



Show your energy spirit by supporting the Genoa seventh-grade Olympians help conserve energy and journey around Westerville to train future Olympians!

The 2018 Genoa Energy Olympics

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**Faster, higher,
stronger! Cheer
on the Genoa
Olympians for
their second
gold medal!**

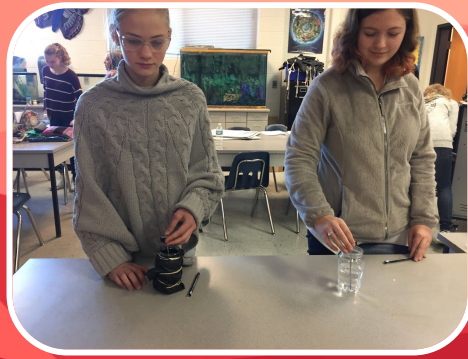
Mission Statement



Our mission was to explore energy throughout the olympics, the types of energy used in our country, and how to conserve and save different types of energy. We explored all this energy and knowledge through a variety of activities, from learning about energy resources during the fast paced Energy Relay to finding efficient ways to save energy in our own homes. We even received energy kits with energy efficient products to install to save energy in our own homes. At home, we tested the energy efficiency of our appliances using things such as a water flow bag, a thermometer to measure the temperature of our hot water, a draft meter to detect air leaks, and many more. We even learned about kinetic and potential energy transfers and transformations. We gained valuable knowledge and experience on energy that we can use every day. Finally, we shared all our energy knowledge by teaching 5th graders at a local elementary school using fun games and hands-on experiments, so they too could use this valuable energy knowledge in their everyday lives.

Insulation Information

We tried wrapping cups filled with hot water with paper bags, foam stripping, bubble wrap, wool sock, plastic bags, aluminum foil. To see which performed the best, we used thermometers to record the change of temperature.



Did you know that Olympic snowboarder Red Gerard forgot his coat on the day of the Olympics?



Our goal was to determine which material would keep in the most heat.

Foam stripping received the gold medal for the smallest difference in temperature. In last place was the plastic bag.

I am getting snowboard of all these skiers!



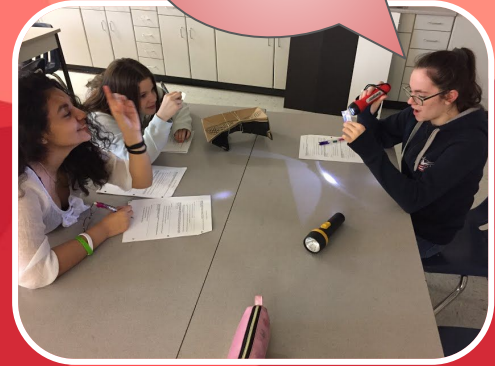
Our goal was to learn about different types of waves and how they move through mediums.

Rave Waves

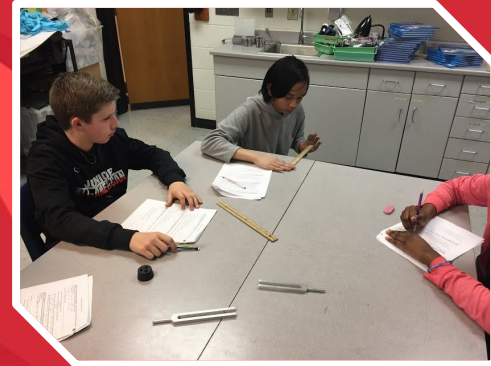
We did activities in class to help learn about longitudinal and transverse waves. In one lab, we used tuning forks in water to show the directions that waves travel. In another lab, we used a fork and yarn to observe how wave travel differently through different mediums. We also used a slinky in a lab to show the difference in the way that longitudinal and transverse waves move. Using a prism, we used flashlights to show the way that light reflects and refracts.



