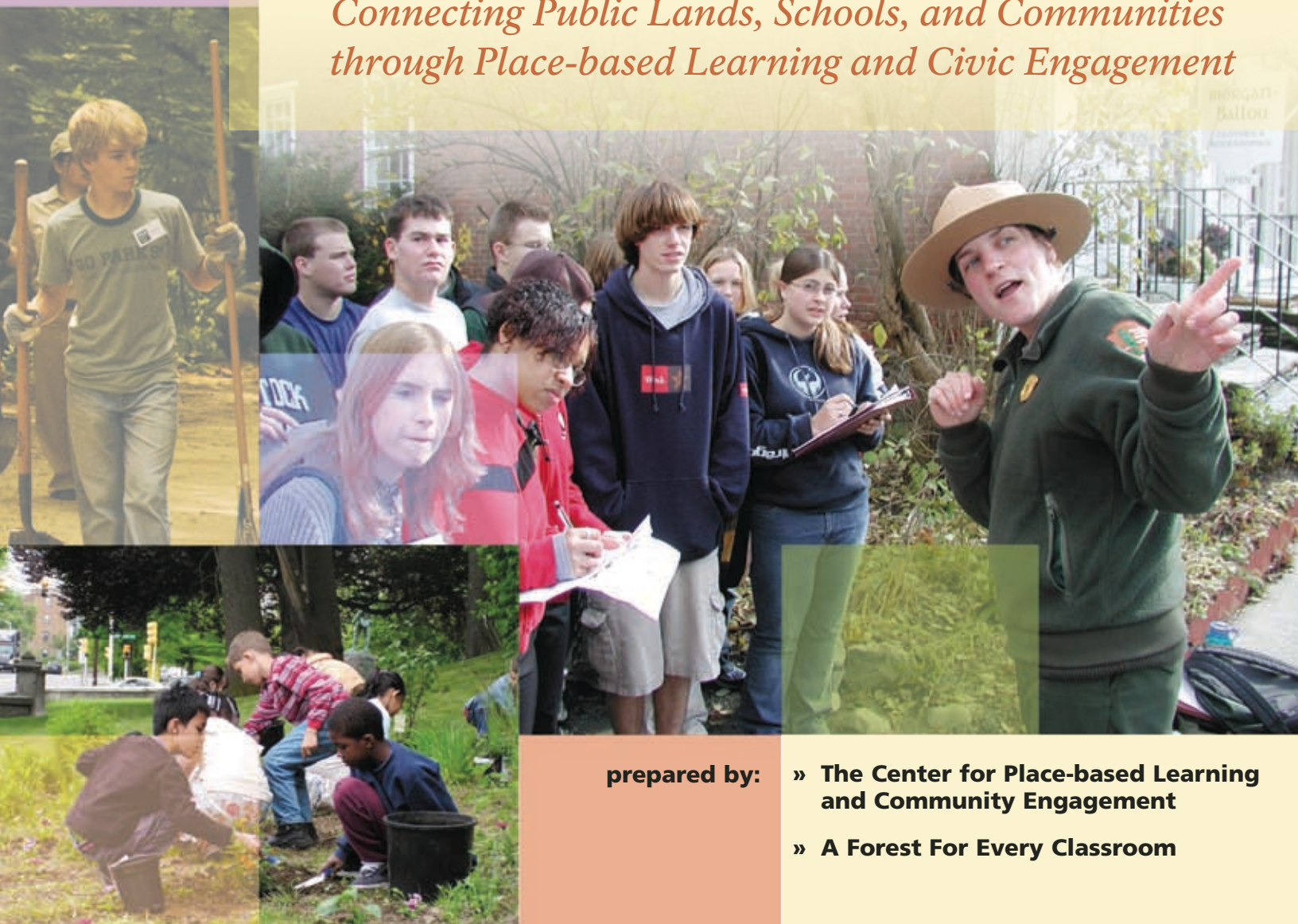




Learning to Make Choices for the Future

Connecting Public Lands, Schools, and Communities through Place-based Learning and Civic Engagement



prepared by:

- » The Center for Place-based Learning and Community Engagement
- » A Forest For Every Classroom



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*Connecting Public Lands, Schools, and
Communities through Place-based Learning
and Civic Engagement*

Delia Clark

This manual was prepared by:

**The Center for Place-based Learning
and Community Engagement**

A Partnership Program of the National Park Service Conservation
Study Institute, Marsh-Billings-Rockefeller National Historical
Park, and Shelburne Farms National Historic Landmark

A Forest For Every Classroom

A Project of Shelburne Farms, NPS Conservation Study Institute,
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ABOUT OUR PARTNERS

The Center for Place-based Learning and Community Engagement

A unique public private partnership that works to advance the state of the art in place-based learning and community engagement by facilitating collaborative efforts in research, program design, technical assistance, resource development, and dissemination. Founding partners include:

- The National Park Service Conservation Study Institute, based at Marsh-Billings-Rockefeller National Historical Park, works with national parks and partners to advance leadership and innovation, and in collaborative conservation for the stewardship of our national system of parks and special places. The Institute provides technical assistance to parks, heritage areas, and regional programs by conducting demonstration projects, distilling and sharing lessons learned, and building networks for information exchange. www.nps.gov/csi
- Marsh-Billings-Rockefeller National Historical Park is devoted to the history of the conservation and the evolving nature of land stewardship in America. Located in Woodstock, Vermont, this 550 acre woodland focuses on demonstrating sustainable land stewardship, stewardship education and building conservation leadership skills. www.nps.gov/mabi
- Shelburne Farms is a membership-supported, nonprofit environmental education center, 1,400-acre working farm, and National Historic Landmark on the shores of Lake Champlain in Shelburne, Vermont. Its mission is to cultivate a conservation ethic by teaching and demonstrating the stewardship of natural and agricultural resources. www.shelburnefarms.org

A Forest For Every Classroom: Learning to Make Choices for the Future

A Forest for Every Classroom (FFEC) is a professional development program for educators focused on place-based learning and service learning. Teachers participating in FFEC develop curricula that foster student understanding of and appreciation for the public lands in their communities. The teacher-developed curricula integrate hands-on natural and cultural explorations that address concepts in ecology, sense of place, stewardship, and civics. <http://www.nps.gov/mabi/forteachers/forest-for-every-classroom>. FFEC is a partnership program of:

- Marsh-Billings-Rockefeller National Historical Park
- Shelburne Farms
- National Park Service Conservation Study Institute
- The Green Mountain National Forest, the largest contiguous green space in Vermont, offering 400,000+ acres of forested landscape as an outdoor classroom, and a staff committed to educating teachers about forestry, ecology, invasive species, watersheds, and the role of forests in watersheds. There are also 900 miles of trails for field trips.
- Northeast Natural Resource Center of the National Wildlife Federation, which represents NWF at the local level and conducts research, education and advocacy on a variety of conservation issues of regional significance.



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welcome

“Public lands have tremendous potential to contribute to education and quality of life in our communities. If we can get young people thinking about not only the future of their parks and forests but also the future of their local communities, that’s the beginning of lifelong learning—and it’s also cultivating stewardship.”

– Nora Mitchell, Conservation Study Institute



These are exciting and challenging times for public lands managers. More than ever, communities, particularly young people, need what parks and other public lands and sites have to offer. As places of wonder, mystery and awe, public lands hold vital connections to history, nature, and to the future. They offer refuge for our natural and cultural resources, quiet and beauty in a busy world. Additionally, they offer places where youth and citizens of all ages can engage in the stewardship of their communities. This very direct manifestation of civic engagement, which brings the energy and skills of students to bear on the conservation of local cultural and natural resources, has the dual benefit of creating exciting and relevant learning opportunities for students and tangible accomplishments in the stewardship of public lands.

This manual is designed to build mutually beneficial bridges between public lands, schools and communities through place-based learning (PBL) and civic engagement (CE). It strives to give you good working definitions, historical contexts, tools, and key how-to points about getting started and sustaining your place-based learning and civic engagement programs. The manual is designed to help bring you into the community of PBL and CE practitioners through case studies. It should be viewed as a get-down-and-dirty manual, not only to inspire and inform, but to be in your briefcase or backpack as you go into communities, schools, historical societies, conservation commissions and the full range of publicly accessible lands, setting strong partnerships and programs in motion. The purpose of this manual, ultimately, is to build a culture of active learning and engagement in the ongoing conservation, care, and enjoyment of our local, state and national parks, forests, prairies, monuments, historic sites and public lands of all kinds.

Public lands, seen in the context of community, visited by students of all ages and opened to student stewardship projects, over time come to be seen as “owned” and loved by the people who use and understand them. Knowledge, love, and the spirit of civic engagement and ownership lead to successful long-term stewardship.

INTENDED AUDIENCE

This manual is designed for two primary audiences:

- 1) Educators, interpreters, rangers, and managers working on any public land who would like to develop a strong place-based learning and civic engagement program in partnership with the local schools and community. By public land we mean any land or site that is accessible to the public for educational and recreational use such as national parks, monuments, forests, grasslands, and wildlife refuges; state and municipal parks, forests and cultural sites; nature centers; historical sites; community gardens; zoos; museums; beaches—the list goes on and is unique to your local area.
- 2) Teachers, non-formal educators, civic leaders and other community members who would like to develop a strong place-based learning program in partnership with local public lands. These might include K-12; higher education; or non-profit organizations devoted to the environment, community development, history and heritage, arts, sustainability or youth.

We invite you to explore the emerging field of place-based learning and civic engagement. This manual will give you the tools you need to get started. Whether you are a teacher or public lands manager, we hope this manual will provide inspiration, resources, and the incentive you need to launch or strengthen your place-based work. As you move further into the field, please visit our website, www.promiseofplace.org.





The Foundations of Place-based Learning

“If you don’t know where you are, you don’t know who you are.”

– Wallace Stegner

✿ **Seventh-grade students** use approved scientific protocols to monitor salamander population trends in a National Park, submitting the data to a permanent regional database.

✿ **Fifth-grade students** develop and publish an illustrated walking tour booklet of a historic neighborhood, including a map, commentary, and photographs of each building.

✿ **Kindergarteners** work with a local artist to develop an ABC coloring book about the creatures found at a local nature center and the book is sold to raise funds for nature education.

✿ **Sixth-grade students** develop text and photographs used in official National Park interpretive signs about the history and recreational opportunities of their home landscape.

✿ **Fourth-grade students** work with staff at a local zoo to develop, publish and distribute a “Quest” treasure hunt that leads visitors on a guided tour of the history of a city park.

✿ **Eighth-grade students** collect data on ground-level ozone damage to plants growing in their schoolyard, as part of a national study.

✿ **Eleventh-grade students** collaborate to write a weekly newspaper column about the special cultural and natural places of their community, including interviews, photo-documentation, and other primary research.

Welcome to the world of place-based learning!

The Roots

Place-based learning and civic engagement have emerged over the past decade at the rich ecotone of environmental education, conservation, and community development. They are fed by the strong roots grown by forty years of environmental education in the United States. In some ways, in fact, PBL can be understood as environmental education gone completely local, wholly integrated with the learning standards and expanded beyond the natural environment to include the cultural, social, and economic conditions of place. Place-based learning approaches seek to capitalize on the strong affinity people have for their communities to accomplish ecological and cultural literacy as well as a range of conservation and community stewardship objectives.

Through the integration of civic engagement opportunities in place-based curricula, learning is connected to action: students and citizens engage together in the civic life of their communities. This is a values-driven approach, designed to advance educational goals together with locally identified social, economic and environmental objectives. It contributes to the broad adoption of stewardship perspectives, skills and action and the restoration, rebuilding, and reconnecting of human communities and natural systems.



As participants in place-based learning become actively engaged in studying and responsibly addressing relevant local issues, the results have included stronger community support for conservation and education, higher levels of learner engagement, and a renewed sense of value for the spirit of place.

Reconnecting Youth to Local Nature and Culture

One of the trends most alarming to future conservation and stewardship efforts is the growth of a youth culture that has turned away dramatically from nature and the outdoors. Numerous studies show a drastic decrease in the amount of time young people spend in the world outdoors, whether in recreational pursuits, work, or just hanging out in the neighborhood.

