

## **Ohio Energy Project - Comments on House Bill 6**

### **Regarding: Support of the e<sup>3</sup>/Be E<sup>3</sup> Smart Program**

*Earlier this week, I filed my comments under each of the utility dockets. I received an email confirmation from the PUCO. However, my comments are not found on the site, so I am re-submitting my testimony. Thank you for your consideration.*

On behalf of the Ohio Energy Project's Board of Trustees and staff, I am writing to express our serious concerns regarding the educational impact of HB 6. I'm Shauni Nix, Founder and Executive Director of the Ohio Energy Project (OEP). OEP has been working diligently over the past 30 years to inspire innovation and leadership in energy education among Ohio's students and teachers. OEP's impact was so significant that, in 1994, we were included in Ohio's Energy Strategy, presented by Governor Voinovich, as the recommended source for energy education in Ohio. HB 6 may result in the discontinuation of the e<sup>3</sup>/Be E<sup>3</sup> Smart Program (energy efficiency education) and the strong, longstanding partnerships we have built over the past 11 years with school districts and our funding partners: AEP Ohio and additional utility partners, Dayton Power & Light, Vectren and Ohio's Electric Cooperatives. The overall delivery of OEP programming in general will be in jeopardy as well, as three of six OEP staff members are directly funded through the energy efficiency program.

While we have always focused on conservation and efficiency in program delivery and curriculum, we were able to dramatically increase our impact in this area through the development of the e<sup>3</sup>/Be E<sup>3</sup> Smart Program. This program began with a grant from the Ohio Environmental Education Fund, Ohio EPA in 2007, impacting 80 teachers involved in the program across Ohio. A second pilot was initiated with the Appalachia Rural Commission to reach rural and low-income schools in southeastern Ohio. After the completion and evaluation of these two pilot programs, OEP was recognized with the Ohio Environmental Project of the Year by Ohio EPA. In 2009, armed with the results of both pilots, we approached AEP Ohio and received our first electric utility funding for the e<sup>3</sup>/Be E<sup>3</sup> Smart Program. AEP Ohio has been our lead funding partner ever since, and the program now reaches teachers, students and families in all 88 counties. Dayton Power & Light and Vectren joined the effort in 2010, followed by additional utility partners as well as Ohio's Electric Cooperatives in 2011. The outstanding financial and programmatic support of all five funding partners has been instrumental in the success of the e<sup>3</sup>smart Program. While we have notebooks of support letters, thank you notes, newspaper articles, I would like to share two quotes, one from a student in 2010 and one from a teacher that I received recently:

#### ***From Tiffany Estep, Science Teacher, Portsmouth High School in 2019:***

*"The Ohio Energy Project (OEP) has made, is making, and will hopefully continue to make a difference in my classroom and community. Each year OEP sends me an energy efficiency kit for each of my students to take home with them. I am for certain that these kits are utilized at their home, a family members home, and/or a friend's home. I turn these energy kits into little mini labs. Each nine weeks we do a different energy saving lab that my students distribute throughout the community. I cannot stress enough how much my students love these kits. My new incoming students hear about these kits from former students and they know what they contain. They contain weather stripping to keep my students warm in the winter. They contain light bulbs and a night light so my students can see in the dark. The kits have new shower heads so my students can shower with a new shower head. These aforementioned items may seem so frivolous to many but to my students, it is the difference between getting by and not getting by. Thank you to all the sponsors of this program."*

#### ***From Kate Hart, student, West Clermont Local Schools in 2010:***

*"I truly believe that the energy revolution is the space race of our generation. In the 50s and 60s, every bright young mind felt an obligation, and an excitement, to go into rocket science. Today, our country needs us to put our minds to the issue of alternative energy. It's like our teacher said: solve the problem of energy and the economy and foreign relations will follow." Kate Hart, student, West Clermont Local Schools*

This past year, after extensive feedback in multiple focus groups from teachers and funding partners, we developed a *Framework for Energy Efficiency*, which outlines our impact at elementary, middle and high school, and continuing into college and adulthood. This framework included a year of intensive planning and development for a secondary energy efficiency curriculum for grades 7-12, in addition to the elementary curriculum for grades 3-6. This allows teachers across a school district to incorporate the program at multiple grade and subject areas, from 3<sup>rd</sup> grade teachers touching all subject areas, middle school science teachers, and high school physical and/or environmental science teachers. Moving forward, this will allow us to have a greater impact and engagement in more schools and communities in Ohio.

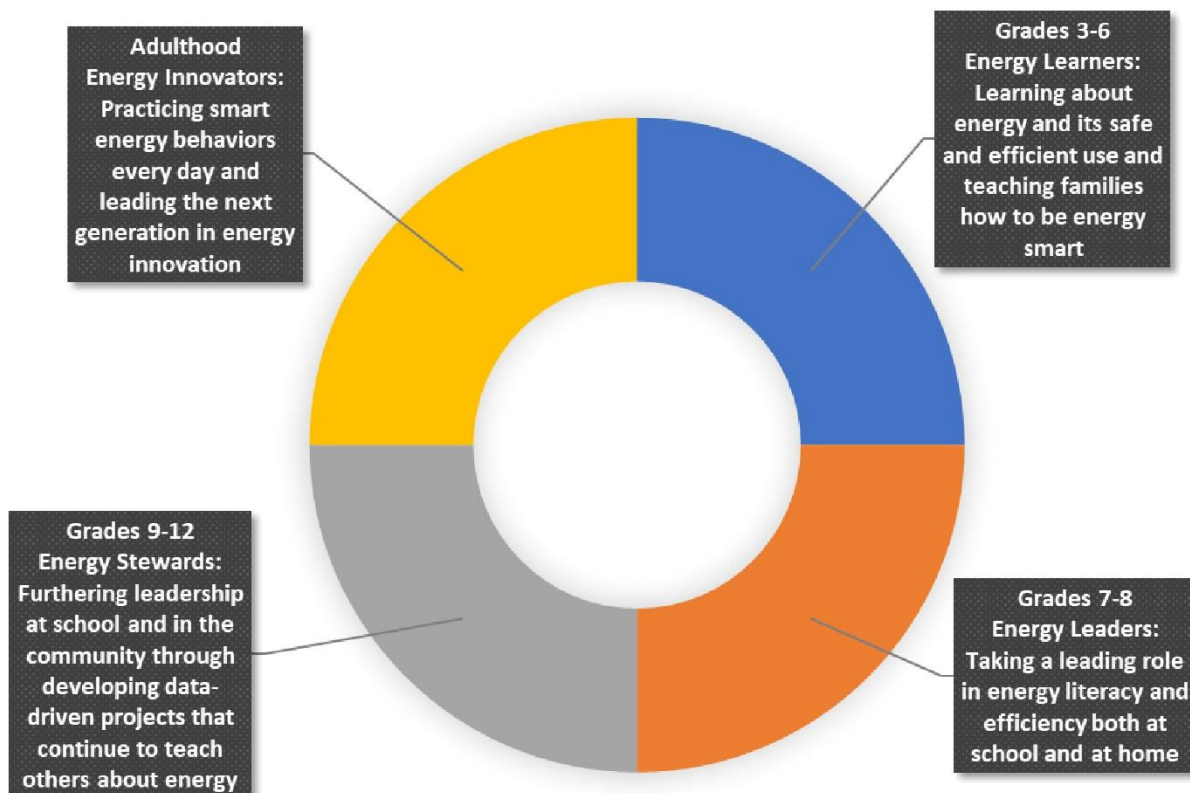
# E<sup>3</sup>/Be E<sup>3</sup> Smart

## Grades 3-6

- ♦ Home & school efficiency
- ♦ Energy literacy
- ♦ Inquiry-based learning
- ♦ Easy-to-install efficiency measures
- ♦ Comprehension & behavior change

## Grades 7-12

- ♦ School & community efficiency
- ♦ Energy stewardship
- ♦ STEM projects
- ♦ Conservation behaviors & high-tech efficiency measures
- ♦ Data-driven inquiry & exploration



To demonstrate how the program meets the needs of Ohio's teachers, I would like to highlight the resounding positive feedback that we have received from teachers regarding the success of the e<sup>3</sup>/Be E<sup>3</sup> Smart Program presented by OEP:

- Learn about the impact directly from some of our superstar teachers on the [AEP Ohio video](#).
- Based on teacher evaluation responses, the number one reason that teachers love OEP is because of the “real world” application of OEP materials and training. The number two reason is that OEP materials and training are matched to Ohio's Learning Standards, which are required for teachers.
- A co-equal focus of OEP programming is on empowering students to be leaders in their schools, homes and communities. OEP's philosophy of “kids teaching kids” has evolved to “kids teaching families” with the e<sup>3</sup>/Be E<sup>3</sup> Smart Program, which combines Professional Development with the materials needed to be successful in the classroom.
- With scarce resources available in many school districts, FREE materials and training are critical to reaching teachers and students.
- Educators welcome ongoing support and additional resources from OEP staff.

