

# A Wrong Headed Approach to Teaching Climate Change

*Second Annual Education Summit*

June 22, 2012

Richmond, VA

by

Charles Battig, MD

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## Our Vision, Mission, Values & Goals

### Our Vision

All learners believe in their power to embrace learning, to excel, and to own their future.

### Our Mission

The core purpose of Albemarle County Public Schools is to establish a community of learners and learning, through relationships, relevance, and rigor, one student at a time.

# Albemarle County School Board

## “Strategic Goals”

- *Goal 1: Prepare all students to succeed as members of a global community and in a global economy*
- **Goal 2: Eliminate the Achievement Gap.**
- **Goal 3: Recruit, retain and develop a diverse cadre of the highest quality teaching personnel, staff, and administrators.**
- **Goal 4: Achieve recognition as a world-class educational system**
- **Goal 5: Establish efficient systems for development, allocation, and alignment of resources to support the Division’s vision, mission, and goals.**

# “Strategic Goal” #1 OF 5

- **Goal 1: Prepare all students to succeed as members of a global community and in a global economy.**
- The rapid rise of technology in the late 20th century broke down geographical barriers, creating a global community and economy. In today's information age, students can expect to collaborate, as well as compete, with people around the world for jobs and business. Lifelong learning represents the skills and attitudes needed to succeed in the multi-cultural, fast-changing global community. Developing graduates capable of acquiring new knowledge at all stages of life and applying it is a necessity.

# RIO+20 Began June 20, 2012



## UN Department of Economic and Social Affairs Division for Sustainable Development



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### Core Publications Agenda 21

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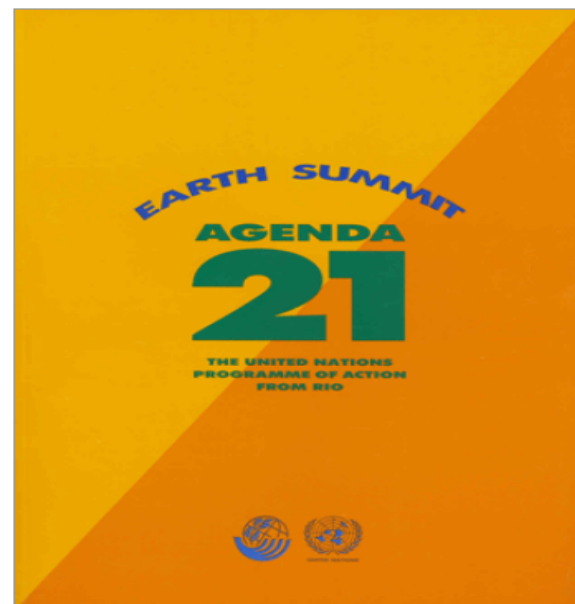
### Agenda21

Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment.

Agenda 21, the [Rio Declaration on Environment and Development](#), and the [Statement of principles for the Sustainable Management of Forests](#) were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3 to 14 June 1992.

The [Commission on Sustainable Development](#) (CSD) was created in December 1992 to ensure effective follow-up of UNCED, to monitor and report on implementation of the agreements at the local, national, regional and international levels. It was agreed that a five year review of Earth Summit progress would be made in 1997 by the [United Nations General Assembly meeting in special session](#).

The full implementation of Agenda 21, the Programme for Further Implementation of Agenda 21 and the Commitments to the Rio principles, were strongly reaffirmed at the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa from 26 August to 4 September 2002.



# One Year After UN's RIO AG21



## PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT

Between June 1993 and June 1999, the PCSD has advised President Clinton on sustainable development and develops bold, new approaches to achieve economic, environmental, and equity goals. We are committed to the achievement of a dignified, peaceful, and equitable existence.

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# President's (Clinton) Council National Goals *Sustainable America* 1996

## National Goals Towards Sustainable Development

The Council first published these goals in its 1996 report, *Sustainable America*. They emerged from our vision and still express the Council's shared aspirations. They are truly interdependent and flow from our understanding that it is essential to seek economic prosperity, environmental protection, and social equity together. The achievement of any one goal is not enough to ensure that future generations will have at least the same opportunities to live and prosper that this generation enjoys: all are needed.