Similarly, in our mobile and ever more global society, with access to mass culture a click away,

children are increasingly disconnected from local history and cultural traditions. With visits to local historical sites on the decline, a growing loss of regional identity, and traditional crafts, arts and skills often seen more as charming than practical, there is a great need for a revival in connection to our heritage. These are the things that define us, give meaning to our lives and our communities and are worth fighting for.

PBL works to counter the negative trends of social fragmentation and disconnection from nature, culture and community by reconnecting people to the natural and cultural world of which they are a part. PBL works to reconnect kids to the magical and practical mysteries and truths of their native surroundings; and connects ordinary citizens to the responsibilities of community stewardship and civic life. By encouraging personal growth and change, PBL contributes to the work of envisioning sustainable community and bringing those visions to reality.

While it has been a long-standing goal of environmental education to connect children to nature, PBL extends this connection to specific places, people and community concerns. A strong bond with and affection for home places has been demonstrated to be an important prerequisite to taking an active role in the stewardship of one's community.



Place-based engagement opportunities abound on public lands of all sizes and shapes, including small urban pocket parks.

“Part of our task, as a society, is to begin to think in terms of comparative risks, and the great benefits of a national nature-child reunion. Yes, there are risks outside our homes. But there are also risks in raising children under virtual house arrest: threats to their independent judgment and value of place, to their ability to feel awe and wonder, to their sense of stewardship for the Earth—and, most immediately, threats to their psychological and physical health.”

— Richard Louv (2005)



Place-based Learning and Civic Engagement: Working Definitions

What do you say when someone asks you what PBL or CE are and why you have chosen this combined approach? The simple working definitions below should be helpful.

Place-based Learning

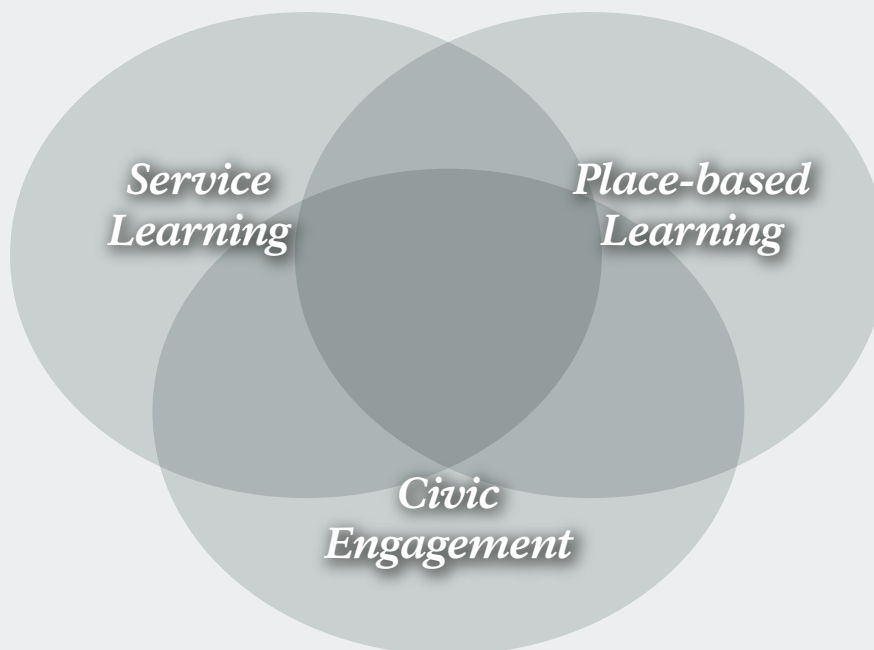
Place-based learning is an educational approach that uses all aspects of the local environment, including local cultural, historical, and socio-political situations and the natural and built environment, as the integrating context for learning. In its most developed forms, it includes a clear focus on learning through civic engagement and participation in service projects of obvious relevance to the local school and community.

Civic Engagement

Civic engagement promotes civic knowledge, responsibility, and participation in individual and collective actions in support of the stewardship of community natural and cultural resources, and the resolution of issues of public concern. Youth civic engagement generally involves youth in identifying appropriate projects. Civic engagement is most effective when it builds on the foundation developed through place-based learning.

Service Learning

Service learning is a method whereby students learn and develop through active participation in a thoughtfully organized service that is conducted in and meets the needs of a community while also meeting the students' educational objectives. While service learning is an important component of PBL, not all service-learning projects are grounded in local PBL experiences.



Place-based learning, civic engagement, and service learning are very complimentary approaches and can be combined successfully to accomplish critical school and community goals.



Related Approaches Defined

Public lands educators and schools have been using similar approaches or strategies in their work with students, teachers of all stripes and the general public for decades. In fact, PBL integrates a number of related teaching methodologies, including environmental education, education for sustainable development, project-based learning, community-based learning, experiential education, environmental literacy, and youth voice.

Environmental Education

Beginning in the early 1970s, educators have been developing curricula to build awareness and understanding about how natural and built environments function and how human beings can live in responsible relationship to the environment. The term “environmental education” is often used to imply education within the school system, from primary to post-secondary. However, it is sometimes used more broadly to include all efforts to educate the public and other audiences through print materials, websites, media campaigns, etc. PBL has emerged from the best of environmental education, interpreting environment broadly to include the cultural, social and economic aspects of a place and contending that the learner’s own environment—their place—is the most effective context for learning stewardship.

Education for Sustainability / Education for Sustainable Development

Education for Sustainability (EFS), also known as Education for Sustainable Development (ESD) is an educational approach emerging strongly around the globe that seeks to empower people to assume responsibility for creating a sustainable future. PBL is often seen as the United States version of EFS.

Project-based Learning/ Problem-based Learning

In project-based learning, students work in teams to explore topics in authentic ways and create presentations to share and apply what they have learned, resulting in deeper knowledge of subject matter, increased self-direction and motivation

and improved research and problem-solving skills. Often students will explore problems in depth in a variant known as problem-based learning. PBL takes it a step further, by involving students in projects directly related to their communities. Both project-based and problem based methods are frequently employed in place-based learning.

Community-based Learning

Community-based learning is a set of teaching and learning strategies that enable youth and adults to pursue learning within the unique context of their community. It is a broad framework that includes service-learning, experiential learning, school-to-work, youth apprenticeship, lifelong learning and other methods. In this context, *community* includes the schools, formal and informal institutions in one’s neighborhood, and the entire world through such resources as the Internet. In PBL, this setting is used explicitly to develop connectedness to one’s place that leads to civic responsibility and stewardship.

Experiential Education

Experiential education is an approach in which educators purposefully engage learners in direct experiences and focused reflection in order to increase knowledge, develop skills and clarify values. Students make discoveries and experiment with knowledge themselves instead of hearing or reading about the experiences of others. Students also reflect on their experiences, thus developing new skills, attitudes, and theories or ways of thinking. PBL is a type of experiential learning with an emphasis on using the community as the basis for creating experiential opportunities.

Environmental Literacy

Environmental literacy is the goal of environmental education. A person is environmentally literate when they have the knowledge of environmental processes and issues needed to make informed decisions and participate in civic affairs. PBL seeks to develop environmental literacy that is grounded in a broad understanding of the interrelationship of natural and cultural systems.



Youth Voice

Many approaches to educational and youth development, including service learning, consider the systemic engagement of youth in the identification, selection, implementation and systematic evaluation of community projects to be an essential element of a successful program. By engaging youth, projects are more likely to be appropriate to youth interest and skills and less likely to use youth inappropriately to solve adult problems. PBL seeks to cultivate youth voice as an indispensable component of local civic health.

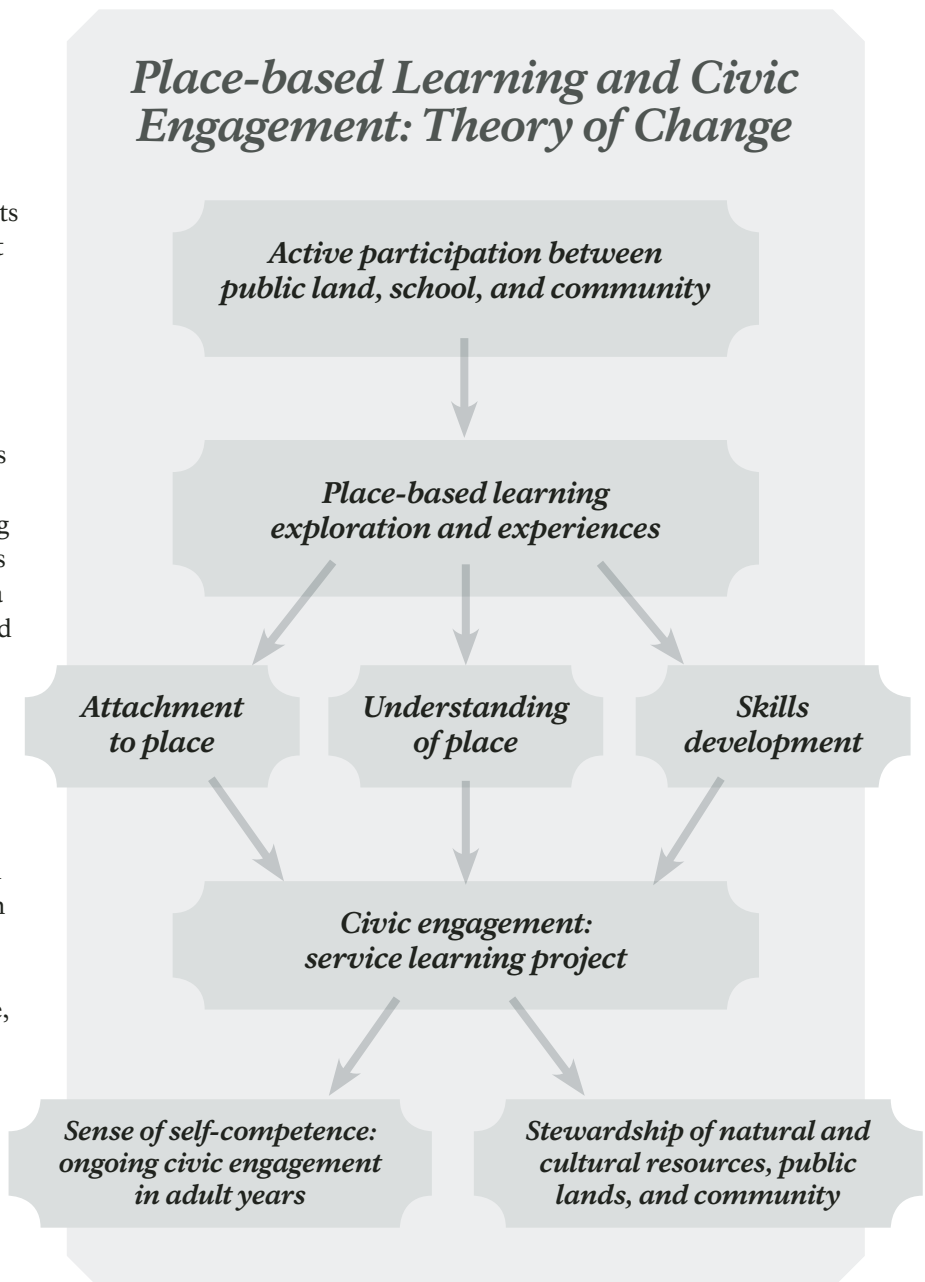
“Authentic environmental commitment emerges out of firsthand experiences with real places on a small, manageable scale over time.”

– David Sobel (2004)

PBL and CE Theory of Change

In a place-based learning approach, land managers, civic leaders, teachers and students enter into long-term partnerships that direct learning activity to local places, resources and circumstances, enhancing student understanding of and attachment to local natural and cultural resources and public lands. As students develop understanding and skills, they bring their energy and talents to bear on critical environmental and social issues, through relevant and real-life learning opportunities. Participation in these projects has a lasting impact on students, leading to a culture of volunteerism and stewardship, and building real solutions to local problems.