I would like to summarize the impact data over the past 10 years of EE programing in Ohio. While education is a small part of the multi-billion dollar investment in Energy Efficiency made over the past 10 years in Ohio, it has made a significant impact in both education and efficiency in **5,899 classrooms and 257,516 families** since the initial pilot involving 80 schools.

- **\$15.2 million** has been invested by our utility partners since 2010, resulting in a tremendous impact in Ohio, averaging **\$58.00** per family:
  - OEP has developed and delivered the e<sup>3</sup>/Be E<sup>3</sup> Smart Program, supporting over 5,899 schools (teachers/classrooms received curriculum and extensive teaching materials)
    - Impacted over 50% of Ohio's school districts
  - 257,516 students/families received efficiency kits with potential savings of 522 kwh per kit, with savings over multiple years
  - Serving low income families:
    - Fifty eight percent of teachers in the AEP Ohio and additional utility partners' service areas are in schools with 50-100% of their student population receiving free/reduced lunch

On behalf of the thousands of teachers and students who benefit from OEP programing, I would respectfully ask the PUCO to consider alternatives for the continuation of the e<sup>3</sup>/Be E<sup>3</sup> Smart Program. Our most urgent concern is the deadline to discontinue the program after 2020. OEP's programming for next year will begin in January of 2020 with recruitment and planning. If we don't have funding for 20-21, the program will be discontinued after this year, because we can't deliver it in the first half of 2020. Eighty percent of the teachers involved in the program have been doing it over many years and have incorporated it into their courses. This would mean that for over 600 teachers across hundreds of Ohio's school districts, a core component of their curriculum will cease as of July 1, 2020. While HB6 does not directly impact our natural gas funding partners, the entire curriculum and training is based on having both natural gas and electricity service, so it would be difficult to continue without the support of AEP Ohio and Dayton Power and Light.

Most recently, a teacher sent an email and a picture of a student who was able to identify a gas leak and shared with her family, who then called the gas company and got the leak fixed. The teacher shared that the lesson was potentially life saving for the family. The parent said, *“those classes really do pay off, keep those life lessons coming.”* OEP is dedicated to sharing these lessons in schools across the state that assist our utility funding partners. Our goal is to help teachers in educating both students and families about efficiency, resulting in saving both energy and money, but also key safety information for families. We sincerely hope we can continue this program beyond meeting PUCO mandates. Thank you.

Tiffany Estep  
High School Science Teachers  
Portsmouth High School

November 24, 2019

Dear Ohio Energy Project and AEP Ohio,

I work at Portsmouth High School located in Portsmouth Ohio. This is an inner-city school and 100% of my students receive a free breakfast and lunch. Many of my students have no idea where they are going to sleep at night or if they are going to have dinner when they leave my building. In other words, academics are the last thing many of my students are worried about.

The Ohio Energy Project (OEP) has made, is making, and will hopefully continue to make a difference in my classroom and community. Each year OEP sends me an energy efficiency kit for each of my students to take home with them. I am for certain that these kits are utilized at their home, a family members home, and/or a friend's home. I turn these energy kits into little mini labs. Each nine weeks we do a different energy saving lab that my students distribute throughout the community. I cannot stress enough how much my students love these kits. My new incoming students hear about these kits from former students and they know what they contain. They contain weather stripping to keep my students warm in the winter. They contain light bulbs and a night light so my students can see in the dark. The kits have new shower heads so my students can shower with a new shower head. These aforementioned items may seem so frivolous to many but to my students, it is the difference between getting by and not getting by.

I do not have a classroom budget for my science classroom. That means I have no money to buy supplies for my classroom/students. I use the same books, labs, worksheets, equipment, materials etc. year after year. When these items are lost and/or broken, they are not replaced. OEP has provided me with more than seventy percent of my supplies that I use for my curriculum. One hundred percent of the money that comes into my classroom is from OEP. I use this money for laboratory supplies, books, copying, equipment, materials, etc.

I can't imagine what my classroom would look like without OEP. I wouldn't have Snap Circuits. I use these in Physical Science when teaching electricity. Two years ago, I only had two Snap Circuits that were given to me from OEP. My students would literally fight over them. They absolutely love them. This year I have twelve Snap Circuits through funding I received through OEP/AEP. The aforementioned is just one example of the many supplies I have received through OEP. For example, the way I teach waves and sound in my classroom today is much different from what I was doing three years ago. This is because of the supplies I have received through OEP. My students are actively engaged in their lessons and labs due to OEP.

The OEP workshops that my students participate in are absolutely amazing for my students' esteem, morale and leadership skills. I always choose students that have lower self-esteem, struggle with their grades, and participate in little to no extra-curricular activities. Words cannot describe what that workshop does for my students. When they leave that workshop, they have smiles on their faces, they have interacted with students from other schools, they have reinforced within themselves what they have been taught in the classroom, and they have the confidence to teach others what they know. I can't forget to add that my students have eaten a meal that was provided by OEP at the workshop. This meal is probably the best meal many of my students have had in weeks. That in and of itself is the best part of the workshop for me knowing that my students have had a good meal.

I just want you to know what OEP & AEP Ohio and their supporters have done for me and my students. I also want you to know that without you, my students would not be getting the education that they deserve. I just want to thank you and your supporters for everything that you do for me, my students, and our community.

Thank you,

Tiffany Estep  
Portsmouth High School

**From:** Tally Pasiuk <[tally.pasiuk@edisonwildcats.org](mailto:tally.pasiuk@edisonwildcats.org)>

**Sent:** Friday, November 22, 2019 12:38 PM

**To:** Monique Heath <[mheath@ohioenergy.org](mailto:mheath@ohioenergy.org)>

**Subject:** John Gregg Elementary

I am sorry to hear that this new Bill may effect the Be E3 Smart Program. My students have not started the program yet this year. We plan to start after Thanksgiving break. I have a testimony that I can share with you.

I am the 5th & 6th grade Science teacher at John Gregg Elementary in Bergholz, Ohio. I have been teaching for 23 years. I have been at the 5th & 6th grade level for 4 years now and I have used the Be E3 Smart Program each of those 4 years. This program is very helpful with covering several of my 6th grade content standards. My students learn so much from the material that is given to them in their kits. They enjoy participating in the hands-on lessons and learn so much from them. I have had several parents contact me in the past to thank me because the take home assignments have brought up several safety talks with their children. They mentioned how they didn't think about showing their teenagers how to shut off power to certain appliances if there was a problem. Or what to do if a water line broke. I believe that this program helps students and parents think about everyday topic and gives them a starting point to discuss them. I believe it is important for students to learn to conserve and use resources wisely.

Thank you for the great opportunity for my students to learn from the Be E3 Smart Program!

Mrs. Tally Pasiuk

## Teacher Quotes from Teacher Program Evaluations:

Aly Jajack: Lake Cable Elementary School, Canton, Ohio

"I loved that this program was hands-on. I feel very confident moving forward. It has opened my eyes to energy efficiency and I have gotten great feedback from students and families"

Joyce Huntz: J&G Snow School, Berea, Ohio

"The OEP event allows me to provide activities that are not typically available for my students"

Russ Hopple: Southeast Elementary School, Salem, Ohio

"Hands on activities match the students age. The materials and lesson plans are excellent. My students are learning how to use energy more efficiently"

Kelli Demmler: A+ Children's Academy, Columbus, Ohio

Working for a small charter school = small budget. This opens up possibilities for great hands-on lessons that would not happen without this program."