- GOAL 1: HEALTH AND THE ENVIRONMENT**  
Ensure that every person enjoys the benefits of clean air, clean water, and a healthy environment at home, at work, and at play.
- GOAL 2: ECONOMIC PROSPERITY**  
Sustain a healthy U.S. economy that grows sufficiently to create meaningful jobs, reduce poverty, and provide the opportunity for a high quality of life for all in an increasingly competitive world.
- GOAL 3: EQUITY**  
Ensure that all Americans are afforded justice and have the opportunity to achieve economic, environmental, and social well-being.
- GOAL 4: CONSERVATION OF NATURE**  
Use, conserve, protect, and restore natural resources — land, air, water, and biodiversity — in ways that help ensure long-term social, economic, and environmental benefits for ourselves and future generations.
- GOAL 5: STEWARDSHIP**  
Create a widely held ethic of stewardship that strongly encourages individuals, institutions, and corporations to take full responsibility for the economic, environmental, and social consequences of their actions.
- GOAL 6: SUSTAINABLE COMMUNITIES**  
Encourage people to work together to create healthy communities where natural and historic resources are preserved, jobs are available, sprawl is contained, neighborhoods are secure, education is lifelong, transportation and health care are accessible, and all citizens have opportunities to improve the quality of their lives.
- GOAL 7: CIVIC ENGAGEMENT**  
Create full opportunity for citizens, businesses, and communities to participate in and influence the natural resource, environmental, and economic decisions that affect them.
- GOAL 8: POPULATION**  
Move toward stabilization of U.S. population.
- GOAL 9: INTERNATIONAL RESPONSIBILITY**  
Take a leadership role in the development and implementation of global sustainable development policies, standards of conduct, and trade and foreign policies that further the achievement of sustainability.
- GOAL 10: EDUCATION**  
Ensure that all Americans have equal access to education and lifelong learning opportunities that will prepare them for meaningful work, a high quality of life, and an understanding of the concepts involved in sustainable development.