PBL is relevant anywhere because it links learning to the particular characteristics of people and places and to the opportunities and challenges there. It initiates a process of social change by immersing students in local heritage, culture and landscapes and the rich diversity of community-based opportunities and experiences where their actions can have the greatest impact. As students mature, their understanding and involvement at the local level serves as a springboard for study of regional, national and global issues. Grounded in the resources, issues and values of the community, place-based learning is inherently tailored to diverse populations and situations.





Goals of PBL

“Over the past decade, educators from New England to Alaska have been relocating the curriculum away from generic texts to the particularities of their own communities and regions. This process has been accompanied by the adoption of instructional practices that draw heavily on student initiative and responsibility as well as the talent and expertise of adults outside the school. The results have included higher levels of student engagement, more commitment to public education, energized and excited teachers and principals, and a renewed sense of what there is to value in the local.”

– Greg Smith (2001)

The Place-based Education Evaluation Collaborative (PEEC)

is a group of programs and a foundation that work together to:

- 1) Improve their programs through individual and cross-program evaluation;
- 2) Identify, develop, and disseminate evaluation techniques, tools and approaches that can be applied to other place-based learning providers; and
- 3) Contribute to the research base underlying the field of place-based learning and school change.

For more research information and copies of evaluation reports, see www.PEECworks.org.

School teachers and public lands educators are finding that rooting their educational programming deeply in the local community, both physically and thematically, is an effective strategy for achieving many of their highest priority goals. Place-based learning and civic engagement “feeds three birds with the same seed” as they address the integrated goals of:

- **Ecological Integrity**—Through project-based learning, students make tangible contributions to resolving local environmental issues and conserving local environmental quality.
- **Community Social and Economic Vitality**—PBL forges strong ties between local social and environmental organizations and their constituencies in the schools and community, which helps to improve quality of life and economic vitality.
- **Student Achievement**—PBL boosts students’ engagement, academic achievement, and sense of personal efficacy as stewards of their local environment and community.

Benefits

Place-based learning seeks the home field advantage, where learning is attached to real, tangible things, places and people and is accessible to every learning style.

The idea of connecting schools, communities and community lands through place-based learning is gaining momentum around the country—and for good reasons. Independent evaluations of PBL programs have yielded impressive results. In New England, the Place-based Education Evaluation Collaborative (PEEC) has undertaken a rigorous and ongoing evaluation process to gauge the effectiveness and outcomes of the place-based learning model in a range of outcome areas including academic achievement, civic engagement, and student stewardship behavior. This comprehensive evaluation has examined nearly 100 schools (rural, suburban and urban) in five states, and involved 800 individual or focus group interviews, 200 student interviews, 750 educator surveys and 2000 student questionnaires. The findings are clear. Place-based learning:

- fosters students' connection to place
- creates vibrant partnerships between schools and communities
- boosts student achievement, and
- improves environmental, social, and economic vitality.

In short, place-based learning helps students learn to take care of the world by understanding where they live and taking action in their own backyards and communities.

BENEFITS FOR PUBLIC LANDS MANAGERS

Education conducted on public lands and in partnership with local communities and schools offer excellent ways for public land managers to practice good civic engagement while advancing public land stewardship objectives. Public lands of any size—from large national forests to small urban pocket parks—increasingly are open systems connected to and dependent upon the communities around them.

Because learning and conducting service projects outside the classroom is a strong focus of PBL and CE, the potential benefit for public resource managers is great. The number of physical engagements with places through PBL is limited only by the creativity and imagination of students, teachers, and managers. Ecological monitoring projects, citizen science engagements, physical enhancements, the removal of exotic non-native species, exhibits, demonstrations, brochures, the construction of new trails, and the maintenance of old ones—almost all can be accomplished over time through service learning opportunities and school-community-public lands partnerships. Place-based approaches are about doing things that need to be done and learning and connecting people to place in the process.

Place-based learning projects help to break down the boundaries between parks and people. Initiatives that begin in the school reach into the community and generate enthusiasm for conservation and stewardship, and greater support for public lands. While PBL and CE accomplish

tangible projects on and for public lands, in the long term the most important result is the impact on students' lifelong ecological literacy and commitment to the public places in their community.

“For the public land manager, the value of place-based learning is to craft cooperative strategies for the long-term protection of the land and resources. Without schools, we are operating without all the tools in our tool box.”

– Rolf Diamant,
Marsh-Billings-Rockefeller
National Historical Park

BENEFITS FOR STUDENTS AND TEACHERS

It is well documented that when schools meaningfully connect learning to the local context through partnerships with local public lands, there is an increase in student engagement and enthusiasm. Likewise, it is accepted among educational professionals that when students are engaged and enthusiastic, their academic achievement improves. PBL and CE have the potential to help students to learn better.

Student engagement increases when the project has authentic value to the school or community.





But in today's complex educational settings, academic achievement alone is not enough to warrant the long-term investment PBL requires. Academic achievement as measured by standardized tests is only one of several key educational metrics needed to understand the outcomes, impacts and importance of PBL to students. PBL makes available the full suite of learning opportunities that land and community have to offer. PBL tends to incorporate many "best practices" in education today such as teaching to multiple intelligences, brain-based learning, collaborative learning, differentiated instruction, etc.

Other documented benefits of value to schools include re-invigoration of teachers, strengthened community connections and transformation of school culture. Teachers involved in PBL report higher levels of satisfaction on the job and much-expanded peer and community networks, contributing a solution to the difficult national problem of qualified teacher retention. And, because students are involved in real community work, schools take on a new level of relevancy. This helps build community support for schools, including public school budgets, and attracts community resources such as public lands staff to local schools. Over time, PBL and CE have been shown to have the potential to shape and become embedded in a school's culture and identity.



Curiosity about the natural world leads to understanding and a sense of stewardship.

BENEFITS FOR COMMUNITIES

"There is a potential to involve the whole community in the education of children. This is a unique thing. It is a departure from most people sending kids off to the school and trusting local educators. If everyone feels they have a hand in education, it will lead to a lot stronger support for education in the local schools—IF everyone has some degree of ownership."

– Forester Haven Neal, Gorham, NH

The development of deep and multifaceted educational partnerships also results in the growth of social capital, that invisible web of trust and reciprocity that supports community vitality. As partnerships develop, different constituencies come to understand the value of each other's perspectives, and enjoy the benefits of each other's skills and experiences as they tackle mutually identified projects. In this collaborative environment, students are seen as a community asset, and their energy, enthusiasm and fresh outlook are welcomed. Local environmental quality benefits from the conservation projects that often serve as the context for place-based learning practice, as do social and cultural resources. In fact, a recent EPA-funded study investigating the relationship between PBL and environmental quality found that education programs *can* achieve measurable improvements in air quality and that the single strongest predictor of air quality was the degree to which the program incorporated the principles of place-based learning. Duffin (2008).

Noted educator Jack Chin writes (2001), "Place-based education ... enables students to see that learning is relevant to their world, to take pride in where they live, to connect with the rest of the world, and to develop into concerned and contributing citizens." Successful PBL practitioners develop the skills of a facilitator, team builder, communicator, and partnership developer, to build the necessary social capital around students, schools and the ongoing real work of building healthy, sustainable communities. They help their



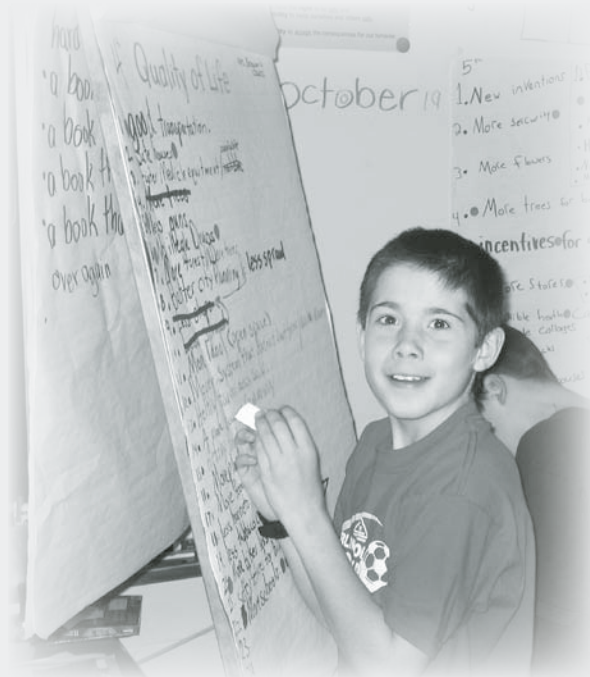
Promising Practices

The following educational practices can contribute to the success of place-based learning and civic engagement programs:

- **Grounded in the particular attributes of a place**—Local natural and cultural systems and themes serve as the context for learning across disciplines, with a meaningful portion of the learning taking place out of the classroom, on-site in the schoolyard and in the local community and environment.
- **Multigenerational and multicultural**—Programs connect students with their community and support the development of appreciation for the diverse talents and perspectives of others.
- **Supported by partnerships**—A diversity of local public and private organizations form long-term, mutually beneficial partnerships in support of the PBL and CE programs.
- **Project-based and investigation-focused**—Students are provided with opportunities to apply critical-thinking skills as they conduct comprehensive, experiential investigations into natural and cultural systems and work toward resolution of real community issues.
- **Relevant**—Programs contribute to the community's vitality and environmental quality by addressing specific community-identified priorities and supporting the community's role in fostering global environmental quality and social equity.
- **Valued by program leaders**—Leadership of schools and community partner organizations recognize the program as being integral to achieving other institutional goals, including addressing educational standards.
- **Student focused**—Learning experiences are custom tailored for the local audience and to students' individual learning styles and are designed with student input including a focus

on issues that are personally relevant to the learners.

- **Interdisciplinary**—Learning integrates content and skills from multiple subject areas.
- **Collaborative**—Teachers share the workload among their colleagues, administrators, students and community members, all of whom have active roles and responsibilities.
- **Reflective**—Students and the educational team (teachers, administrators, community partners) use multiple reflection and evaluation techniques before, during and after the learning experiences to assimilate their learning and examine the extent to which the learning experience has met school and community goals.
- **Expanding in scope**—The development of sense of place and local knowledge serves as the foundation for understanding and participating appropriately in regional and global issues as children mature.





students to develop the attitudes, understandings and skills they need to sustain the natural and cultural integrity of the places they live. Place-based learning programs prepare students to participate actively in our democratic society.

Frequently Asked Questions

Q *How can I convince the local principal that place-based learning and civic engagement are worth trying?*

A Show them the evaluation results documented in “Why PBL Matters” (www.pecworks.org/PEEC/PEEC_Reports/S01248363-01267A71). Across the country, unbiased evaluators are confirming that PBL programs produce higher student engagement, higher teacher retention, strong academic achievement especially in the area of writing, and strong community support for education. Dig in deeper with skeptics to find out their exact concerns and try to address them.

Q *How can I convince the manager of my local public land area that PBL and CE support our mission?*

A Analyze your organization’s mission and annual objectives in terms of community outreach, public relations, public participation, cultural or natural resource inventory and monitoring, research such as citizen science and oral histories, resource management practices, and related areas. Creatively consider ways that student involvement could help you to meet these objectives while providing the students with relevant educational opportunities. Present the ideas to your manager from the starting point of his or her highest objectives. Back up your proposal with success stories from this manual or www.promiseofplace.org.

Q *How can I address teachers’ concerns about fitting place-based learning into their class schedule, with so much to do to prepare students for the standardized tests?*



The academic scope of place-based learning and civic engagement

Drawn from the work of Roger Hart

A Studies have shown that PBL certainly doesn't hurt and has the strong potential to improve academic achievement (see www.pecworks.org). Place-based learning will not be successful if it is an "add-on" to an already full schedule. Rather, it works best when it is recognized as a more effective strategy for accomplishing existing educational objectives. There is no question that student academic achievement is important, and schools are held accountable for students' performance on state and national tests. A PBL and CE approach can contribute to strong academic preparation in addition to instilling a sense of stewardship and other community benefits. By looking at each educational objective through the lens of place-based learning, you will find multiple local project opportunities that are highly motivational for students.

