

55 Environmental Service-Learning Projects

Project Title	Description	Suggested Resources
A Cookbook of Native Plants	Research native edibles and herbs, and compile and publish a recipe book highlighting native species. Learn about plant structure and growth, the local environment, local and regional history, and personal health. Draw connections between the environment and human inhabitants.	 Tryon Life Community Farm: http://tryonfarm.org/share/ medicinal-plant-guide pacific-northwest Local native plant nurseries Local oral history
Adopt-a-Park	Adopt a local park or greenspace area near your school, and coordinate with the parks management to plant and maintain a section of the park. Research the impact of greenspaces in a community and develop an advertising campaign to promote the use of the park.	 Our Cities Without Green Space www.aag.org/sustainable/gallery/
Alternative Energy Resources	Use the internet and library resources to investigate past, current, and future research into alternative energy resources. Share your findings with the community and evaluate the potential of introducing or supporting various alternative energy resources into the community.	 Alternative Energy News http://www.alternative-energy-news.info/ Alternative Energy Institute http://www.altenergy.org/
Art in the Park	Study significant public artists, focusing on the environmental and cultural impact of their work. Create art (murals, sculpture, etc.) reflecting pride in the community or region. Arrange to place the art in a local park or public space.	 Environmental Art Museum http://www.greenmuseum.org Public Art Online http://www.publicartonline.org.uk Local artists and muralists Local parks Local arts associations

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Assess Local Public Transportation	Study access to and resources for public transportation within a community, and share your findings with local government and community groups.	■ Local transit agency website
Athletic Shoe Recycling	Learn about the resources needed to create athletic shoes, and the amount of landfill space used to dispose of them. Create a campaign to recycle athletic shoes at your school.	Nike http://www.nikebiz.com/ responsibility/community_programs/ reuse a shoe.html
Bat Houses	Study the life cycle of bats and the natural pest control benefits to the environment that they provide. Construct bat houses simulating their natural habitat and hang them in a nearby park. Inform local community members about your project and the importance of bat habitat preservation.	 Free Bat House Plans http://www.eparks.org/ wildlife_protection/wildlife_facts/ bats/bat house.asp Why Bat Houses May Fail http://www.batmanagement.com/ Batcentral/batboxes/whyfail.html Building a Bat House / National Wildlife Federation http://www.nwf.org/backyard/bathouse.cfm
Beach Cleanup	Study the impact of litter on marine plant and animal habitat. Team up with other youth to organize a beach cleanup day in a nearby beach community. Sort and quantify the litter retrieved, and present the findings at your school to encourage others not to litter our beaches.	Helping Marine Life http://www.worldchanging.com/ archives/007770.html

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Biking Clinic	Use the internet and other resources to gather information about bike safety, investigating the health benefits of biking, and the energy savings of bicycle transportation. Prepare and present a bike safety clinic for local youth and community members.	 Bicycle Transportation Alliance http://www.bta4bikes.org/ Bicycle Safety http://kidshealth.org/kid/watch/out/bikesafety.html
Bilingual Signage	Practice and develop your foreign language skills by translating signs along a local walking trail in the community into another language to assist those who do not read English.	 Google Translator <u>www.google.com/ig</u> Local language teachers Local government agencies
Bird Identification and Census	Learn to identify local birds, and participate in a national or locally-sponsored bird count project. Share this information with local environmental agencies, helping to assess the health of native bird species.	 Audubon Society www.audubon.org Great Backyard Bird Count http://www.birdsource.org/gbbc/ Earth Easy http://www.eartheasy.com/play annual birdcount.htm
Birdhouses	Study the habitats and nesting needs of birds. Construct and maintain nesting stations for birds on the school campus or in the neighborhood. Prepare and present an informative display about the nesting of birds for the community.	 Free Birdhouse Plans http://www.freebirdhouseplans.net/ How to Build a Bird House http://www.natureskills.com/ how to build a bird house.html Wild Birds Forever http://www.birdsforever.com/ houses.html

