

Educating California's youth on water issues

The Issue

Clean water is critical for life and needs to be managed wisely to ensure adequate supplies for natural ecosystems and human use. Thus, water quality and conservation are important public policy issues. In order to make informed decisions to address these challenges, citizens in today's society require a fundamental understanding of science. Unfortunately, standardized assessments have revealed low levels of science literacy among K-12 youth in California, which also raises concerns about the future of the state's workforce and economic prosperity.

What has ANR done?

The California 4-H Youth Development Program developed and tested a curriculum focused on water conservation and quality. The There's No New Water! curriculum may be used to educate high school-aged youth about water resources while improving their science and environmental literacy.

The curriculum, which was peer-reviewed and published by the National 4-H Council, is based on the idea that water is a finite natural resource whose quantity and quality must be responsibly preserved, protected, used and reused. The curriculum begins with an exploration of the natural water cycle; explores human impacts on water quality and quantity; examines the effects of the urban/rural interface; and includes service-learning projects that address local water issues. The curriculum is grounded in effective educational methods—experiential learning and inquiry—and emphasizes the application of knowledge and skills through service learning projects.



Youth learn about human interventions in the water cycle.

The Payoff

Youth improve science literacy and learn about water conservation

The There's No New Water! curriculum was evaluated in spring 2010 at an urban high school in north central California. Outcomes revealed statistically significant improvements in content knowledge in all areas, including global water distribution, water conservation, watersheds, and the urban/rural interface. Most of the 59 youth participants reported improvement in relevant life skills, including communication, teamwork, decision making, and the wise use of resources. Also 74 percent reported learning "some" or "a lot" about the importance of protecting the environment.

Clientele Testimonial

From youth: "I learned that we humans alone add a lot of pollution to our water system. We need to be more careful with what chemicals we use, what we do with garbage, and other waste. I really don't want to run out of clean water." From classroom teacher: "A particular point I was impressed by was the incorporation of local topographic maps into the curriculum. The students were able to interact with maps of the very mountains they live in the shadow of."

Contact

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