Q *How much does place-based learning cost, and where do I get the money?*

A Place-based learning does not need to cost more than traditional learning. School administrators have reported that the cost of copies and transporting students can be made up through lower textbook purchases. The additional adults required for field studies can be found through mutually beneficial community partnerships. Funds for special supplies or travel can often be obtained through grants from private foundations or agencies, or donations from local businesses. Funders are often attracted to the range of goals addressed by PBL, from building skills for democratic society to conserving publicly accessible open space.

Q *How do teachers handle discipline when they take students outside the classroom?*

A Teachers who frequently use the community as a classroom have found that it works best to establish clear rules and boundaries, the same way they do in their classroom. As students grow accustomed to field studies, they understand that these experiences outside of the classroom are an integral part of their learning rather than a break from it, and they behave accordingly. Public land managers should ask teachers if there are any rules they need to be aware of and support.

Q *How should I approach schools/community organizations to ask them to be partners?*

A We have found that the best way to start a partnership is by careful study of your potential partners' missions, goals and culture. This will help you to propose a project that will be as beneficial to them as it is to you. Ask to meet with them personally to explore the idea of partnering. Point out the ways in which the project is in line with their organizational objectives and listen carefully to their questions and concerns. Once you have broached the idea with them, the key to success will be continual, on-going, open communication.

Q *How is place-based learning different from environmental education and service learning?*

A At their best, they merge strongly. Place-based learning has its roots in environmental education and, similar to the best of environmental education, it uses the full range of local environments—natural, economic, social, political and cultural—as the foundation for learning. PBL includes service learning as one of its key strategies. There are two key differences: that PBL takes an integrated and holistic look at the community and builds toward a strong civic engagement component; and that PBL resonates better in some communities than environmental education, which is sometimes perceived as having a pre-determined outside agenda.

Q *Who else is using a place-based learning approach?*

A Place-based learning is being adopted by schools and learning centers across the country. In addition to the organizational hosts of the Promise of Place website (www.promiseofplace.org), other organizations that have been very involved with this approach include the Rural School and Community Trust, the Center for Ecoliteracy, the Coalition for Community Schools and other parts of the U.S. National Park Service and U.S. Forest Service. In much of the world outside of the U.S., very similar work is



being carried out under the name, Education for Sustainable Development, or ESD.

Q Will PBL and CE activities have a negative impact on our natural or cultural resources?

A Of course, increased traffic in natural and cultural areas could diminish the resource base in the absence of thoughtful monitoring. It is important that resource managers participate actively with education staff to select and develop implementation strategies for PBL and CE projects to ensure resource protection and enhancement, rather than any potential degradation.

Q Does place-based learning mean that local students will only learn about this small town? We live in a global society!

A As the child's world expands, so should the curriculum. Children's interest in the world naturally expands in accordance with their cognitive and emotional development. Kindergarten students have a natural interest in what is close at hand, 5th grade students have the ability to think at the state or bioregional level, high school students at the national and global level. At each level, though, students are grounding their study of large-scale issues in a solid and personal understanding of how things work in their own community.

As the child's world expands, so should the curriculum

Preschool - K - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - beyond

Grade in school

Home - school - neighborhood - community - watershed - state - nation - globe ...

Study area, each grounded in the ones before



Students become capable of increasingly complex projects as they mature.



Civic Engagement and Place-based Learning

“Drops of waters and rootlets unite! Give me your students yearning to be free! It’s a simple proposition really. Bring education back into the neighborhood. Connect students with adult mentors, conservation commissions, and local businesses. Get teachers and students into the community, into the woods, and on the streets—closer to beauty and true grit. Get the town engineer, the mayor, and the environmental educators onto the schoolyard and inside the four walls of the school. These are the places we all belong.”

– David Sobel (2004)

We have said that place-based learning without a strong and enduring civic engagement component is not a sustainable program. This brief chapter further explores the relationship between place-based learning, civic engagement and long-term program success.

Rooting educational programming deeply in the local community, both physically and thematically, is proving to be an effective strategy for increasing public dialogue and other forms of civic engagement around issues of land use and sustainability. This community dialogue then often circles back, pulling the school into a meaningful role in community life. In many PBL programs, community-wide civic engagement opportunities are built in from the beginning and are seen as fundamental to the success of the PBL endeavor.

Civic Engagement Skills Development

PBL approaches that include strong civic engagement opportunities build concrete citizenship skills, such as the capacity to analyze and communicate information for creative problem solving and the ability to create and facilitate effective dialogues. PBL curricula often emphasize learning how to listen to other points of view, critical thinking skills, consensus building, and group goal setting and problem solving. In the process, public lands and communities become effective classrooms for teaching democracy skills.

Civic engagement benefits the students in a number of other ways. Involving students in the design phase of an educational initiative—letting them choose and design the work they want to do in community—is empowering. When they feel heard and appreciated, students’ sense of ownership, excitement and motivation grows. Understanding the significance of what they are learning and doing inspires students to work harder in their classes, and for their community.



Structured civic engagement opportunities also provide citizens with new ways to participate in the stewardship of public land and in the life of the school and students. Breaking down barriers between school, community and public lands builds social capital, community vitality, and strengthens civic society as a whole.

Human motivations to participate in community affairs—to act for the protection of our communities, the natural environment and cultural qualities of life—come directly from a strong sense of place and a deep concern for the landscapes and people of our home ground. People are most eager to take part in initiatives that they have helped to identify, about which they have solid information, and which they see as relevant to their lives. Civic engagement can then grow to mean not only a set of actions and efforts, but also a feeling of belonging—an experience of investment, ownership and stewardship for the local and regional communities to which citizens belong.

Multi-Stakeholder Engagement in Program Planning

Civic engagement can take many forms, but our experience has shown us that in every case, involving stakeholder groups, including teachers and students, in project design from the very start builds a more enduring program. Not only does the public lands manager or educator build buy-in by involving key stakeholders, but also, the educational product is very likely to be more effective and have greater real-world legitimacy.

For example, in developing A Forest for Every Classroom, the program partners held a series of focus-group sessions throughout the state and invited a range of stakeholders to discuss how forest stewardship should be taught in the classroom setting. Scientists, foresters, woodworkers, land managers and teachers came together to inform the development of the program.

Civic engagement is fundamentally about relationship building with a broad range of stakeholders. If a strong and effective commitment is made to civic engagement, then the PBL approach can foster a widespread investment in stewardship of local and national resources.

Strategies for Civic Engagement

The following is a list of strategies for land managers and teachers alike to ensure effective civic engagement in your programs. These strategies were developed through a series of gatherings of public lands managers and their community partners.

1) Learn about your community

- Cultivate an intimate knowledge of the local community: its landscapes and history, its schools and civic organizations.
- Go out to where people are—don't wait for them to come to you.
- Read local publications such as newsletters and circulars.
- Develop strong question-asking and listening skills on your staff. Model these skills in your workplace.

2) Develop authentic community relationships

- Learn about local people as people.
- Go into the inner offices of local stakeholders, and invite them into yours.
- Regularly put out meaningful, detailed information about your work through blogs, emails, and newsletters.
- Become a part of things—join a local board and become an active member of local organizations.
- Use your influence to be helpful, even when it doesn't benefit you.
- Using volunteers and key community supporters, throw a really good party (promotion, food, childcare and celebratory elements).



3) Continually seek and establish relevance in your program

- Demonstrate links between history and contemporary interests and needs.
- Train staff in dealing with sensitive issues with the public.
- Use your site as a springboard for the study of contemporary issues.
- Create diverse opportunities for engagement.
- Don't isolate natural and cultural resource stewardship objectives from other social objectives. Make clear linkages to a range of local concerns such as health, obesity, affordable housing, land use, public access to recreational land and facilities, quality after-school care, substance use/abuse, transportation and public safety.

4) Reach deeply and broadly to diverse stakeholders

- Involve a range of stakeholder groups in program design, implementation and evaluation.
- Pull in all possible perspectives, coming from a range of communities of place and interest—both immediate stakeholders and people with no obvious links.
- Pull in the disenfranchised or disinterested and give them authentic voice. Make visible the value you place on public voice.
- Encourage your local communities to undertake community-wide visioning sessions as part of their PBL program.

5) Develop effective partnerships

- Share mission statements.
- Dialogue to develop a sense of common purpose and a vision for your collaboration.
- Do a small, concrete project together early on, to learn how to work effectively with one another before the stakes are high.
- Give up something.
- Share credit.
- Follow their advice.
- Rely on their strengths—don't do it all.

6) Know what's possible

- Know where you have room to flex within your regulations, and how to do it.

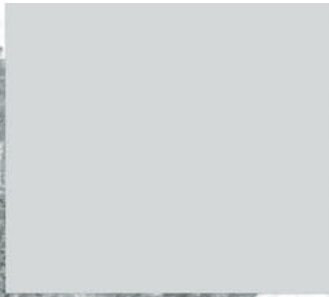
7) Take time

- Know that you will need to repeat these processes over time as people and issues change. Prepare for that.
- Carry out civic engagement approaches internally, to mend rifts and have a solid core before reaching out.
- Document successes and failures, share, and learn from them. Examine lessons from past activities.

Community Visioning: The PLACE project

Community visioning offers one strong avenue to build a culture of civic engagement. For example, the PLACE project (Place-based Landscape Analysis and Community Education), a partnership program of Shelburne Farms National Historic Landmark and the University of Vermont, includes a major community visioning and goal setting process that invites the entire community to envision the community's future together, grounded in an understanding of its natural and cultural heritage. In the PLACE model, the community vision component ensures that student service learning projects and civic engagement in education and stewardship will be driven by the community's picture of its desired future: the vision it holds of itself.

When the entire community develops a vision together, with a list of high priority projects or desired action steps, public lands emerge as resources for the whole community to use and care for. When students, teachers, and school administrators are engaged in community visioning, then students and schools become viewed as participants, potential workforce, and leaders. The shared goal becomes realizing the community vision: the health and well being of the community, its resources, and every member of it.





Getting Started: Launching a Place-based Learning and Civic Engagement Program In Your Community

“Love is where attentiveness to nature starts, and responsibility towards one’s home landscape is where it leads.”

– John Elder (1998)

Organizational Goals for Place-based Learning and Civic Engagement

Whether part of a school, community organization, or public lands entity, PBL needs to be relevant to your goals and objectives or it won’t survive. PBL activities can meet a wide range of organizational goals from educational learning goals, to public outreach and resource management goals. But to insure that PBL is consistent and complementary to what your institution is trying to accomplish, your goals and objectives need to be clearly articulated and transparent to you, to your partners, and to your stakeholders. The program cannot feel like an add-on to already overburdened staff; it should feel integral to achieving existing goals.

The worksheet in Appendix C will guide you through assessing your organizational goals and identifying specific opportunities that could be leveraged by PBL-CE programming in the areas of:

- Resource Management
- Community Relations
- Financial Stability
- Administration/ Personnel

School and Community Readiness

Assessing the readiness of potential schools or communities with whom you might partner is a critical aspect of developing new program approaches. Public lands educators working with schools to develop and implement new curricula have found that they can have the greatest impact when they work with schools that:

- Have already implemented some place-based approaches and are deliberately working to expand their focus on the landscape and human communities around them.
- Have policies and programs in place that encourage student involvement in the community, either through service learning opportunities, or internships and mentoring beyond school boundaries.
- Have at least a small core of teachers who are ready and willing to implement PBL strategies.
- Build in meaningful access to teacher professional development time.
- Demonstrate strong support for PBL and CE from school administration.



With limited resources and the goal to create sustained PBL and CE programming, organizations should start by working with schools that are close to a tipping point. Rather than working with schools that have the capacity to implement PBL and CE on their own, or that are facing such significant disruptions that they need more foundational interventions than PBL, choose schools at which some limited additional investment in time and money can have a large and lasting impact. Then, as funds allow, work with other schools, targeting programming to their current needs.

A Strong Base of Understanding, Engagement, and Support

Launching a place-based learning and civic engagement program in your school and community requires the gradual building of understanding, enthusiasm and commitment. As you begin to develop your program, build a foundation of knowledge for administrators within your partner agencies, organizations and schools by providing them with packets of information that include quotes and facts that prove program success (see www.promiseofplace.org as a starting point). Or invite experienced place-based practitioners from other areas to the school or partner organization/agency to meet with administrators to discuss their experiences. For suggestions on ways to build parent and community support, see page 21.