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Bring Your Own Grocery Bag Campaign	Conduct research and interviews to compare the environmental impacts of both plastic and paper grocery bags and the amount of landfill space they take up. Create a campaign to educate and encourage community members to use reusable grocery bags instead.	 Paper, Plastic, or Something Better? http://environment.about.com/od/recycling/a/reusablebags.htm Roots and Shoots Reusable Bag Campaign http://www.rootsandshoots.org/campaigns/reusablebag Local grocery stores
Build a Trail	Learn why and how trails are built, and the process of securing permission to build trails on public property. Help build, restore, install interpretive signage and/or maintain a trail in your neighborhood or community.	 National Trails Training Partnership <u>www.americantrails.org/resources/</u> <u>trailbuilding/index.html</u>
Butterfly Garden	Research the lifecycle of butterflies; find out what types of plants attract them, then plant a butterfly garden at your school or at a local park using native and noninvasive plants. The garden attracts butterflies to beautify and enhance the area.	 The Children's Butterfly Site http://www.kidsbutterfly.org/life-cycle Lady Bird Johnson Wildflower Center http://www.wildflower.org/collections/collection.php?collection=OR Berry Botanical Gardens http://www.berrybot.org/pubs/fs bubutterfly.html
Buy Local	Analyze the environmental impact of transporting goods and materials to different parts of the country and throughout the world. Visit local businesses to learn more about goods and services produced locally in your region. Design and develop a local electronic media campaign to encourage community members to shop locally.	 Local Buying Guides (for several cities) http://www.newdream.org/buyingwisely/index.php Local Farmers Market Local Chamber of Commerce

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Community Emergency Preparedness Plan	Learn about disaster preparedness (earthquakes, flooding) and safety within the community by using the internet and interviewing local experts. Use the information to create an emergency preparedness plan for the community.	 American Red Cross http://www.redcross.org/flash/brr/English-flash/default.asp Ready.gov www.ready.gov Sierra Club PLAN!T NOW http://www.sierraclub.org/getprepared/
Composting	Read about composting and how it benefits the environment and the community. Create a composter to turn food waste from the school cafeteria into compost for area gardens. Share your findings with other classes at school, to encourage school-wide composting as a practice.	 Composting Guide http://vegweb.com/composting/ Cornell Waste Management Institute http://cwmi.css.cornell.edu/ composting.htm
Computer Recycling – StRUT*	Investigate the different types of materials used to build computers and how these materials can be either disposed of or recycled. Partner with a local electronic waste recycler and develop a brochure to encourage community members to recycle old electronics.	 StRUT http://www.oregonstrut.org Free Geek www.freegeek.org Next Step Recycling www.nextsteprecycling.org
Create a Rain Garden	Study the benefits of rain gardens and the scientific principles which support their use. Approach a local government or community agency to help you create a rain garden at your school, using native trees and shrubs.	 Create a Rain Garden http://www.raingardens.org/docs/ Create A Rain Garden.pdf Local watershed councils Local soil and water conservation districts

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Design a Hydroelectric Car	Find out about the history of automation in the United States and around the world. Learn about contemporary car designs and their impacts on the environment. Investigate alternative designs to understand how they work, and the impact that such alternatives could have on your community.	 Green Car Journal: http://www.greencar.com/ Electric Auto Association: http://www.eaaev.org/index.html Automotive News: http://www.autonews.com/ HowStuffWorks.com: www.howstuffworks.com/ "Who Killed the Electric Car?": http://www.whokilledtheelectriccar.com/
Downspout Disconnect Program	Learn how roof rainwater runoff flowing directly from downspouts into sewers can cause sewage overflows into area rivers and streams. Educate the community and recruit homeowners to participate in a downspout disconnect program. Organize and lead others in disconnecting downspouts in the community.	 Using Incentives and Other Actions to Reduce Watershed Impacts from Existing Development http://www.epa.gov/nps/natlstormwater03/18 Hottenroth.pdf Redirect or Disconnect your Downspout www.marc.org/Environment/Water/downspout.htm
Energy Audits	Learn about the environmental impact of energy use and explore ways in which individuals and organizations can reduce their energy consumption. Conduct an audit in school, or in a senior citizens' home in the community, to determine if there are ways to reduce energy use. Present the results of the audit to the school/senior citizens.	 Energy Star http://www.energystar.gov/index.cfm?c=home improvement.hm improvement audits Energy Audit Lesson Plan http://www.thirteen.org/edonline/wue/energy procedures.html
Garage Re-Sale	Learn about the benefits of reusing and recycling. Plan and organize a garage sale at school for reusable items, advertising the sale on the school and other community-focused web sites. Select a community nonprofit organization as the beneficiary of the proceeds of the sale.	 Plan a Garage Sale http://www.wisegeek.com/how-can-i-plan-a-garage-sale.htm How to Advertise your Garage Sale http://www.ehow.com/how_4435488_sale-moving-sale-yard-sale.html

