

## **2012-2013 ADVANCED SUSTAINABILITY COORDINATOR TRAINING RESOURCES**

### **Curriculum Resources**

#### **General Education for Sustainability Curriculum and Support:**

- **The Children's Environmental Literacy Foundation (CELf)**: CELf's mission is to make sustainability education an integral part of every school's curricula and culture, from kindergarten through high school. Our approach is comprehensive, engaging students, teachers and administrators, parents, communities and businesses through professional development, consulting services, and experiential programs. Participants of CELf programs have free access to an online library of hundreds of curriculum units developed by past program participants. Also available to the public is a comprehensive guide and set of activities to explore water related issues around the world. High School student may participate in CELf's Student Ambassador Program. Find out more: [www.celfeducation.org](http://www.celfeducation.org)
- **Creative Learning Exchange**: The CLE hosts a wide variety of subject-specific curriculum documents. Many of the PDF documents include models and examples for use in the classroom. Browse the documents by subject area - or search for a specific document. Curricular materials available for download from the CLE. If you are new to system dynamics and/or learner-centered learning, they have an [introductory packet](#) of useful articles to help you learn more. You can also browse through numerous articles in a wide range of categories: <http://www.clexchange.org/curriculum/default.asp>
- **NWF Eco-Schools**: Become an Certified Eco-School with school-based action teams of students, administrators, educators and community volunteers, Eco-Schools combines effective "green" management of the school grounds, facilities and the curriculum. Schools that are certified in the program undergo a thorough application process and succeed in organizing and implementing a comprehensive assessment of their school. The Eco-Schools USA program is made up of [seven steps](#), incorporating [a variety of environmental pathways](#). Learn more: <http://www.nwf.org/Global-Warming/School-Solutions/Eco-Schools-USA.aspx>
- **Green Schools Alliance**: Join Green Cup Challenge™ schools around the world to challenge each other, celebrate progress, and win together! The Challenge empowers students and builds community, while raising awareness about climate change and the importance of resource conservation. [www.greenschoolsalliance.org](http://www.greenschoolsalliance.org)
- **Shelburne Farms Sustainable Schools Project**: Collaboratively created units of study, lesson plans, and activities to engage a diversity of students in education for sustainability. Plus tools to assist educators in curriculum development. <http://www.sustainableschoolsproject.org/tools-resources/curricular-examples>
- **Youth Council for Sustainable Science and Technology**: A forum for youth to participate in national and international sustainability efforts and discussions. Formed in cooperation with The UN Foundation, and endorsed by multiple non-governmental organizations, the

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Youth Council aims to take a longer-term view of sustainable development, and to generate energy and novel ideas in education and outreach. Your membership is crucial to the building of grassroots efforts that will influence curriculum and ultimately lead to the incorporation of sustainability concepts in all research. Help foster graduates that understand the concepts of sustainability, embrace them, and bring them to all future endeavors. Students can become active participants at <http://www.aiche.org/ifs/students/join-ycosst>.

- [United Nations Environment Programme: Papers on a wide range of environmental, social and development issues around the world. For older students: http://www.unep.org/](http://www.unep.org/)

### **Climate Change:**

- National Center for Science Education: New initiative to defend and support the teaching of climate change. This website includes the four main sections of the climate change education resources: Climate Change 101; Teaching About Climate Change; Climate Change Denial; and Taking Action. <http://ncse.com/climate>
- NASA: NASA invests in the Nation's education programs and supporting the country's educators who play a key role in preparing, inspiring, exciting, encouraging, and nurturing the young minds of today who will be the workforce of tomorrow. NASA pursues three major education goals: Strengthening NASA and the Nation's future workforce; Attracting and retaining students in science, technology, engineering and mathematics, or STEM, disciplines; Engaging Americans in NASA's mission. Students, educators and faculty may explore and experience unique space and aeronautics content through NASA's education opportunities. See: <http://www.nasa.gov/offices/education/programs/index.html>
- American Museum of Natural History: Programs, educational materials and resources and more for educators and learners of all ages. [http://www.amnh.org/sciencebulletins/?sid=b.f.acid\\_oceans.20081202&src=b](http://www.amnh.org/sciencebulletins/?sid=b.f.acid_oceans.20081202&src=b)

