

Louisiana St Margaret Catholic School Sponsor: Judy Reeves Student Leader: Ava Suire, Paige Robertson, Megan McGee, Sicily Willis









St Margaret Catholic School Lake Charles, La Sponsor: Judy Reeves Student Leader: Ava Suire, Sicily Willis, Meagan McGee, and Paige Robertson

At The start of the school year 2022 we decided we needed a better plan for our recycling team. As a club we put together a school map and planned out what teams would do elementary wing ,what teams would do the Jr high wing , and what team would do administration. Working with Mr Erick and Mrs Reeves it was a successful undertaking. Maddy and Ryan were the team leaders on this project and recorded the information weekly on the Pepsico website.

We also collaborated with The Louisiana Department of Energy on when we could plan and carry out the Energy House project and Energy Expo Events . Working with our school Principal Wendy Wicke and Mrs Narez from LDOE we set the dates for March - April. The Energy house where a huge success the the NEED zoom Class and a visit from LDOE and both 8th grade classes working in teams of two. We were told we had created the best houses in Louisiana . We will host our Energy Expo after Easter Break on April 19-and 20, teaching 145 students about energy ..

GOAL # students teaching students how to recycle, when to recycle, and spreading the word to parents on the city wide recycling program.

- 1. Obtained permission from Wendy Wicke I to conduct the activity.
- 2. Find site on campus for recycle bins and a date that recycling krewe can collect paper and plastic
- 3. Arrange with city recycling center for weekly recycling pickup
- 4. Update Pepsico Recycling Rally Site
- 5. Talk to classes about recycling ;introduce what is Biomass
- 6. Earth week Hand out garden bags and city-flyer on recycling locations
- ENERGY CONTENT : NEED's Talking trash, Info book biomass, climate , <u>www.need.org</u> website, City of Lake Charles Parks, and Mr Eric the janitor,
- STUDENT LEADERSHIP : **Madisyn Morrow, Ryan Williams** Created recycling Leader Groups from 5-8 grade students made of 3-4 students and Science Club recycling team : Science club 8th grade students performed a recycling paper and plastic bin audit of each classroom, scheduled Friday as recycle day , and announce every Thursday to put bins in the hallway. Earth week the recycle team will hand out garden bags with city flyers from 7:20-7:40 April 21 And on April 24th a school wide recycling drop off will take place . EVALUATION: Recording weekly recycling on the pepsico site , Earth week we will hold a recycling Day
- Contest for the community on April 24th collecting plastic and aluminum for community awareness .
- Entered Recycling video see link
- Exceeded plastic and paper recycling goal by over 1000 pounds 2023 on Pepsico site see picture (Slides 6-8)

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.

ACTIVITIES AND TASKS

- 1. Obtained permission from Wendy Wicke I to conduct the activity.
- 2. Have meeting with Louisiana Department of Energy and set dates for zoom and the build
- 3. Secured week to build and collect supplies for Home models
- 4. On the meeting date of the Energy House Zoom Meeting with NEED and Louisiana Department of Energy ; secure time for both 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
 - NEED
 - Louisiana Depart of Energy

LEADERSHIP - Briana Wimberly - Ava Suire

• 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 : CLASS 1: 1. Briana and Noah 2. Ava and Santana 3. Sicily and Briley 4. Sophia and Maddy CLASS 2: 5. Paige and Presley , 6. Megan and Eleanore, 7. Bo and Dylan , 8. Emily and Krystyna, 9. Ryan and Paul 9 teams in all..

EVALUATION 1. Louisiana Department of Energy came into the class and ran a test collecting data every 15 min we recorded the data the student with the largest varent won .. in class 1 : Group 1 and in class 2 : Group 5 The class then voted on the most unique design Prize went to House 5 : Prizes given by LDE Solar Charger, Medal, and all students received reusable straws. (Slides 9-10)

Goal : Students at St Margaret Catholic Schools Goal is to educate the students, staff, and parents on energy awareness and conservation ..

ACTIVITIES AND TASKS

- 1. Obtained permission from Wendy Wicke I to conduct the activity.
- 2. Had all classes in 2nd-7th grade sign up to participate in Science Expo
- 3. Secured 10 Outdoor canopy for students to host Energy Expo
- 4. Secured prizes for students who participate from local industry and university
- 5. Made invitations for the energy expo for teacher reminders
- 6. Followed-up with thank you notes and prizes to participating teachers .
- **ENERGY CONTENT AND RESOURCES** 1. NEED's Energy Expos, Energy Infobooks, EnergyWorks, Science of Energy,
- 2. Pamphlets from our local utility company
- 3. Encyclopedia Americana
- 4. Energy websites linked to www.NEED.org STUDENT
- LEADERSHIP Briana Wimberly Ava Suire Santana Hunt Sophia Dalovisio Madisyn Morrow Sicily Willis
- Paige Robertson Megan McGee Ryan Williams
- 2 Student leaders were assigned per energy source 1 Student coordinated the giveaways and incentives 2 Students ran the expo sign-ups • 1 Student hung up posters with helpers • 1 Student was in charge of invites and thank-you's • 18 Students led the expo
- EVALUATION 1. Evaluated the project with completed student-created evaluation forms. 2. Reviewed the evaluation forms from participating teachers and students. 3. TBA 4. A hundred forty five students attended the expo. (slides 11-13)

What Friday Recycling Looks Like!