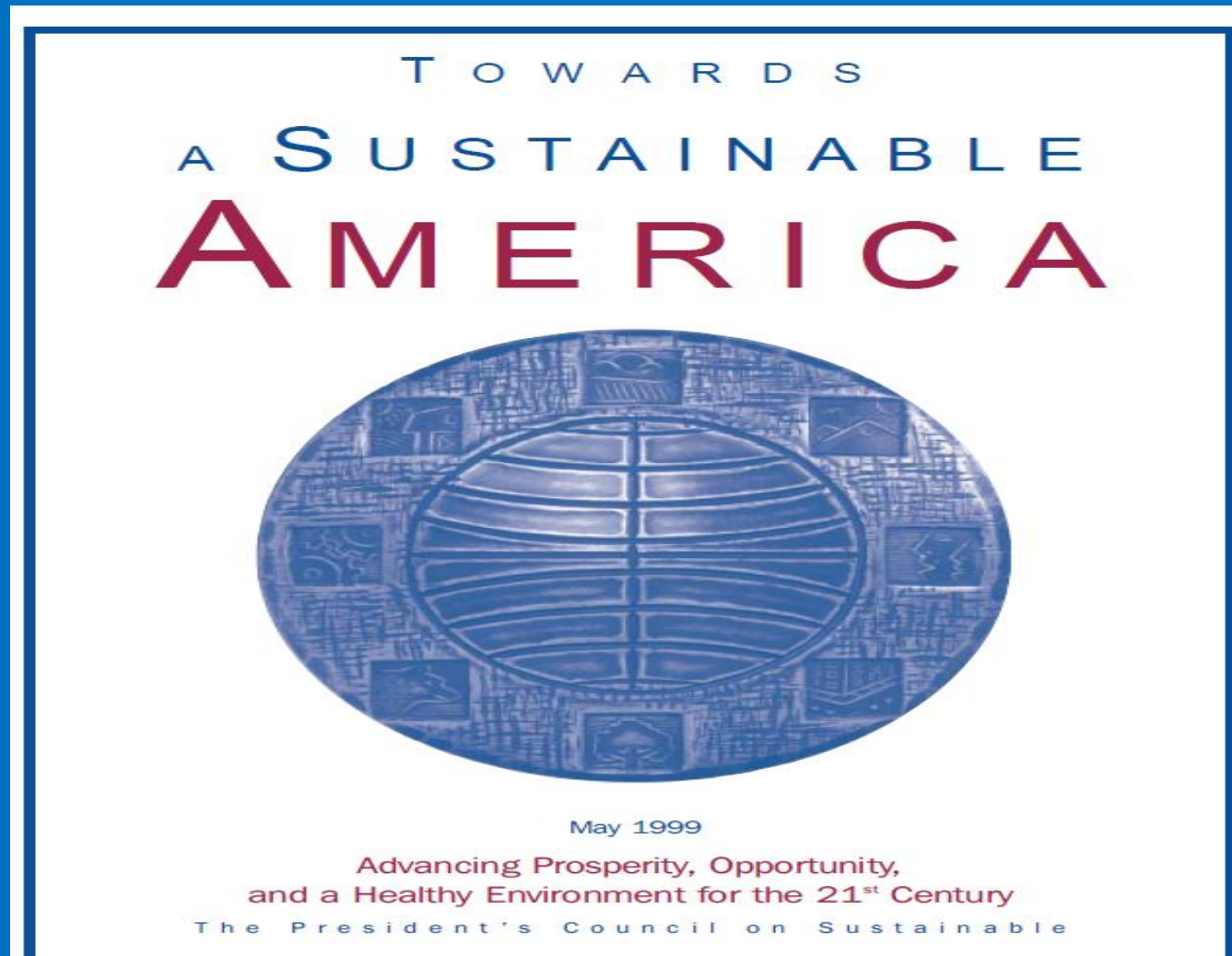
## ***Sustainable America***

### ***A New Consensus for the Prosperity, Opportunity and a Healthy Environment for the Future*** (1996 PCSD)

“Friends of the Future’s (FoF) international mission is to raise awareness of the United Nations’ Agenda 21 and of the role youth need to play in the discussion on sustainable development. Through the sponsorship and support of the U.N. Environment Program, FoF published the book, *We Got the Whole World in Our Hands: A Youth Interpretation of Agenda 21*, which documents the proceedings of the 1992 U.N. Conference on Environment and Developments. The book puts Agenda 21 into simple language - easy for younger readers to understand. The students presented their version at the national Earth Summit in Louisville in May 1993.” (Chapter 3 Education)



# It Is All Here – AG21 Goals In The U.S.



# The UN Sustainability Message Begins In The Classroom: “Planet Earth is facing a severe global crisis...”



# youthXchange

t o w a r d s   s u s t a i n a b l e   l i f e s t y l e s

 go

## YXC mission

Planet Earth is facing a severe global crisis. Inefficient consumption and production patterns are putting an unbearable strain on our planet. youthxchange is designed to help trainers and individuals to understand and communicate on sustainable lifestyles.

respecting our bodies





looking for a place



social belonging



packaging yourself

carrying the torch



pay the right price



awakening your soul





clean up your fun



looking ahead

## UTILITIES



## PARTICIPATE



## YXC WORLDWIDE



## How to navigate ?

**THEMATIC ROOMS :** surf along the over 130 examples of organisations, innovative ideas, funny stories and motivated people active in making day to day life more sustainable. Get inspired!

### UTILITIES :

To go **deeper**, look for more facts, explore the world of sustainable products, and discover stories of people who are actively engaged in making this world more sustainable.

### PARTICIPATE :

This section allows you to add content to the web-site, download youthxchange related goodies and above all to **send your comments** to UNEP and UNESCO.

### YXC WORLDWIDE :

The youthxchange guide is available in over **18 languages**. This section opens up to the youthxchange network everywhere you are.

