WARREN CENTRAL ENERGY MANAGEMENT CLUB

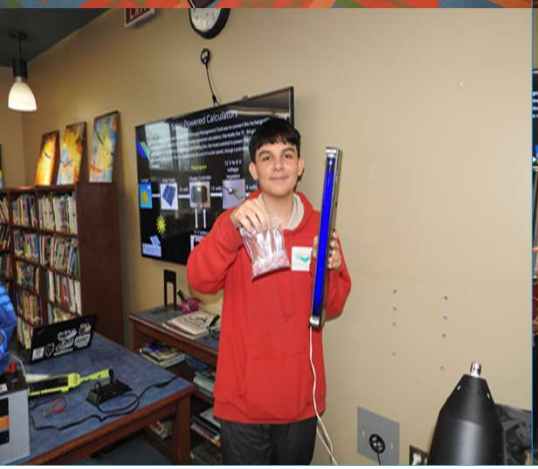
Project Title: Let's Teach Others About Solar Energy And Energy Sustainability

Advisor's name: Nathan Dick

During the 2023 to 2024 school year, the Warren Central High School Energy Management Club wanted to teach others about solar energy and energy sustailability while they also learned more about it. After thought was given, it was decided that there were no better place to do this in our community than Richardsville Elementary School. So, the club came up with a presentation and demonstrations to teach the students about solar energy and energy sustailability.

OUR GROUP





President:

- Eran Young (top left)

Members:

- Selena Sy (top right)
- Chris Castillo (bottom left)
- Eden Diaz (bottom middle)

Advisor:

- Nathan Dick (bottom right)

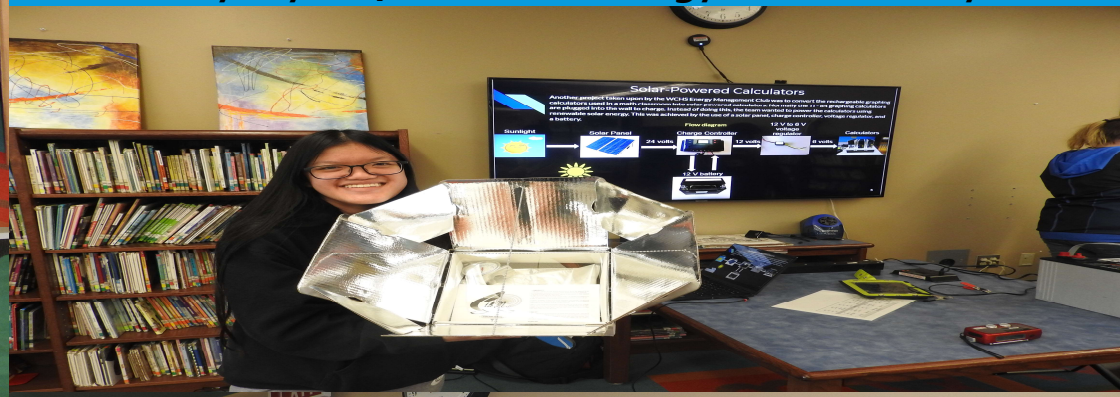
PROJECTS

1) Visit to Richardsville Elementary School to learn and present about solar energy, renewable energy sources, and energy sustailability

2) Selling UV bracelets to educate students and others about solar energy

3) Created a miniature solar updraft tower (picture to the right)

Members of the Warren Central Energy Management club took a day away from classes to visit Richardsville Elementary School (the first net zero school in the nation), where we learned how a net zero school works and then taught their students about what a net zero school means, what solar energy is and how we use it in everyday life, as well as energy sustainability.



GOALS OF THIS PROJECT

For this project, our goals were to tour the school and see how a net zero environment affects our community. We also wanted to show younger kids in the school and our community how being energy efficient betters our way of life. With this new information we taught the students, we hoped they would try and become more energy efficient citizens for our community.

SOLAR BRACELETS

One thing we did in order to educate students about solar energy was to show how uv solar beads change color when exposed to sunlight. The image on the top is before the bracelet was exposed to sunlight. The image on the bottom is the same bracelet after it was exposed to sunlight.

SOLAR OVEN

In order to educate fellow students about how solar energy can be used to cook, we took a solar oven and showed it to various classes and explained how it works. We explained that it can be used to cook a simple meal such as melting marshmallows, melting cheese, or more depending on how hot the environment is.

SOLAR PANEL

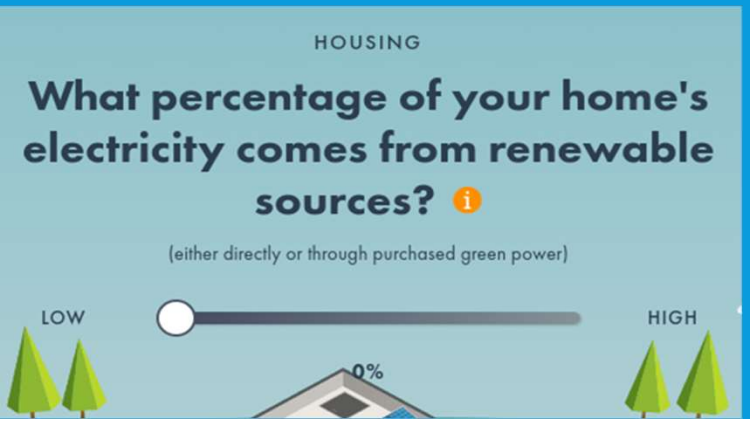
The club showed off solar panels to each class. These solar panels have a LED that lights up when the panel is getting enough light to give off a voltage. They were able to demonstrate turning on a light bulb with the setup.

