Mar 6th, 10:30 AM - 12:00 PM

Morning concurrent track 1: What does it mean for K-12 students to think about sustainability in the Western U.S.?

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Presenters
Ellen Ebert, Rebecca Reichenbach, Allison Brody, Amy Page, Marcel Parent, and Signa Gundlach
Education for a Global Sustainable Future: 21st Century Challenges in Sustainability & Climate Change Education
University of Nevada, Las Vegas
Morning Session
March 6, 2009
Abstract

Beginning in 1982, the National Science Teachers Association called for curriculum designers to develop materials that demonstrate the interconnectedness among science, technology and societal issues while presenting both positive and negative influences. This session will focus on using the STS/EEE learning model to design curriculum for secondary science that emphasizes sustainability issues focused on the Colorado River system. The presentation will outline the essential features of the STS/EEE model, then engage participants in applying the model in a novel situation.
Using the STS/EEE Model in 6-12 Curriculum to Understand the Sustainability Issues Related to the Colorado River System

An Introduction to the Model: Morning Session

Ellen Ebert
Southern Nevada Regional Professional Development Center
March 6, 2009
The Situation:
Clark County, Nevada
This model is designed to foster critical thinking.
Sustainable Water in the Colorado River

- Economics
- Technology
- Science
- Environment
- Ethics

Society
Sustainable Water in the Colorado River

- Economics
- Science
- Environment
- Ethics
- Society
Environment
Sustainable Water in the Colorado River

- Economics
- Science
- Ethics
- Environment
- Society
Sustainable Water in the Colorado River

Ethics

Economics

Science

Environment

Society

Technology
Sustainable Water in the Colorado River
Potential of STS/EEE in K-12 Curriculum

- Fosters student literacy in sustainability
- Extension of classroom to community
- Encourages higher level analysis of complex issues
- Extends science discourse and communication across disciplines
- Easily adapted into current curriculum syllabi
- Encourages students to consider moral and ethical implications of resource use based on well-rounded discourse
- Develops critical thinking about resource use
STS/EEE complements Scientific Inquiry

- Scientific Inquiry includes:
  - Engagement in a scientifically oriented question
  - Development of working hypotheses that can be examined
  - Formulation of explanations based on scientific evidence
  - Connection of findings to previous scientific knowledge
  - Communication of results
Curriculum now

- K-5: Emphasis of FOSS (Full Operating Science System)
- 6-8: Emphasis on integration of issues specifically Ecology at 6th grade, Discover a Watershed: Colorado River at 7th grade, Energy at 8th grade
- 9-12: Science and Sustainability at 9th grade; integration into other disciplines as developed by science teachers
End Morning Session