Education for Sustainability Grades 4-12 Social Studies

The Sustainable Jersey for Schools certification program recognizes that Education for Sustainability (EfS) can occur in the context of any academic discipline and at any grade level. This program action awards points for social studies lessons at the 4th-12th grade level that have delved into a sustainability-related issue, employed effective methods to engage students, and assessed student learning of sustainability core principles (or the enduring understandings of sustainability). To qualify for points, the sustainability instruction should have taken place in the school within twelve months of the submission deadline.

Why is it important?

Sustainability encompasses responsible use of the planet's natural resources, prosperous local economies, and strong, civil societies with opportunities for all people. Education plays a critical role in shaping a sustainable future for all of us on this planet. But where should one begin? Education for Sustainability (EfS) is undoubtedly a big and important undertaking, but it does not look the same in different schools and classrooms. No two approaches are the same. Some schools will have sustainability embedded into their entire curriculum while others may have just one or two teachers adapting lessons to reflect EfS content and approaches. These early adopters of EfS are critical to paving the way to more widespread adoption of EfS in their school. Regardless of the scenario, the important message is to begin from one's current position, building sustainability instruction into lessons with the resources and support at hand.

Education for sustainability is much more than teaching content-related knowledge and skills; it is also about teaching new ways of thinking about and perceiving the realities of our world and the possibilities for change. EfS is based on the premise that the world is made up of various systems—natural systems, such as streams and forests, and man-made systems, such as economies, societies, and built infrastructure—that are all inextricably linked. EfS prepares students for their roles in creating a sustainable future by engaging them in solutions-based design and action that integrates knowledge across different disciplines and that considers diverse social, economic, and cultural perspectives. These skills and approaches also position students to perform more successfully across the school curriculum and prepare them for higher education and careers in a twenty-first century world. The enduring understandings (see list in EfS Questionnaire) that students gain from EfS are core sustainability principles that have application beyond the classroom. For example, one enduring understanding holds that each person is responsible for what they do and don't do, and that we are all interdependent on each other and the natural systems. Learning this concept could shape a student's mental framework of their place in their community and within the broader global context.

Lessons aligned with the Common Core State Standards for Math and English Language Arts and the Next Generation Science Standards can readily impart the enduring understandings of sustainability. Furthermore, there are great opportunities to link lessons to sustainability initiatives taking place in the school, such as school gardens, green cleaning, energy conservation programs, and recycling initiatives. Sustainable Jersey for Schools offers more than 80 actions where schools can earn points, and most of these provide opportunities to integrate student learning. Other sustainability certification programs such as Green Ribbon Schools and Eco-Schools USA, are also vehicles for integrating student learning into school sustainability initiatives.

Who should lead and be involved with this action?

The specific people who will be involved with designing and delivering sustainability education in the classroom will vary
depending on the organizational structure of the district and school. If Education for Sustainability (EfS) is being incorporated in one or more curriculum areas, then district personnel who develop, adapt and adopt curriculum, such as the Board of Education, Superintendent, Principal, Curriculum Supervisor, and teachers will need to be involved. Teachers have the opportunity to embed EfS into classroom lessons independently or collaboratively with other teachers. The school’s Green Team can help identify resources and opportunities to enrich learning by linking them to sustainability initiatives, as well as to various programs and projects taking place in the school and community.

**Timeframe**

The timeframe necessary to incorporate sustainability into social studies education in a 4th-12th grade classroom will vary. In some cases, lesson plans that feature sustainability concepts and EfS approaches already exist and social studies teachers can readily incorporate these into their class curricula with little or no adaptation. In other cases, more time (one to two months) may be required to adapt lesson plans, secure resources needed to implement the EfS lessons or units, and even train teachers to effectively deliver the EfS lessons. If curriculum updates are proposed to incorporate EfS, a much longer planning and implementation horizon of twelve to eighteen months may be needed.

**Project costs and resource needs**

Highly effective EfS lessons can be planned and incorporated into classroom instruction time with little or no additional costs. There are many free resources available to support the teaching of various topics with a sustainability lens.

Robust EfS curriculum integration efforts may incur costs for a curriculum coach or consultant, curriculum supervisor, and/or teacher salaries to develop new curriculum materials. After updating a curriculum to incorporate education for sustainability concepts, the district may also need to provide professional development to the teachers on the new curriculum and its goals.

Student transportation costs and fees to support place-based leaning in the community may also be incurred.

**What to do, and how to do it ("How to")**

This section provides guidance and recommendations for implementing the action. A school/district does not need to follow this guidance exactly as long as it meets the requirements for earning points for this action.

1. Identify areas within the 4th-12th grade social studies curriculum or specific grade level lessons that are linked to sustainability issues (climate change, energy, water, waste, ecological systems, food systems, economic systems, health and wellness, social and cultural systems, or the built environment) and which lend themselves to teaching approaches that are inquiry-based, experiential, interdisciplinary and/or place-based.

2. Determine the enduring understanding(s) related to sustainability (see EfS Questionnaire) that the students are to gain from the lessons (the learning objective).

