



NATIONAL ASSOCIATION OF INDEPENDENT SCHOOLS

## **Primer on Sustainability in the Curriculum**

December 2010  
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### **Introduction**

“Our biggest challenge in this new century is to take an idea that seems abstract – sustainable development – and turn it into a daily reality for all the world’s people.”

- Kofi Annan, Former Secretary-General United Nations

As interest in education for sustainability expands in North America, as well as other parts of the globe, independent and private schools are especially suited to take leadership in this critical endeavor to connect education more directly with our 21<sup>st</sup> century national and global challenges. Many schools have started to model more environmentally responsible behavior. Others have begun to reexamine what they teach and how they are preparing young people to be critical thinkers and engaged citizens in support of a more healthy and sustainable world. This short primer on how to incorporate sustainability into the curriculum at independent schools includes the following sections:

- Making the Case
- What Does Sustainability in the Curriculum Look Like?
- Strategies for Incorporating Sustainability in the Curriculum
- Appendix: Online resources, organizations and publications

### **Making the Case**

“The planetary emergency unfolding around us is, first and foremost, a crisis of thought, values, perception, ideas and judgment. In other words,

it is a crisis of mind, which makes it a crisis of those institutions which purport to improve minds.”

- David Orr, professor of environmental studies, Oberlin College

What should students know, be able to do, and value when they graduate? This is a question for all educators for all times. What is the fundamental purpose of our work, and what are we aiming for?

Most societies today recognize that sustainability (or sustainable development) is and must be a fundamental objective for humanity now and in the future. If that is true, then all schools have a responsibility to contribute to clarifying, exploring, modeling and teaching about it. When we consider seriously the challenges we face – a population reaching 9-10 billion by 2050, meeting food and energy needs, mitigating climate change, reducing poverty and conflict, slowing biodiversity loss – we may begin to see the critical role that formal education can play in preparing students to address these issues both now and in their adult and professional lives.

Achieving sustainability in this century will require numerous transitions in behavior and practice over time. Many consider the following to be among them. Humanity must make the transition:

<i>From</i>	<i>To</i>
- Fossil powered	- Solar powered
- Take, make, waste	- Cyclical production
- Living off nature's capital	- Living off nature's interest
- Market as master	- Market as servant
- Loss of cultural & biological diversity	- Increase in cultural & biological diversity
- Individual centered	- Community centered
- Materialism as goal	- Human growth and development as goal

The first international definition of sustainable development, out of which emerged the concept of “education for sustainability,” was the Gro Harlem Brundtland definition of 1987. “Sustainable development,” it states, “meets the needs of the present without compromising the ability of future generations to meet their own needs” (*Our Common Future: The World Commission on Environment and Development*). Though this definition is both general and vague (how do we define needs?), it is still widely known and used, and firmly establishes the concept of intergenerational responsibility for preserving a livable world.

There are two primary components of education for sustainability that should be addressed by any school seriously engaged in this work:

- 1- modeling environmental practice and stewardship through the greening of our campuses; and
- 2- teaching students the knowledge, skills and desire to improve communities, economies, and the environment in mutually supportive ways now and for future generations.

## What Does Sustainability in the Curriculum Really Look Like?

When teaching sustainability, it can be helpful to divide the subject into two areas: content and skills.

A significant percentage of the school curriculum would reflect a fundamental concern for sustainability (or sustainable development) with a focus on interdisciplinary *content*.

Courses would impart a basic understanding of:

- a) the complex environmental, social, and economic issues that must be addressed to build a more sustainable society,
- b) the nature of the political, institutional, and individual responses needed. Thus courses would, where appropriate, feature sustainability topics such as: globalization and sustainable development; environmental science and studies; ecological economics; population, women and development; sustainable production and consumption; food systems, peace studies; and others. Students would also learn about:
- c) how their campus functions in the ecosystem and region (e.g., its sources of food, water and energy, and the endpoint of waste; its place in the watershed; its natural and cultural history; etc.).

Teachers would also instill – through a combination of traditional, place-based, project and experiential learning – a set of critical *skills*, including:

- a) System dynamics and systems thinking
- b) Critical thinking and decision making
- c) Taking a global perspective, recognizing interconnection, and interdisciplinary thinking
- d) Problem framing and problem solving
- e) Leadership and participation (democratic citizenship)
- f) Creativity and Visioning

## Strategies for Incorporating Sustainability in the Curriculum

1. Know your school
  - History/Culture/Mission
  - Key allies and administrative leaders
  - Curriculum vision and planning
  - Facilities and operations
2. Talk to your faculty
  - Conduct a survey to identify sustainability in the classroom, including the following key questions:
    - What is education for sustainability?
    - What does a “sustainability-literate” graduate look like?
    - What does sustainability education mean for your discipline?
    - Where are you addressing this already in your teaching?
  - Determine what faculty need in order to incorporate sustainability themes into existing courses or to develop new courses
3. Develop a plan of action

- Set goals for integration of sustainability content and skills in specific courses or departments (you may wish to start with particular grades or courses)
  - Decide whether the overall objective is to integrate sustainability into the whole curriculum or support a core group of faculty in this endeavor
  - Allow for several options among teachers: outline a new course, redesign an existing course, or create a course unit
  - Develop a realistic timeline over the period of one to three years (typical for schools that have done this)
  - Inform your parents and alumni of this commitment and initiative (with more or less fanfare depending on your audience)
4. Provide incentives and training for faculty and staff
- Get curriculum on the agenda of your environmental/sustainability committee
  - Get the support of your head, dean of faculty, and/or director of programming
  - See the NAIS guide, “How To Provide Professional Development for Sustainability” – send faculty to workshops or design your own on campus (offer in-service on sustainability in the curriculum)
  - Identify and empower faculty members who can provide guidance for others
  - Maintain professional development funds
  - Bring speakers to school
  - Show relevant films
  - Hold an annual theme day devoted to sustainability-related topics
  - Focus on an annual core value, such as “sustainability” or “stewardship”
  - Provide information on sustainability education organization and internet resources
  - Recognize existing successes
    - Lesson of the Week
    - Newsletter with highlights
  - Provide new faculty orientation, such as a “campus sustainability tour”
5. Learn about the physical systems on campus and incorporate them into the classroom where appropriate. Work with your campus experts, including facilities staff.
- Heating, Cooling, Ventilation
  - Electricity, Lighting
  - Recycling/ Waste management
  - Water
  - Landscaping
  - Transportation
  - Food
6. Monitor success
- Keep track of the work being done
  - Match accomplishment with goals
  - Incorporate knowledge and skills assessment to determine if students are learning both the content and skills of sustainability