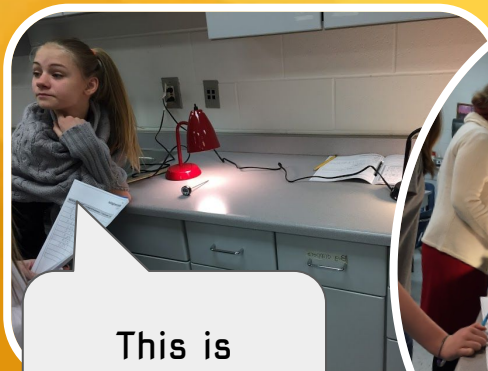
What did the light bulb say to the generator?



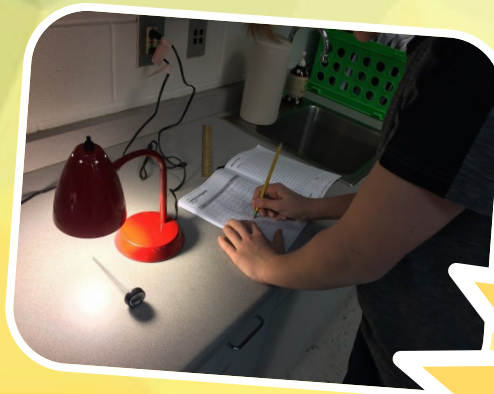
"I really get a charge out of you!"



An experiment was conducted to compare CFL, incandescent, and LED light bulbs by how they used their energy and how much thermal energy was created. We turned on three lamps with the three different bulbs at the same time.



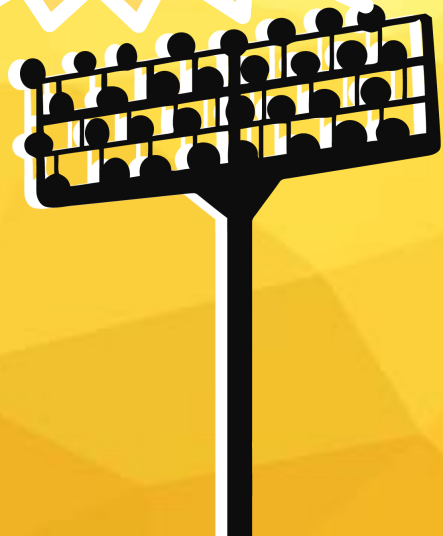
This is enlightening!



We measured the temperature of the bulb after each minute for 10 minutes and recorded our results on a chart. LED light bulbs produced the least thermal energy in 10 minutes and wasted the least energy.

Exciting Lighting!

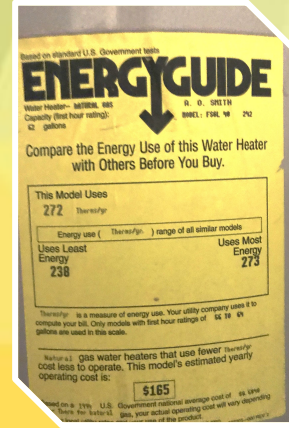
Our goal was to find which light bulb saves the most energy and money.



Home Conditioning

Our goal was to teach kids that you can save lots of money at home and make them aware of their impact on the environment. We shared information with the students and families about energy efficiency and conservation.

Why did Charlie Brown like luge so much?
They always said that he was a blockhead.



OEP Kit Contents:

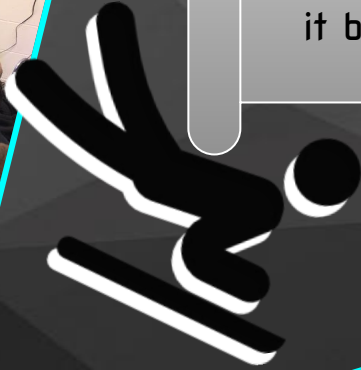
- CFL & LED Light Bulbs
- 3 aerators
- 1 showerhead
- 1 refrigerator/freezer thermometer
- Weather Stripping
- 1 LED Night Light
- 1 Water Temperature Thermometer
- 1 Water Flow bag