3. Design tools—such as a rubric—and methods to properly assess whether students have grasped the sustainability enduring understanding(s) of the lesson. The assessment must be aligned with the sustainability-focused enduring understanding. See the "Resources" section for references to effective and aligned assessment.

4. Identify places (e.g., school grounds, cafeterias, town halls, parks) and operating systems (e.g., transportation, food service, water supply, building energy efficiency systems, waste management, and recycling) in your school community, including other institutions, organizations, or businesses, which may provide opportunities for place-based sustainability lessons. Check with the school or district Green Team to identify sustainability initiatives being undertaken by the school that may lend themselves to student learning activities.

5. Optional: If available, submit a copy of the unit overview that the sustainability lessons are part of. Relevant photographs, videos, and news articles may also be submitted.

6. Consider reaching out to community organizations, institutions, and/or businesses that could potentially serve as partners to provide resources for sustainability education – e.g., to gain access to speakers/performers, historical documents, and special events.

7. Develop a significant sustainability lesson plan or unit along with the corresponding assessment tool of student learning related to the sustainability enduring understanding(s). The sustainability lessons need to employ at least one of these instructional approaches:

   - Inquiry-based: Ask questions, plan and carry out investigations, analyze and interpret data, construct explanations, engage in argument based on evidence.
• Experiential: Students learn through doing—participating in projects, events, challenges, experiments and other learning activities.
• Place-based student learning: Students participate in investigations and learning activities in school grounds, neighborhoods, or natural areas that engage them with real-life scenarios that are tangible, observable and meaningful to them.
• Interdisciplinary: Two or more teachers covering different academic disciplines design and/or present related lessons that integrate subject matter from two or more academic disciplines.

8. Document and assess student learning of the sustainability enduring understanding(s). Students can demonstrate learning using a variety of methods, such as reflecting on what they learned with pictures, videos, journal entries; teaching others via presentations to the class, school or external groups; writing and reflection journals. Samples of student work and graded rubrics for student work will need to be submitted as part of the action requirements. See Resources list at the end for references for strategies to create effective and aligned assessment.

9. Complete the Education for Sustainability Questionnaire (EfS Questionnaire).

What to submit to earn points for this action

In order to earn points for this action, the following documentation must be submitted as part of the online certification application in order to verify that the action requirements have been met.

1. Description of Implementation – In the text box provided on the submission page for this action provide a short narrative (about 300 words or less) of what has been accomplished and the impact it has or will have on the school community. The classroom sustainability instruction must have taken place within twelve months of the initial application submission deadline.

2. A copy of the lesson plan that documents the planning and delivery of a significant lesson or set of lessons, and assessment of student learning of the sustainability enduring understanding (see EfS Questionnaire).

3. Samples of student work and graded rubrics that demonstrate the students’ learning of the enduring understanding(s) of sustainability.

4. Completed Education for Sustainability Questionnaire (EfS Questionnaire). On the questionnaire please check off: sustainability-related topic taught; enduring understanding of sustainability incorporated; and the instructional approach used to create a significant lesson or set of lessons. A short narrative summary of the learning objectives of the sustainability lessons, and a description of how student learning was assessed, is part of this short questionnaire.

5. Optional: Additional documentation of the lessons such as relevant photographs, videos, and news articles may also be submitted.

Action approval will expire on August 31 of the application year

IMPORTANT NOTES:

There is a limit of six uploaded documents per action and individual files must not exceed 20 MB. Excerpts of relevant information from large documents are recommended.

All action documentation is available for public viewing after an action is approved. Action submissions should not include any information or documents that are not intended for public viewing. Please make note of this, especially if submitting photographs, videos, or the individual work of students. Efforts must be made to follow appropriate confidentiality policies of the school system.

Spotlight: What New Jersey schools are doing

Bell Oaks Elementary School, Bellmawr Public School District
The students of Bell Oaks Elementary School viewed a Channel One News video that explained how Franklin D. Roosevelt’s “Four Freedoms” speech sought to move Americans to join the war and laid the framework for the declaration. To view Bell Oaks Elementary School approved submission click here.

Bret Harte Elementary School, Cherry Hill School District
During our Trash to Treasures project, students used waste products from their homes in order to create a usable product. This project effectively involved both students and parents as conversations extended into the homes as students sought to recycle and repurpose waste products. The creativity involved in the project also sparked interest
among students and families alike, leading to far reaching effects such as follow-up conversations and suggestions for extension activities in the home. To view the complete description of Bret Harte Elementary School's Trash to Treasures project click here.

**Reeds Road Elementary School in Galloway, NJ** The fourth grade students Reeds Road Elementary School learned about the life cycle of plastic water bottles to help them understand how to combat linear waste. Students participated in a blind taste test of bottled and tap water. They brainstormed different ways to break the cycle of products that damage the environment through reducing, recycling, and re-using. Students were evaluated on their ability to create a poster that convinced others to use reusable water bottles. View their approved submission here.