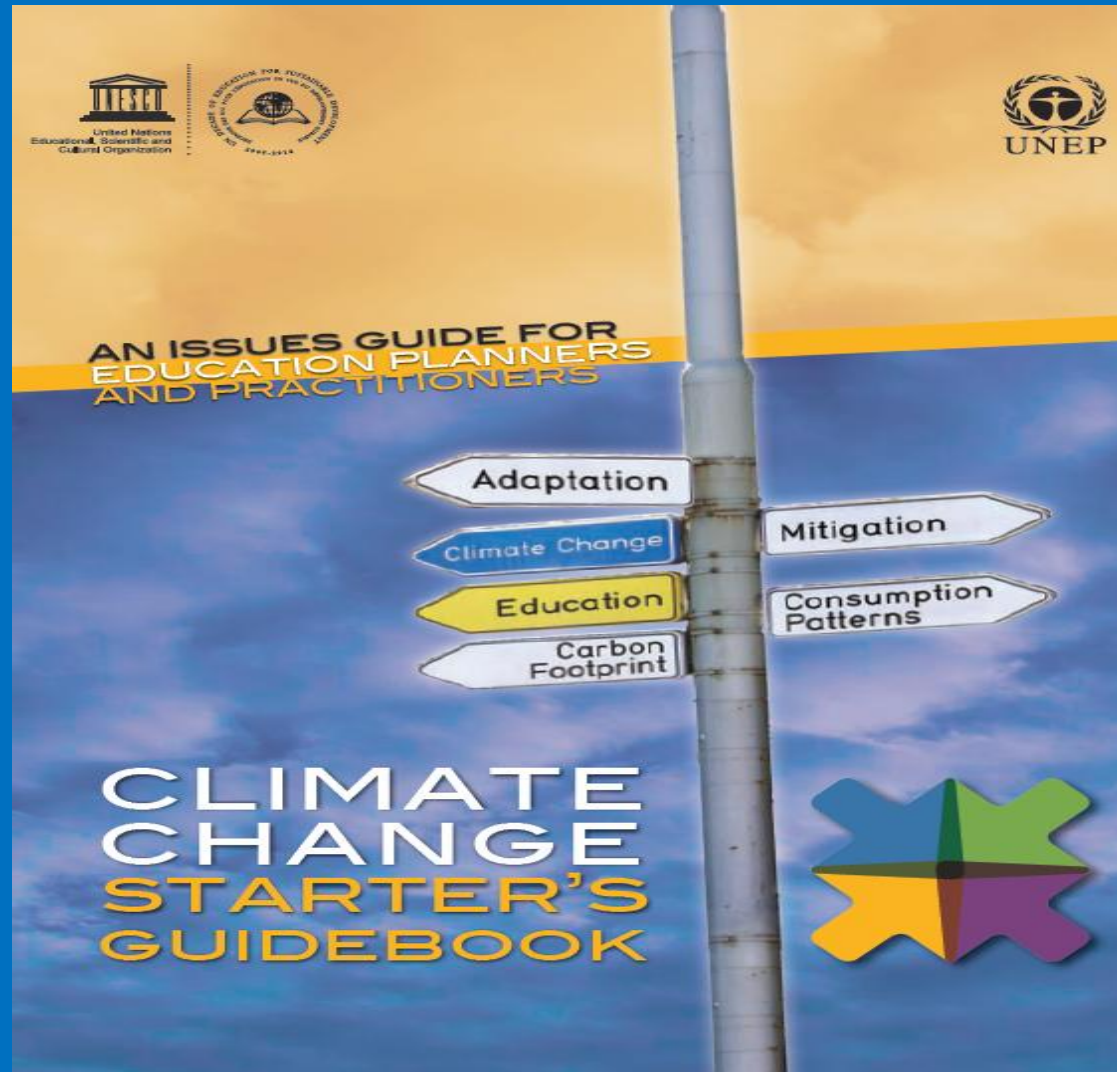
[\[ home \]](#) [UNEP/UNESCO contact](#) [| partners](#) [| YXC Team \]](#)

