

St Margaret Catholic School
Lake Charles, La

Sponsor: Judy Reeves

Student leaders: Emily Guillory, Vega Hayes, Audrey Viney,
Ava Moton, Maria Lafleur, Owen Pousson, Cash Monroe, Cydnee Harris
Jr Level



Pro Terra Nova; For a Good Earth

This past school year has brought many opportunities to our St. Margaret Catholic School Science Club. Over the past couple years, our school has undergone several big changes, but Science Club has given students the chance to learn and enjoy themselves despite everything. Our main goal this year was to get all of the students from our school to learn about the importance of recycling, and how to take action. Our first project of the year was establishing a recycling program. Every Monday, junior high students empty out the recycling bins in every classroom. We also put up posters around the school to promote recycling. Another project we had was the Cameron Beach sweep. We filled 25/50 gallon bags with trash. Also on Cameron Beach, we participated in coastal restoration where we planted grass along the coast to preserve the energy of the Gulf of Mexico. We also wanted to promote energy awareness, so we invited St. Louis to start their own recycling team. On January 2, we had a Zoom meeting with the Department of Energy to explain our eighth-grade energy house project. The sixth graders also helped by using circuits to build roads and street lights. Our most recent project was creating homemade solar ovens to better understand solar energy. This year's activities benefited us in many ways, such as growing in partnership with each other and developing a greater understanding of our world and how energy affects us.

GOAL # To teach students at St. Margaret Catholic School pre-K -8th grade how to recycle using our recycle center; get parents involved in our city recycling program; and to encourage another schools in our parish to recycle.

ACTIVITIES AND TASKS :

1. Obtained permission from Wendy Wicke to conduct the activity.
2. Found site on campus for recycle bins and a date that recycling krewe can collect paper, aluminum, and plastic
3. Arranged with city recycling center for weekly recycling pickup
4. Updated Pepsico Recycling Rally Recording Site
5. Talked to classes about recycling ;introduced what is Biomass
6. Placed Earth week city-flyer on recycling locations
7. Held a school wide contest on recycling plastic and aluminum
8. Invited St Louis to join the City school wide program on recycling

ENERGY CONTENT : NEED's Talking trash, Info book biomass, www.need.org website, City of Lake Charles Parks, and Mr Eric the janitor, Mrs Judy Reeves Teacher

STUDENT LEADERSHIP : (lead Maria and Audrey) **Elementary Classroom Team** Owen Pousson, Logan Biven Vega Hayes , Cydnee Harris, Ava Moton **Jr High ClassroomTeam:** Audrey Viney, Maria, and Zach Created recycling Leader Groups from 7th and 8th grade students made of 3-4 students the teams recycling paper and plastic bin audit of each classroom, scheduled for Monday at 7:00am as recycle day , they made posters with procedures and hung in the hallways after teaching the teachers
Earth week the recycle team will hand out city flyers from 7:10-8:00 April 24,2023 a school wide recycling drop off.

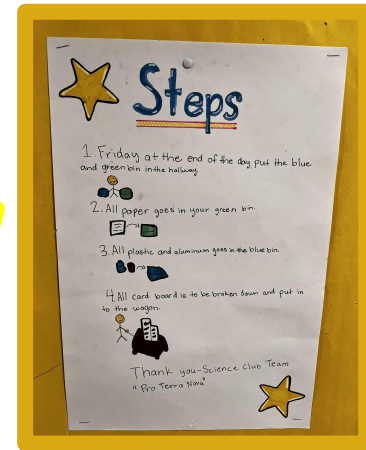
EVALUATION: The amount of class participation and plastic and aluminum collected over 7000 pounds of recycling recorded on Pepsico recycling site ; How successful the invited school is in recycling Students now have 99 gallon rolling bins in different location for all students and all classrooms have blue bins we donated

Recycling In our School

5 days of Energy Fun with 25 students and led by students



Club members building multi recycle bins for the school (two stations in the hallways)



Monday morning recycling: Elementary Building Team



Community Recycling

All year long recycling totaled over 7000 pounds of recycling!!



