



# **Educational Materials on Sustainability Science and Technology**

National Academy of Sciences  
National Academy of Engineering  
Institute of Medicine  
National Research Council

**THE NATIONAL ACADEMIES**

*Advisers to the Nation on Science, Engineering, and Medicine*

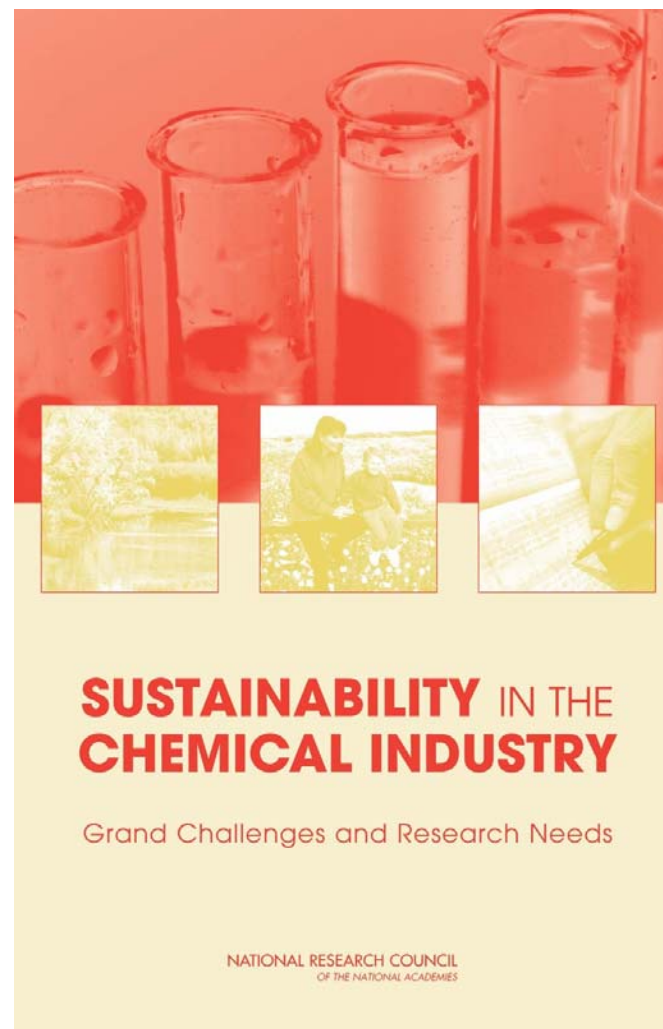


# Is there need for educational materials on sustainability science and technology?

## Grand Challenge:

Improve sustainability science literacy at every level of society—from informal education of consumers, citizens and future scientists, to the practitioners of the field, and the businesses that use and sell these products.

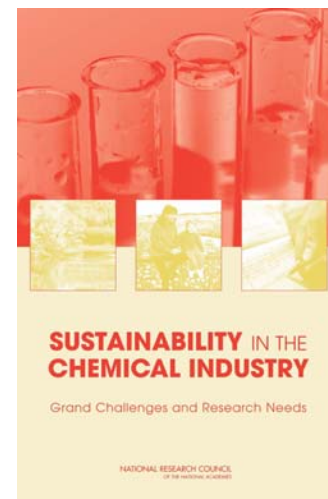
(NRC, 2005)





# Sustainability in the Chemical Industry: Grand Challenges and Research Priorities

- **Provide professional development opportunities for educators to learn more about sustainability and how it can be advantageously incorporated into their research and teaching.**
- **Persuade professional societies to integrate sustainability and green chemistry and engineering concepts into standardized testing, accreditation, and certification programs**
- **Incorporate sustainability concepts across secondary and tertiary education curricula—including chemistry and chemical engineering, medicine, law, and business, with emphasis on management education and schools that educate buyers, advertisers, and designers of consumer goods.**
- **Provide professional development for current and future managers and executives.**