AWorld

https://aworld.org/

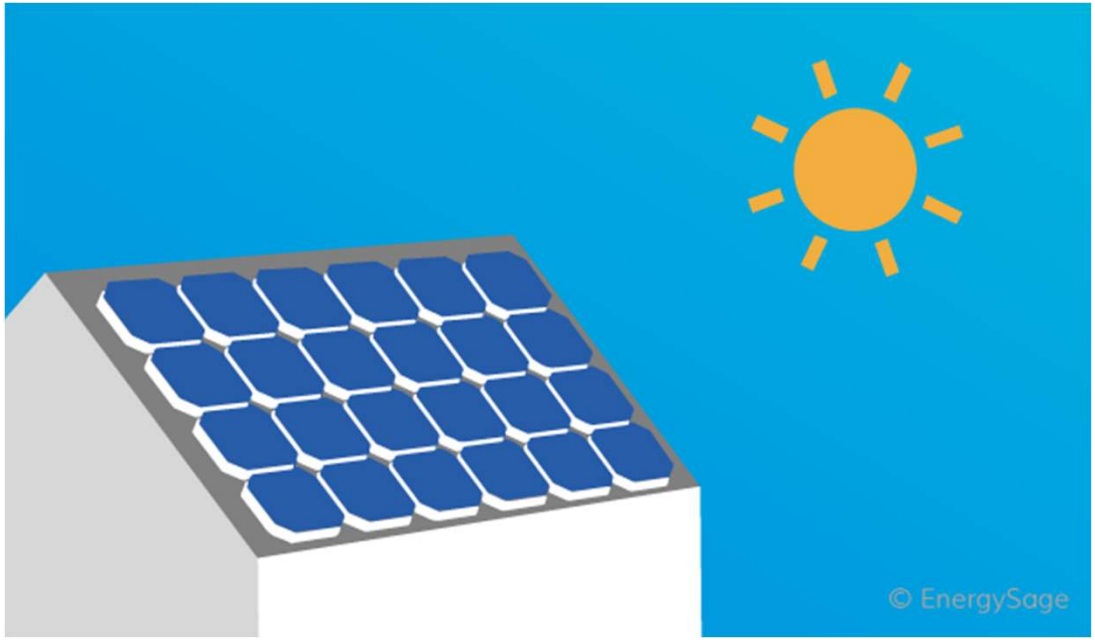
The AWorld app provides news, measures your global footprint, and teaches you to take action. There is a separate global footprint network survey that tells you how many Earths would be needed to live in your current lifestyle. If you're a child, have your parents take it. If you're an adult, see how you can improve on your energy conservation skills.

https://www.footprintcalculator.org/home/en (Scan QR Code)



What is Solar Energy?

Solar Energy is radiant light and heat from the sun that is harnessed with ever evolving technology such as Solar Panels, Solar Heater, and Solar Plants.



What is Solar Energy Used for?

Scientists are always developing new technology to give the world a better use of the sun.

We use it for things like

1. Artificial Harvesting (greenhouse)

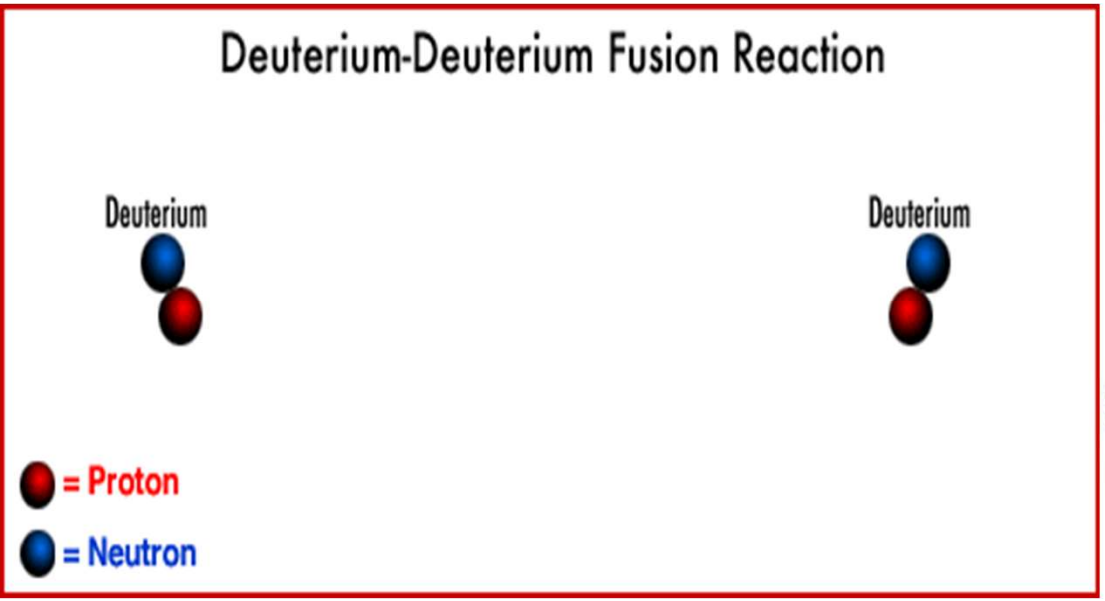
2. Solar light into homes or public buildings