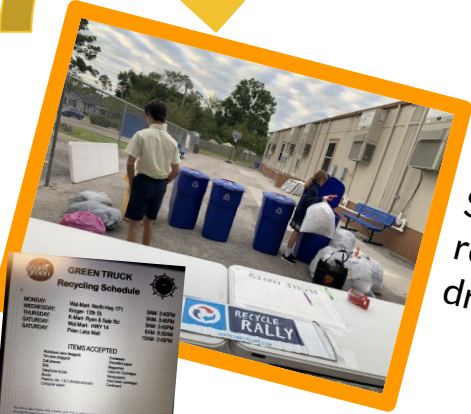
Calca Chew Food Festival Club president and vice president loading recycling into Mrs. Reeves truck. We collected 330 pounds of recyclables!



Students helping out with the Recycle Rally Collecting Over 500 pounds of recycling in one day



Students sorting and recording and dropped off recycling.



GREEN TRUCK Recycling Schedule	
MONDAY	8:00 AM - 12:00 PM
TUESDAY	8:00 AM - 12:00 PM
WEDNESDAY	8:00 AM - 12:00 PM
THURSDAY	8:00 AM - 12:00 PM
FRIDAY	8:00 AM - 12:00 PM
SATURDAY	8:00 AM - 12:00 PM
SUNDAY	8:00 AM - 12:00 PM
ITEMS ACCEPTED	
Aluminum	Cardboard
Plastic	Flammable Liquids
Styrofoam	Household Appliances
Refrigerators	Washing Machines
Freezers	Stoves
TVs	Refrigerators
Washing Machines	Stoves
Stoves	Refrigerators
Refrigerators	Stoves

Adopt a School Recycling



Way to go St. Louis High School students collecting the recycling at their school!



Plastic bins for the Junior High building and donation to St Louis High School

Goal : To Identify the Home envelope by creating Energy Houses, describe efficiency and conservation measures for the home and collect data during test identifying which house had the best insulation.
To add solar power to the homes and streets to make the area a village

ACTIVITIES AND TASKS

1. Obtained permission from Wendy Wicke to conduct the activity with NEED and the Department of Energy
2. Had meeting with Louisiana Department of Energy, NEED Via Zoom, and set dates for zoom and the build
3. Secured week to build and collect supplies for Home models , And 6th grade Street project
4. On the meeting date of the Energy House Zoom Meeting with NEED and Louisiana Department of Energy ; secure time for 8th grade classes to attend and 6th grade classes to attend.
5. Day of test make sure both classes can attend at the same time.

ENERGY CONTENT AND RESOURCES

- Energy House and Kit
- Sidekick Circuits activity
- NEED Resources
- Louisiana Depart of Energy

LEADERSHIP - Student Leader: (Lead Cash and Owen) Emily Guillory, Vega Hayes, Ava Moton, Cydnee Harris, Audrey Viney, Maria LaFleur , Owen Pousson, Cash Monroe

- 2 Student leaders per team were assigned per energy house group. Each group created and designed their house according to the NEED building code but was allowed freedom on the design and decoration of the exterior ann yards were measured and cut the same size.

Student Teams : 8th grade CLASS 1:

Lass 2 **6th grade Class 1: Class 2**

EVALUATION 1. Louisiana Department of Energy came into the class and ran a test collecting data every 1 min for 20 min the group min we recorded the data the student with the largest varent won .. in class 1 : Group Karsyn, Eli , and Sophie won and for favorit design was a tie Cydnee And Lily / Maria and Ava's houses Since we piloted the roads and all designed the same we discussed what went right and wrong Parallel circuits using foil tape don't work it was to long on a run so went to simple circuits to light the street light and made switches which worked 90% of the time .

Energy Houses

We designed HMO and followed Building code set by NEED, researched insulation and roof pitch, drew schematics, and did a Zoom meeting with Mr Tyler on efficiency vs conservation. Then Mrs Robin and Mrs Leigh Ann came in and we tested our homes for the most efficient insulation; Team Karsyn, Lily, and Eli won.



