

THE GREEN SCENE: Environmental Education for Grade Schools

By Jan McCoy



U.S.D.A. Forest Service

You have inherited a 10,000 acre parcel of land in a lush forest with clean mountain lakes, a clear flowing river and abundant wildlife.

This valuable land has many natural resources and offers a multitude of opportunities. Already, you have received letters from a builder, a for-ester, a resort developer and a conser-vationist, all offering suggestions for use of your land.

What will you do?

This very problem is put to grade schoolers in a new environmental edu-cation curriculum called The Green Scene. Developed cooperatively by The University of Arizona School of Renewable Natural Resources, The Wilderness Society, and the U.S. Department of Agriculture Forest Ser-vice, The Green Scene is designed to introduce children in fourth through

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eighth grades to forest ecology and the wilderness.

The project was headed by Terry Daniel, a UA professor of psychology and renewable natural resources, whose work focuses on how public perception is affected by changes in the natural environment.

The first four units in The Green Scene curriculum allow students to

examine the importance of forests to humans and other animals, understand the complexities of the forest food chain, write about the natural world and learn about involvement in forest preservation.

The fifth unit, which uses interactive video, introduces the story of a 10,000-acre parcel of land the school has inherited. The school administration has decided to let the students make the decision about the use of the property.

"The students consider four options and make a team decision about the future of this untouched land," Daniel says. "They can choose to sell the land to a housing developer, lease the prop-erty for year-round recreation, leave the land natural as a refuge for plants, animals and scientific research, or lease the land to a forester who will harvest mature trees for timber." *continued*



Michael R. Spokos

Terry Daniel

"Here are alternative futures we have to choose from, which do you prefer?"

The students break into teams, with each team acting as an advocate for one of the options. Each team makes a presentation to the class promoting its position.

Once the students have come to a decision, the second part of the video describes the short-and long-term consequences of their choices. A third video segment introduces the idea of combining more than one use of the forest area.

"We try to emphasize that some of these approaches just don't go together. You just can't have everything—that is the main thing that needs to be understood with multiple use of land," Daniel says.

Daniel assembled a team of natural resource managers, conservationists, classroom teachers and other educators to develop the concepts on which The Green Scene activities are based.

- All living things are interconnected and interdependent;
- Variation and change occur in all ecological systems;
- The natural environment is at risk from human use, population pressures, pollution and direct destruction that threaten the resources on which humans and other animals depend;
- The United States and other countries have set aside protected wild lands for the benefit of current and future generations;
- Actions can be taken to prevent further environmental deterioration and to improve the condition of the environment.

"With something you're going to drop on the desks of elementary school kids, you've got to be very careful to present a balanced approach and have balanced ecological expertise behind

the concepts you're presenting to them," Daniel says. "Also, it's very important to have intensive involvement of classroom teachers from design to pilot testing the final results. If it doesn't work in the classroom, it's a waste of everybody's time."

Daniel's work with the Forest Service and the public ultimately led to the development of The Green Scene.

In 1989, Daniel was close to finishing an hour-long documentary about the condition of America's forests, which he and KUAT-TV, the UA public broadcast station, produced with support from the Forest Service. "Are We Killing America's Forest?" has been shown on public television stations all over the country.

"So, what would you do next?" a Forest Service representative asked him.

Daniel suggested starting a systematic environmental education program in the schools. A few days later, the Forest Service asked him to write up how he would implement such a system. Financial support soon followed.

Meanwhile, the recreation and wilderness division of the Forest Service had been talking about doing a similar project with the Wilderness Society in honor of the 25th anniversary of the Wilderness Act of 1964. Daniel met with members of the groups and all agreed to work together on the project.



Green Scene curriculum units containing a video cassette and six individual lessons cost \$5. Available from: The Green Scene, The University of Arizona, School of Renewable Natural Resources, Tucson, AZ 85721.

Daniel's curriculum design team included Lynette Fleming, a curriculum specialist and author; Gail Backman Love, a consultant from the Wilderness Society; Kerry Baldwin, a consultant from the Arizona Department of Game and Fish and regional coordinator for pilot testing in Arizona; John J. Kirk, a consultant from the New Jersey School of Conservation; Fran Sherlock, a video producer with KUAT-TV; Kathleen Welsch, a consultant and production manager from the Wilderness Society; and representatives of the Forest Service units involved.

After two years of development, The Green Scene was sent out for field testing to more than 90 teachers around the country.

"In a sense, we've made environmental education secondary to language learning, measurement and group problem-solving—the processes and tasks for which classroom teachers are responsible," Daniel says.

Ironically, curriculum development is not Daniel's area of expertise. He has worked extensively with the Forest Service on projects related to public perception of land management in outdoor recreation settings.

"Over the last 20 years, my work has focused on environmental psychology," Daniel says. "I've worked a lot with forest scenery, such as finding the best way to manage scenic roads in forests, or looking at the effects of air pollution on visual values in the Grand Canyon. Most people go to these places to look at the scenery. If something degrades that experience, there's going to be a loss." A good example of Daniel's work is his current project with the Forest Service in Alaska. Using computer technology, Daniel and his colleagues are creating visual simulations of future conditions that may exist in forests.

"We're currently looking at an outbreak of insects that is killing millions of trees in Alaska. None of the possible outcomes are pleasant: bugs may kill all the trees; half the trees could be cut in advance to try to make remaining trees more resistant to the bugs; or insecticides might be sprayed on individual trees, which is nearly impossible to do," he says. "With visual simulations of what may happen over a 50-year time period, we are able to go to the public and say 'here are the alternative futures we have to choose from—which do you prefer?'"

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