



Education for Sustainability

How to get the movement started

Guest Perspective by Lori Stole, Sustainable Oregon Schools Initiative

Imagine...

Every student learning to create, value and participate in a sustainable world

A future workforce prepared to meet the needs of businesses in a sustainable society

Oregon schools on the leading edge of environmental stewardship

But, how do we manage this, and just what DOES sustainable mean?



SUSTAINABILITY

Our environment, economy and society are mutually interdependent. None of these factors can be optimized without consideration of the others because they are each part of a common system. All three must be capable of supporting each other now and in the future. To this end, it can be helpful to use a systems-based approach as outlined by the Natural Step Framework, a foundation for many sustainability programs in the U.S. The Natural Step approach recommends projecting backwards from a goal point in the future, and determining the steps necessary to get there. We should consider how long it will take to reach this point of sustainability. Will the current plan allow us to progress quickly enough? This becomes part of the strategic planning process.

“Green” generally means that something has a less negative environmental impact than the standard practice. It’s common to begin with “green” initiatives such as recycling when considering ways to implement sustainability initiatives in our schools or homes. These typically involve a limited number of people. “Sustainable” brings in additional elements, such as recognizing an endpoint goal, including the economic and social aspects, and considering the entire system to strategize and prioritize. Everybody should understand their role in the sustainability journey.

EDUCATION FOR SUSTAINABILITY

Currently, the most educated nations leave the largest ecological footprints. It seems that just educating citizens to higher levels is not sufficient for moving sustainability forward. In fact, the concept of Education for Sustainability (EFS) requires RE-ORIENTING education to:

- Include more principles, skills, perspectives, and values related to sustainability.
- Integrate environment, economy, and society.
- Base it on local needs, but recognize that fulfilling local needs often has global consequences.

It’s important to recognize that education about sustainability is a theoretical discussion. EFS is the use of education as a tool to transform our societies to achieve sustainability. We need more than a theoretical lesson to move toward a more sustainable future.

EFS involves every subject taught in school. They all contribute elements that are needed to think and act sustainably. Start with the local community’s sustainability issues. Consider what students need to learn in order to address these issues. Evaluate the curriculum and determine which concepts are already included in curriculum, and which need to be added. At the same time, consider which concepts are no longer needed and eliminate them.

Above left: Gladstone’s Applied Science and Technology Center (ASTC) will have solar panels installed on the roof, making the building virtually energy neutral once completed. Middle: Newly renovated Gladstone Center for Children and Families building (formerly Danielson’s Thriftway, shown as insets below). Right: The ASTC is adjacent to a bio-swale that will be used for instructional purposes, and will help manage storm water from the entire neighborhood. Photos courtesy of Gladstone School District.

As an additional facet of EfS, the school district must be a model of sustainable practices. (And, this will lead to the added benefit of cost savings, reduced natural resource use and impact, elimination of toxic materials for healthier environments and more.). The students experience, monitor and otherwise learn from this model that is their laboratory. Without this, the education remains theoretical.

It is important that all citizens be educated for sustainability so that they can make sustainable choices in their personal and business lives, and participate in democratic processes leading to social equity, environmental health and economic prosperity. Today we understand that these three interconnected elements of sustainability operate on a global scale and that effective citizenship involves thinking and decision making on a planetary scale. We must learn to evaluate how our actions impact current AND future generations within our local community, as well as in the world community.

This concept of EfS has been recognized internationally. The United Nations General Assembly declared 2005–2014 as the “UN Decade of Education for Sustainable Development.” In the US, the K-12 sector team of the US Partnership to the Decade has recently created a national sustainability education standard. In Washington, the Office of the Superintendent of Public Instruction has added a sustainability education position and they’re working to integrate sustainability into their standards.

In Oregon, the Department of Education has not yet considered Education for Sustainability. However, there is a unique statewide program that provides a starting point for integrating all aspects of sustainability into district activities, including education, facilities and operations. The Sustainable Oregon Schools Initiative (SOSI) addresses the whole K-12 school system, helping to accelerate the pace of sustainability in school districts. Isolated “green” efforts at individual schools are only a beginning. SOSI’s work is guided by a vision of true sustainability, which goes far beyond typical efforts that just slow the rate of degradation and instead helps prepare students to create and succeed in a sustainable future.

Educators can play a key role. With your students, consider what sustainability impacts your classroom has, and work to eliminate them. Do the same for your school. Begin a teacher discussion group to learn and get your peers thinking about sustainability issues (see table). The Northwest Earth Institute offers some excellent discussion courses from which you could start. Look for local conferences or workshops about EfS or local sustainability issues to participate in. Ask for professional development opportunities in your district to learn about sustainability, and seek such opportunities outside the district. Encourage your administration and school board members to learn more about sustainability. Connect with other teachers who are EfS leaders—in your district, through SOSI, or join the national EfS listserv. Propose a sustainability policy for your district. The OSBA offers a sample policy, available for use at http://sustainableschools.org/documents/EDDA_G1.pdf.