Team Karsyn, Lily, and Eli

Two teams tied for beautiful homes, it was Cydnee and Sophie, and Maria and Ava



St Margaret Energy Village

Criteria

- 3 weeks
- Must use Ray Sures
- Must have working solar to light a light or wire
- Must be dramatic
- Must have a yard
- Follow all building codes
- HOA

Problem:
How to insulate a home to keep the cool air in and the hot air out?
(Zoman)

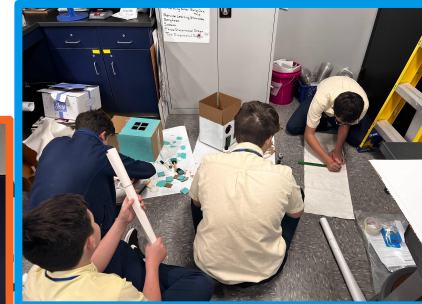
* You are researching Roofs

* Research what is an HOA
Home Owners Association
* 1 No Business, No Partnerships in our neighborhood

Steps for follow up activity

HOA Home Owners Association

https://youtu.be/Yrsw4pJ_M7I?si=QAUrpLsj_GAxpZc



8th grade goals (building codes and research) , process the build , and completion successful construction and test(by the Department of Energy and NEED

Goal : Students at S. Margaret Catholic School's Goal is to educate the students, staff, and parents on Solar energy.

ACTIVITIES AND TASKS

1. Obtained permission from Wendy Wicke I to conduct the activity. - Emily
2. Had classes 5-8 grade participate in Solar oven activities with the Department of Energy / NEED
3. Planned event around April 8 Solar Eclipse
4. 6th grade STEM Class read book And made Chameleons (awareness on sun damage to skin)
5. 6th grade Energy Works Light and Energy activities

ENERGY CONTENT AND RESOURCES - 1. NEED's Energy Works ; Chameleon activity, Solar and solar oven oven activity : Eclipse . Energy websites linked to www.NEED.org STUDENT Youtube Robert Griegoliet

2. Department of Energy Robin Narez
3. NASA Eclipse 2024 April 8
4. Energy websites linked to www.NEED.org STUDENT

LEADERSHIP : (Lead Ava and Vega) Emily Guillory Headed the Solar Eclipse and Energy Day ; STEM Activities had 6th grade group leaders

EVALUATION 1.completion of solar ovens (57) 2. Number of participating teachers and students. (82) All the students 5-8th grade made smores on Friday April 12..

3. Completion of Chameleons and identification of usage for chameleons in the real world (24)

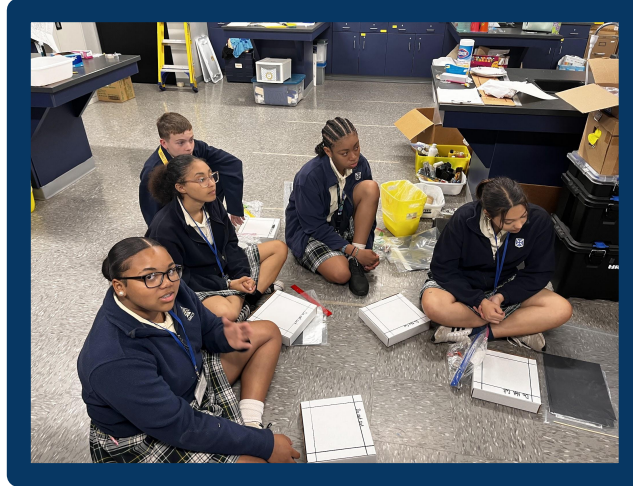


Feel the Power of the Sun!!

Robin Narez, and Leigh Ann Smith from the energy department helped us build 53 solar powered ovens!! Mrs. Reeves bought all the stuff to cook Smores on Friday. We made 80 Smores.



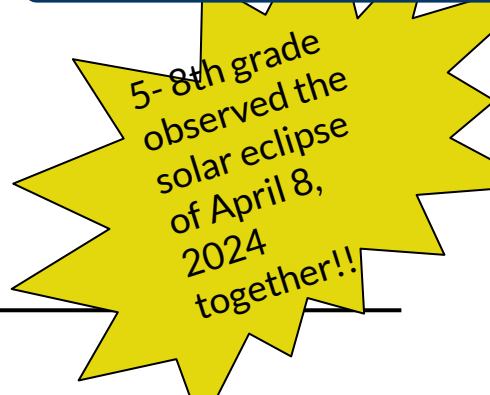
8th grade boys making solar ovens.



8th grade girls making solar ovens.



7th grade watching the solar eclipse.



5- 8th grade observed the solar eclipse of April 8, 2024 together!!