We have also found that a combination of engaging exercises and strong organizational tools works best to initiate a dialogue with teachers, community organizations, and public land managers about community needs and priorities for potential PBL programs. The exercises found in Appendix B have proven helpful. *Convivial Research* helps you to tap the knowledge of diverse participants in a fun and social activity. *Sense of Place Map* and *Mapping Community Place-Based Learning Opportunities* give you a non-linear way to engage staff, community members or educators in thinking about the particular assets of their region. *Connecting People to Place* offers you a

compendium of “hip pocket activities” for when you find yourself out and about with a group of people interested in getting to know the local area better.

The ideal place-based learning project meets the teacher’s educational objectives, is consistent with statewide educational standards, and is relevant to the objectives of the community and/or the public land entity. Not every project meets an objective within each sphere, but in planning CE projects it helps to know what each partner values, hopes to accomplish, and has the capacity to manage. Projects that fall far outside of stated community objectives, teaching goals and the work plans of cooperating agencies may work for the student, but it’s likely that the energy required to support the project won’t be there from the cooperating agency. In other words, it makes sense to stay on task, and on mission for all partners.

The form in Appendix C will serve as an aid to guide you in planning your PBL and CE projects. It identifies the fit of the project with mission and goals of the partnering groups. It also spells out desired outcomes and a timeline, and provides an opportunity to consider the resources needed and the follow-up required after the project is completed. If possible, use it as a discussion tool, filling it out together with your core project partners to ensure both ownership and the best possible answers.

Look for ways to engage community partners with expertise and resources that compliment your own.





Tips From Teachers!

Here's the voice of experience from the teacher and educator perspective:



Building a strong PBL program takes time, persistence, and a heavy dose of creative thinking. Over several years of PBL trainings led by the Center for Place-based Learning and Community Engagement and Forest for Every Classroom, experienced teachers and public lands educators have identified these tips for success.

START SMALL

- ★ Start by working within existing programs and school schedules, then use the results of your project as evidence that you need more time or flexible class schedule.
- ★ Take on a small discrete service learning project in an area close to school.
- ★ Identify projects or units of study already being done that address PBL or CE, even if they haven't yet been labeled as such.
- ★ Identify existing community partnerships and build on these.
- ★ Divide up big projects into manageable units and divvy them between classes or spread out over multiple years and class groups.

PLAN AHEAD

- ★ Ask for help and partner involvement early in the planning phase rather than only in the implementation phase. Planning advice and support is a relatively easy way to build buy-in early.
- ★ Begin working with teachers early so that they can apply for coordinated course times.
- ★ Schedule field trip days in advance so other teachers know students will be gone and parents can save the date for volunteering.

- ★ Encourage the school to set aside a bi-weekly field trip day for community projects.
- ★ Think creatively about transportation options: public transportation, walking or biking, using a community van, etc.

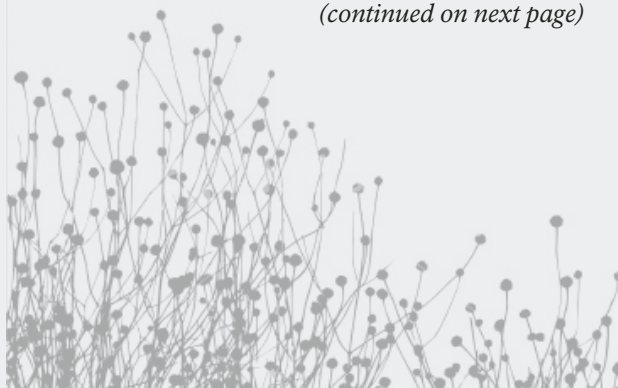
BUILD SCHOOL AND TEACHER INVOLVEMENT

- ★ Showcase successes from other schools that have used similar programs.
- ★ Ask teachers about their needs, challenges and aspirations, then invite them to explore how a PBL project might meet those needs. Suggest some possibilities.
- ★ Build involvement around specific projects one teacher at a time rather than trying to build broad support at a staff meeting.
- ★ Partner with other grades or classes that share a common curricular interest.

WORK IN TEACHER PLANNING AND PREPARATION TIME

- ★ Plan a PBL and CE planning meeting in the summer in a retreat setting.
- ★ Designate or create a position to facilitate planning, integration and community coordination of PBL and CE and other experiential education projects.
- ★ Budget for teacher planning time in the summer.
- ★ Build release time into project budgets to fund substitutes for planning time.

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ADDRESS GRADE LEVEL EXPECTATIONS/STANDARDS

- ★ Research grade level expectations or standards for your state and highlight those that work with your project ideas.
- ★ Integrate PBL and CE into the regular curriculum.
- ★ Consider process standards such as inquiry skills, which are naturally addressed through real world projects.
- ★ Find opportunities for students to apply literacy and numeracy skills. Real world projects provide an authentic need for data collection and analysis, reading for understanding, and writing for an audience.
- ★ Create evaluation rubrics and task lists that are appropriate for the activity.

BRIDGE DISCIPLINARY GAPS

- ★ Meet with educators as a team to find common ground where teachers can work toward shared objectives while maintaining individual teaching styles.
- ★ Provide data on content such as forest inventory, and develop economic and math curricular ideas
- ★ Hold one meeting a month that focuses on integrating interdisciplinary groups.

PROVIDE OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT SPECIFIC TO PBL

- ★ Call in the professional development providers to offer training at the school or to a group of project partners.
- ★ Provide opportunities for peer-to-peer sharing/ professional learning.
- ★ Develop a guest lecturer program – natural resource professionals trained to teach class for a block/period (instead of typical substitutes) so teacher can leave for professional development.

YOUTH VOICE: BUILD STUDENT LEADERSHIP

- ★ Let students identify a problem that students are really interested in: their interest is the starting point of discovery.
- ★ Find a connection or “hook” that helps students understand how the project will affect them, their families, neighbors and friends.
- ★ Create task forces: students from each community or neighborhood the school serves are in charge of creating community connections.
- ★ Be sensitive to other demands on student time—like sports and theater activities.
- ★ Involve students in logistics: put them in charge of organizing themselves and their parents for field outings.
- ★ Involve local college students in projects (most colleges have a community outreach office that helps interested students connect with local organizations and schools).





Building Strong Community Partnerships

“My team of four grade 7 and 8 teachers were participants in A Forest for Every Classroom. As a result of this program, we have built an incredibly strong relationship with the staff of the National Park. The mountain became our classroom and the park service became our expert consultants and in some cases our co-teachers.... It is our goal that our work on the mountain will become increasingly important and our partnership even stronger.”

– Debbie Pelkey, Woodstock Union Middle School

Strong Partnerships

Healthy partnerships are at the core of successful place-based learning initiatives involving public lands stewards, communities and schools. But establishing and managing a partnership can be time consuming and challenging. Good partnerships are adaptive and flexible. They honor the cultures and perspectives of all the stakeholders and cultivate an air of openness. Strong partnerships work, in spite of different perspectives, from common ground. All partnerships succeed or fail depending on the attitudes, energies and relationships of the individuals involved. It is also true that no two partnerships are alike.

Place-based learning and civic engagement partnerships are often quite complex because they involve at least three rings of partnership: informal educational providers such as public lands or nature centers; schools; and the community, which has both municipal and private entities. Engaging local schools can help to build communication linkages, understanding, and public support for the stewardship that land managers are trying to accomplish.

There are many resources available on forming and maintaining partnerships. This chapter summarizes some lessons learned from place-based learning partnership experiences developed by the NPS Conservation Study Institute. More information on building partnerships can be found on the Institute’s website, www.nps.gov/csi.

Appendix C provides you with a worksheet to help guide you in identifying and understanding partners that can assist you with reaching your PBL goals.

BUILD PARTNERSHIPS FOUNDED ON MULTIPLE PERSPECTIVES

The best place-based learning partnerships are strong because they contain a multitude of different perspectives, life experiences, and points of view. But rather than being characterized by contentiousness, confrontation, and friction, over time they become characterized by dialogue that respects every voice and merges the strengths and skills of each partner. Partners work together from the foundation of commonly held values, well-understood systems of communication and decision making, along with program delivery and evaluation that work for every stakeholder.



Denali National Park and Preserve

At Denali National Park and Preserve long standing conflicts around subsistence use—regulated hunting and trapping within the park and preserve—have been fueled by poor communication and mistrust between the National Park and its surrounding subsistence communities. When the National Park, in partnership with the Murie Science and Learning Center, began working on a project with the local Middle School, new channels of communication and cooperation opened up that have helped mend the relationship between park and community. Educators at the park and the school helped students design and build a wolf exhibit at the Murie Center. The project involved articulating a wolf skeleton from a wolf shot legally by local hunters, preparing a wolf pelt, and building exhibit interpretive signage. Students were proud of their work and they brought parents and friends to the learning center to show it off. Some residents who had never set foot inside park headquarters made the trip north.

These new connections created through the schools had a ripple effect throughout the small community. Through this PBL partnership project, local public perceptions shifted. There was a sense among community members that the National Park cared about local people, their heritage, and diverse points of view, beyond the park boundaries. Now Denali National Park has built into its long range educational plan strong intentions to work with local communities on long-term place-based learning projects.



- Create forums for local governments and other neighbors to discuss mutual problems in order to build trust and establish a starting point from which to grow partnerships.
- Keep an open mind and be flexible.
- Seek areas of common ground and work from there.
- Keep organizational processes transparent and simple—follow the established processes but be willing to adapt them when flexibility is needed.

CONSIDER A WIDE RANGE OF PARTNERS

The possibilities for place-based learning and community engagement partnerships are diverse, including just for starters:

- Schools, pre-K – 12
- University and colleges
- Local and regional businesses and business organizations such as Chambers of Commerce
- Municipal government
- Conservation commissions, planning boards, other municipal groups
- Historical societies
- Teachers associations such as National Science Teachers Association (NSTA) and Unified Arts Teachers
- PTA or PTO
- Senior citizens
- Municipally owned forests and/or parks
- Foresters, farmers, fishermen
- Local environmental organizations such as Audubon
- Hiking, fishing, hunting, snowmobiling, skiing and other outdoor recreation clubs
- Museums, nature centers and educational non-profit organizations
- Developers
- State agencies such as Agency of Natural Resources
- Service organizations such as Rotary and Scouts
- Arts organizations



Teachers are energized and inspired by professional development programs that include a diversity of field experiences.



- Social clubs such as the Purple Hat Ladies
- Land trusts
- Hospitals and health clinics
- Community gardens and gardening clubs

CONSIDER COMMUNITY PERSPECTIVES

Long-term partnerships must provide benefits to all partners including the public land entity and the community (schools, administrators, civic groups, and businesses, etc.). One-sided partnerships quickly collapse. In fact, place-based learning and civic engagement initiatives are a great way to expand the benefits of park or forest stewardship thinking and long-term care for the resource base well beyond park boundaries to landowners, planning and conservation boards, local officials and resource-based businesses including wood manufacturing and farming enterprises.

- Officials working on the public lands side shouldn't wait for a PBL or CE opportunity to come along before getting involved in local affairs. Look for ways to participate in land

use planning and other conservation activities in your community. Begin building personal working relationships and a shared sense of place and trust before you need them. Practice engagement.

- When the PBL or CE opportunity arises, spend ample up front time scoping, assessing and melding the partnership around clear understandings of each partner's goals and vision.
- Convene meetings in convenient local meeting places, not always on your own turf.
- Offer to bring the coffee, tea and cookies.

UNDERSTAND YOUR PARTNERS' CULTURE

Public land managers and community educators need to walk in their partners' shoes before they can really understand what it might be like to work collaboratively with them. Make the effort to get to know your partner organization's history, vision, mission, and goals. Know your partner's constituencies before you devise a document that describes your working relationship.



- Spend time at your partners' regular meetings. Get to know a member of their board and internalize their history, mission, and vision. Get to know their organization the way they do.
- Seek to understand the nature of your own supporters and volunteers. What draws them to your public land area? What do they want to get out of an experience at your place?
- Make the partnership's program development process both mission driven and market driven. Knowing your partners means understanding their customers, markets and support base.