# A UNESCO Climate Expert From Hollywood



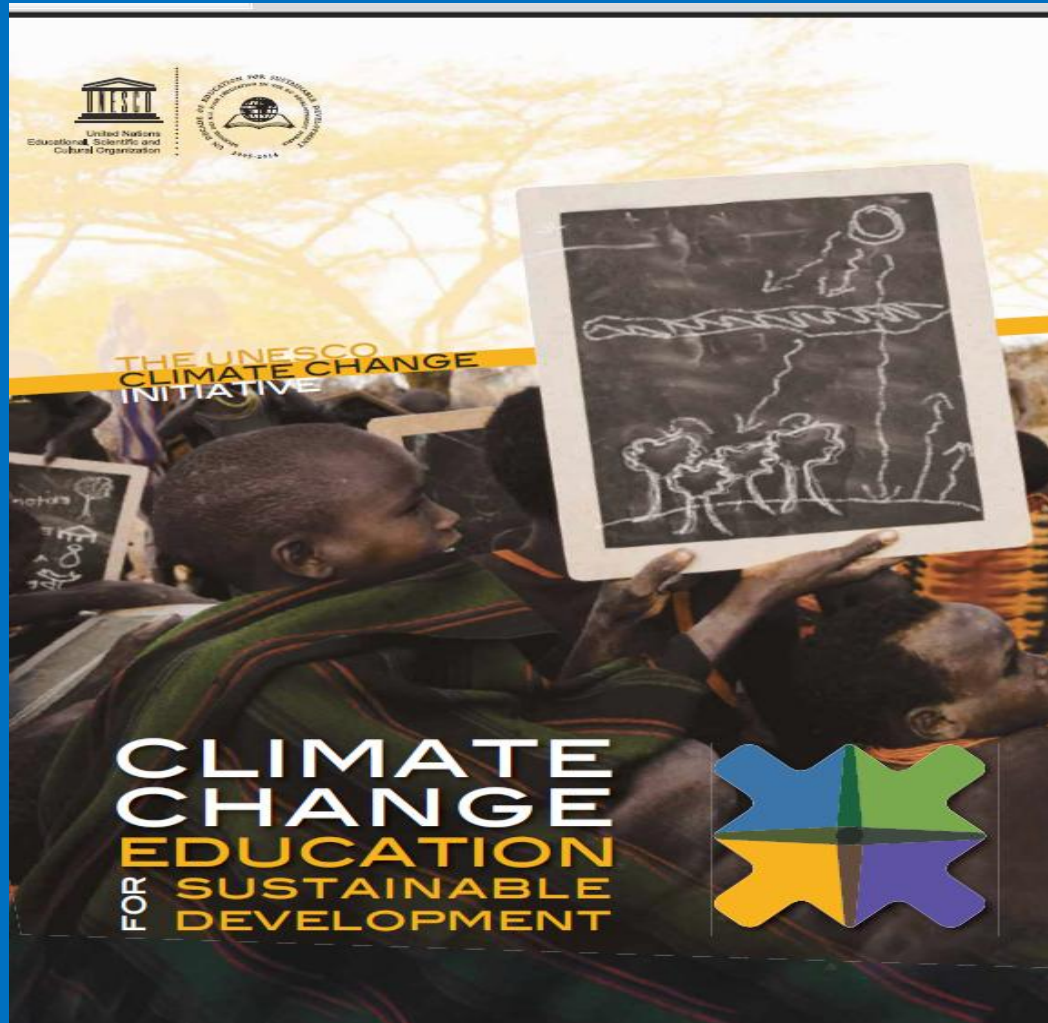
Climate Change Education for Sustainable Development at UNESCO