Carrie Hill: Bishop Flaget School, Chillicothe, Ohio

Very well organized, insightful and efficient. It is obvious that the lessons were made by teachers who understand the developmental needs of children"

Ann Ahern: Columbus Torah Academy, Columbus, Ohio

"The amount of teacher materials you get is awesome- it makes it very easy to teach with little financial impact. It's a great way to open kids and parents eyes to ways they can conserve energy and save money."

Karen Feltz: St. Henry High School, St. Henry, Ohio

"This program will broaden the awareness of the need to conserve."

Melissa Barth: Westlake High School, Westlake, Ohio

"I can make energy education student-centered and inquiry-based. I haven't attended a similar program, but love how it focused on increasing my confidence in implementing the labs"

"I love having a comprehensive toolkit for teaching all aspects of energy education, including conservation."

Marie Mosher: Danville Middle School, Danville, Ohio

"Without this program, my students would not have the exposure to energy efficiency and awareness."

Mary Beth Walters: St Helen School, Dayton, Ohio

"My students have moved beyond their own immediate families to older relatives and neighbors to impact a larger community and educate others on ways to improve/conserve energy use."

Carrie Bell: Baker Middle School, Fairborn, Ohio

"This program helps students to become energy change agents."

James Hong: South Central High School, Greenwich, Ohio

"Physical, tangible materials and supplies that are embedded in lessons plans and ready to use. It can be used to increase engagement, critical thinking and financial literacy"

Theresa Boone: Troy Christian School, Troy, Ohio

"This program has made me more energy aware and has changed my own habits, in addition to fueling a greater passion for teaching energy efficient habits to my students"

Jessica Hanchak: Beavertown Elementary School, Kettering, Ohio

"I'm taking away ready to use activities. So many times I attend a workshop and then there is extra work to do. I love that everything is provided."

Nikki Aucoin: Medlar View Elementary School, Miamisburg, Ohio

It helps students realize the energy they use, where it comes from and to be enthusiastic about saving energy and being more energy efficient"

Amber Northern Heritage Middle School, Westerville

"The real life connections this program provides are second to none. The student engagement and energy has greatly increased due to this program"

Ashley Dulin Smith Dublin Jerome High School

"Every year my students are so excited during this unit and ask me to do more activities like it. I hear from parents the positive impact it makes at home and the changes they have made"

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Mrs. Tally Pasiuk

John Gregg Elementary, Bergholz, Ohio

Dear Mr. Dunaway

My name is Katie Mullen and recently in PESS 9 we were learning about energy conservation. By learning about energy saving tips now in the future when I own a house or an apartment I could put these useful techniques to work. Did you know that loose or broken ductwork is at fault for 15-30 % of energy loss? If you install a low flow shower head like the one AEP provided for' us you can save 25-60% on your next water heating bill. We did many activities in and out of class. We went around school and recorded the schools water flow and we measured the temperature of different spots in the school.

I was really interested in Mr.Blinn's job because I had no clue that a whole group was in charge of all of Worthington's schools heating and cooling. I just assumed the school was in charge of selecting the temperature. What was really interesting that with one click of a button he was able to view a class temperature. I also learned money saving tips like that



unplugging things like a cell phone charger or a TV can save my parents money because even when electronics like these use energy even when they're not being used. I learned the difference between CFLs and ILs. CFLs may be more expensive but in the long run they last many times longer than ILs so by switching to CFLs you save money.

We also did this experiment with insulation when Mrs. Chase poured hot water into beakers covered in different types of insulation and we recorded the temperature of the water of a time period of 10 mins. I really enjoyed this unit because it related so well to everyday life and I was introduced to new ideas. Sometimes in school we need to really think when am I going to use this? With this unit I could go home and relate it to everyday life. Like most of the tips of were stuff I could start doing right away. I could make sure the dishwasher was all the way full.

Katie Mullen, high school student


Dear Dr. Conrath,

My name is Jonathan Watson and I am a freshman at Worthington Kilbourne. Our science class has been studying and conducting experiments in the unit of energy. The activities for this unit were developed by the Ohio Energy Project in conjunction with the AEP Ohio gridSMART initiative, and definitely made me and my classmates aware of how much energy is used in a household. Our energy unit consisted of many labs that were conducted in our homes. My classmates and I received samples of energy saving devices that we could install throughout our homes. We conducted experiments that showed how efficient our homes were originally. Then, after we installed the energy saving devices, we analyzed data that compared the impact of the devices to the energy used before they were installed, and recorded the data on the lab papers we received. As a class we learned a ton about making our homes more efficient. My favorite parts of this energy unit included going on a tour of our school building's heating and cooling equipment, a presentation focused on heating and cooling in the Worthington Schools, and learning about how energy could be saved by compact fluorescence light bulbs.

The tour of the High School by Mr. Nally was interesting because we got to go into places in the building that we have never been allowed before, and learned how the building was heated and cooled . The presentation by Mr. Plinn was fun to watch because he had floor plans of all the schools in Worthington. The floor plans showed how warm each room was by different color coding. It was really fascinating how he could turn up the heat or turn on the fans by using his laptop to use energy efficiently. Another thing I found fascinating was the light bulb lab that we did at home. I learned that an incandescent light bulb's energy usage is 90% thermal energy. I never knew how much money could be saved with compact fluorescence light bulbs in the long run, because their life expectancy is 10,000 hours. Incandescence light bulbs only have a life expectance of 750 hours.

While the tour, the presentation, and the light bulb lab were the things I enjoyed most about the unit, there were many other labs that we did and learned from. At the beginning of the unit we did a survey, answering questions about the energy usage in our homes. I thought my home was efficient because we recently remodeled and used energy efficient products throughout the house. However, I was able to make our house even more efficient after I learned how much energy my family and I used. We used a lot of the energy saving devices we received in the unit, including the light bulbs and the outlet insulators. I believe this unit was definitely helpful to my family and I think everyone in the class received knowledge which will help us make energy efficient decisions in the future.

Sincerely,  
Jonathan Watson

A handwritten signature in black ink that reads "Jonathan Watson". The signature is written in a cursive, flowing style with a large initial "J" and "W".

February 20, 2010

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Mr. Ed Dunaway  
Worthington Kilburn High School  
1499 Hard Road  
Columbus, Ohio 43234

Dear Mr. Dunaway,

My name is Rachel Elise Williams. I am in a 9<sup>th</sup> grade PESS class taught by Mrs. Chase. We have just finished a unit about energy and energy efficiency, which was developed by the Ohio Energy Project in conjunction with the AEP Ohio gridSMART initiative. As we worked on this unit, we learned about the various types of energy and ways we could save energy at home and in our school.

I learned that the use of energy in the world is causing problems in the to-atmosphere and is creating global warming. People in the United States and around the world are trying to help by saving energy. I learned about the different ways energy is used at home and in our school. Each student was given an energy kit that could be used to find out how much energy was being used at home. While I was at school, our class learned about how energy was used at school. We took a tour of the heating and cooling systems at Worthington Kilbourne High School and saw how the school was trying to save energy. After learning about energy use at the school, I took the energy kit home to use at my house.

The kit was fun to use because I was able to see where energy was being wasted as I went from room to room. I soon learned that more energy is used for heating and cooling in a home than anything else. The furnace, refrigerator, water heater, clothes dryer, and oven all used large amounts of energy. My family could save energy by using less hot water and keeping the furnace turned down lower. Another way energy was wasted in my home was through phantom energy drain. This happens when appliances are left plugged into the wall and are running when not in use. Our televisions and computers are usually running all day long even when someone is not using them.

My family used almost all of the items in the energy kit. We replaced incandescent light bulbs with the fluorescent bulbs in the kit and even bought additional fluorescent bulbs. We used the outlet insulation kit and the door sweep to block leakage of cold air into the house. We installed the whistle on the furnace filter, which will help us to know when the filter should be replaced. These items will help to save energy as we heat our home.

I learned many things as I completed this unit. I learned how energy is most easily wasted and ways to solve the problems. My family enjoyed this unit also because they were able to see ways that they could save energy in our house. It was a really fun unit and I hope next years PESS classes can do it too.

Sincerely,



Rachel Williams

-20 2010

Mrs. Humphrey & Mrs. Welker

The Humphrey family  
enjoyed the AEP. Oh  
we all learned a lot  
and are definitely more aware!