SHARE CONTROL AND DECISION-MAKING

Sharing program control and decision-making can be difficult, but it is essential to long term program sustainability. The partner that feels cut out of the decision-making process won't be a partner for long. Even when financial resources are provided by partners unequally—rarely is there a level playing field when it comes to the availability of

funding resources—every primary partner should be on a par in decision-making. The in-kind contributions of skills, energy and influence in the community are as important as who holds the purse strings.

- Every partner can make a financial contribution—leveraging funds from the outside is easier with 100% participation from the partners. Too much funding reliance from one partner can lead to the program being over-identified with one partner.
- All partners should share responsibilities of program development.
- Give credit to all partners equally, and recognize both funding and in-kind sponsorship regularly.
- Seek community input at all stages of program development.
- Build an evaluation strategy together at the beginning as a means of clarifying objectives of each partner and to ensure that the program will be evaluated for continual improvement over time.

*Schools, public agencies, non-profit organizations, and businesses all have distinct cultures.
Move slowly as you learn about your partner's world!*





DEVELOP A COMMON VISION

Developing a common vision and shared set of goals and objectives provides the foundation for all other phases of program development. Having an agreed-upon purpose is useful during times of disagreement, challenge, or stress and can help refocus direction and realign priorities when necessary.

- Make reference to the vision and goals statement frequently. Put it out to the community. It represents a kind of covenant for the partners and for the community at large.
- Consider the vision and goals as works in progress, and revise from time to time.

ACTIVELY SHARE INFORMATION AND COMMUNICATION

Don't underestimate the importance of frequent communication—internally among the partners, and externally, with the general public. Communication is a means of accomplishing your objectives effectively within the partnership, and is also an end in itself. Part of the work of place-based learning is simply to get the word in front of the general public often, about the various meanings and values of public land, of stewardship, of civic engagement and local resource values, and of the relationship of the human community to the land.

- Open multiple lines of communication and keep them current: update websites regularly; keep adding and culling names on list serves; communicate with your volunteers.
- Keep an active database of media contacts and use them. Include small newspapers, neighborhood newsletters, "penny savers," free weeklies, etc. People read them and publishers are often eager for free text.
- Open a place-based learning page on your website. Report success stories in the local paper. Have a student volunteer or teacher write the news release.
- Open lines of communication with constituent groups and establish bridges with stakeholders before you have something on the table for which you want their support and buy-in.

SUSTAIN THE PARTNERSHIP

Ideally, place-base educational approaches bring about long-term, fundamental changes in society. To be successful, they must be sustainable over the long term. Individual programs and partnerships will come and go as some efforts prove successful and others do not. But the general principles of linking students, curriculum and teaching to real places and local institutions remain unchanged. The transformations that place-based learning hopes to bring about within the student body, teachers, school, public land entity and the community are long term goals.

- Strive for flexibility. Building trust in local processes and players is essential to maintaining your and their enthusiasm for the project.
- Try to institutionalize the relationship, so that someone else coming in has to carry through in the same spirit of cooperation.
- Understand that the partnership is here for the long haul. Keep reaching out to the other partner(s) all the time, no matter what stage of the project.
- Work for ownership of the partnership throughout the partner organizations. Buy-in from employees and constituents is important; building the partnership from the ground up pays off.
- The management and administrative framework upon which the partnership is built must provide sufficient flexibility and discretion for staff to explore and pursue a wide variety of options to achieve success.
- Success in one venue can change the course of the partnership and change partners' perspectives in ways not initially envisioned.





Ten Secrets for Cultivating Healthy Partnerships

- Love your own home ground.
- Build your partnership with big aims in mind and out of a sense of what is possible, not out of a sense of what is lacking.
- Never pass up an opportunity to help one of your partners—make them look good.
- Play to your partners' strengths and encourage them to play to yours.
- Don't be afraid of failure—fail often, learn from your mistakes and move on.
- Leave your ego at the door.
- Treat local partners like permanent neighbors, not visitors from out of town.
- Maintain a sense of humor and have fun.
- Celebrate and spread the success around. Offer thanks, thanks, thanks.
- Be patient.



Examples of Partnership Programs

A Trail to Every Classroom

Based on the Forest for Every Classroom model described in Chapter 7, A Trail to Every Classroom was founded in 2003 by the National Park Service in partnership with the Appalachian Trail Conservancy and many other implementing partners. The aim of the partnership is to increase volunteerism on Appalachian Trail lands and projects, and build awareness of the trail resource throughout the corridor. Partners include: (Maine): National Park Service (NPS), Appalachian Trail Conservancy (ATC), Maine Appalachian Trail Club, Extension Service, Natural Resources Education Center; (West Virginia): NPS, ATC, Potomac Appalachian Trail Club, Mountain Club of Maryland; (North Carolina): NPS, ATC, Nantahala Hiking Club, Carolina Mountain Club, North Carolina Center for the Advancement of Teaching.

Key partnership lesson learned: Keep communication lines open at all times—anyone can speak to anyone. Structure of the partnership needs to be transparent.

For more information: Rita Hennessey, Appalachian National Scenic Trail, National Park Service. www.nps.gov

PLACE

(Place-based Landscape Analysis and Community Education)

A program of Shelburne Farms and the University of Vermont, PLACE provides individual Vermont communities with information and a forum for exploring and understanding the natural and cultural history of their town landscape. Residents then build on this information through place-based learning programming and community visioning. Since its inception in 2001, PLACE has collaborated with a host of local and regional partners to facilitate programs in ten communities. University graduate students study each community intensively, then translate their



learning into a series of presentations, field walks, workshops and brochures.

Key partnership lesson learned: Engage a wide diversity of community organizations as partners. Don't advocate for any specific future condition; let that emerge from open dialogue.

For more information: Walter Poleman, University of Vermont. www.uvm.edu/place/

CO-SEED

Seeding the Community for Learning

CO-SEED is a program of Antioch University New England. It aims to build student achievement and stewardship behavior, community vitality, and local environmental quality through stronger links between schools and communities. Antioch establishes three-way partnerships among the school, a local non-profit or public conservation organization, and Antioch. CO-SEED combines community development with place-based curriculum development in the schools. CO-SEED places half-time community-based educators in

each school system for a three-year period. Local partners recruit in-school educators and support community development and service learning activities.

Key partnership lesson learned: Choosing the right local non-profit partner is critical. Since direct administrative support is limited, look for flexibility, adaptability, and a strong mission fit in the local partner.

For more information contact: Bo Hoppin, Senior Project Manager, CO-SEED, Antioch University New England. www.anei.org



Partnerships thrive on ample planning time in a convivial setting.



Tips From Teachers!



Here's the voice of experience from the teacher and educator perspective:

IDENTIFY PROJECTS THAT ADDRESS REAL COMMUNITY NEEDS

- ★ Plug in to existing community resource monitoring projects (water, stream, air quality, habitat mapping, tracking studies, wetlands, bike paths and trails, etc.), often administered by universities, agencies or NGOs.
- ★ Ask community board members where they need help. Conservation commissions, granges, recreation groups, libraries, historical societies, other schools, rescue services, or retirement homes are just some places to start for possible collaborations on mutual goals.
- ★ Survey community residents, perhaps at a public meeting, about service learning projects that need to be tackled.

WORK WITH MANAGERS AND OWNERS WHOSE LAND IS AFFECTED BY A PROPOSED PROJECT

- ★ Have students write a letter to the manager/owner introducing their interest in learning more about the land.
- ★ Have students meet with professionals to learn about the conditions and needs of the lands.

- ★ Contact conservation districts or other land-based organizations: they work closely with landowners and local officials.
- ★ Develop a model agreement that allows students to understand how to treat land respectfully and that clearly lays out the project objectives.

ALLOW TIME TO COORDINATE WITH COMMUNITY MEMBERS

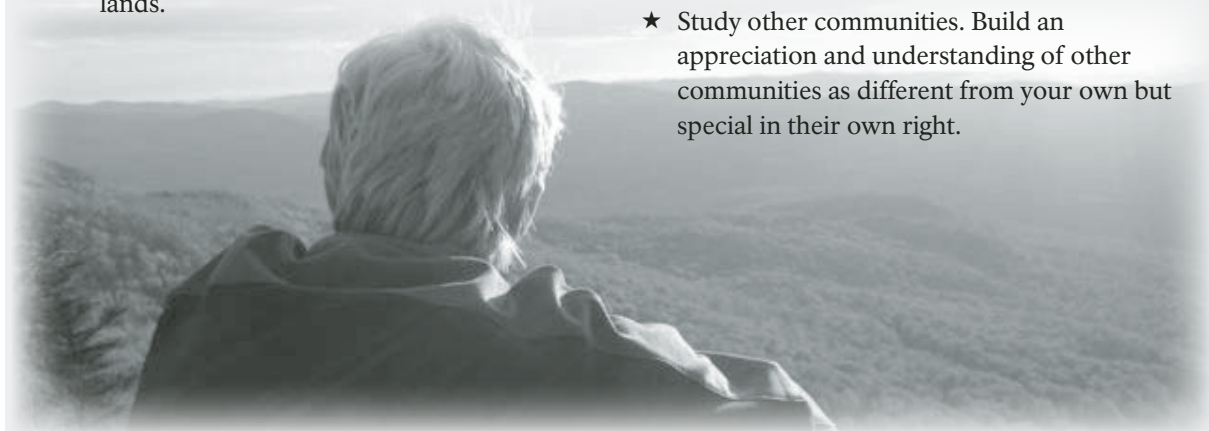
- ★ Use regular school open house events to inform and involve the community.
- ★ Multi-task! For example, talk with parents on the sidelines at a sports game.
- ★ Create a volunteer position for a parent to be your community liaison and coordinator.

ENLIST PARENT SUPPORT

- ★ Hold community events for parents and students or produce an exhibit about a PBL project to share with your community.
- ★ Network with parent/teacher associations.
- ★ Ask parents to help write a quarterly e-newsletter or build a website.

TAKE A SCHOOL DISTRICT-WIDE APPROACH

- ★ Try to connect to one community first, then branch out to others.
- ★ Study other communities. Build an appreciation and understanding of other communities as different from your own but special in their own right.





Sustaining Your Program

“People saw the success of the Champlain School this year. They saw kids speak at meetings, they saw the community connections that happened. People are interested in expanding this program to other Burlington schools.”

– Betsy Rosenbluth, Burlington Vermont Legacy Project

One of the most compelling stories of the staying power of place-based learning and its potential to improve the conservation and management of public lands is the story of Elizabeth Dickens and the stewardship successes on Block Island, Rhode Island. Born in 1877, Dickens lived her entire life on Block Island until her death in 1963, traveling away only occasionally. She lived on a small isolated farm not far from the ocean bluffs on the southwest corners of this small island 25 miles out to sea, and had a great love for the nature of the island, particularly birds. For fifty years she kept meticulous daily records of her bird observations and maintained a mounted bird collection and study skins. Her records and her collection of birds provide a scientifically valuable picture of bird life during the first half of the 20th century in this maritime corner of southern New England.

But more important was the work she did in island schools. Every month she taught bird study to all of the school children of Block Island. Everyone knew Miss Dickens as the “Bird Lady” and she commanded a great deal of respect. Her teachings to several generations of Block Island school children ultimately metamorphosed into a strong culture of conservation on the island. Most islander adults of those generations remember their lessons with Miss Dickens, and whether they are selling real estate, mowing the roadsides, constructing homes, or running other island businesses today, their work

is informed by a basic understanding and love of the island’s special nature—and its birds. Block Island, thanks in part to Miss Dickens and to the collective work of many of its committed citizens, is an innovator and leader in conservation action in New England. Nearly 40% of the island is protected. The Block Island Conservancy and land bank make use of an innovative land transfer program—the first in the state—to raise money for conservation projects.

Miss Dickens’ education legacy lives on in the Block Island schools. Taking their cue from the Elizabeth Dickens story, The Nature Conservancy today helps fund a place-based educator who leads students in natural history and local conservation programs, including a focus on Conservancy land. TNC staff cite a very high return on this modest investment in the form of strong local support for land conservation.

