

A Lesson in Electricity

It is very important for young people to understand that electricity extends beyond turning on a light switch.

by Mike Lynch

RURAL ELECTRIC CO-OPS ARE COMING TO A classroom near you.

To ensure children learn the importance of respecting electrical safety, “Co-ops in the Classroom” has been created as a hands-on approach that teaches ways to conserve energy, recognizes where electricity comes from and evaluates electrical usage.

By instilling these concepts in children from an early age, the expectation is they will be better prepared to make wise energy decisions now and be conscientious consumers of energy in the future.

Jenny Wolff, education and outreach specialist at East River Electric Power Cooperative in Madison, S.D., and facilitator of the program, realizes the importance of students taking an interest in the curriculum. “The demonstration materials are engaging and interactive so students can enjoy learning about various aspects of electricity,” she said.

Four modules, each approximately 45 minutes long, can be presented to a single classroom or to an assembly of students and all lessons coincide with state and national content standards.

Units include “Respect Electricity,” which defines how to stay safe around electricity and its many applications by identifying indoor and outdoor electrical hazards; “The Energy Patrol” allows students to identify ways to conserve energy at home and in their schools; “Energizing Our Lives” explores the energy sources that fuel our electrical needs, placing special emphasis on renewable energy and emerging technologies; and “What’s a Kilowatt?” teaches students how much energy it takes to produce a kilowatt, what a kilowatt hour is and how many kilowatt hours it takes to power common household appliances.

Three demonstration devices anchor “Co-ops in the Classroom,” “Power Town” is an electrical safety model demonstration that simulates outdoor electrical hazards such as contacting overhead



power lines with a kite, ladder and tree. “Smart House Energy Conservation Simulator” is an interactive model house which turns the concept of energy efficiency by demonstrating behaviors that waste or conserve energy. “Pedal Power” gives students a firsthand experience of how much energy is needed to produce electricity when a bicycle generator is used to power a variety of electrical devices.

Electric cooperatives have long promoted the importance of doing small things that make a big difference to save money on utility bills. One focus of the program is to educate elementary students so appropriate energy efficiency and conservation habits can be formed early.

“It is very important for young people to understand that electricity extends beyond turning on a light switch.” Wolff said. “I get them to think about all the ways electricity affects our daily lives.”

Wolff is also optimistic that learning about electricity will extend beyond the classroom.

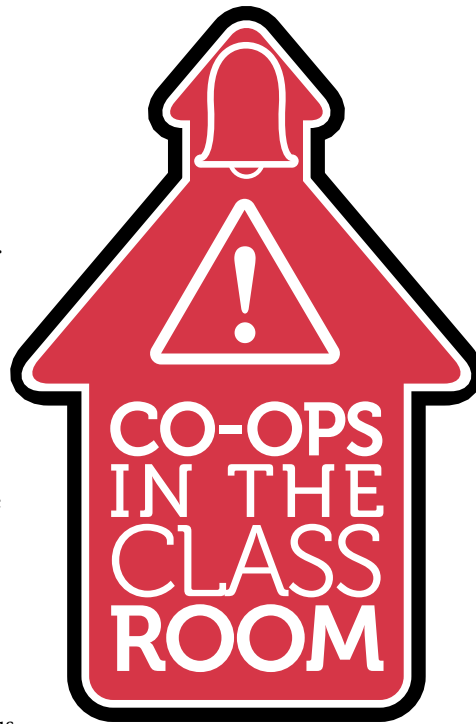
“Hopefully after these lessons are given, students will take this information home to their parents because there is a lot for us all to learn about electrical safety, energy efficiency, generation and renewables.”

A Web site, www.eastriver.coop/classroom, contains coloring pages, lessons, activity sheets, a calendar for scheduling and a contact form to request more information.

Though each module has an age range recommendation from kindergarten to sixth grade, educators are able to select individual lessons within each module to complement existing instruction. “We want this curriculum to be not only flexible, but a supplement to the great things that go on in area classrooms everyday,” Wolff said.

And the learning doesn’t stop once school is out. In the summer months, “Co-ops in the Classroom” is available for various camps throughout eastern South Dakota and western Minnesota.

Opposite: Jenny Wolf, education and outreach specialist at East River Electric Power Cooperative in Madison, S.D., points to a meter in the “Pedal Power” demonstration. The board helps students see how much power is needed to produce electricity when a bicycle generator is used to power a variety of electrical devices. **Cover:** A girl gets a “hair-raising” experience during a demonstration that is part of the Co-ops in the Classroom program.



RESPECT Electricity

Educators interested in learning more about the program or scheduling a visit for the 2009-2010 school year should contact their local Touchstone Energy® Cooperative or visit the Web site.

Recently, Wolff had an opportunity to conduct a lesson at Madison Middle School for teacher Chris Waba’s Integrated Studies class. Waba noted that “Co-ops in the Classroom” answered many questions for his students.

“It was an eye-opener for them. My students had always wondered how much electricity was used in their homes and they didn’t realize that electricity needed to be used as it is produced, that you couldn’t store it,” Waba said.

As a cooperative core value, “Commitment to Community” serves as an integral component to the importance this type of involvement has. This aspect of “Co-ops in the Classroom” may very well be one of the program’s most important attributes.

“Just to have someone from the community come into the classroom really creates an interest level for the kids and gives them a real world perspective. It also gives kids an opportunity to ask questions and consider a career within this field which created a lot of discussion for my classroom,” Waba said.

Mike Kjose, member services/marketing director for Clay-Union Electric in Vermillion, S.D., values the program for its dedication to children.

“This program connects with people at a young age when they are impressionable and allows them to take ownership with energy efficiency and conservation. They are the next generation and it’s important that we reach them and understand that this type of learning is ongoing.”