

Advice From Educators

FirstEnergy Welcomes Our New Educational Advisory Councils

We are delighted to welcome new panels of teachers to our Ohio, Pennsylvania and New Jersey Educational Advisory Councils. These committed educators will serve two-year terms helping to evaluate and recommend the educational materials that FirstEnergy provides for classrooms

and youth groups in our communities. We rely on their experience and expertise to help us select materials that are accurate and that appeal to students in the intended grade level. We appreciate the dedication of these teachers!

Ohio

- **Akron:** Cleotha A. Dinkins, Ellet High School
- **Alliance:** Theresa M. Lattanzi, Alliance City Schools
- **Youngstown:** Marilyn Leslie, Youngstown City Schools (photo unavailable)
- **Boardman:** Jeanne Riser, Boardman Center Middle School
- **Cleveland:** Carmine Stewart, Giddings Elementary School; and Matthew Alan Teare, Ph.D, Cleveland Municipal School District
- **West Geauga:** Anthony Podojil, West Geauga Local Schools
- **Elyria:** Heidi Marie Rock, Elyria City Schools

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Carmine Stewart



Cleotha A. Dinkins



Jeanne Riser



Theresa M. Lattanzi



Anthony Podojil



Heidi Marie Rock



Matthew Alan Teare, Ph.D

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- Electric Operating Companies:
- Ohio Edison
 - The Illuminating Company
 - Toledo Edison
 - Metropolitan Edison
 - Pennsylvania Electric
 - Penn Power
 - Jersey Central Power & Light

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Pennsylvania

- **Clearfield:** Judi Bookhamer, Clearfield High School; Rebecca Hummel, Clearfield Elementary School; and Janet Lovesky, Clearfield Middle School
- **Punxsutawney:** Cynthia Kallas, Mary A. Wilson Elementary School (photo unavailable); and Jeffrey J. Kuntz, West End Elementary School
- **Philipsburg:** Julie Ann LaFuria, South Hills School of Business & Technology
- **Erie:** Candyce L. Sandusky, J.S. Wilson Middle School
- **Ebensburg:** Teresa Soyka, Cambria Elementary School



Teresa Soyka



Julie Ann LaFuria



Janet Lovesky



Rebecca Hummel



Judi Bookhamer



Candyce L. Sandusky



Jeffrey J. Kuntz

New Jersey

- **Farmingdale:** Denis Alicia Maher, Howell Middle School North
- **Hazlet:** Kathleen A. Manzo, Middle Road School
- **Freehold:** Richard Pepe, Freehold High School
- **Union Beach:** Elaine Plevier, Memorial School
- **Neptune:** Elynn R. Shapiro, Midtown Community Elementary School
- **Long Branch:** Sudarsman Sharma, Long Branch High School (photo unavailable)
- **Keyport:** Kim Slivka, Monmouth County Vocational School (photo unavailable)
- **Toms River:** Elaine S. Taff, Hooper Avenue Elementary School (photo unavailable)



Kathleen A. Manzo



Richard Pepe



Denis Alicia Maher



Elynn R. Shapiro



Elaine Plevier

The Cutting Edge

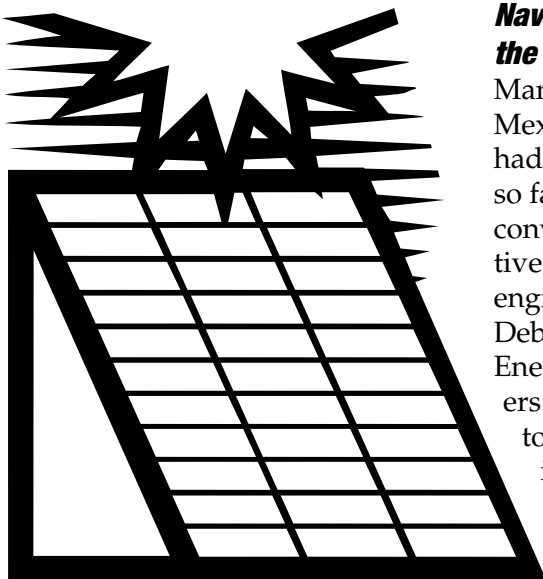
Growing Our Own Plastic

Most of the plastic we use is made from non-renewable petroleum, but some companies are now turning to bioplastic for packaging foods and other products. Made from corn, bioplastic is renewable and biodegradable. A fermentation process converts corn sugar into lactic acid and then into a polymer called polylactic acid or PLA. Wal-Mart and Wild Oats markets are two retailers now using PLA packaging in the United States.
marketplace.publicradio.org, May 26, 2006

Fabric for Real Invisibility Cloaks

Scientists at Duke University and Imperial College London are working together to develop a material something like Harry Potter's invisibility cloak. The material makes an object invisible by deflecting rays of light that would have hit it, guiding them around the object and then returning them to their original trajectory. The key to this innovation is the use of metamaterials – materials with certain structural features that are smaller than the wavelength of electromagnetic radiation.