Thank you for allowing us  
to participate!

Heather Humphrey (Payroll)  
Joy Hing (Payroll)

This student, \_zie hii9yri to  
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Becky.

Jess Welker

# Students study ways to conserve

Wednesday, March 17, 2010 12:53 PM

**BY DAVID S. OWEN**

ThisWeek Staff Writer

For the past nine weeks, students in Tara Rahm's environmental science class have been learning about conserving energy and saving money in their own homes.

As a part of a "gridSMART" initiative sponsored by AEP Ohio and administered by the Ohio Energy Project, Rahm's class was provided with the tools to use this year to learn more about what they can do at home to save energy.

"In one lab, we used a Watt meter and did a calculation on how much does it cost to use, for example, your TV for one year and what part of your annual bill is from your TV," Rahm said. "We also used a computer and a toaster and a hair dryer; they figured out that anything with a heating element is going to be more sensitive than something without a heating element."

Throughout the class, Rahm said, the students not only learned how to make their homes more energy-efficient but also learned the science behind the actions. One unit focused on using insulation, and another presented information on the difference between using an incandescent light bulb and a more efficient CFL light bulb.

Students also conducted studies on heating and cooling water and measuring how much power home appliances use.

The students were given a bag of home improvement materials, donated by AEP, which included CFL light bulbs, low-flow showerheads and insulation materials. As homework, Rahm said, students were instructed to install and use the items at home and measure how much energy was used.

Through her analysis and from the training provided by AEP for the course, Rahm said the average savings over the life of one CFL light bulb -- about five years -- is \$78. Ninety-eight percent of the students installed three CFL bulbs, which means over five years, each family should save about \$234, she said.

"My students have truly taken this unit to heart and encouraged their parents to save energy in small ways, like installing the CFL light bulbs, using cold water to wash clothes, unplugging unused appliances and purchasing Energy Star appliances," she said.

"They had a low-flow showerhead to install at home and they used a special bag where they could measure the rate of flow before the low-flow showerhead was installed and the rate of flow after," she said.

Rahm said besides learning the importance of going green with energy-saving tips, her students benefitted more by physically participating in the projects.

"It's so interesting when you do it like this," she said. "You actually give them the stuff to go home and see it in action. I think they really see that conserving energy and water is easier than they thought."

In addition to their coursework, her 35 environmental science students participate in the "Green Teens"

To: All Area News Media

**gridSMART**

From: Elida Middle School

*OHIO*

Re: EMS Sixth Graders Thinking Green

Elida Middle School sixth grade students and their parents recently completed the e3SMART Energy Efficiency Education Program, a gridSMART initiative, sponsored by AEP Ohio. This was a great partnership that gave parents the tools to reinforce what the students learned at school and also save money on their future energy bills. Students learned at school how energy is produced and used. They then worked with their parents at home to pass on their knowledge to help lower energy use and save money at home. Each family of all Elida Middle School sixth graders were offered the option of accepting a free "energy kit", estimated retail value at about \$68. The kit includes many items such as compact florescent light bulbs, a furnace filter whistle, and a low-flow showerhead. The e3 SMART hands-on lessons supplement and support the academic content standards in the "Nature of Energy" at the sixth grade level, which focuses on "renewable" and "nonrenewable" forms of energy. **Participating students will provide a presentation at the Board of Education meeting tonight at 7:00 pm in the Middle School Commons.**

To top off the energy unit, **an Energy Day using material from the Ohio Energy Project is planned for Wed., May 5<sup>th</sup>.** The day will include student lead games with energy topics such as Energy Jeopardy, Energy Pictionary and the Wheel of Energy. The sixth grade students will also do Energy Relays and participate in an Energy Bike Demonstration.

*If you have questions or would like further information, please contact:*

*Elida Middle School Teachers Barb Hawk and/or Darrell Bryan at 419-331-2505*



**num UUNTINENTAL NEWS REVIEW**

**Wed., March 31, 2010..**

### **Continental Middle School Students Become E3 Energy Smart**

Continental Middle School science students, in grades six and seven are learning practical lessons in energy education that help their families save money, save energy, and reduce their utility bills. They are part of a major state-wide outreach in energy efficiency education called e3SMART." In the program, students use *energy* efficiency devices to learn about energy in the classroom. Then, they take home the items and install the devices. For example, students use CFLs to learn about electricity, efficiency, heat, energy transformations and other science principles. They collect data, graph and identify trends in data - all the best practices in good science education. Then, they ~~take home the CFLs;~~ share their new knowledge and

install them with their families. Each student receives items worth . \$70.00 to install at home.

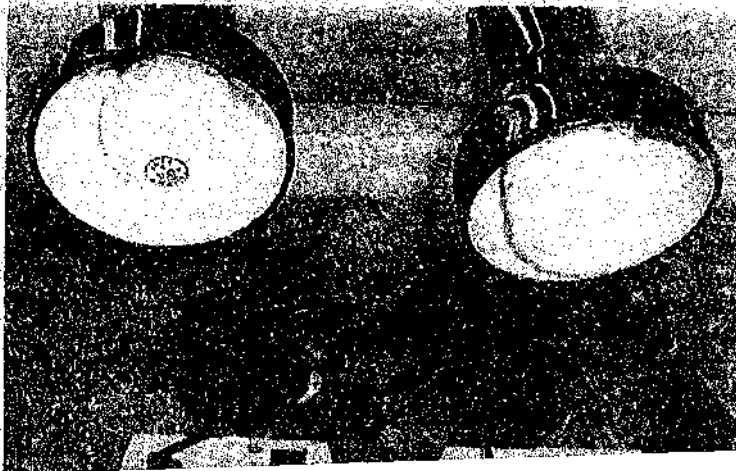
AEP Ohio is providing kits to 13,500 students throughout Ohio with this initiative! It is part of their gridSMART program and is a forward-thinking way to reduce the demand for electricity in the long-term. AEP Ohio believes, that by teaching children, they - can affect a generational change about the *use* of energy resources and the importance of both conservation and adoption of efficient appliances. They have made a \$500,000 commitment this year and plan to offer it again for two more years (\$1.5 million).

This is really an incredible example of a partnership between families, schools, teachers & utilities. It makes science, practical while helping families reduce their energy consumption.

Energy kits contain compact fluorescent bulbs, LED nightlights, low-flow showerheads, furnace whistles, weather stripping, door stoppers, outlet draft stoppers, and thermometers to check temperature of rooms, hot water, and refrigerator.



Madison Mansfield, Zoe Tracy, Dorninc•Joyner, Ivan Hooker and other seventh grade students are measuring the insulating ability of various materials.

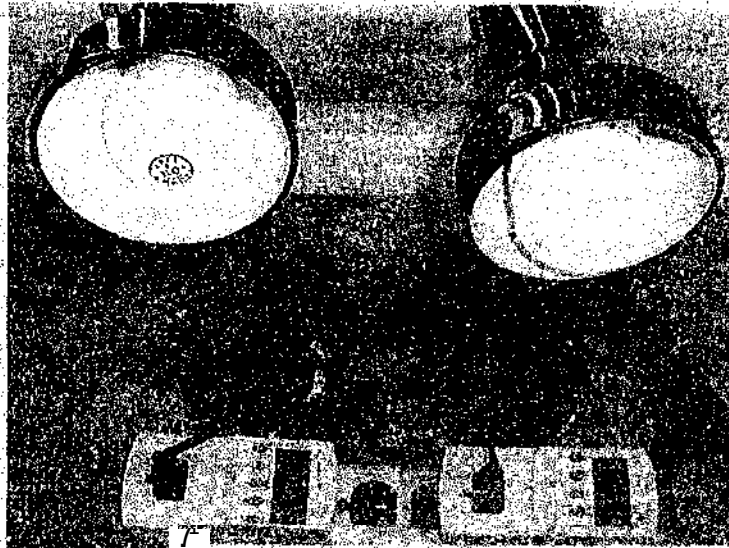




tion of efficient appliances.  
 They have made a \$500,000  
 commitment this year and  
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 er seventh grade students are measuring the insulating ability of  
 various materials.



Middle school  
 students used watt meters to compare the amount of electricity  
 used by incandescent vs compact fluorescent



Kaleb Brown, Chance Alvarado, and McKenna Scott watch the clock  
 as they are measuring the flow rate of the water in the project lab.