# All About Carbon Crimes

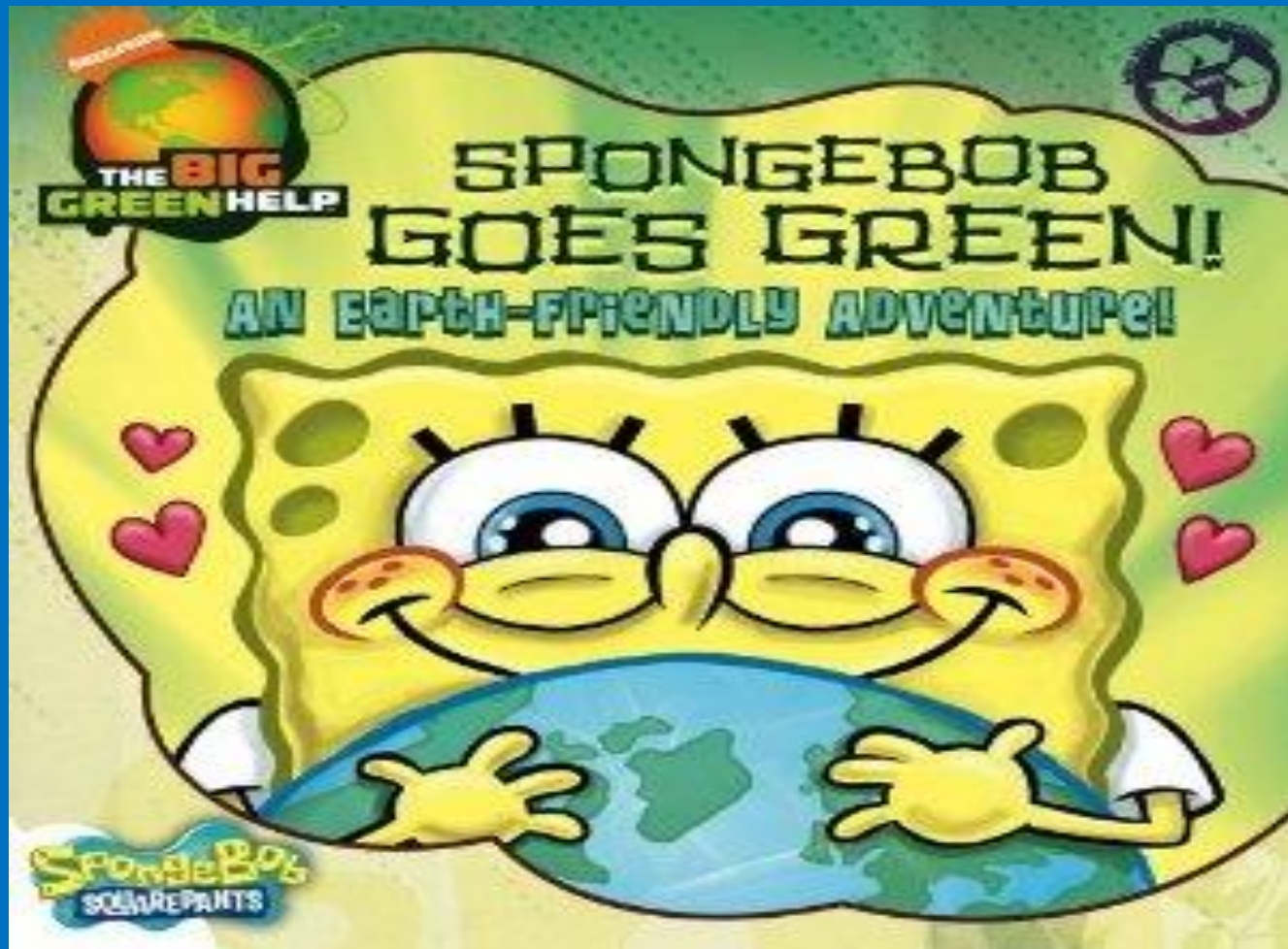




# Climate Science For All

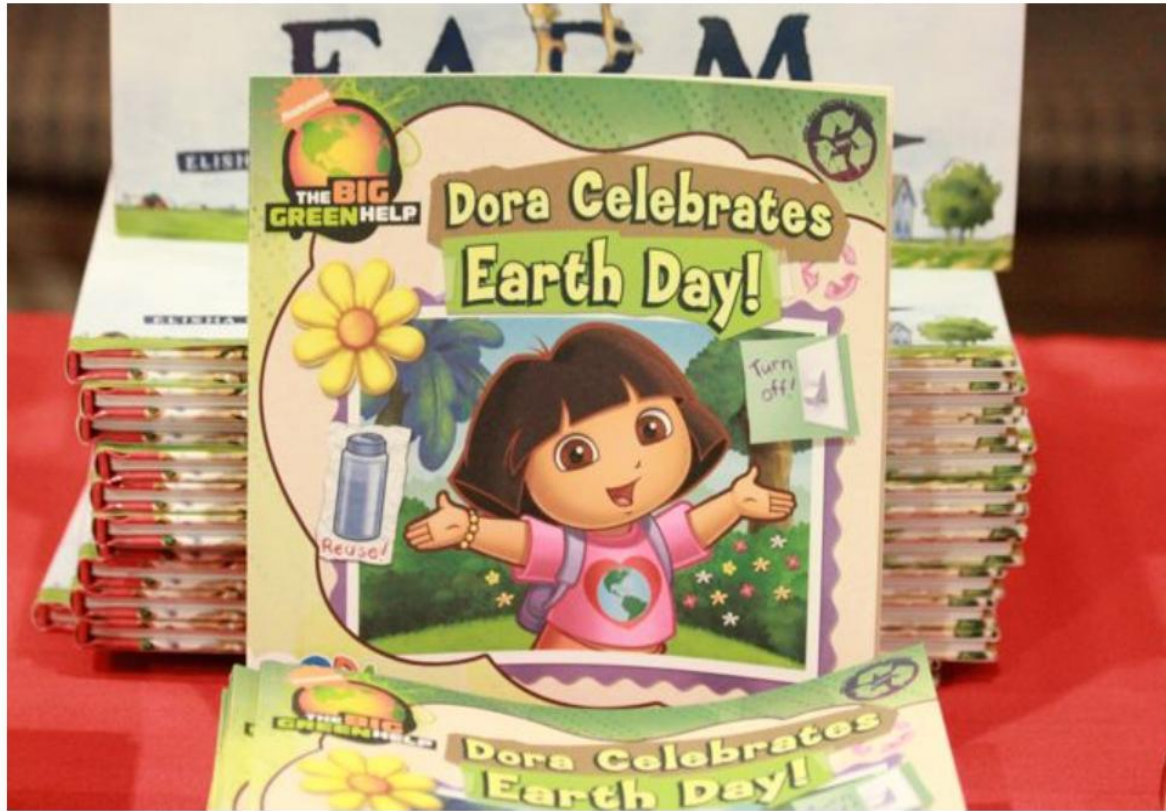


# U.S. Department Of Education Handout, July 2011 Washington D.C.



# U.S. Department Of Education Handout To Elementary Schools

dora explorer



"Dora Celebrates Earth Day!" was distributed to elementary school students at the Department of Education event. (Photo: CNSNews.com/Penny Starr)



