

Amherst educators move to reverse energy illiteracy

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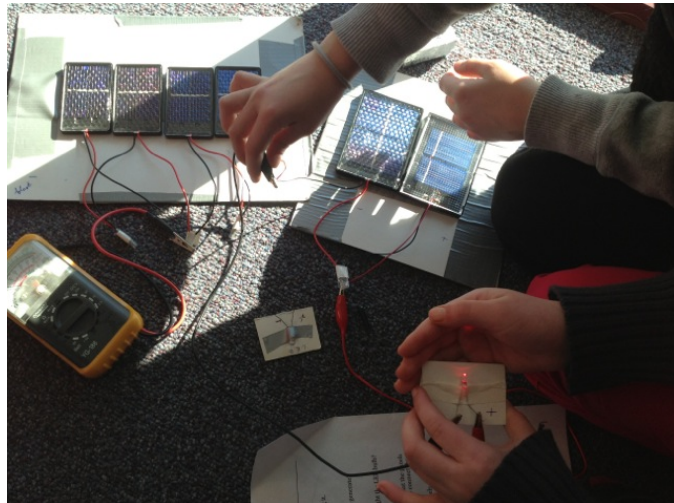
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AMHERST — Environmental educators in Amherst will use a foundation grant to inspire elementary students to think anew about energy in today's world.

The Hitchcock Center for the Environment will rework the "energy literacy" curriculum it uses to train teachers in more than 40 schools in the region. The goal, staffers say, is to encourage young scientists to think critically about a topic that surprisingly few Americans of any age understand.

A 2002 study by the National Environmental Education Foundation found that only 12 percent of Americans grasp how energy is generated.

Starting Feb. 1, the center's 10-week "Energy is Electrifying" program will reach 450 fourth- and fifth grade students in the coming year, according to Julie Johnson, Hitchcock's executive director. It embraces new standards on science teaching now being adopted that emphasize critical thinking.



"This curriculum implements a new way of teaching science," Johnson said. "It brings together a lot of high priorities for our communities and for our schools."

A nation that doesn't understand energy can't solve its problems, the Hitchcock Center maintains. "Our national deficit in energy literacy may be one of the most fundamental roadblocks to progress on the issues of climate change and energy sustainability," it said in a release. Micky McKinley, a 26-year Hitchcock educator and former classroom teacher, said the curriculum improves on past teaching methods that often stopped at definitions of electricity without considering how it is generated, the environmental costs of generation and its use.

"You don't learn where it comes from ... and what are the impacts," she said of traditional units on energy. "To me, understanding that whole thing is basic to knowing how we can do it

differently. The difference now is that we took the work we had been doing and aligned it with the national standards.”

Instruction is hands-on. Small kits provided to participating classrooms let students generate electricity from wind and light. They can measure voltage outputs with multimeters and begin to talk not only about where electricity comes from, but how wisely it is used.

“We never ever give kids a guilt trip or make them feel overwhelmed by the problems,” McKinley said. “We want them to feel empowered to make changes.”

“It’s very active learning,” she added. “It’s really an excellent approach to science.”

The center is recruiting 20 teachers from Hampshire, Hampden and Franklin counties to take part in the revamped program by attending three initial workshops. Hitchcock staffers then spend time as mentors in participating classrooms.

Teachers who take part are expected to share what they learn with colleagues, giving the program greater reach. “Hopefully it will expand to other classrooms in the same school,” Johnson said.

Work to revise the program, led by McKinley and Patty O’Donnell, will cost around \$12,000, Johnson said. That will be paid for in part by a \$7,700 grant from the Frances R. Dewing Foundation. Interested teachers can contact McKinley at micky@hitchcockcenter.org.

“We’re really taking a much bigger role in science education than we have in the past 10 years,” Johnson said. “It’s a big, growing area for us.”

<http://www.gazettenet.com/home/9769564-95/amherst-educators-move-to-reverse-energy-illiteracy>