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Green Schools	Learn about ways to green your school. Audit school practices in waste reduction, resource conservation and energy use. Reach out to another school and provide them with assistance and advice on how to green their school.	 Tips: Green Your School http://www.newdream.org/work/school.php Green Your School Guide http://earthday.net/greenyourschool Energy Audit Lesson Plan http://www.thirteen.org/edonline/wue/energy procedures.html
Guide to Local Farmers' Market	Learn about botany and agriculture in order to create a seasonal produce guide for shoppers at the local farmers' market. Share the guide with local community members.	 National Resource Defense Council: What's Fresh Near You http://www.nrdc.org/health/foodmiles/default.asp Cornell Vegetable Growing Guide http://www.gardening.cornell.edu/homegardening/sceneb771.html
Hiking Guide for Students	Using research from the internet, the library, and interviews with experts, gather information about local hikes. Learn from experts what to bring along on a hike. Create an informational brochure or website to share with the community.	 National Park Service http://www.nps.gov/index.htm Visit a Preserve http://support.nature.org/site/PageServer?pag ename=preserve map&s src=hpmap&s subsrc =findmap
Interpretive Signs for Trails	Create signs to mark points of interest along a nearby trail. Research the history of the area and learn to identify plants in the region.	 National Park Service Lesson Plans http://www.nps.gov/archive/grsa/resources/curriculum/elem/lesson39.htm Plant Identification http://www.amnh.org/education/resources/biocounts/plant_id.php

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Invasive Plant Removal	Learn about invasive plants and the challenges of controlling them. Learn to identify and remove the invasive plants found near your school or throughout the community.	 Protecting Native Plants and Animals http://www.nature.org/initiatives/
Ladybugs for Natural Pest Control	Learn alternative methods of pest control and the different impacts that these methods have on the environment. Partnering with a local organization, raise ladybugs and use them as natural pest control in the community.	 The Beneficial Insect Co. <u>www.thebeneficialinsectco.com/</u> <u>aphid-control-ladybugs.htm</u> Ladybug Lady http://www.ladybuglady.com/LadybugsFAQ.htm
Local Natural Resource Planning and Management	Investigate the natural resources available in your community. Learn how cities, counties, and states manage these resources. Create a resource management plan and share it with local community members and government officials.	 Federal Bureau of Land Management www.blm.gov Local government agencies
Macroinvertebrate Sampling	Learn about the importance of clean water for humans and animals and how the presence or absence of certain macroinvertebrates can indicate the water quality of a stream. Learn how to properly sample for macroinvertebrates; sample macroinvertebrate life of a nearby stream and share this information with the local water agency.	 Wetland Health Evaluation Program <u>www.mnwhep.org/id28.html</u> The Global Water Sampling Project http://www.ciese.org/curriculum/waterproj/macros.shtml

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Mail Management	Investigate the resources used in producing junk mail and the impact this has on the earth. Learn how to reduce the amount of junk mail you receive at home, and share this information with the community using a website, a brochure, or a newsletter.	 New American Dream http://www.newdream.org/junkmail 41 Pounds http://www.41pounds.org
Making Enviro-Friendly Cleaners	Learn about the chemicals contained in traditional cleansers and their impacts on humans and the environment. Research alternative methods of cleaning. Produce environmentally friendly cleansers to be used at school or to be given to local community agencies.	 Discovery Channel http://planetgreen.discovery.com/ go-green/green-cleaning/ The Green Guide http://www.thegreenguide.com/doc/113/rites
Photo Point Monitoring	Learn how watershed restoration projects can improve water quality and wildlife habitat. Monitor the health of restored sites using photo point monitoring techniques. Assist a local agency by monitoring a restoration project and submitting data to that agency.	 A User Guide to Photo Point Monitoring Techniques for Riparian Areas http://www.shim.bc.ca/methods/pdfs/ppmAq atex.pdf How We Protect Watersheds http://www.nature.org/popups/freshwater/watershed.html OWEB Guide to Photo Point Monitoring http://www.oregon.gov/OWEB/docs/pubs/PhotoPoint Monitoring Doc July2007.pdf

