



Science Education for New Civic Engagements and Responsibilities is an NSF-supported national science education reform project whose mission is to improve science education by helping to develop and strengthen efforts that teach through complex social issues to the basic science necessary to comprehend and intelligently act on them.



# **SENCER** Background

SCIENCE EDUCATION FOR NEW CIVIC ENGAGEMENTS AND RESPONSIBILITIES

- SENCER Founders
  - Wm. David Burns (current PI)
  - Karen Kashmanian Oates
- Project started in 2001
- Currently housed at the National Center for Science and Civic Engagement



The Motivation for Civic Engagement is -

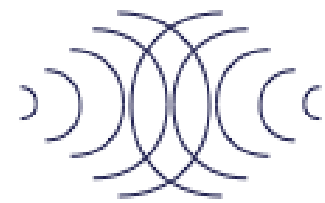
To help students engage in the learning process and  
take responsibility for their learning

and

To experience real life applications, see content in  
context, exercise critical thinking, and address social  
responsibility.



- The project
  - articulates a general philosophy of curricular change that is linked to civic engagement and public policy and is focused on assessing student learning.
  - focuses on undergraduate courses for non-science majors. The approach has also begun to be extended into courses within science majors.

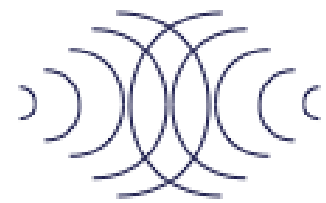


SCIENCE EDUCATION FOR NEW CIVIC ENGAGEMENTS AND RESPONSIBILITIES

# SENCER

# Elements

- Model Courses
- Backgrounders
- Quarterly Newsletter
- Campus Visits
- Science Education and Civic Engagement: An International Journal
- SENCER Centers of Innovation (SCIs)
- SENCER Summer Institutes (SSIs)



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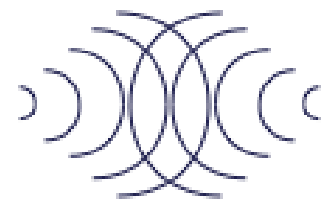
# SENCER Models

*The greatest value of models is their contribution to the process of originating new ideas – developing the imagination.*

L. Pauling, 1983



# What it's About: An Invitation to Participate



# SENCER Models

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Over 35 models have been selected over the past seven years including:



Global Warming  
Sharon Anthony  
Evergreen State  
College

Sustainability and  
Human Health: A  
Learning Community  
Donald Stearns and  
Kim Worthy  
Wagner College

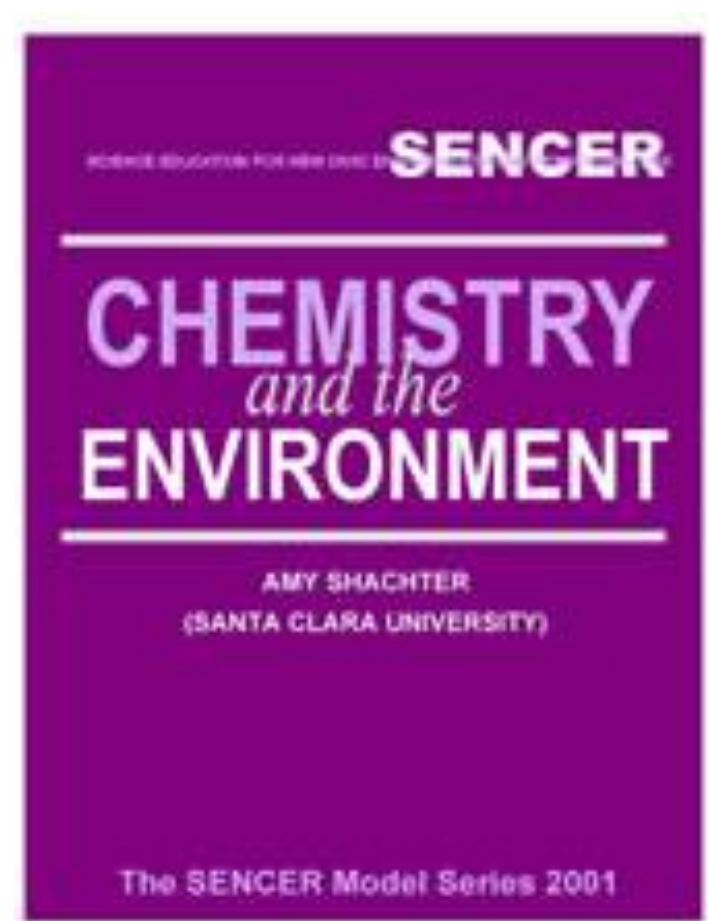




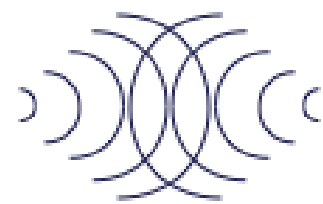


# Models

Chemistry and the Environment exemplifies the SENCER approach through campus- and community-based projects that are required of all the students.



# Sustainability and the



**SENCER** Model

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- Students actively participate in civic engagement as a means of learning science and understanding more sustainable ways of living and working ...
- “Local” projects inspire students to view themselves as community stakeholders and, consequently, foster enhanced civic engagement and responsibility ... and contribute to building a more sustainable future ...



# Civic Engagement and Young People

*Programs and organizations ought to address significant problems or passions in young people's lives, and preferably in the larger community in which they live. In addition, these efforts must allow young people to provide consequential input into decision-making and to produce tangible solutions or products...*

from "Better Together", Report of the Saguaro Seminar on Civic Engagement in America, John F. Kennedy School of Government, Harvard University, December 2000 (page 80).

Our campus — a learning laboratory .....



## Addressing the Challenges

- 1) Use civic engagement to support not replace valuable content.
- 2) Civic engagement can be a tool for engaging students and helping them take responsibility for their learning.
- 3) It is not an issue of replacing content, but putting content in context and supporting learning and retention of the content.

# Contacts

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