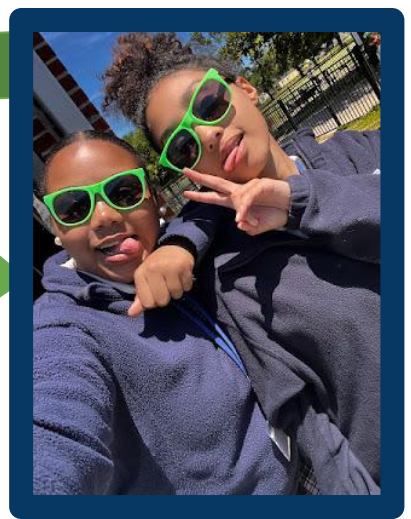
Feel the Power of the Sun!!



8th graders enjoying smores cooked with solar ovens



7th grade enjoying lunch and smores



8th grade girls



STEM: Chameleons and Solar Energy



Great to take
to the beach to
know when to
apply
sunscreen



This was
an
amazing
project!

Goal: To identify the energy from the Gulf of Mexico and its effects on our coastline of Louisiana.

Activities and Task:

1. Speaker on Louisiana Coastlines : habitat of Louisiana Coast line
7th and 8th grade planted Bitter panicum which grows on coastal dunes, in interdunal swales, overwash sands, wet sandy soils, low fertility soils, and the margins of swamps.Great habitat for sea birds , preventing coastal erosion
2. How to prevent coastal erosion : Participating in <https://www.crcl.org/> Coalition to Restore Coastal Louisiana
3. Reducing ocean pollution; by participating in Cameron Parish Coastal Recycling programs

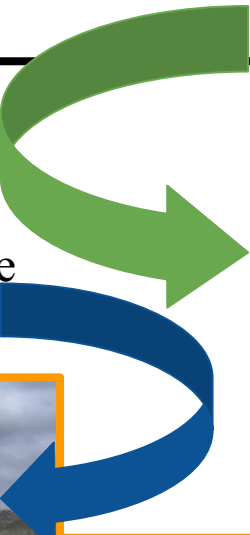
Energy and Resources : Hydropower NEED ; Exploring Ocean Energy and its resources NEED;
Coalition to Restore Coastal Louisiana ; Keep Louisiana Beautiful

Leadership:(Lead Emily and Cydnee) Vega Hayes, Ava Moton, Audrey Viney, Maria LaFleur , Owen Pousson, Cash Monroe

Evaluation : Students planted 10,000 plugs of Bitter Panicum to prevent the energy from the Gulf of Mexico from coastal erosion; students on September collected 25/50 gallon bags of trash and debris from a 5 mile stretch of beach along the Cameron coast preventing water pollution. We had several Professors form LSU and Department of Wildlife and fisheries teach about Bitter panicum and native wildlife and how planting grass and cleaning the beach would heal our environment.

RESTORING THE COAST

The 7th and 8th Graders went on a field trip to help restore the coast! Rutherford Beach in Cameron Parish on the Gulf of Mexico.



Plant beach grasses in southwest Louisiana!

We invite you to join us in Cameron Parish at Little Florida Beach to plant dune grasses! We will be planting 10,000 plugs of a native beach grass (*bitter panicum*) that will assist in growing and stabilizing beach dunes with the intention of preventing erosion and creating wildlife habitat.

Please register in advance to volunteer

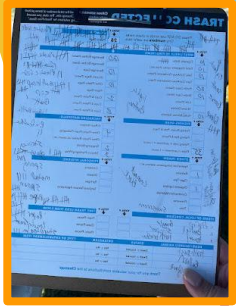
Friday, October 6

We planted over 10,000 plants! Panicum amarum (Bitter Switchgrass)

The process was one person digging holes and the other planting the grass. Then they both covered it up with sand. We also put seaweed on the fresh planted grass to help it grow quicker.

Preventing Pollution

The Science club worked with Cameron Parish Beach Front Development and Keep Louisiana Beautiful to help prevent pollution in the Gulf of Mexico and Coastline! We cleaned Mae's Beach to Holly Beach in Cameron Parish on the Gulf of Mexico Saturday, September 16.



We collected 25 bags of trash and loaded large debris on carts .. we covered a 5 mile area and two beaches