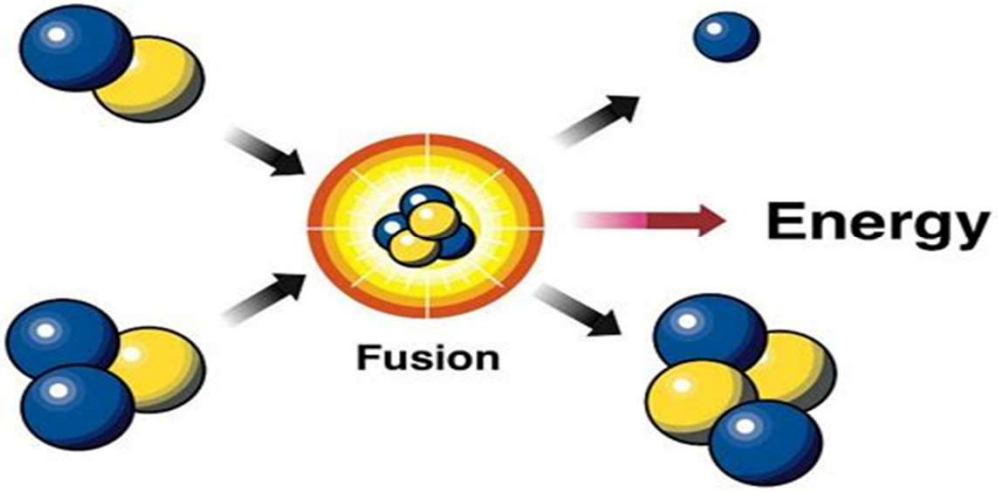
3. Turning solar light into electricity

4. Using sunlight to heat water

How Solar Energy is Made

Solar energy is created by nuclear fusion that takes place in the sun. Fusion occurs when protons of hydrogen atoms violently collide in the sun's core and fuse to create a helium atom. This process, known as a PP (proton-proton) chain reaction, emits an enormous amount of energy.





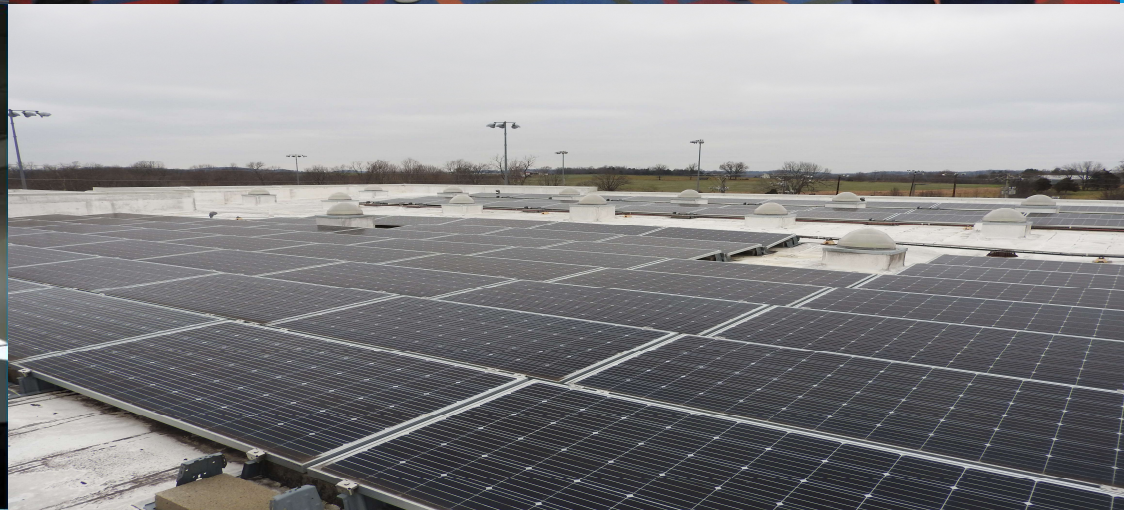
Why People use Solar Energy

People use Solar Energy for many reasons including

1. To save money on their electric bill

2. It can be used to help the environment by using the sun's rays instead of fossil fuels

3. It can illuminate (light) an area in a building



SPECIAL THANKS

We want to send a special thanks to the faculty and staff at Richardsville Elementary School who graciously allowed us to visit the building and present to their students. Also for the special tour they gave us to parts of the facility. Also a special thanks to all those who donated materials for the solar updraft tower.