Every friday our science club recycles pre-k3 to 8th grades















By recycling instead of requiring the production of new raw materials, St. Margaret Catholic School has saved as much energy as it would have taken to power a retail store for a full year. That's 25,000 kilowatt hours!

kilowatt-hours [kWh] per square foot per year) x size of 500 square feet. I lb, of Plastic #I (PET/ PETE): I5.935.6 BTU = 4.67386353 kWh I Ib. of Fiber / Paper: 28,200.9 BTU = 8,27125698 kWh I Ib. of Aluminum: 76,382.2 BTU = 22,40269173 kWh I Ib. of Other Metals: 32,992.7 BTU = 9,676665773 kWh

By recycling instead of requiring the production of new raw materials, St. Margaret Catholic School has avoided the production of greenhouse gases (GHG) that otherwise could have been offset by mature trees within 5 acres of U.S. forestland over the course of a full year. That's 4.25 MTCO2F

- Based on the fact that I acre of US forest sequesters 0.85 metric tons of CO2 equivalent (MTCO2E), and the fact that recycling: I Lb of Aluminum containing 30 cams serves 0.004565 MTCO2E I Lb of PET containing 20.5 bottles saves 0.00057 MTCO2E
- I Lb of HDPE containing I2 jugs saves 0.000445 MTCO2F
- I Lb of Other Plastics (defined as equivalent to "Mixed plastics" definition in EPA
- I Lb of Fiber / Paper (defined as equivalent to "Mixed Paper (primarily from offices)" definition in EPA WaRM model) saves 0.001875 MTC02E I Lb of Glass saves 0.00015 MTC02E

St. Margaret Catholic School has recycled materials weighing more than the weight of a GIRAFFE!

- Beady to earn your

St. Margaret Catholic School has recycled an amount of paper that could have been derived from IO OAK TREES.

Assumes paper recycled at school has the same composition as the "Mixed paper & Cardboard (primarily from offices)" stream defined in EPA's WaRM tool. Also assumes recycling paper is equivalent to using IOO% recycled paper. Referencing paper stream composition and Convervatree data, calculations determine that recycling I ton of paper at school is equivalent to saving I4.945 Oak trees (i.e. 133.824 lbs. of paper saves one oak tree). Oak trees are the primary hardwood used in the USA to produce paper commonly used in US schools.

St. MARGARET GATERLES STATES -STUDENT JOBS: RECORD COMMON AND DESIGN STRATE STRATES STRATES STRATES STRATES STRATES STRATES STRATES STRATES STRATES

Student

workers

And number

of students

per class

Talking Trash with **NEED** and earning awards with Pepsico





St. Margaret Catholic Church

SAVE THE DATE!

CALCACHEW IS BACK

Sunday, O... See more





GOOD FOOD, LIVE MUSIC, & COMMUNITY



Brewing Company



...

We collected 4.9 lbs Of recyclable materials in this photo

8th Graders Working Hard on Energy Houses!



Zoom Lesson on Energy from NEED

Research on insulation and sealing homes is an important part of building





















Energy Expo/ Carnival Prep



Energy Expo is When... April 19-20



Dressed and ready to invite 2nd-7th grade to the EXPO!



Mrs Reeves Designed a pattern for all the students to make a Hat as our costume so easy and fun!





<u>https://docs.google.com/document/d/1nxd7MxBtPdKsnL2Zp-TEPc8y7XsE-JDYLqM4af</u> <u>h1W-U/edit?usp=sharing</u> (energy hat instructions)











Energy Expo / Chant links

Ready for April 19-20 Testing moring and Expo afternoon .. Energy, Games, and Prizes (145 students)



RESTORING THE COAST

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





We planted over 3,000 plants!Panicum amarum (Bitter Switchgrass) All proceeds go to Science Club Projects \$10.00 admission

St Margaret Students 6th-8th Graders

Donce

inde



The Dance Included: Music, A Concession Stand, A Photo Booth, And Plenty Of Decorations; Everyone Wore Ugly Christmas Sweaters.