Contact: Dr. Todd Nichols  
Superintendent  
(419) 562-4045  
[nichols.tbucyrus.k12.oh.us](mailto:nichols.tbucyrus.k12.oh.us)

**FOR IMMEDIATE RELEASE**

**AEP SPENDS OVER \$500,000 TO HELP STUDENTS GO GREEN: BUCYRUS STUDENTS BENEFIT**

**BUCYRUS, OH (January 16, 2010)**— Although most kids received traditional gifts this holiday season, the physical science students at the Bucyrus Secondary School returned to school with something unique. Students in the physical science classes at the Bucyrus Secondary School each received an energy saver kit with \$70.00 worth of "green" equipment to be installed in their homes.

These kits are part of an AEP initiative geared towards helping use current high school students influence generational change in the way people think about electricity. The initiative is called E-Smart and provides students the opportunity to use energy efficiency devices to learn about required benchmarks in the state science standards. Only 180 teachers in the state of Ohio were selected to participate, and Bucyrus' own Ron Suter was one of the lucky few.

"Students enjoy the hands-on activities very much, and often retain more information than they do from traditional textbooks," said Suter, who has seen 70 of his students participate in the E-Smart program this year. Over the next several months, Suter's students will continue to monitor energy consumption levels in an attempt to understand the benefits of "going green." AEP along with the Bucyrus City School district hopes that the lessons learned during this program will serve students long after their time here in Bucyrus.

## Local News

### Schools

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#### **Kits allow students to put energy lessons into practice**

**By SARA R. JOHNSON**

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Print Page

Published: Monday, December 14, 2009 3:34 PM EST

About 171 students at Bexley High School are taking a hands-on approach in learning ways to be more energy efficient.

The students, who range from freshmen to seniors, are involved in the e3smart project, a project organized by the Ohio Energy Project. American Electric Power helps fund the program.

The program allows students to take home a variety of energy-saving devices, such as low-flow shower heads and compact fluorescent light bulbs. The students install the devices in their residences, with the intention of educating their families about them and their use, said Jennifer Messerly, a Bexley biology and environmental sciences teacher.

Scott Logsdon, a Bexley biology teacher, is also involved in the initiative.

"AEP is trying to lower emissions by 2025, so they are trying to get families to start conserving energy; and they thought this might be the best way to go about it," Messerly said.

"They're a part of the next generation, and it's important that they learn about energy conservation. They can make a difference by educating their families," Messerly added.

Messerly and Logsdon are just two of the 180 teachers from 61 Ohio counties served by AEP who were selected to receive training this fall.

The training helped the teachers learn about the kits that would be given to the students through the program. The kits are what contain the various energy-efficient devices.

In total, the project will involved about 13,500 students across the state.

Messerly said she and Logsdon spread out the devices in the kits so students could focus on one at a time.

"The whole idea of this kit is to learn about how we can start to conserve energy, and hopefully show our parents how much more money these can save us," said Bexley senior Mara Kinney, a participant in the e3smart program.

Kinney said she and her peers learned about their carbon footprint on the environment.

"It was a shock to see how much energy we use and how much we waste," Kinney said.

Messerly said she and some of her students also attended an energy fair that was held Wednesday, Dec. 9 at Otterbein College.

Bexley was one of four schools at the fair. Students from Reynoldsburg High School, River Valley High School of Caledonia, and St. Patrick School of London, were also present.

The high school students helped to educate fourth-through sixth-graders -- including students from Cassingham

Elementary School -- how to be more energy-efficient.

"It's to get them to understand the importance of energy efficiency, and the impact they can have on their parents, as well as other future consumers," said Sue Tenney, an education coordinator with Ohio Energy Project.

Tenney added that one of the project's philosophies is to have "kids teaching kids," as children often really understand something better when they teach to other children.

"It's very important to inform students so they become aware of what you are really doing when you leave all the lights on in your house," said Bexley senior Catherine Brennan. She also participates in the e3smart project.

"I am just glad that we are learning to conserve the energy we use. We can pass it on to the next generation and hopefully we can make a change for the future," Brennan said.

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# Reynoldsburg schools

## Students study ways to conserve

by DAVID S. OVVEN  
thisWeek Staff Writer

For the past nine weeks, students in Tara Rahm's environmental science class have been learning about conserving energy and saving money in their own homes. As a part of a "gridSMART" initiative sponsored by AEP Ohio and administered by the Ohio Energy Project, Rahm's class was provided with the tools to use this year to learn more about what they can do at home to save energy. "In one lesson, we used a Watt Meter and did a calculation on how much does it cost to run, for example, your TV for one year and what part of your annual bill, from your TV," Rahm said. "We also used a computer and a toaster and a hair dryer; they figured out that anything with a heating element is going to be more sensitive than something without a heating element."

Throughout the class, Rahm

### A closer look

**As a part of a "gridSMART" initiative sponsored by AEP Ohio and administered by the Ohio Energy Project, Tara Rahm's environmental science class was provided with the tools to use this year to learn more about what they can do at home to save energy.**

said, the students not only learned how to make their homes more energy efficient but also learned the science behind the actions. One unit focused on using insulation, and another mini-lesson on the difference between using an incandescent light bulb and a more efficient CFL light bulb.

Students also conducted studies on heating and cooling water and measuring how much power

home appliances use. The students were given a bag of home improvement materials; donated by AEP, which included CFL, light bulbs, low-flow showerheads and insulation materials. As homework, Rahm said, students were instructed to install and use the items at home and measure how much energy was used.

Through her analysis and from the training provided by AEP for the course, Rahm said the average savings over the life of one CFL light bulb – about five years – is \$78. Ninety-eight percent of the students installed CFL bulbs, which means over five years, each family should save about \$234, she said.

"My students have truly taken this unit to heart and encouraged their parents to save energy in small ways like installing the wash-clothes, unplugging unused appliances and purchasing Energy Star appliances," she said.

"They had a low-flow showerhead to install at home and they used a special bag where they could measure the rate of flow before the low-flow showerhead was installed and the rate of flow after," she said.

Rahm said besides learning the importance of going green with energy-saving tips, her students benefited more by physically participating in the projects.

"It's so interesting when you do it like this," she said. "You actually give them the stuff to go home and see it in action. I think they really see that conserving energy and water is easier than they thought."

In addition to their classroom work, her 35 environmental science students participate in the "Green Teens" club at RHS. They have put a recycling program in place at the school for paper, aluminum and plastic.

Jim Johnson, facilities manager for the School district, said the recycling is saving money. Currently, he said, it costs \$1,034 a month to haul trash from RI-15. Because of increased recycling efforts, the district was able to remove one trash dumpster entirely, thus reducing hauling costs by \$200 a month.

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## Kits allow students to put energy lessons into practice

By SARA R. JOHNSON

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CSG's telling of Christmas story thinks outside manger High school students use film to confront tough issue

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# Student, Staff, Community Achievements

**STAFF:** Mr. Jay Terry was our Meijer Teacher of the Week on T102. He won a \$25 gift certificate to Meijer. Congratulations and thanks to the parent who nominated him!

**EHS:** Congratulations to Nate Sackinger on being named one of the 2011 OSU Rudd Scholars winning a 4 year full tuition scholarship!

Natalie Mason auditioned for the University of Toledo's Dance Team and was selected, as a freshman, to be on the team. There are 12 team members, with 2 freshman being selected this year, and Natalie being one of them. They perform at the home football games, and boys and girls basketball games. Congrats!

Tylor Thompson has been accepted into Bluffton University. He will be playing football for the college and majoring in business. Congratulations Tylor!

Congratulations to the Elida FFA Cooperative Education Team for placing 3rd out of 39 schools in the State Cooperative Education contest. Team members were: Jessica Foust 10th/285 individuals, Trenton Long 11th, Jessica Dunham 13th, and Audrey Fox 31st. Other member placings included: Chris Shockey 35th, Jessica Troyer 36th, Zack Carrier 41st, Dustin Bolenbaugh 42nd, Mark Morris 44th, Jaylen McDuffie 53rd, Sarah McCleary 56th, Cody Hunter 59th, Halle Strayer 69th, Kory Flether 81st, Josie Hogue 89th, Bridget Sevit 93rd, Trevor Leis 108th and Dakotah Rolfe 131st.