# In Our Classrooms Since 2005



## US PARTNERSHIP

DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT  
UNITED NATIONS DECADE (2005-2014)

### EDUCATING FOR SUSTAINABILITY

*By K-12 and Teacher Education Sector of the U.S. Partnership*

*"This represents a new vision of education, a vision that helps people of all ages better understand the world in which they live, addressing the complexity and interconnectedness of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, health, conflict and the violation of human rights that threaten our future. This vision of education emphasizes a holistic, interdisciplinary approach to developing the knowledge and skills needed for a sustainable future as well as changes in values, behavior, and lifestyles. This requires us to reorient education systems, policies and practices in order to empower everyone, young and old, to make decisions and act in culturally appropriate and locally relevant ways to redress the problems that threaten our common future."*

*~ Excerpt from the Draft Framework for an International Implementation Scheme  
United Nations Decade of Education for Sustainable Development (2005-2014)*

# US And UN Partnership



**US PARTNERSHIP**

DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT  
UNITED NATIONS DECADE (2005-2014)

## Education for Sustainability K-12 and Teacher Education National Professional Organizations Summit

Washington, DC  
October 6, 2008

# Environmental groups and resources serving K–12 schools

## (Total of 53)

From Wikipedia, the free encyclopedia

### Alliance for Climate Education (ACE)

(ACE)<sup>[4]</sup> aims to inspire, educate and empower students in the fight against global warming because they believe that young adults can have a substantial and near-term positive impact on the global climate crisis. Through age-appropriate and engaging presentations, Alliance for Climate Education (ACE) intends to deepen the understanding of climate change among our next generation of leaders. Their primary goal is to equip students with the knowledge and tools they need to confront the global warming challenges our planet faces. ACE teaches the most current and accurate climate science so students will best understand the global warming crisis, and take initiative to reduce greenhouse gas emissions through more informed lifestyle choices. ACE aims to empower students to share this knowledge by building awareness among family and friends as well as their broader communities. ACE will provide exciting opportunities for young people and schools to take action by awarding grants and scholarships to those who do

# “ACE Is The National Leader In High School Climate Science Education”

Home | ABOUT

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ACE is the national leader in high school climate science education.

We're an award-winning national nonprofit dedicated to educating America's high school students about the science behind climate change and inspiring them to do something about it—while having fun along the way. We're based in **Oakland, California**, with educator teams in **New York, Los Angeles, Chicago, Washington, DC, Atlanta, New England, Colorado, Nevada, North Carolina** and **Wisconsin**.

ACE delivers two core offerings: the **ACE Assembly** and **Student Action Program**.

ACE educators present climate science that resonates with students via an award-winning in-school assembly that blends storytelling, cutting edge animation, music and video.

- Our presentation explains greenhouse gases and their sources, how human-caused emissions risk altering the world's climate on an unprecedented scale—and specific local impacts for students.
- We engage students' imagination through real-life stories of local students who have undertaken extraordinary projects and proven that students can have a huge impact today.
- We close with simple ideas and wide-ranging opportunities for students to get involved.
- All of the climate science we present comes from peer-reviewed published science articles, with a focus on the **IPCC AR4 report**—one of the most heavily researched science reports in history.

When the ACE Assembly ends, many students are ready and eager to take action, and our Student Action Programs help get them started. ACE programs include:



## BOOK an ASSEMBLY

Everything you need to know about our engaging, empowering, multimedia assembly including our assembly overview is here.

*"In six years of hosting green speakers, I have never received such overwhelmingly positive comments!"*

Norma Williamson  
La Mirada High School  
[see all »](#)




## SHARE YOUR DOT

A DOT is a pledge to Do One Thing to help the environment - and cool the climate. It's the first easy step to curbing climate change and raising awareness. Share your DOT.