The Economist, May 27, 2006



Hovering Over Mars

Following the success of the Mars rovers, German researchers are proposing a new approach to exploring the red planet: a balloon. While the rovers can gather data only over a small area and close to the ground, a balloon could hover above the surface snapping pictures and taking temperature, wind and humidity readings. Magnetic sensors could measure fluctuations in gravity, giving insights into the planet's geological makeup. The balloon, to be named Archimedes, is projected to reach Mars in 2009.

The New York Times, June 13, 2006

BigBelly Can Gobble Garbage

The streets of Boston now boast 50 solar-powered, self-compressing, spill-proof garbage cans. The hi-tech garbage can, named BigBelly, can hold five times as much as a regular city trash can. Photoelectric panels feed power to a motor-driven compactor that can run for several weeks without sunlight.

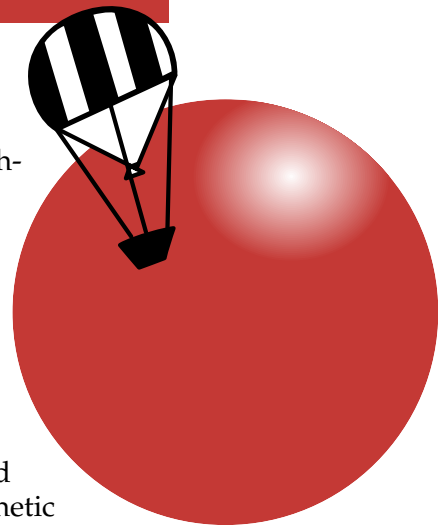
The Week, August 25, 2006

Navajos Harness the Power of the Sun

Many Navajo families in Arizona, New Mexico, Utah and Colorado have never had electricity in their homes. They live so far from the grid that bringing them conventional electric power is prohibitively expensive. Now Native American engineers Sandra Begay-Campbell and Debby Tewa, working with the Tribal Energy Program, help Navajo homeowners install solar units

to generate power for individual homes.

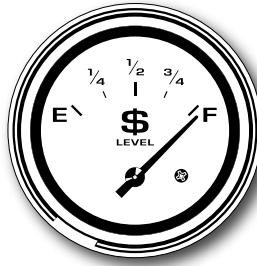
*Career Currents,
April 2006*



Visit our Web site at
www.firstenergycorp.com/education

Educational Resources Available

Students can learn about alternative fuels and a road trip that used no gasoline at www.coolfuelroadtrip.com.



The National Oceanic and Atmospheric Administration has launched a children's book about its Teacher in the Air program. For a free copy, email your request to noaa-outreach@noaa.gov.

Teacher-to-teacher workshops from the Department of Education are available online at www.paec.org/teacher2teacher.

"Life Cycle of a Cell Phone" is one of a series of free posters from the EPA illustrating the environmental impact of everyday objects. To order the posters, visit <http://www.epa.gov/teachers/order-publications.htm>.

For free virtual field trips students can take on the Internet, visit www.efieldtrips.org. Topics include renewable energy, forest fires and marine mammals.

For weather-related online games and activities, visit www.scijinks.gov, a website for middle school students designed by NASA and NOAA.

For free online quizzes on energy topics, go to www.quiz-tree.com/Energy_main.html.

For teacher-tested science lesson plans and classroom activities, visit www.windows.ucar.edu.

Flinn Scientific offers a free First-Year Teacher's Survival Kit and other free materials for teachers at www.flinnsci.com/Sections/Freebies/flinnFreebies.asp.

Science in Your Shopping Cart is a free illustrated booklet from the U.S. Department of Agriculture, Agricultural Research Service. To preview the booklet, go to www.ars.usda.gov/is/np/shopcart/shopcart.pdf. To order, email lwelsh@ars.usda.gov giving the name of the booklet and your complete mailing address.

For ideas on presenting math and science concepts in pre-K to 2nd grade classrooms, visit the PBS TeacherSource website at www.pbs.org/teachersource/prek2.htm

For free energy-related classroom activities ranging from how light-up shoes work to how electricity is generated from coal, visit www.snopud.com/Education/EducationalPrograms/ClassroomActivities.ashx?p=2096.

Students can take a virtual tour of a North Sea oil drilling platform at www.schoolscience.co.uk/content/4/chemistry/petroleum/captain/index.html.



"If people did not do silly things, nothing intelligent would ever get done."

- Ludwig Wittgenstein