**EMS:** Elida Middle School sixth grade students and their parents recently completed the e3SMART Energy Efficiency Education Program, a gridSMART initiative, sponsored by AEP Ohio. Their science teachers, Barb Hawk and Darrell Bryan, would like to thank all the parents for their participation and support. This was a great partnership that gave parents the tools to reinforce what the students learned at school and also save money on their future energy bills. Through these lessons, students learned at school how energy is produced and used. They then worked with their parents at home to pass on their knowledge that could help lower energy use and save money at home. Each family of all Elida Middle School sixth graders were offered the option of accepting a free "energy kit", estimated retail value at about \$68. The kit includes many items such as compact florescent light bulbs, a furnace filter whistle, and a low-flow shower-head. The e3SMART hands-on lessons supplement and support the academic content standards in the "Nature of Energy" at the sixth grade level, which focuses on "renewable" and "nonrenewable" forms of energy.

**EES:** The PTO volunteer appreciation program was held Thursday at 4:00 in the East Gym. Congrats to all the volunteers!

## Crawling.

20 20 mph may feel like you're crawling, but it IS the speed limit from 7:00 am to 4:30 pm on Sunnydale and Pioneer near the elementary and middle school buildings. Please slow down!

## Hey now, get your vote on!

Camp Palmer can use your vote to win a \$50,000 Pepsi Refresh Project Grant. Camp Palmer is the regional 4-H camp for 11 counties (including Allen). The grant would be used to purchase a new water slide for the camp. YOU CAN VOTE EVERY DAY @ <http://pep.si/eNMUNd> - voting ends May 31.

## Parting Thought...

"Shallow understanding from people of good will is more frustrating than absolute misunderstanding from people of ill will." Martin Luther King, Jr.



April 16, 2011 Fostoria Focus

## ***Shocking!***

***St. Wendelin High School science teacher Ron Bowerman and student Haley Wolfe demonstrate the effects of static electricity to third grade students while using a Van der Graaf generator.***

***Photo by Alex Boroff***



By Alex Boroff

Focus Reporter

St. Wendelin High School students got a chance to be teachers this past week, demonstrating their scientific knowledge to elementary students.

Students in Vicki Lannen's third grade class took part in a learning activity Tuesday put on by St. Wendelin high school students in high school science teacher Ron Bowerman's class.

Sophomore, junior and senior students in Bowerman's class led four separate stations, each dealing with an aspect of energy, that third grade students walked through to learn about various aspects of energy. Science students leading the stations were Justin Ball, Andrew Cockie, Josh Digby, Josh Kinn, Nate Marugg, Katie Statham, Sarah Walas and Haley Wolfe.

Bowerman's students are part of the Ohio Energy Project, a program for students who aim to pursue careers in energy fields. It also encourages students to take active leadership roles in promoting energy education.

"This is the high school kids taking a leadership role in teaching the younger kids about electricity and energy transformation.," Bowerman said.

"Teaching is the best way to show what you know, so that's a big part of it," Bowerman said. "And this was their opportunity to get a chance to do that."

Stations involved activities using chemical energy, static electricity, a hand-powered flashlight, and an energy ball used to demonstrate open and closed circuits.

Lannen said her students were thrilled to take part in the energy demonstrations.

"They're giving up their recess to do this," she said. "It was an honor for them to do this."

Along with this activity, Bowerman's fifth through 12th grade students are part of American Electric Power's e3smart program, an energy efficiency program provided free to schools by AEP. Students in the program learn about energy efficiency as well as take part in lab activities related to energy.



## Mrs. Valerie Heban Custom Pages



### E3 Energy Unit

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#### E3 Energy Unit

Students explored ways to be more energy efficient in this unit provided by The Ohio Energy Project with the support of American Electric Power. Students conducted energy audits at home with the help of their parents. Materials such as CFLs, door sweeps, refrigerator and water thermometers, restricted flow showerheads, weatherstripping, and outlet gaskets were provided for home installation. In-class activities supported the home activities. Thanks to the Ohio Energy Project and AEP for provided this wonderful opportunity to educate our students to be energy efficient.

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MAP



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## SCHOOL

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S Fine Arts Room

# Carrollton High School students "taking home" what they are learning about energy efficiency

Three academic classes at Carrollton High School are participating in a unique study of energy through a program of American Electric Power (AEP).

"According to Mrs. Dorma Brown, a Science teacher, at C11, S, the 9th grade Physical Science classes of over 100 students are currently involved and will learn ways to be more energy efficient through the E3 Smart program, a major outreach in innovative energy efficient education through AEP.

"Students will share the knowledge with their families as each day they are provided energy saving devices free of charge from AEP," Mrs. Brown explained.

Beginning Dec. 13, three CHS teachers, including Mrs. Brown (Science) Ms. Mary Lairson (Language Arts) and Mrs. Alzana Nuzzillio (Social Studies) will present a week-long unit involving Science, Social Studies and Language Arts with all Enriched Freshmen students.

The theme will be climate change and the unit is the result of an AEP sponsored workshop the three teachers attended in October.

Launched last year, the E3 Smart program is offered to students in grades 5-12 within the AEP Ohio service territory and is designed to bring math and science learning into students' homes to reduce energy demands and usage.

The Ohio Energy Project, an award-winning energy education program, is administering the project. During last school year, the

2010-11 school year

E3 Smart uses a home to school model to educate families about energy conservation and energy efficiency. Students use energy efficiency devices at school to learn about required energy benchmarks in the state science standards.

Students then take home the items used in the classroom and apply what they learned in the classroom in their home, ultimately installing the devices.

For example, students use compact Fluorescent Lights (CFL) to learn about electricity, efficiency, heat, energy, transformation and other science principles.

They collect data, graph and identify trends in data—all the best practices in science education. Then, they take home the CFLs, share their new knowledge and install them with their families.

Each participating student receives a kit of energy saving devices for use at home and activities for family participation. Once installed, these electricity and fuel-saving measures provide the opportunity to see how low-cost and no-cost measures can effectively lower energy use.

The E3 Smart program is part of the AEP Ohio gridSMART initiative. The cost effective program will help the company meet its targets for reducing electricity consumption enacted by the state of Ohio in Senate Bill 221.

The schools and families incur no cost to participate in the program. Last year, participation

how flow showerheads. In addition, they adjusted their thermostats to a more efficient setting and lowered their water heater setting.

"Our students will learn at school about energy forms, transformation and conservation. They will study the five major uses of en-

ergy in the home and will be encouraged to apply what they learn at home to help their families save energy and money," Mrs. Brown added.



# The Anchor

<http://www.walnuttsd.org>

**October 2010**

*Learn the details of the Superintendent's statement*

## Three Calamity Days This Year

The state of Ohio has mandated that the school districts will have the use of three calamity days beginning with the 2010-11 school year. Previously, school districts in Ohio had 5 days to use for calamity issues including snow and ice days, electrical outages, water problems, etc... As you would agree, the elimination of 2 of the previous calamity days will in no way change the way we review the weather each morning and make decisions to close or delay the opening of school. Normally, the decision to close or delay will be made by 6:00 a.m. and all of the major television stations, radio stations and newspapers will have this information very early in the mornings. As in the past, if weather conditions exist that will allow us to declare a school delay; we will post that information with the local media sources as well. All calamity days beyond the state maximum will be made up at the end of the school year.

## e3smarts at Millersport Elementary

**Millersport** Elementary is again participating in the e3smarts1 program, a major outreach in innovative energy efficiency education. The e3smarts program, sponsored by AEP Ohio, will expand to serve 15,750 students in 210 schools for the 2010-2011 school year. Launched last year, e3smarts4 is offered to students in grades five through 12 within the AEP Ohio service territory and is designed to bring math and science learning into students' homes to reduce energy demands and usage. The Ohio Energy Project (OEP), an award-winning energy education organization, is administering the project. During the last school year, the program reached 10,839 students and their families in 180 schools throughout Ohio.

e3smarts uses a home to school model to educate families about energy conservation and energy efficiency. Students use energy efficiency devices to learn about required energy benchmarks in the state science standards. Students take home the items used in the classroom, and apply what they learned in the classroom in their home, ultimately installing the devices. For example, students use CFLs to learn about electricity, efficiency, heat, energy transformations, and other science principles. They collect data, graph, and identify trends in data—all the best practices in science education. Then, they take home the CFLs, share their new knowledge, and install them with their families. Each participating student receives a kit of energy saving devices for use at home and activities for family participation. Once installed, these electricity and fuel-saving measures provide the opportunity to see how low-cost and no-cost measures can effectively lower energy use.