**Holland Township Elementary School** *This fourth grade unit taught at Holland Township Elementary School explored the impact of immigration on New Jersey and the nation. The focus of the unit was a study of the personal challenges that immigrants faced as they made the decision to come to America. The unit explored the cultural impact that immigrants had on America over time. The students learned how various groups with different cultural backgrounds interacted over time for common goals. They realized that it took great strength and resiliency to adapt to a new environment. View their approved submission here.*

The fifth grade students at Holland Township Elementary School in Holland Township, NJ learned about the migration patterns of the monarch butterfly including latitude/longitude, the phrases of metamorphosis transitioning, wingspan, weight, and orientation. Students were also able to identify both regions and landforms of the United States which monarch butterflies migrate through, and studied the history of each state as they travelled across. View their approved submission here.

Sixth grade students at Holland Township Elementary School learned about different cultures through an exchange of innovation, creativity, and differences in this unit plan. Students began to understand that diversity is the key to a mutually enriching future for humankind as it unites individuals, societies, and people. Students read Sadako and the Thousand Paper Cranes by Eleanor Coerr and interpreted its influence on the peace process after WWII. Additionally, students explored examples in history of individual efforts bringing about peace. The unit ended with a Peace Day ceremony where students read poems, created peace pinwheels, and gathered around a peace pole to listen to music and reflect upon whom they should make peace with. View their approved submission here.

In this eighth grade unit, students learned that they have a voice in political decision making, implementation and scrutiny. Students began to understand that individuals have a responsibility to work collectively to promote shared rights for the future and to protect the environment and its resources. Students work in small groups to create a video depicting qualities that all citizens should portray as Americans and why democracy should continue. Each student in the group takes a different perspective when answering the question. View their approved submission here.

*Please note that while these are excellent unit plans, Sustainable Jersey for Schools does not require all submissions to be this extensive. View the Action guidelines to find out what is required.

**Resources**

The following resources may be helpful in completing this action.

**RESOURCES AND ORGANIZATIONS THAT SUPPORT SUSTAINABILITY EDUCATION IN SOCIAL STUDIES**


**National Geographic**, Education—activities, lessons, and resources, such as maps, articles, photographs, and videos, for K-12th grade educators of social studies and other subjects. http://education.nationalgeographic.com/education/?ar_a=1


**Oxfam**, Oxfam Education—ideas, resources and support for educating students on worldly issues and how they can
make a positive difference for K-12th grade and a variety of curriculum areas.
http://www.oxfam.org.uk/education/resources

**Sustainability Education Resources** (SAGE, NJDEP)
http://www.nj.gov/dep/aqes/sustainable-education.html

**State Environmental Education Directory Site** (SEEDS, NJDEP)
http://www.nj.gov/dep/seeds/

**SAMPLE LESSONS**

**Cloud Institute**, Curriculum Lesson Sets—each lesson focuses on a particular EfS Standard and its relationship to the materials cycles. In four grade-appropriate lessons (K-2, 3-5, 6-8, and 9-12), each set includes tailored lessons that have been aligned to The Cloud Institute’s Education for Sustainability (EfS) Standards and Performance Indicators, and that meet the McREL National Standards and Common Core State Standards by Cloud Institute and TerraCycle.
https://cloudinstitute.org/k23568912/

**Green Education Foundation**, Sustainability Lesson Clearinghouse—searchable database of K-12th grade lessons for various sustainability topics.
http://www.greeneducationfoundation.org/institute/lesson-clearinghouse

**Kid Wind Project**, WindWise Education provides interdisciplinary lesson plans covering a variety of topics related to wind energy for grades 6 to 12. http://www.kidwind.org/#!windwise-1/ovnrg

**Putnam/Northern Westchester BOCES** Curriculum Center features sample lessons for integrating sustainability in different disciplines for K–12th grade.
http://www.pnwboces.org/efs/sample_lessons.html

Sustainability in United States History—8th grade social studies lesson.
http://www.pnwboces.org/efs/Grade8/Gr8_SS/Lesson3_8_SS.htm

**RESOURCES FOR EFFECTIVE AND ALIGNED ASSESSMENT**

**Whys and How of Assessment**, Carnegie Mellon, Eberly Center for Teaching Excellence. This resource provides insights into why assessments, learning objectives, and instructional strategies should be aligned.
http://www.cmu.edu/teaching/assessment/basics/alignment.html

**Designing Great Rubrics**, by Michael Simkins: describes the ten pointers for designing great rubrics.
http://sblc.registereastconn.org/greatrubrics.pdf

**Teaching Channel** video on designing Rubrics. https://www.teachingchannel.org/videos/designing-rubrics

**EDUCATION FOR SUSTAINABILITY BACKGROUND RESOURCES**

National Action Plan for Educating for Sustainability, The Center for Green Schools at the U.S. Green Building Council and Houghton Mifflin Harcourt, 2014: The National Action Plan promotes a shared vision where all students graduate educated for a sustainable future through the integration of the environment, economy, and equity, with the ability to apply systems thinking to problem solving and decision making by 2040.

Educating for Sustainable Development Toolkit is based on the idea that communities and educational systems within communities need to dovetail their sustainability efforts. As communities develop sustainability goals, local educational systems can modify existing curriculums to reinforce those goals. http://www.esdtoolkit.org/esd_toolkit_v2.pdf