### **Community/Junior Architects Program:**

- NRDC: Investigate sustainable communities and a wide range of environmental issues, US Law and Policies, US Energy Agreements, and more: <http://www.nrdc.org/sustainable-communities/>

### **Energy:**

- Solar One- Green Design Lab: Solar One's Education program provides dynamic sustainability lessons focused on environmental literacy, renewable energy, and actions students can take that will have an immediate, tangible effect to improve their urban environment. Working with hundreds of schools and community organizations in all five boroughs, Solar One provides K-12 Education through the [Green Design Lab](#) and

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[Enrichment Education Workshops](#), and also offers professional development workshops for teachers seeking training on teaching sustainability and starting school greening programs. As a result of Solar One education programs, students understand their role in reducing New York's carbon footprint and making it a healthier, greener city. Many schools have reduced their energy use and costs through the Green Design Lab, with some schools achieving energy reductions of more than 10%.

<http://www.solar1.org/programs/education-k-12/green-design-lab/>

- **Junior Energy:** Junior Energy's goals are threefold: to educate students about the environment in which they live, to empower them to make changes that protect the environment and to call them to action. This free program provides educational materials to the student and the school to accompany a 'fun' raiser in which kids stand to make a significant impact in their homes and the homes of their friends and family. Background information for teachers, developed original hands-on activities that will help students better understand the campaign, and other resources to create activities for a school or community campaign. <http://www.juniorenergy.org/teacher.aspx>

### **Global:**

- **Rio+20:** (For older students) Rio+20 Issues Briefs provide a channel for policymakers and other interested stakeholders to discuss and review issues relevant to the objective and themes of the conference, including a green economy in the context of sustainable development and poverty eradication, as well as the institutional framework for sustainable development. <http://www.uncsd2012.org/resources.html>
- **Earth Hour-Uniting People to Protect the Planet:** Videos and activities to get involved in Earth Hour. <http://www.earthhour.org/>

### **News:**

- **Environmental News Network (ENN):** Site for finding the latest news on sustainability and green issues, environmental policy, the climate, energy, green building, pollution, ecosystems, wildlife, agriculture, sci/tech, and health: <http://www.enn.com/>

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### **Nature/Outdoors/Biodiversity:**

- **Biomimicry Challenge 3.8:** The Biomimicry Youth Challenge (BYC) is an annual contest put on by the Biomimicry 3.8 Institute. It is designed for educators who wish to teach about biomimicry, and to empower students in the practice of using biomimicry to solve the world's various design challenges. Students of primary and secondary school age explore the fascinating world of biomimicry and learn the science and processes involved in design inspired by nature. The BYC combines standard curriculum (science, technology, engineering, etc.) with rigorous and exciting experiential learning — a hallmark of the Biomimicry 3.8 Institute's programs. <http://biomimicry.net/educating/youth-education-k-12/youth-design-challenge/>
- **Center for Biological Diversity** (for older students): **The Center for Biological Diversity works through science, law and creative media to secure a future for all species, great or small, hovering on the brink of extinction. They have a wide variety of free downloadable research papers and reports endangered species, biodiversity, global warming, energy and pollution:** <http://biologicaldiversity.org/>
- **The Field Museum:** Their *Underground Adventure* Web site is a unique set of online soil education and biodiversity activities that invites students to develop and test a hypothesis about soil ecosystems in their neighborhood. <http://archive.fieldmuseum.org/undergroundadventure/teachers/index.shtml>
- **Native wildflowers:** NYC Wildflower Week presents a full week of free events to showcase the 53,000 acres of open space and 778 native plants in NYC's 5 boroughs. The goal of the week is simple: to encourage New Yorkers to get to know the nature in their own back yard and to inspire them to protect this natural heritage for future generations. In 2012 we are expanding on this model by launching National Urban Biodiversity Week with partners in cities across the country. Check out [Nature Block Party](#) to learn more! Learn more: <http://nycwildflowerweek.org/about.html> & [check out their resource list of places to visit.](#)
- **NY Restoration Project:** NYRP programs complement and reinforce environmental education in the classroom, and then encourage students and teachers out of the classroom and into the settings they are studying. Their activities are designed to provide a greater understanding of the environment, but also serve to strengthen important life and social skills, including teamwork, leadership and respect for others. Complementary programming for K-12 students – focused on grades 3-8 from public schools and youth development programs. These tools emphasize NYRP's overarching "hours in nature" approach to getting youth, their parents and guardians, and educators out of the classroom and into natural surroundings, focusing on providing ways to encourage students to discover local green spaces where 11 Nature in My Neighborhood educational activities can be explored, first-hand. These curricula and programs address NYS performance standards and provide background information and resources; lesson plans that outline specific objectives, methods, materials and procedures; and student