The e3smarts program is part of the AEP Ohio gridSMARTsm initiative. This cost effective program will help the company meet its targets for reducing electricity consumption enacted by the state of Ohio in Senate Bill 221. The schools and families incur no cost to participate in the program. Last year participating students reported installing 30,468 CFL light bulbs, replacing existing incandescent bulbs.

Science teacher, Chris Deardorff, will be teaching this program in which the students will learn at school about energy forms, transformation and conservation. They will study the five major uses of energy in the home and will be encouraged to apply what they learn at home to help their families save energy and money.

"e3smarts continues AEP's long-standing tradition of enriching energy efficiency education in schools," said Jon Williams, manager, Energy Efficiency/Demand Response. "OEP's success with energy education over more than 20 years and their continued innovation with both teacher training and with the earlier pilot project made them the natural choice to implement e3smarts. We are educating the next generation of AEP Ohio customers about how they can save energy for lighting, electronics and appliances, space heating and cooling, building envelope (insulation and fenestration) and water heating."

As a nonprofit organization, the Ohio Energy Project (OEP) is dedicated to serving teachers and offering the best energy education materials available to teachers and students in Ohio. The original initiative was implemented four years ago with the support for an Ohio EPA grant and was awarded the distinction of "Outstanding Environmental Education Project of the Year by the State of Ohio" by the Ohio EPA in 2008.

e3smarts is an incredible example of a partnership between families, schools, teachers, and utilities. It is a way to make science practical while helping families reduce their energy consumption.





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 • Engagement  
 11th Anniversary



Its so exciting for them because they get to be the expert for the day," she said.

The holiday season will give students even more opportunities to spread the word, as they have been challenged to talk to relatives about conserving energy during family gatherings.

Best of all, Sagle said, the lessons are more engaging than other science topics because they have immediate real-world applications.

That became especially obvious during a supplemental lesson on water conservation, when students were shocked to find out how much water was wasted by leaving the faucet running while brushing their teeth,

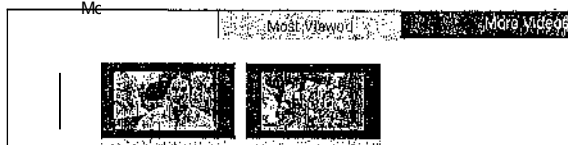
"They're definitely not going to leave the water running anymore, that's for sure," Sagle said,

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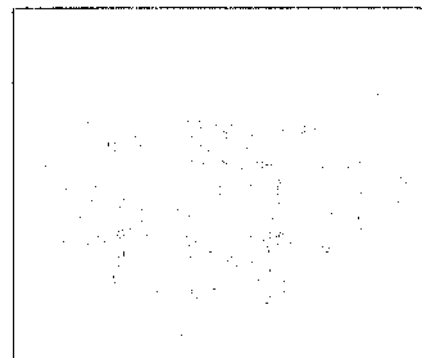
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# Students taking

By Kate York  
The Marietta Times  
[kyork@mariettatimes.com](mailto:kyork@mariettatimes.com)

As CFL light bulbs go in at the homes of Washington Elementary fifth-graders, light bulbs are going off in their young minds, as they have their first lessons on energy efficiency and nonrenewable resources.

"It's, amazing how little they know at that age," said fifth-grade teacher Tasha Werry. "I asked them one day what a water heater was, and they were saying think it's that big, tall cylinder thing in the basement." This is eye-opening for them."

As part of a E3 Smart outreach program sponsored by AEP Ohio, students are now bringing home and installing outlet and switch gaskets, weather stripping, door sweeps, low-flow showerheads and CFL light bulbs. They'll then complete an energy audit and find out the savings, both in terms of energy and money.

It's not a typical service project, but it actually serves the entire planet.

"You can start to save the whole world by one person using one light bulb," said fifth-grader

## What's being installed

- CFL light bulbs.
- Outlet and switch gaskets.
- Weather stripping.
- Door sweeps.
- showerheads.

Samantha Clinger, 10. "And if one person does maybe we can get the who world to switch."

Classmate Max Garrison, 11, said he can think of countless reasons to be making the changes, even though he isn't so sure he like the new shower-head.

"I do want to help the environment and make green planet," he said. "I don't want penguins to go extinct."

In-school experiments on electricity, efficiency, heat and energy precede the installation of each device going home with students.

"What I find is that this connects their learning to real-world situations, which is something we always try to do," said Werry. "They literally get to take it home."

Fifth-grader Caleb Young, 10, said he's already changed his habits, including turning lights off



KATE YORK The Marietta Times

Fifth-graders at Washington Elementary take part in an experiment Friday measuring efficiency.

**"I do want to help the environment and make a green planet. I don't want penguins to go extinct."**

— Max Garrison, Washington Elementary fifth-grader.

when he leaves a room. how much energy we "I never realized before waste," he said. "I'm also

shorter showers. taking commercials.

Tess Poulson, 11, and several other classmates, said that before these lessons began, their only real knowledge about energy sources and efficiency came from television commercials. "I would see things on TV about how to help the planet," said Poulson. "Learning about it at school makes a bigger impact."

from television.com

# Sthool takes part in energy program

BELLAIRE MIDDLE School is participating in the e3smartSM program, a major outreach in innovative energy efficiency education.

The e3smartSM program, sponsored by AEP Ohio, will expand to serve 15,960 students in 210 schools for the 2010-2011 school year. Launched last year, e3smartSM is offered to students in grades five through 12 within the AEP Ohio service territory and is designed to bring math and science learning into students' homes to reduce energy demands and usage.

The Ohio Energy Project (OEP), an award-winning energy education organization, is Administering the project. During the last school year, the program reached 10,839 students and their families in 180 schools throughout Ohio.

e3smartSM uses a home to school model to educate families about energy conservation and energy efficiency. Students use energy efficiency devices to learn about required energy benchmarks in the state science standards. Students take home the items used in the classroom, and apply what they learned in the classroom in their home, ultimately installing the devices. For example, students use CFLs to learn about electricity, efficiency, heat, energy transformations, and other science principles. They collect data, graph, and identify trends in data-all the best practices in science education.

The e3smartSM program is part of the AEP Ohio gridSMARTSIV1 initiative. This cost effective program will help the company meet its targets for reducing electricity consumption enacted by the state of Ohio in Senate Bill 221.

The schools and families incur no cost to participate in the program.

Last year participating students reported installing 30,468 CFL light bulbs, replacing existing incandescent bulbs.

The students also reported installing outlet and switch gaskets, weather stripping, door sweeps, and low flow showerheads. In addition, they adjusted their thermostats to a more efficient setting and lowered their water heating setting.

Jennifer Kaczor, •gifted program teacher, attended an extensive professional development training as part of the project, and is implementing the program with Sixth grade Science Teacher Miss Heil.

Both agree that "With e3smartSM, our students will learn at school about energy forms, transformation and conservation. They will study the five major uses of energy in the home, and will be encouraged to apply what they learn at home to help their families save energy and money."

"e3smartSM continues AEP's long-standing tradition of enriching energy efficiency education in schools," said Jon Williams, manager, Energy Efficiency/Demand Response. "OEP's success with energy education over more than 20 years and their continued innovation with both teacher training and with the earlier pilot project made them the natural choice to implement e3smartSM."

THE TIMES LEADER - Tuesday, November 9, 2010



Tyrin Whitfield with home insulation supplies provided by AEP

## **Saving Energy, Light Bulb by Light Bulb**

By: Ali Drabick, Staff Writer

Saving energy might not sound exciting, but the students in Mrs. Rahm's science class sure discovered the excitement. Being energy efficient is easy if you know all the tricks. Partnered by AEP and Ohio Energy Project, students in Mrs. Rahm's class learned how to be energy efficient.