Promoting Your Program

Place-based learning and civic engagement initiatives are news stories that need to get out—great stories, in fact, that the media will help you tell. All the ingredients are there for success with the media: stunning landscape visuals, landmarks, gardens or historical icons, students and volunteers working together, civic pride at work, and engaging stories of cooperating agencies. Don’t forget that you are inventing a new paradigm for conservation.



Promoting your program is not only a means of building support and attracting resources—new partners, volunteers, money, materials, and ideas—it is also a way to give voice to a new conservation paradigm that connects the community lands, cultural resources and diverse audiences you are protecting and serving. By promoting your program you give life to the stewardship concepts and relationships you are practicing. Stewardship—the word and practice—is still relatively unknown and certainly not a part of public and popular lexicon. Promoting your program is a way to build a new framework and eventually a practice—a way to grow the much wider audience needed to support the stewardship challenge.

Unfortunately, working with the media—doing the outreach necessary to get your story told—might be the last thing you want to think about when you are planning a place-based initiative. But media outreach, just like post-op evaluation, needs to be planned up front. If you don't have the resources for it, then find a partner or skilled volunteer who does. Think of promotion as an end—not only as a means to an end—and keep the end in mind. Fortunately, if you do your homework, you will find a receptive audience of daily newspaper reporters, the editors of weekly papers, free-lance writers, radio talk show hosts and TV anchors. Place-based learning ventures make good copy.

Develop a Media Plan

Developing a plan can be as simple as undertaking due diligence in six key areas:

IDENTIFY YOUR MEDIA GOALS

What resources do you need the media to help connect you to? Volunteers? Support from the city council or school board? Visibility? More funding? Do you need to recognize donors, foundation funders, and partners? The goals of your media outreach work can be as broad as growing a wider audience and expanding general public knowledge of your initiative and partnership, or as specific as recognizing one particularly important volunteer or foundation, or reaching one very

important audience. Your goals shape the form of your approach—the strategies, media types and messages you use to accomplish your goals.

IDENTIFY YOUR KEY AUDIENCES

Know who you are trying to reach. Stewardship of public lands needs broad scale public support. That might be best achieved through national media chains—large daily newspapers, National Public Radio, press club speeches, magazines with national circulations, web pages, books, etc. A place-based initiative, on the other hand, focused on one or several communities, demands a very different approach. The audience is local, diverse, and probably relatively smaller. With care, such an audience can be reached effectively through targeted newsletters, e-notes, local radio and TV stories, press releases in regional dailies and small local weekly newspapers. If key audiences are local—small businesses, schools, local civic boards—then media outreach can be very targeted. Thanks to the involvement of your partners, the analysis required to know your audiences doesn't have to be costly or time consuming. Chances are very good that your partners know their audiences and know already how to reach them. Successfully communicating your messages to a local audience is a way to reach a global audience too. Who knows? Your story could be picked up by national media.

IDENTIFY YOUR MAIN MESSAGES

Tailoring your message means that you understand how your mission, expressed in certain ways, resonates with your audiences and markets. Cutting out the jargon is a must for any audience. You are reaching for a mission/market fusion. Use language, images, and tangible examples of what you do in ways that can excite the audience you're targeting to action. Mission can be greatly enhanced by understanding your market and responding to it in the right way. How big is your message? How small? Frame large ideas with small concrete, local examples, real places and real people. That's how people will relate to it—while grasping the bigger idea. Document your meetings with notes, photos and good quotations; begin



writing your history as soon as it happens. A brief history of your initiative is helpful in the press kit, and often required by funders.

NOTE THE RESOURCES YOU HAVE AND THE RESOURCES YOU NEED

Conduct a media inventory: What skills do you and your partners possess and what relationships within the media are existing? What materials do you have on hand describing the initiative? Do you have a press kit (a packet of materials designed to introduce the media to your project)? Do you need a press kit? Is there a video showing what you do that can be distributed to public access cable stations or local, regional TV? An internal audit that includes a media skills inventory will tell you what to seek in your partnerships, in the schools, and in the community to fill the gaps. Don't miss the chance to turn media work into opportunities for students and teachers to tell your shared story. A student voice or the voice of a volunteer, civic leader, or business owner who can talk about the initiative from his or her perspective strengthens the story's appeal to the media and community. Get others to tell your story. Develop a list of validators who can beat your drum for you. Assign one member of your management team as the primary media contact. This person does not have to be the single provider of stories, news releases and interviews; however, he or she serves as coordinator, facilitator, and manager, ensuring that the key messages get out consistently and frequently. Ideally, the "brand" for the partnerships, mission, outcomes, and the deeper stewardship message will build.

TIMELINE, WORK PLAN, AND BUDGET

Build into your overall project a timeline, work plan, and budget. Create an ad hoc planning committee representing broad stakeholder interests, and open up the budget process to build buy-in. Use budget and planning formats that are consistent with your lead organization. Projects often take longer than expected, so be realistic about timeframes. Consider the planning cycle for the partner(s) school year and plan accordingly.

Ten Tips to Implementing a Media Plan Successfully

(From *Sharing Your National Service Story, A Guide to Working with the Media*, www.nationalservice.gov)



- 1) Read through and familiarize yourself with the newspapers in your area to learn what is available and determine which ones, as well as which reporters, you should target.
- 2) Focus your news release on what is unique about your place-based initiative.
- 3) B-roll—a compilation of video footage of your program in action, from special events, to outdoor classrooms, to community service engagements, can be a great way to build interest among local TV studios.
- 4) Websites are constantly updated and have different rules on access to archived stories. It is best to copy the articles into a document to save them and insure that you have accurate documentation of all media coverage.
- 5) Hosting an event, hanging a banner, or inviting reporters to witness a volunteer activity are all good ways to provide a visual for television cameras.
- 6) Determining the resources you have available for media efforts will help you build on existing tools and opportunities, and set realistic goals.
- 7) Once you have determined goals, opportunities and resources, you can set a strategy and adhere to a timeline.
- 8) Volunteers, community leaders, and others who have seen the benefits your program provides first hand are among your most valuable resources.
- 9) If your target audience includes members of minority communities, remember to identify reporters and media outlets that cover those communities as well.
- 10) If you are successful at "staying on message" you will be able to determine the shape of the news coverage.



IDENTIFY MEDIA TYPES

First, identify the special opportunities for media contact, and then create a database of contact media organizations and names. There are many opportunities for media coverage. A kickoff press conference, first field trips, special speakers for workshops, an end-of-year celebration, the announcement of a foundation grant, the completion of a student community service project, each represents an opportunity to involve the media. If you don't build media outreach into the work plan, it's probably not going to happen except by chance. Media outreach doesn't need to be expensive. The important thing is to match your efforts to the hoped-for outcomes.

Facilitating Effective Meetings Among Diverse Participants

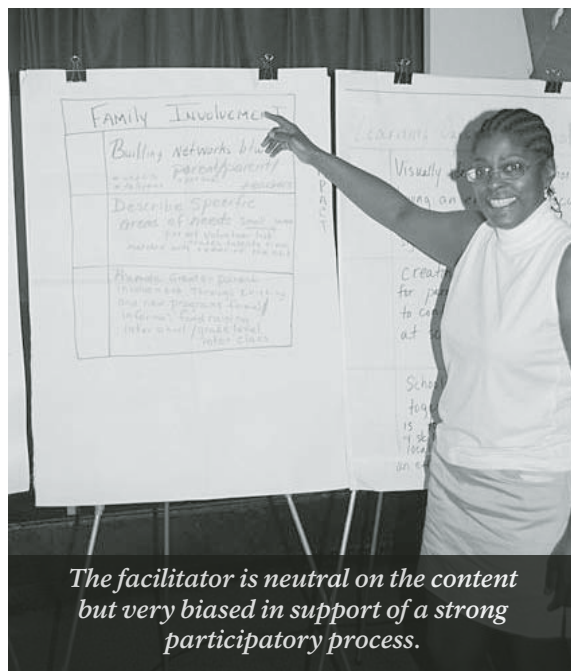
As you grow and sustain your PBL and CE program over time, you will increasingly find yourself reaching out to diverse populations and enlisting their involvement in meaningful roles in the projects. These local residents may come from across socio-economic, racial and other boundaries, and may never have collaborated together before. It will be important to build a culture of respect and acceptance for the contributions of each person and group. This will include sensitivity to the location and timing of meetings, as well as the development of solid meeting facilitation skills. Creativity and full-group involvement often hinge on a safe, secure, non-judgmental environment. The following is basic information about group facilitation skills to help you to create this environment.

YOUR PRESENCE AS A FACILITATOR

- Act in a respectful manner.
- Listen actively and well, with genuine interest and an openness to others' ideas.
- Act warm, positive and enthusiastic.
- Remember that your facial expressions and body posture tell a story; keep an open, positive expression and pose, and make eye contact with participants.
- Be relaxed. Wear clothes you feel comfortable in.

YOUR ROLE AS A FACILITATOR

- Work as a team with your scribe, and support each other's efforts.
- Help participants feel comfortable, welcome, and included.
- Involve everyone—balance the group's participation.
- Enable the sharing of ideas among group members.
- Seek diversity—welcome different opinions.
- Recognize the validity of all points of view (this is especially difficult, but vital, when you privately disagree with the speaker).
- Act non-judgmental—treat group members' ideas without bias (positive or negative).
- Do not criticize or praise any particular idea.
- Draw people's thoughts out.
- Try not to single anyone out or embarrass anyone.
- Listen actively—show interest in everyone's statements and opinions.
- Manage the process—focus and re-focus the conversation to the tasks at hand.
- Stay on schedule. Ensure high priority tasks are met.



The facilitator is neutral on the content but very biased in support of a strong participatory process.



YOUR TASKS AS A FACILITATOR

Focus on the Content

- Start by being sure everyone is clear about what task you're setting out as a group to do.
- Gently but continually focus and re-focus the discussion to keep people on the subject.
- Ensure that the scribe records people's thoughts as you heard them, capturing the detail of each person's comments. If in doubt, check with the speaker to see if the scribe heard/wrote it appropriately and accurately.
- Ensure that the scribe writes down the key points of each person's contribution. This reinforces their sense of being heard and valued, and increases the chances that their ideas will be used in the planning process.

Guide the Process

- Clearly understand the agenda and the expectations of each small-group process, so those expectations will be met.
- Know the time and your agenda and honor them both. You might want to assign a timekeeper from within your group. The lead facilitator should also be keeping time and reminding each small group of the time constraints.
- Let your group know the agenda and the priorities for the group, and be sure they understand the process you will use, so that they may work with and not against you.
- Make sure people understand and agree with the "ground rules" for small group behavior, and then, when necessary, gently remind people to abide by them.
- Only speak as much as is absolutely necessary. A facilitator is not a performer, but a servant to the group. Ideally, you will be "invisible," just guiding the process, so that the focus will be on the content of the discussion, not on you.
- Keep control of the group in a subtle way. Let conversations flow, but within the boundaries, so you stay on the topic.
- Stay aware of the energy level of the group. Watch for such non-verbal clues as facial

Tips From Teachers!



Here's the voice of experience from the teacher and educator perspective:

BUILD PROJECTS FOR SUSTAINABILITY

- ★ Use a team teaching approach.
- ★ Focus on a given year, but with an eye on the future.
- ★ Create a club to sustain a multi-year project: eg. a schoolyard garden.
- ★ Conduct student research each year and hold a symposium every few years.
- ★ Develop revolving projects that students check in on every year or every few years (natural inventory or monitoring, for example).
- ★ Have a school-wide focus on one subject or theme (eg: a bio-blitz, one day natural inventory of the school yard or a year-long focus on water).
- ★ Take one step each year toward a long term goal (eg: water quality monitoring).

