



# Westerville Energy Education Partnership

Bucket truck rides for student leaders at the Westerville Electric Division's Community Open House during Public Power Week. They facilitated Energy Bike and electricity activities for community members.



## Westerville Energy Education Partnership Goal:

*To impact students, teachers, homes and the community through excellent energy education programs*

- Westerville City Schools: *The most outstanding teachers & students in Ohio*
- City of Westerville Electric Division: *Program funding partner and community outreach experts*
- Ohio Energy Project: *NEED's state affiliate in Ohio*



Pictures: Westerville Central, North & South High School energy leaders  
"home schooling" after covid-19 distance learning begins





# The 2020 Energy Portfolio is dedicated to Beth Eddy & Stephanie Martin, long-time energy team facilitators

You have been amazing advocates for energy education in Westerville and even bigger fans of the hundreds of students you have impacted. We will miss you and wish you the best in retirement.

Thank you for the legacy you are leaving!



Mrs. Martin,  
*Thank you for everything you've done for me this year! Thank you for your dedication to teaching as well as Challenge Day! You have truly made a lasting impact on our school community and every student in the classroom.*

Mia, sophomore at Westerville Central High School

Mrs. Eddy,  
*I'm so lucky to have not only been on the energy team but also to have you as my chemistry teacher. You are my favorite teacher and make learning easy and fun for everyone.*

Dahlia, sophomore at Westerville South High School





## Goal #1 Student Leadership

To provide students with the opportunity to receive training in teamwork & communication skills and hands-on energy education.

### Energy Content Activities:

- Teamwork Games-Rock/Paper/Scissors Cheerleading, This or That, Human Calculator
- Energy Explorations-Light, Sound, Forces & Motion
- Energy Carnival-Light & Sound Jenga, Forces & Motion Connect 4

### Student Leadership:

- 83 middle school student leaders trained
- 202 high school student leaders trained
- Westerville South Interact Club (Rotary Service group for high school students)

### Resources:

- Energy Carnival & Explorations
- NEED Energy Chants
- UV Beads and Sail Cars

### Evaluation:

- 67 student leaders completed pre & post polls to survey their confidence in leadership skills.
- The WSHS Interact Club led energy activities for 150 third graders at Hanby and Mark Twain Elementary Schools.





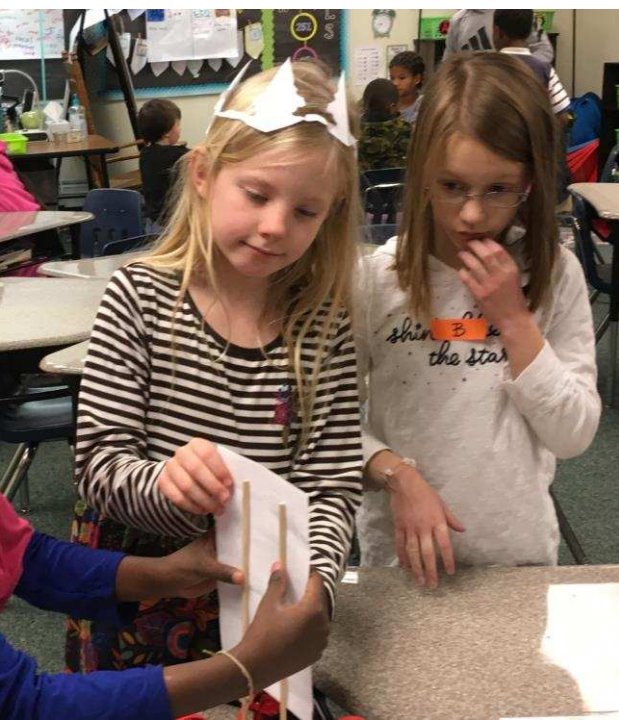
# Kids Teaching Kids

285 middle and high school student leaders were trained at 8 Youth Leadership Summits. These student leaders facilitated programs at 11 Westerville elementary schools.

Kids Teaching Kids...now teaching kids! Over 85% of these student leaders had participated in the program themselves, as a 5<sup>th</sup> grader.