The students were provided kits containing energy efficient products to take home. The kit included: CFL (compact fluorescent) light bulbs, insulation materials, and a low flow shower head. The kits were worth about \$70, and were provided by AEP for free. Student Tyrin Whitfield liked installing these materials at home. He said, "It made me feel like Bob the Builder."

[For more on this story, click here to go to our News page.](#)



## Energy Leaders of tomorrow at North Nim.

For the second year, the 5th grade students at North Nimishillen Elementary are learning how to become energy leaders. Thanks to a grant from AEP Ohio, the Ohio Energy Project provides lessons and energy saving items for students to use at home. Students here are pictured with CFL bulbs, energy efficient shower heads and insulation, which are just a few of the items provided by this program. The Ohio Energy Project lessons not only meet the state educational requirements, but they also provide practical information and resources to help kids and their families make smart energy choices and save money.



## Social Studies & English News

In social studies class this past nine weeks, the students learned about the Persian Wars, the wars between Greece and Persia. During this unit, the students studied Alexander the Great and his plan to conquer and unite the diverse peoples of his huge empire.

Each student presented to the class a project of his/her choice on a Roman emperor. Their hard work paid off with both creative and interesting projects. Presently, we are finishing the Roman Republic and will go on to the Punic Wars between

Rome and Carthage.

A big congratulations to our top three 7 Orange Geography Bee winners — Griffin James, Jacob Montgomery and Jake Vogley.

In English class, we covered propositional phrases, adjective clauses, personal pronouns, possessive pronouns, indefinite and relative pronouns and prepositions. We finished up with coordinating and subordinating conjunctions. Add DOL and spelling, and some narrative writing, and our nine weeks just flew by!

from the otesiz of Mrs. wHolzoff

We had a good time, and even had a donut party to celebrate almost everyone doing well on a spelling test!

## Science News

Team 7 Orange students recently completed the e3smart unit about energy efficiency and conservation. The program is part of the AEP Ohio gridSMART initiative to reduce electricity consumption in response to Ohio Senate Bill 221. The program is administered by the Ohio Energy Project at no cost to the school or students. Our students were part of the 15,000 students participating in Ohio this year.

The e3smart program uses a home to school model to educate families about using energy wisely. Students take home items used in the classroom and apply at home what they have learned in school. For example, students compared CFL and incandescent bulbs using thermometers and watt meters. The cost to use each type of bulb was calculated. Data was collected, graphed and shared. Students then took home CFLs to install in their own homes.

AEP hopes to educate the next generation of AEP Ohio customers about how they can save energy for lighting, electronics and appliances, heating and cooling and water heating. An added benefit is that the homework provided opportunities for parents and children to interact as they learned about their own homes. Many of the students had no idea what heat source they used at home, how much electricity they used, or many other practical, every-

day topics about energy usage at home. Thanks to AEP for providing this the training and supplies for this unit. You can see some pictures of activities online at my website.

We have begun our study about the diversity of living things. We know the five main reasons that animals adapt. We know the steps of the classification system and the kingdoms of life. We are currently studying the Kingdom Protista and are using microscopes this week to observe live samples of protists. We will be moving shortly to the Kingdom Animalia for a more in-depth look at the vertebrate and invertebrate animals. This unit will also include the dissection of clams and frogs, always a favorite!

I am offering an after school *Science Extension* session to all 7 Orange students. This will be held in Room 119 after school on announced days, usually a Monday or Thursday. During *Science Extension* we will do more activities to support what is being done in the classroom as well as test preparation for Chapter or Unit tests. This would be fun for students who are science-oriented or need more hands-on activities to master the concepts. Dates will be announced in class and on my website. Students are encouraged to sign up to be part of *Science Extension*.

frown. the ole.slq, of Mrs. fielorxh,

We practice how to study in class by removing the cards from the rings and moving them around, grouping and organizing, to make sense of the words. Science is rich with vocabulary so it is very important for the students to make the words their own as they are used extensively in the classroom conversation. Homework supports the concepts in class and is not just busy work. Doing a quality job on homework reinforces what is being taught in the classroom. Homework is graded for completion, not accuracy. We do go over the completed work the next day in class where students should self-correct. Good study and homework habits are crucial to student success. We are already half way to eighth grade and for some students, high school credit classes next year.

Copy Moms

Special thanks to our devoted team of copy moms. The help they provide in running the worksheets, study guides, and tests is much appreciated by the 7 Orange teachers. Thanks to Mrs. Wood, Mrs. Wohlford, Mrs. Player, Mrs. Richards, Mrs. Cobb, and Mrs. Clawson.

## FORT JENNINGS DISTRICT NEWSLETTER

Congratulations to Mrs. Horstman's 5<sup>th</sup> grade and Mrs. Altenburger's 9<sup>th</sup> grade science classes here at Fort Jennings. The students and their families have recently completed the e3smart Energy Program sponsored by AEP and the Ohio Energy Project! The students received free energy-saving devices to use in their homes. They all learned a lot about adopting more energy efficient ways in their lives. The students found out that every little bit we do to conserve energy truly does make a difference! Many of us didn't realize how much energy we really do waste. Here's to our Fort Jennings children growing up to be e3 SMART, energy-saving smart!

Dear Dr. Conrath,

My name is Katherine Watkins and I'm a freshman at Kilbourne High School. I'm writing to inform you of the interesting things we learned during our energy unit in Physical & Earth Systems Science class, and how this new knowledge can help you and the Worthington community save money and energy, as well as to raise "energy awareness". If only we all did just a little bit more to save energy, we'd be doing so much for our environment, and our wallets! Some of the easiest things will make the biggest difference. Our activities were done in conjunction with AEP Ohio gridSMART initiative.

Wasted energy: that's the name of the game for high energy costs all around the country. Energy is the ability to do work. When we eat we convert chemical energy into mechanical energy; energy is everywhere and we're always using it! Many Americans have the desire to reduce their energy usage, but aren't willing to give up the appliances that convenience them to do so. The truth that we learned these past few weeks is that with little effort you can reduce your energy cost and usage without hand washing your clothes or anything that extreme. During this unit we did many activities that really surprised me when I saw their results. We used wattmeters to measure the wattage used to power

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simple, everyday, at home, appliances. For example, an alarm clock that you leave on all day, every day, and all year can cost you almost \$100.00 annually! It would be easier just to use the alarm on your phone and save the money and energy, seeing as how most people charge their phones at night anyway. In addition to these calculations, we also calculated that if you change an Incandescent Light bulb to a Compact Fluorescent Light bulb, for 10,000 hours of use, you would save \$78.14! How simple, easy, and logical?! These are just a couple ways that we can save energy. If everyone knew these facts, we could really work together to benefit the environment!

As a part of the "at home" kit we got from the gridSMART project, we got to install our own energy efficient equipment. My personal favorites were the outlet insulators and the low-flow shower head. When, as a homework assignment, I checked the draft coming out of my outlets, I was astonished to see that there was quite a bit. All of this was fixed by the outlet insulators! The low-flow shower head helped my family save on water when taking showers, but was so high quality that I couldn't even notice the difference between the low-flow, and my old one. Both of these things are great examples of the ways that my family and fellow Worthington residents can save on energy costs, without that big of a hassle. One of my favorite and most surprising activities we did was a test of how well our refrigerators are insulated. We put a dollar bill in the door of the refrigerator and tested how easy or hard it was to pull out. Much to my dismay, the bill fell out with a tiny tug! I was appalled at how much energy I must be wasting, considering the fact that a refrigerator must be on all the time. Some extra insulation fixed that problem quickly. I wouldn't be surprised if that was true for half of Worthington; so much energy we could save!

I hope this information is helpful to you in your efforts to make Worthington Schools and its students more energy efficient. If we all work together, these simple ways to save energy can really make a difference. Getting the word out is the first step, and because this information is so important, I know everyone will listen. Saving energy and on its costs will make for a better future for the people who will be where we are 50 years from now. We can do it; one step at a time!

Thank You for listening,

A handwritten signature in black ink, appearing to read "Kins", written in a cursive style.

---

Katherine Watkins



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Summary: Comments I am filing comments regarding why energy efficiency education programs should continue. electronically filed by Mrs. Shauni Nix on behalf of Ohio Energy Project and Mrs. Shauni Nix