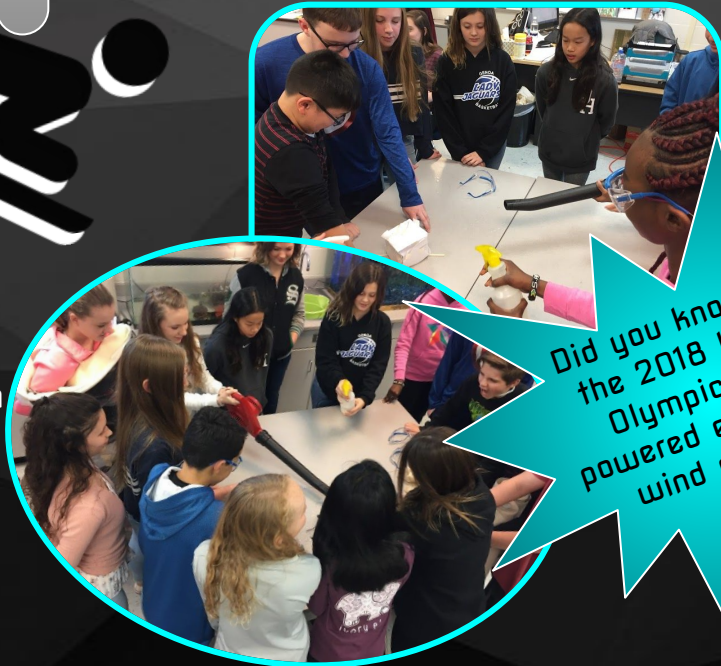
Wind Breaking Energy Houses



Students built model houses and put them against the “hurricane”. Using styrofoam plates, paper and straws, students used their skills to build a house that they think would withstand a hurricane. Through this, students learned that **energy can be transferred** by many processes. Like in the Olympic sport, Skeleton, you have to figure out where you can put your strong base and how to use it. In Skeleton and the hurricane houses, both need strong bases, in order to succeed.



Our Goal: After Winter break, this was the first activity to introduce energy. Students were to use what they had learned *before* the unit to build the houses, then after learn how to make it better after going through the hurricane.

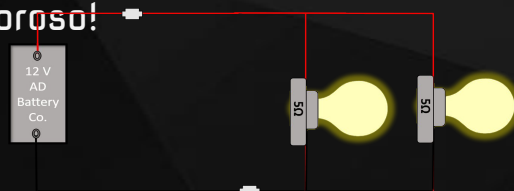


Did you know that the 2018 Winter Olympics was powered entirely by wind energy?

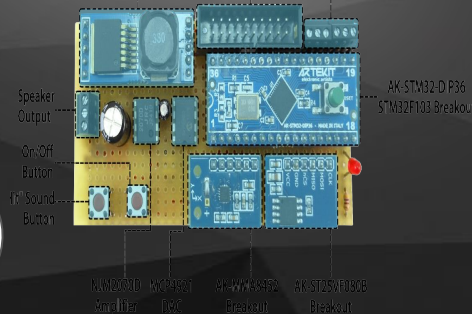
Lightsaber Learning

Before we left for spring break, we were given the opportunity to learn about a famous form of weapons- **lightsabers**! Mr. Amoroso came in and showed us the different parts that needed to connect so that the **energy** could flow for the lights inside the weapon. To have different colored lightsabers there needs to be combinations of different lights to produce them. Since so much power was needed, they all contain **LED** light bulbs. After the quick lesson we were able to learn about different circuits and then were able to practice fighting with the lightsabers. Thank you Mr.

Amoroso!



Each lightsaber consist of a parallel circuit, so if one light goes out everything else will still work!



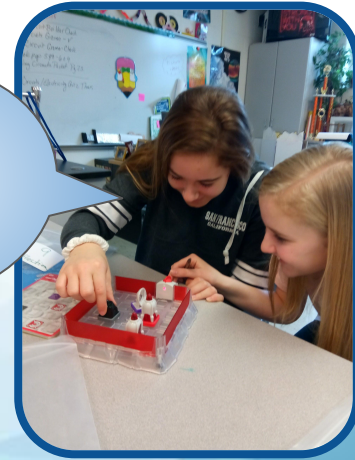
Training our Energy Coaches

Our Genoa Olympic coaches were trained how to teach the future Olympic athletes. They learned how to engage the athletes in the activities like, circuit boards, refraction, sound wave, energy Jenga, and help them reach their **full potential**. The coaches practiced with each other and perfected their lessons.