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Plant a Heritage Garden	Research, plan, plant, and maintain a community garden of native species and locally cultivated species.	 American Community Gardening Association http://www.communitygarden.org/index.php Native Plant Database http://www.wildflower.org/plants/ The Dirt on Dirt http://www.exploratorium.edu/gardening/feed/dirt/index.html Local native plant nurseries
Prepare a Catalogue of Native Medicinal Plants	Research and identify native plants with medicinal properties. Learn about plant structure and growth, the chemical properties of medicinal plants, and the local environment. Draw connections between the environment and its human inhabitants to create a written catalog of native medicinal plants.	 Medicinal Plant Working Group http://www.nps.gov/plants/medicinal/plants.htm Plant Identification http://www.amnh.org/education/resources/biocounts/plant_id.php Local native plant nurseries
Raising Honey Bees	Learn the importance of honey bees in the food production industry within the United States and the problems caused by the dwindling bee population. Raise honey bees to share with local community organizations.	 Small Scale Beekeeping http://www.beekeeping.com/articles/us/small beekeeping/bees humans.htm Honey Bee Lesson Plan http://www.ent.iastate.edu/zoo/lessonplans/honeybee.html The Honey Bee Project http://www.thehoneybeeproject.com/
Recycling Program	After learning about the history and importance of recycling, create or enhance a recycling program at your school. Give presentations to other classes as well as produce information about recycling, reducing and reusing to share with your schoolmates.	 How to Go Green: Recycling http://planetgreen.discovery.com/go-green/recycling/index.html Green Your School: Recycling http://www.newdream.org/work/school.php#recycling

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Reduce School Cafeteria Waste	Use math and science skills to calculate how much food is discarded at your school cafeteria and to find ways to reduce this waste. Share this information with the school board and attempt to implement food waste reduction programs.	 Organizing Cafeteria Recycling Programs: http://ladpw.org/epd/envdef/ Teacher-PrincipalPacket.pdf Rethinking School Lunch Guide http://www.ecoliteracy.org/programs/pdf/ Can We Really Reduce Our Cafeteria Waste? Lesson Plan http://www.monreocounty.gov/Image/LESSON13.pdf
Reducing Energy Consumption	Learn how energy use impacts the earth, and how different practices can affect individual energy use. Design an "energy use" calendar or create a "challenge" to encourage students, families, and the greater community to reduce their consumption.	 Natural Resource Defense Council http://www.nrdc.org/air/energy/genergy.asp Power Score Card http://www.powerscorecard.org/ reduce_energy.cfm The Renewable Planet http://www.therenewableplanet.com/ green/reduceenergy/
Riparian Assessment	Learn about the importance of healthy watersheds and how human behaviors can impact the health of rivers and streams. Learn how to complete a formal assessment of a riparian area near the school. Share the assessment with the local watershed council, government agency or other community members.	 EPA - How Can I Protect My Watershed http://www.epa.gov/epahome/community.htm#watershed Student Watershed Research Project www.swrp.esr.pdx.edu How We Protect Watersheds http://www.nature.org/popups/freshwater/watershed.html

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Riparian Restoration Project	Restore a local river or stream bank by removing invasive species, planting and caring for native trees and shrubs, creating habitats for fish, and monitoring vegetation. Learn about environmental systems, local wildlife, and plant growth. Draw connections between the environment and its human inhabitants.	 Protecting Native Plants and Animals http://www.nature.org/initiatives/invasivespecies/ Monitoring the Vegetation Resources in Riparian Areas http://www.fs.fed.us/rm/pubs/rmrs_gtr047.pdf Local native plant nurseries
Saving Water	Research and study water needs and usage in the community. Learn about conservation strategies from the water bureau. Design and publish a water-saving tip sheet to distribute to parents and community residents, and create a coloring book illustrating the tips for the community's youngest residents.	 How to Teach Children about Water Conservation http://www.ehow.com/how_2125853 teach-children-water-conservation.html
Schoolyard Bioswales	Learn how bioswales are able to manage storm water. Investigate whether a bioswale would be a possible option at your school; then learn more about the history, construction, and operation of bioswales. Perform maintenance or plant additional trees and shrubs to improve the bioswale's function.	 Tualatin Riverkeepers http://www.tualatinriverkeepers.org/ lid website/swales.html Bioswales / Vegetated Swales http://buildgreen.ufl.edu/ Fact sheet Bioswales Vegetated Swales.pdf Local watershed councils Local soil and water conservation districts

