of research, some data collection, slide show presentations, interviews, and taking photos. All members participated in the presentations to PTO, Administration, Miller Bus Company and the CCLC conference. There were a no fewer than 20 people at Miller Bus Company, and there were around 30 participants in each of the 2 sessions at the CCLC conference that we presented for. We spoke to the entire student body on our school news and at the science fair there will be most of the school in attendance as well as the community and parents. We were interviewed and became the cover of the Louisville Area Magazine and our club was put on the Miller Transportation Facebook page as well as the NEED.org Facebook page.



At the 21st CCLC Multi-State Conference in Louisville, NEED students from St. Agnes helped present NEED's session "Recognizing Student Achievement: Energizing STEM"

They shared how they put together their youth awards project & how they incorporate our "Kids Teaching Kids" philosophy in the classroom <3

What exactly is youth awards? Check it out -->

www.need.org/youth-awards

Link to post on Facebook for NEED:

<https://www.facebook.com/197421260967/posts/10157924315550968/>

Facebook link for Miller Transportation:

https://m.facebook.com/story.php?story_fbid=10216637823710272&id=1000556350#_=_

Evaluation

For our evaluation..

- We collected data and analyzed it to make informed decisions. Our bus idle times were reduced to seconds.
- We interviewed our Facility Manager and our Kitchen Manager to ensure their support of our efforts.
- We raised money to purchase 3 Idle Free Zone Signs and a large compost bin.
- We spoke about our project to Administrators, Miller Bus Company, students and staff.
- We participated in leadership within our community by speaking to the bus company about idling policies for the entire Archdiocese of Louisville and will participate in the training of over 50 bus drivers to reduce idling across the city in August.
- We spoke about our project at the CCLC Conference.
- We were interviewed and selected to be in our Louisville Area Magazine for the Super Kids edition.
- We will host a science fair to present to our school community about our composting and Idle Free Campus.
- We will be speaking at our PTO meeting and at the Saint Agnes Carnival Committee meeting when it meets this spring.