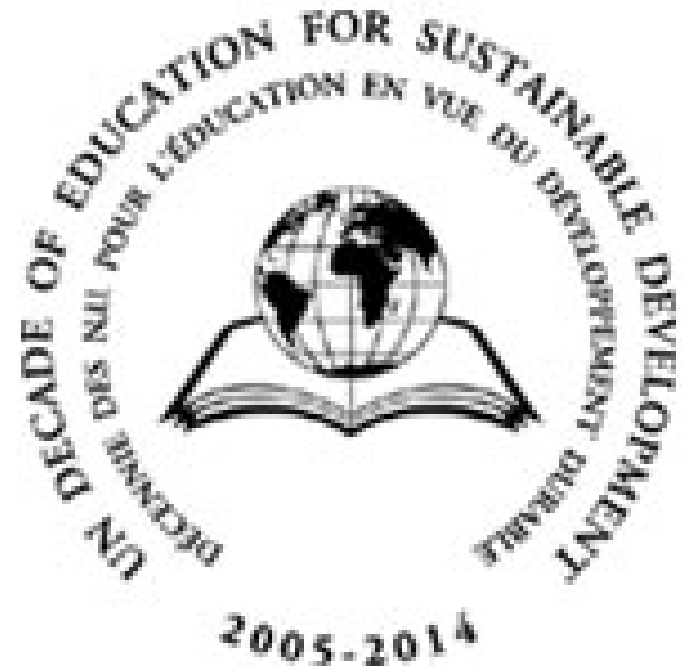




# UN Decade of Education for Sustainable Development

**2005-2014 is the United Nation's Decade of Education for Sustainable Development**

“Aims to see Education for Sustainable Development implemented in thousands of local situations on the ground, involving the integration of the principles of Sustainable Development into a multitude of different learning situations.”





# Ongoing efforts on education for sustainability: a few examples

## **World Bank Institute's DEPweb (Development Education Program website) on sustainable development**

*definitions; learning modules; teacher's guides; interactive data, maps, charts; 211-page student handbook*

<http://www.worldbank.org/depweb/>

## **Second Nature: Education for Sustainability**

*Focus on higher education curricula and practices*

<http://www.secondnature.org/>

## **The Cloud Institute for Sustainability Education**

*Focus on K-12 school systems to prepare young people for the shift toward a sustainable future.*

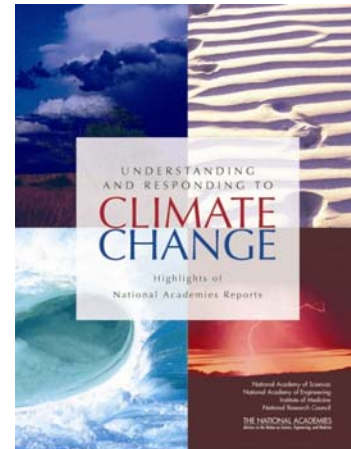
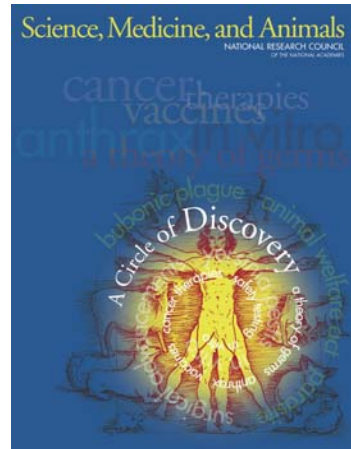
<http://www.sustainabilityed.org/>

**And many more.....**



# What could the National Academies do?

## Primer:



Science, Medicine, and Animals  
NATIONAL RESEARCH COUNCIL  
OF THE NATIONAL ACADEMIES

## TEACHER'S GUIDE

## Teacher's guide:





# Roundtable Discussion:

- What are the key educational resources available on sustainability science and technology?
- Is there a need for a “primer” or other educational material on sustainability science and technology?
- What would be the target audience(s) of such materials?
- Is there a useful role for the Roundtable and/or the National Academies?