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worksheets and journal assignments. Download NYRP's free student workbook: "What's Good in My Hood?" [http://www.nyrp.org/Kids\\_Parents\\_Teachers/For\\_Educators](http://www.nyrp.org/Kids_Parents_Teachers/For_Educators)

### **School Gardens/ Healthy Eating/Wellness:**

- **GrowNYC:** <http://www.grownyc.org/> (these educational programs are all for a fee, so not sure that you want them here)
- **Healthy Lunchbox:** An online toolkit with Healthy Tools For All Schools, packed with solutions at your fingertips. Use any of their free tools to transform your school food into healthy and delicious food for all children, at every school. Use the recipes and other tools-for-change that have worked so well for school districts across the country, and make positive change happen in your community. <http://www.thelunchbox.org/>
- **New York Agriculture in the Classroom:** Food, Land & People (FLP) is a curriculum resource developed to help students and communities understand the connections between agriculture, the environment, and people. FLP is science and social studies-based lessons for Pre-K to 12th grade. It includes 55 lessons for hands-on learning, critical thinking, and easy integration with existing curricula that are aligned to NYS Learning Standards – also available in Spanish. FLP includes a range of educational materials exploring food and nutrition, natural resources, conservation, farming, consumer choices, stewardship, human populations, and land use issues. <http://www.nyaged.org/aitc/resources/flp.htm>
- **New York Coalition for Healthy School Food:** Resources to introduce plant-based foods and nutrition education in schools to educate the whole school community. <http://www.healthyschoolfood.org/resources.htm>
- **Truck Farm:** A mobile garden education project founded in Brooklyn, NY, by the director of King Corn, The Greening of Southie, and The City Dark. <http://www.truckfarm.org/>

### **School Travel:**

- **Bike NY:** In-school classes and workshops at your school on bike safety: <http://www.bikennyork.org/learn/school-work/at-school-worku/>
- **Safe Routes to Schools-NYC information:** The **NHTSA Child Pedestrian Safety Curriculum** teaches and encourages pedestrian safety for students grades Kindergarten through 5th Grade. It is organized into five lessons: walking near traffic, crossing streets, crossing intersections, parking lot safety, and school bus safety. Each lesson builds upon previous set of skills learned. <https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/srts/srts-curriculum>

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### **Water Issues:**

- **CELFE Teaching the LifeStraw: An Educator's Guide to Water Issues Around the World:** Explore water-related issues from multiple perspectives. Introduce humanitarian design as a viable and necessary solution for a more sustainable future. Free downloadable materials at <http://celfeducation.org/waterguide.html> including: [Educator's Guide](#); Grade-Level Pullouts for students in grades [3-5](#), [6-8](#), [9-12](#) addressing the five topic areas introduced in the Guide [H<sup>2</sup>O: Earth's Essential Compound, Water Scarcity, Water Pollution, Filtration, and Humanitarian Design]; thirty downloadable activities with teacher and student instructions, tied to NYS Learning Standards, including inquiry questions; [and the Water Stories Supplement \(also available in as an editable PDF\)](#). [Coming in 2013: the Water Stories Portal will contain students' stories from around the world. Submit your students' stories to: \[info@celfeducation.org\]\(mailto:info@celfeducation.org\)](#)
- **Department of Environmental Protection (DEP): Free reports and materials on drinking water, stormwater, wastewater and harbor water, watershed protection, water recreation, and citywide issues and regulation:** [http://www.nyc.gov/html/dep/html/environmental\\_education/index.shtml](http://www.nyc.gov/html/dep/html/environmental_education/index.shtml)
- **World Water Day:** Free materials and videos to promote World Water Day in your school or community: <http://www.unwater.org/worldwaterday/>.