# Climate Science From The UN'S IPCC

## *"You've Come To The Right Place"*



**ALLIANCE FOR CLIMATE EDUCATION**  
EDUCATE. INSPIRE. ACTIVATE.

CONNECT



email: \*

cell phone:

zip:


>

Home > Education > Got Science?

SHARE

Like

4 likes. Sign Up to see what your friends like.



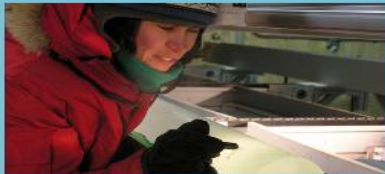
Wondering about climate science but don't know where to start? You've come to the right place!


Check out [The Basics](#) to give yourself a primer on what climate change is all about (Hint: It has to do with the greenhouse effect and burning fossil fuels...).

Hankering for more? Curious about global weirding, black carbon or methane hydrates? You can dig deeper by delving into Reb's stellar science reports (She's done research in the Arctic AND Antarctic, so she knows what she's talking about.)

If you haven't gotten your question answered yet, check out our [Climate Science frequently asked questions](#). These are real questions we get from high school students during our presentations!

Lastly, check out ACE's recommendations for the other [best climate science sites](#) out there – NOAA, [Climate Central](#) and more...





**BOOK an ASSEMBLY**

Everything you need to know about our engaging, empowering, multimedia assembly including our assembly overview is here.

The Basics

Science FAQ


Climate Links


Quiz


Formspring - ClimateEd




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**Green your school inside, outside and throughout your curriculum!**

Join over 50 other countries in this international initiative designed to encourage whole-school action for the environment.

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**Latest Blogs**


Metamorphosis of a Green Flag Eco-School in Centreville, Virginia [05/24/12]

Weekly News Roundup – May 18, 2012 [05/18/12]


Student Leaders in the Making at Second Massachusetts Green Flag Eco-School [05/17/12]

Eco-Schools USA's Healthy Living Pathway to Get Students Outside and Active [05/09/12]

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We've awarded Green Flags to four schools across the country! [Learn more here >>](#)

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**Free Labels**

recycle across america



national standardized labels for recycling bins ...finally!

[FREE standardized recycling labels today! >>](#)

“Implying that there are significant scientific controversies about the overall nature of these concepts when there are not will only confuse students, not enlighten them.”



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Home > Blogs > STEM.edu > Classroom Clashes (Pt. 2): Teaching climate change

## STEM.edu

### Classroom Clashes (Pt. 2): Teaching climate change

June 4, 2012 | Author: AAAS member -- Freelance Writer Carrie Madren



*Editor's note: This feature is the second in a two-part series on teachers who face challenges to science in middle and high school classrooms.*

One spring Friday, a student in Dawn Richards' AP Environmental Science class dug his heels in. There isn't scientific consensus about climate change, he asserted. When Richards showed him the raw carbon dioxide data, he shot back, you can interpret data however you want.

Richards continued to attempt open dialogue, but the stubborn student continued to argue, she later told AAAS. "I would love for him to share with me the things he does think are causing these alterations," says Dawn Richards, a AAAS member who teaches at Baylor School, a private school in Chattanooga, Tennessee. But students who shut down or argue aren't really looking at the data, she explains, and instead use sources such as blogs to support their points. "That is typical — the hard science is completely discounted," she says.

Student challenges to the validity of climate science such as this are a regular classroom occurrence,

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Last 24 hours This Week This Month

Classroom Clashes (Pt. 1): Teaching evolution

The brilliant and tortured world of Nikola Tesla

Classroom Clashes (Pt. 2): Teaching climate change



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### Categories

▶ Science Policy (190)



*The Globe and Mail* (Canada) April 4, 2012

**“Healthy polar bear count confounds doomsayers”**



“the bear population is not in crisis as people believed,” said Drikus Gissing, Nunavut’s director of wildlife management. “There is no doom and gloom.”

...media in southern Canada has led people to believe polar bears are endangered. “They are not.” He added that there are about 15,000 polar bears across Canada’s Arctic. “That’s likely the highest [population level] there has ever been.”

“ There are about 25,000 polar bears in the north circumpolar region, of which about 15,000 are in the Canadian High Arctic.”

# “Twice as Many Emperor Penguins as Thought in Antarctica,” \*



\*Science Daily April 13, 2012

# Your Homework

- Review the texts your children are issued
- Show up at the PTA meetings or other venues to let the school administration know that you and others are involved
- Challenge “Fawlty (Ivory) Towers” science