Pictures: Student leaders engage with 5<sup>th</sup> graders while leading activities on light, sound and forces & motion





## Westerville South Interact Club

Rotary Interact Clubs bring together young people ages 12-18 to develop leadership skills while discovering the power of Service Above Self. Westerville South's club is facilitated by energy team teacher, Beth Eddy. They brought hands-on energy activities to 3<sup>rd</sup> grade students at two elementary schools.

Pictures clockwise from top left: exploring UV beads, comparing LED and incandescent lighting, sail car races, NEED Energy Chants, designing sails, learning about the 10 sources of energy



CALLING ALL ELEMENTARY STUDENTS, K-5!


# SCIENCE FAMILY FUN NIGHT

AT WESTERVILLE SOUTH HIGH SCHOOL,  
303 S OTTERBEIN AVE  
SCIENCE ATRIUM

FEBRUARY 24  
6:30-8:00 PM

**COST: PAY WHAT YOU WANT!**

ALL PROCEEDS GO TO TWO  
ROTARY SPONSORED PROJECTS.



EXPERIMENTS make the process of learning exciting and interesting.



## Family Science Night with International Baccalaureate Students

IB students hosted a community science night with lots of energy activities.



## Goal #2 Fifth Grade Energy Days

To provide every 5<sup>th</sup> grade student and teacher an excellent energy education program facilitated by student leaders.

### Energy Content Activities:

- 11 Westerville elementary schools hosted a 5<sup>th</sup> grade energy day. Students participate in 60 minutes of hands-on energy activities. Programs at the remaining 3 schools were cancelled due to covid-19 school closures.

### Student Leadership:

- Programs were facilitated by leaders from Westerville middle & high schools.

### Resources:

- Light, Sound, Forces & Motion Energy Explorations
- Energy Carnival-Light & Sound Jenga, Forces & Motion Connect 4

### Evaluation:

- 751 fifth graders learned about energy
- The average gain in knowledge on pre vs post polls was 26%







## 5<sup>th</sup> Grade Energy Days

*"Thank you for coming to Whittier 5<sup>th</sup> grade to teach us about light and sound. I liked using the slinky to learn sound waves and playing light & sound jenga. The leaders from Blendon Middle School were so fun."*

*From a 5<sup>th</sup> grade student*





### Proud Mama's!

Susie Smucker, assistant principal at Pointview ES and Bethany Morris, 5<sup>th</sup> grade science teacher at Robert Frost ES shared Energy Day with their favorite student leaders.

# Pre vs. Post Poll Scores

*"I've learned that it's important to teach young kids about energy in a fun way, because they really do care about it."*

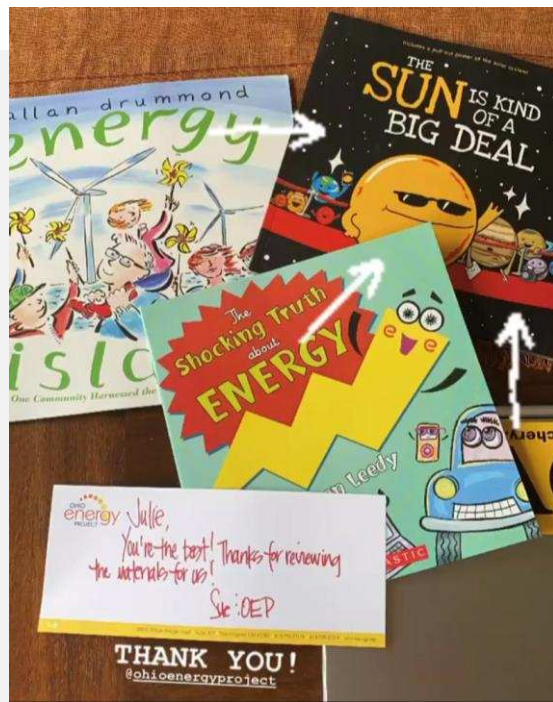
Ruthie, Student Leader

*"I think about the endless ways energy can be renewable and how it is up to the next generation to continue the trend of renewable energy."*