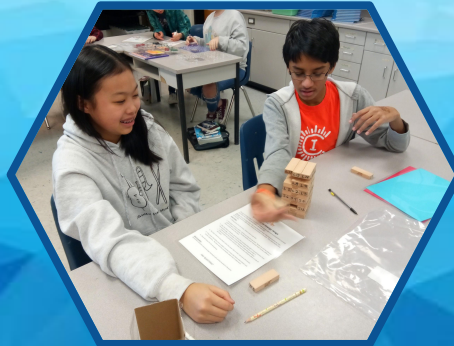
Our goal was to teach the new olympic coaches how to teach the athletes about energy!



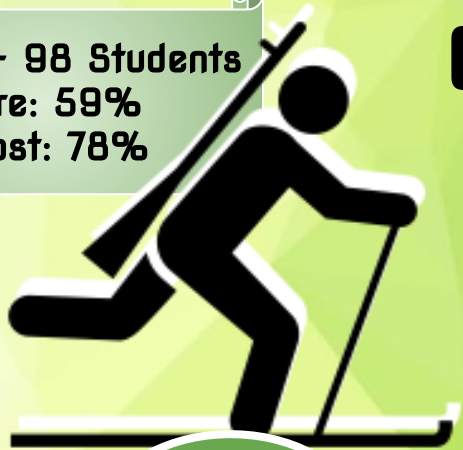
Careful,
don't get
shocked!!



Our Genoa coaches figured out the best ways to help the future olympians learn about energy and all the different forms. Similarly to Olympic figure skaters, the fifth graders will need lots of training in order to do their best!



Fouse - 98 Students
Pre: 59%
Post: 78%



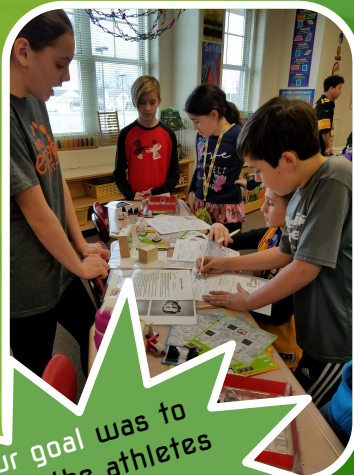
Can you
hear me?



Gold Medalist... is Fouse!

The seventh grade Olympic coaches traveled to Fouse Elementary School to train the rising 5th grade athletes about energy. The young players participated in many hands-on events that taught them about energy and how to conserve it. They learned about light and sound energy, snap circuits, light refraction, and many other energy related topics. After each event, the young athletes answered questions on the activity and wrote down what they learned.

Our goal was to
teach the athletes
about energy
conservation.



Gold Medalist... is Wilder!

At the Wilder Elementary Energy Fair, our Genoa seventh grade Olympic coaches taught the rising 5th grade athletes about energy and how to conserve it. The coaches had the young athletes take part in many hands on activities involving light and sound energy, circuits, light refraction, and so much more.

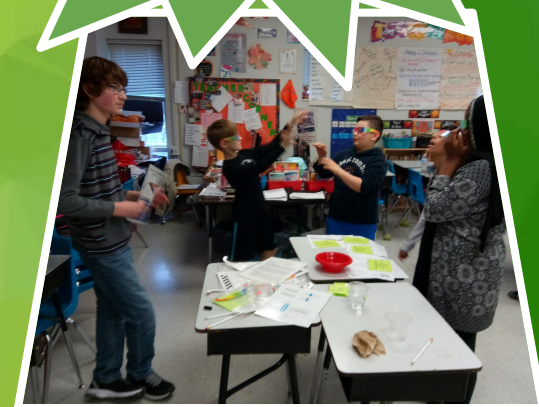


Afterward, the athletes answered questions about what they learned at each station. Like the Olympic sport, Biathlon, the Energy Fair allows the fifth grade athletes engage in different activities.

Wilder - 87
Students
Pre: 55%
Post: 74%



THE FIFTH GRADE ATHLETES
ARE ON THEIR WAY TO
BECOMING OLYMPIC
GOLD MEDALISTS!



2018



Genoa Scrapbook

Energy Olympics