GLADSTONE SCHOOL DISTRICT

The Gladstone School District began its sustainability journey with several teachers, who became involved with regional sustainability issues after sending student groups to participate in state-wide conferences on issues like ocean energy and biofuels. As partnerships for continued involvement began to be established, the district became more committed to sustainability with the start of construction projects for an Applied Science and Technology Center at Gladstone High School and the Gladstone Center for Children and Families. It was determined that these would strive to be LEED-certified projects—meaning the district selected an architectural firm with experience in sustainable building design. They assembled a large community advisory committee of experts. And the more they learned, the more they realized could be done. Partnerships developed with community organizations who also utilize these new facilities, bringing advantages for both school and community.

As the 2008-2009 school year began, momentum was growing. The teachers proposed that the board adopt a “sustainability” goal for 2008-2009 and beyond. A cross-curricular district committee has been working on a K-12 sustainability curriculum that includes economic and social equality issues, in addition to environmental concerns. A part-time ‘teacher on special assignment’ position was established for sustainability curriculum development and planning. A project-based Environmental Leadership class was offered this year at the high school, allowing the students to take care of the day-to-day “green” operations as well as some larger projects. They are also adding opportunities for students to interact with the facilities and sustainable technologies such as a solar photovoltaic system. The superintendent has made this a clear priority for the district and they are well on their way.

CORVALLIS SCHOOL DISTRICT

A teacher in the Corvallis School District got it right when she said: “We need a system-wide commitment and a system-wide plan if we want to change the way students view the world and its resources.” Corvallis has been working on sustainable efforts for several years, but in a piecemeal manner. In the past few years, teachers have offered classes such as AP Environmental Science, Seminar on Sustainability and Economics of Conscious Consumerism. There are student green clubs, a K-8 environmental school, a place-based charter school, and a district wellness committee.

Efforts have been made on the operational side and the district’s two newest schools are LEED-certified.

More recently their various efforts have coalesced. The school district conducted a community visioning process two years ago and sustainability was identified as a priority for the district. Now the district’s superintendent and school board have adopted sustainability as one of their goals. A Superintendent’s Steering Committee composed of teachers, students, community members, staff and administration, school board members, and SOSI participants has been newly formed to address sustainability in an overarching, comprehensive fashion.

To learn more about the SOSI, go to: www.sustainableschools.org ■

K-12 School Sustainability Topics

SOSI has developed a topic matrix which includes key aspects related to school sustainability. It can be used to better understand what sustainability means for a K-12 school or community college, and also as a means to organize your district's work.

Category	Topic Area	General Topic Area issues
EDUCATION	Education for Sustainability	Formal (classroom), Non-formal (outside classroom), Informal education (school environment), Service learning, Career and technical education, Teacher education
	Sustainability Education for Staff	Sustainability training and education for school staff; opportunities and needs
FACILITIES AND OPERATIONS	Buildings	New construction, Building operations and Maintenance
	Grounds and Landscaping	Grounds: Natural areas, Landscaping design & maintenance, Food gardens, Parking areas, Play areas
	Indoor Environment/ Toxics	Indoor environmental quality, Chemical management (pesticides, cleaning, lab, other), Toxics
SYSTEMS AND SERVICES	Managing Sustainability	System and framework to guide school district progress toward sustainability. Ideally it covers all topic areas.
	Food and Wellness	Choices and sources of foods, Farm to school, Wellness
	Transportation	School vehicles, Maintenance shop practices, Alternative transportation options
	Procurement and Resource Management	<u>Procurement:</u> Sustainability of goods and services, Product stewardship, procurement infrastructure; Bulk and cooperative purchasing. <u>Energy:</u> Amount and source of all energy used <u>Material:</u> Waste prevention, Recycling, Product stewardship <u>Water:</u> Water to and from facility (domestic and natural)
COMMUNITY & CULTURE	Community Involvement	Community support to school, Learning opportunities in community, Partnerships, School outreach to community
	Multi-Cultural Proficiency	Student and staff diversity, Cultural understanding, Language, Communication

Indoor Air Quality (IAQ)

Indoor air quality is a sustainability issue, and is an area with which the OEA has been involved. IAQ can have direct impacts on teacher and student health.

A SOSI team has created a vision for a sustainable indoor environment: All school indoor environments include only materials, chemicals, designs and management strategies that promote learning, health, and well-being, with related costs optimized over the life of the building.

Implementation of this vision should address the following aspects.

- People: Fragrances, exhaled CO₂, existing health status
- Air contaminants intruding from outside

- Mold, pests, irritants, allergens
- Radon, asbestos
- Goods, materials, supplies
- Building: Finish surfaces, HVAC, daylight and views
- Operation, maintenance and classroom activities
- Indoor temperature, humidity, lighting and sound levels

There's a good opportunity to learn more about IAQ at a May 7 seminar in Cottage Grove, presented by a state IAQ partnership involving both OEA and SOSI. See SOSI website events list for more details.

www.sustainableschools.org/about/events.htm