Anthony, Student Leader

WESTERVILLE 5TH GRADE ENERGY DAY											
PROGRAM	Alcott	Annehurst	Cherrington	Emerson	Hanby	Hawthorne	M.Twain	Pointview	R.Frost	Whittier	Wilder
DATE	2/19/2020	2/20/2020	1/28/2020	2/18/2020	2/26/2020	1/28/2020	2/19/2020	3/12/2020	2/18/2020	2/12/2020	2/12/2020
PRE-POLLS											
Total # of PRE-polls	74	70	66	48	47	110	84	50	71	45	82
PRE-poll Avg.	67%	81%	57%	68%	60%	59%	73%	45%	75%	80%	43%
POST-POLLS											
Total # of POST-polls	57	67	66	50	47	138	86	49	66	48	77
POST-poll Avg.	89%	89%	80%	90%	83%	81%	83%	60%	84%	86%	70%
% Gain in Knowledge	33%	10%	40%	32%	38%	37%	14%	33%	12%	7%	63%





## Goal #3 Excellent Opportunities for Energy Efficiency Education

To provide teachers & students with opportunities to save energy at home and school

### Energy Content Activities:

- Professional Development Workshops for 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> grade teachers
- Development of energy materials for intervention classes
- 7<sup>th</sup> Grade & AP Environmental Science Home Efficiency Kits
- 3<sup>rd</sup> Grade Energy & Literature Pilot Program
- Central Ohio Energy Sources Tour

### Student Leadership:

- 1,118 students installed a home efficiency kit. These students impacted 3,350 family members. Kids Teaching Kids is expanded into Kids Teaching Families

### Resources:

- NEED Curriculum-Infobooks (all levels), Energy Stories & More, EnergyWorks
- OEP Curriculum-e<sup>3</sup> Smart (energy efficiency education)
- Energy Island, The Shocking Truth about Energy, The Sun is Kind of a Big Deal
- TeacherGeek sail cars

### Evaluation:

- 23 educators participated in one of 5 professional development workshops
- 1,118 7<sup>th</sup> graders & AP Environmental Science students took home efficiency kits saving an estimated 542 mega-watt hours.
- Ten 3<sup>rd</sup> grade teachers participated in a pilot program evaluating energy & literature resources.



Pictures: top left clockwise

- 3<sup>rd</sup> Grade Sail Car Demos
- 3<sup>rd</sup> Grade energy & literature
- Teachers at Ohio State's High Voltage Lab

Westerville South High School Physics Teacher, Mark Schmidley





## Goal #4 Westerville Electric Division School & Community Outreach

To develop a relationship with students, their families and the community to promote efficiency, electricity safety and careers in energy.

### Energy Content Activities:

- Open House at Westerville Electric Division during Public Power Week
- Electricity safety & careers in energy presentations at schools
- Careers Day at Walnut Springs Middle School
- Community-wide incandescent holiday light and battery recycling
- Community-wide composting program

### Student Leadership:

- 8 Westerville South students served as leaders at the Open House. Leaders led the Energy Bike and electricity activities.

Pictures clockwise from top left: John Friley leads electric safety demos for 4th graders, student leaders, community members riding the Energy Bike, learning about electricity with snap circuits





## Goal #4 continued:

### Resources:

- John Friley, Westerville Electric Division Safety Specialist
- Westerville Electric Division Facility & Staff
- Energy Bike

### Evaluation:

- 4 electric safety/energy careers presentations impacted 290 4<sup>th</sup> grade students and 12 teachers
- Over 200 community members attended the Westerville Electric Division's Open House
- Westerville started a new composting program collecting 3,300 pounds of materials in two months

### Westerville Recycling Numbers

- 6,500 pounds of holiday lights
- 4,000 pounds of batteries
- 41,000 pounds of scrap metal and 51,000 pounds of transformers
- 195 refrigerators translating into 107,250 kWh of energy savings







## COVID-19

So much has changed since we started our energy program. This is not the way we wish the school year was ending.

To the **Class of 2020**, we have loved your enthusiasm and commitment to student leadership. You have energized us, and you will be missed!





# Celebrating the Class of 2020

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Since moving the Youth Energy Celebration to the Columbus Zoo & Aquarium, Westerville students have served as Safari Guides hosting the event. Many of the students from last year's program are now seniors. We will miss celebrating with you on May 6<sup>th</sup>. You have been the leaders in fun, and we have big shoes to fill!