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Storm Drain Stenciling	Investigate how storm drains work and where the storm water eventually ends up. Research what kinds of materials end up in the storm drains. Educate the public about the problems of dumping materials in storm drains by stenciling messages adjacent to neighborhood storm drains.	 EPA – Nonpoint Source Outreach Toolbox http://www.epa.gov/owow/nps/toolbox/search_other_by_state.htm The Groundwater Foundation http://www.groundwater.org/ta/docs/stormdrainstencil.pdf Storm Drain Stenciling Reference Materials http://www.mvpc.org/index.asp?page=wp1720 0720472
Sustainable Building Practices	Learn about the history of building materials and methods in the United States and other countries, and understand that some traditional building methods can have a negative impact on the environment. Research alternative building methods and create a brochure to share with local community members and contractors.	 Green Building Sourcebook <u>www.greenbuilder.com/sourcebook/</u> U.S. Green Building Council http://www.usgbc.org The Rebuilding Center http://www.rebuildingcenter.org
Sustainable Gardening	Learn how traditional gardening methods can have a negative impact on water quality and other environmental indicators. Research alternative methods and train community members in sustainable gardening.	 Garden Simply http://www.gardensimply.com/index.php Sustainable Gardening Tips http://www.sustainable-gardening-tips.com American Community Gardening Association http://www.communitygarden.org/index.php
Testing for Lead	Gather information about lead poisoning – its causes, symptoms, how to test for it, and its prevention. Use this information to work with the local health department to coordinate a free testing day in the community. Produce brochures to distribute to homes in the community about how to check the various sources of lead in the average home.	 Lead Poisoning http://kids.niehs.nih.gov/lead.htm EPA – Testing Your Home for Lead http://www.epa.gov/lead/pubs/leadtest.pdf

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Trash Audit	Investigate where trash eventually ends up and the environmental impact this has. Analyze the trash in your school and determine how much of it could be reused or recycled. Share this data with the school administration and school board to encourage more recycling within the school.	 Performing a School Waste Audit http://www.recycleworks.org/schools/saudits.html How to Conduct a Waste Audit http://www.solidwastedistrict.com/projects/waste_audit.htm Waste Audit Tool http://www.wasteaudittool.com/
Tree Identification Project	Learn to identify both native and non-native trees found within the school grounds and community. Share this information with local government and community agencies to assist in the development of citywide tree plans or other tree-related projects.	 Arbor Day Foundation http://www.arborday.org/trees/whattree/ What Tree Is It? http://www.oplin.org/tree/ Plant Identification http://www.amnh.org/education/resources/ biocounts/plant_id.php
Tree Planting	Research the use of trees for environmental and social benefits. Plan and implement a tree planting event to plant trees on school property, at a local park or at a restoration site.	 The Value of Trees to a Community http://www.arborday.org/trees/benefits.cfm The Right Tree in the Right Place http://www.arborday.org/trees/
Vacant Lot Cleanup	Identify a vacant lot in the community, and plan a beautification project. Research the lot's ownership to secure permission to access the property in order to restore it. Organize and coordinate a cleanup event, removing both trash and invasive plant material from the lot.	 From Lot to Spot http://www.fromlottospot.org/ Any Little Patch of Dirt http://www.exploratorium.edu/gardening/bloom/index.html

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Vegetation Monitoring	Discover how watershed restoration projects can improve water quality and wildlife habitat. Learn appropriate vegetation monitoring techniques in order to evaluate the health of these sites. Assist a local agency by monitoring a restoration project and submitting the data to that agency.	 Monitoring the Vegetation Resources in Riparian Areas http://www.fs.fed.us/rm/pubs/ rmrs_gtr047.pdf OWEB Guide to Photo Point Monitoring www.oregon.gov/OWEB/docs/pubs/ PhotoPoint Monitoring Doc July2007.pdf Student Watershed Research Project www.swrp.esr.pdx.edu
Water Quality Testing	Learn about the importance of clean water for humans and animals. Learn how to conduct water quality tests for a variety of parameters. Assess the water quality of a nearby stream and share this information with the local water agency.	 EPA - My Environment http://www.epa.gov/myenvironment/ EPA - Ground Water and Drinking Water http://www.epa.gov/safewater/dwh/