DEVELOP A DIVERSE FUNDING BASE FOR PBL PROJECTS

- ★ Involve students in all fundraising activities.
- ★ Seek in-kind contributions from businesses and individuals.
- ★ Use free resources: county foresters, public land managers and interpreters.
- ★ Use town resources – donations from businesses and time from people.
- ★ Seek grant-writing assistance from a local expert.
- ★ Seek out model grants from others who have tried this approach.
- ★ Build administrative/board buy-in by getting on their agendas and educating them about your work.
- ★ Seek businesses that match whatever funds your students can raise
- ★ Make earning funds a fun, whole school effort.



expressions, posture, involvement, tone of voice, and respond to these clues appropriately.

- During discussion portions of the event, help the group to come to agreement when possible, and have all conclusions truly reflect the consensus of the group, and not simply the majority opinion.
- Relax and enjoy the people and the process.

HINTS FOR FACILITATORS ON PRESENTING MATERIAL

Remain neutral about the material

The facilitator should never be an advocate for a project or point of view.

Help the group to understand

Remember, you have been preparing in advance for this session. This is their first opportunity to listen to and understand the concepts.

Be prepared

A group will respond positively if it is clear that you understand the material and can deal with it with skill and confidence.

Don't play the "expert"

Let the group know that your job as facilitator is to moderate and guide the discussion, not to lead them to any pre-established conclusion. You have no more "correct answers" than they do.

HINTS FOR FACILITATORS ON ENCOURAGING INVOLVEMENT

Bring enthusiasm with you

Prepare for facilitating by doing activities that energize you beforehand—for example, before facilitating a meeting, play ball with your children, sing along with your favorite song, exercise, enjoy a cup of coffee—whatever makes you feel positive and energetic.

Make sure you are involved

If you are enthusiastic and involved in the process, it is more likely that participants will be too.

Remain neutral about the material, but positive about the process

Although you must remain neutral about the material—the facilitator should never be an advocate for a project or point of view—you should exude confidence about the process. Assure people that their hard work will pay off.

De-personalize the issues

Avoid referring to concepts as belonging to the person who suggested them. Once they are on the flip chart, they belong to the full group, and everyone should feel free to add to them. Keep the focus on the exchange of ideas and not on the people.

Welcome variety, diversity, disagreement

Some of the best projects come when two seemingly opposite concepts come together into a new idea.

Let ideas grow

As a facilitator, your role is to assist the sharing/growing process. As the group tests their ideas, bouncing them off each other, they will refine and develop their ideas. An idea that started out plain and simple can become vibrant and creative with discussion and input from the full group.

Be positive, appreciative, and accepting

Thank people for sharing their thoughts or feelings with the group. More than anything else, this encourages involvement.



Look for diverse ways to communicate your message.



Place-based Learning Program Evaluation

“The most exciting thing for me is that evaluation means continual learning.”

—Lyn Carranza, National Park Service

“Why should we do [evaluation]? It’s good business. In very practical terms, it prepares you for opportunity.”

—Flip Hagood, Student Conservation Association

Why Evaluate?

Place-based learning and civic engagement is a community enterprise that brings together natural resource educators, teachers, students, school administrators, civic organizations, businesses and citizens to achieve a range of integrated objectives—most of which can only be accomplished in the long term, with sustained effort. Each stakeholder is likely to have his or her own unique set of objectives for the PBL and CE enterprise. Evaluation is vital because it allows the partners together to gauge their progress and to make strategic program changes where needed over time. But with multiple partners who may have different outcome priorities, including civic engagement, environmental stewardship and scholastic achievement, deciding how to evaluate, what to measure and how, can be complicated. The bottom line is that the partners need to know if their program investments are cost effective and accomplishing what they set out to accomplish. Each needs to take an active role in evaluation.

Evaluation has a bad rap. Too often it is done only because a funder or administrator requires it, or because it is what has been done before.

Evaluation can have the feel of a performance audit designed to punish mistakes rather than a learning exercise designed to ensure progress, improvement, and success. Because this is so, the hard questions of evaluation are not always asked. Evaluation, especially in a place-based community context, ought to be considered a community learning exercise, and time devoted to developing understanding, celebrating success, and making positive change. Evaluation in this real life context can be viewed as a reflective, practical and non-stressful decision-making tool. The standard to achieve in all PBL programming is to make evaluation a routine and useful aspect of all educational program development.

If designed and implemented well, evaluation:

- Ensures and demonstrates that place-based approaches stay effective;
- Ensures that programs remain innovative;
- Provides results that can be shared to build public support;
- Provides results that can be used to build citizen participation and promote civic dialogue between educators and community partners and stakeholders;



- Provides partners with opportunities to identify shared values and ideals;
- Helps ensure continual learning;
- Is inclusive and engages all stakeholders;
- Uses a range of tools besides post-project surveys and questionnaires, including face-to-face dialogue that offers an exchange of open-ended questions prior to designing new, or improving existing, programs.
- Strengthens collaboration with communities.

Steps to Successful Program Evaluation

1) Build a Plan for Evaluation into the Program Up Front

Building a plan for evaluation at the start of program development focuses all the stakeholders on the desired outcomes of the program and



Evaluation sustains program health and opens doors for new ideas.

into a discussion of what the program is trying to achieve and what evaluation questions need to be asked. Evaluation methods should be decided only after evaluation questions are identified. Building a plan for evaluation up front helps keep the program outcome driven rather than activity driven. It also helps clarify stakeholder values and common ground. Seek input from all stakeholders. For the forest service educator or manager of public lands, for instance, PBL's impact on students' level of community volunteerism or environmental literacy, their knowledge of ecological and stewardship concepts, and the level of direct community involvement in public lands stewardship work may be more important than measuring their academic achievement in meeting state or national learning standards.

2) Develop a Logic Model

Develop a simple logic model for your program that links program inputs, activities, outputs and outcomes in a systematic fashion. Choose the indicators you need to measure over the long term to gauge your success. The logic model is a straight forward tool for tying together the key theories and assumptions supporting the logic of the proposed program. In other words, if the program doesn't logically connect the right means to the right ends, you don't have a worthwhile program ... yet. Logic models help identify the entire set of inputs needed, which can be a major aid to budgeting both time and money. Logic models link particular activities planned to their intended outcomes. They specify desired cause and effect relationships. (See Appendix E: FFEC Logic Model.)

3) Collect Data Through a Variety of Methods

Collect data that triangulates by using multiple stakeholders and several methods, both during the formative aspects of the program, say at a pilot stage, or even before rollout, and also at the end of a program cycle. Triangulation builds confidence that you are where you think you are. Rather than relying on evaluation that uses one metric, one approach, or one survey, build several methods: some quantitative, others qualitative. "Formative" evaluation conducted during the development and implementation of the program



leads to information that can improve the how-tos and for-whoms of the program—the nuts and bolts of delivery. Ask open ended, not deterministic, questions: how is this program working for you? The program itself is the unit of assessment. Be market driven and mission driven. Know your audience and its desires before you design a program for them.

“Summative” evaluation determines the effectiveness of the whole enterprise. The unit of analysis is the individual, community, park, society, or whoever you are trying to change by growing new knowledge, engaging in action, or inspiring.

4) Analyze, Interpret and Share

Something actually must be done with the data collected by the program evaluators. Quantitative data must be turned into charts, graphs, tables or reports that interpret the findings and point the way toward informed changes—either doing something different, doing more of the same thing, doing less of the same thing, doing the same amount of the same thing, or stopping altogether. Qualitative data needs to be reviewed, summarized, reflected upon, and coded so that trends can be detected and communicated. Sharing the results of evaluation is potentially the most powerful aspect of the evaluation process. It shows that the partners understand and value each other’s perspectives and contributions, value the investments made by the other partners, foundations, businesses, individuals and other funders, and put stock in learning by evaluation. Evaluation, shared in a community setting, also sets the stage for action—for building support and growing a program that, in most cases, will prove to have positive effects on the land and people.

5) Act

Evaluation is an exercise in futility unless there is commitment to use the evaluation process to act. Don’t be afraid to ask hard questions and act on the results, whatever they show. Place-based learning approaches need to be designed and implemented for the long-term. Evaluation and adjustment help insure adaptability and sustainability.

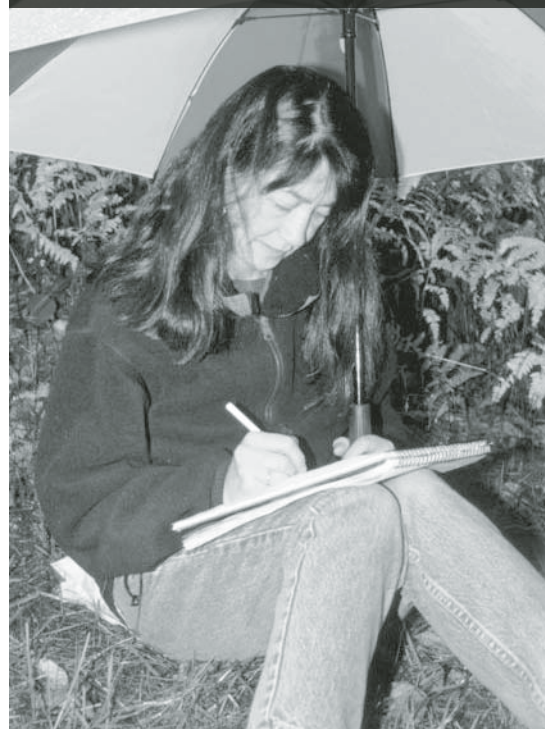
Who Should Conduct the Evaluation?

Should the evaluation be conducted by top administrators or frontline educators? Should it be handed off to professional education evaluators or delegated to particular community stakeholders or a subcommittee of all of these players?

The answer is all of the above. Who evaluates depends on the type of information needed, the evaluation questions, and the type of evaluation being conducted (formative or summative). The form of the evaluation and who conducts it should follow the functions that evaluation needs to fulfill.

The National Park Service has embraced a park-wide long-range objective of developing a culture of evaluation within which everyone acquires the habits and tools of learning and acting routinely through evaluation processes. Evaluation needs to be vertically integrated so that it can be conducted from the center or from the grassroots with buy-in at both administrative and program delivery levels, depending on the need. The size and complexity of

Personal reflection is an important step in evaluation.





the need will dictate the level of professional support required. Over time organizations need to develop the capacity of all staff to evaluate.

Keep it simple and straightforward. Often the simplest approach is the most elegant. Evaluation is ultimately about reflective practice and discernment. The careful and deliberate

involvement of all stakeholders at the beginning of planning an evaluation strategy, based on the most important questions and the most transparent methods, will yield the best results. Participants should take care to steer clear of jargon and technical language in evaluation questions, processes and interpretation.





Learning from Experience

“The teacher workshops model community-knitting set in place, sharing of ideas, and collaborative work in a supportive environment. How could teachers fail to launch successfully into our teaching with this as our springboard?”

– FFEC Participant 2007-08

The work of this manual is based on our experience in the development of A Forest for Every Classroom. Below is an overview that illustrates how the process outlined above was used in developing the FFEC program. Additional examples of PBL case studies can be found in Appendix zz.

Case Study: A Forest for Every Classroom—Learning to Make Choices for the Future

In 1999, inspired by a common vision of students learning from and caring for public lands, Marsh-Billings Rockefeller NHP, and the NPS Conservation Study Institute joined forces with Shelburne Farms and the Northeast Natural Resource Center of the National Wildlife Federation, and the Forest Service at the Green Mountain National Forest to create *A Forest For Every Classroom (FFEC): Learning to Make Choices for the Future*.

FFEC is a model for how collaboration can increase the effectiveness of parks and partner organizations and government to enhance civic engagement, serve communities, and protect public lands. A year-long professional development program for educators that focuses on the creation of place-based, service learning curricula, FFEC combines the concepts of ecology, sense of place, stewardship

and civic engagement. This sustained professional development program brings teachers into direct interaction with researchers and resource management professionals over the course of a year. It is founded on the belief that if today’s students are to become tomorrow’s responsible decision makers, they must understand local ecosystems and cultural heritage, and they must have educational opportunities that provide on-the-ground experience practicing stewardship and citizenship in their parks and communities.

By strengthening relationships between public lands, schools, and communities, FFEC has built social capital at the local level. Each of the partners believes FFEC has helped it achieve its educational goals while gaining credibility and goodwill for the organization.

BUILDING THE PROGRAM

To create a program that was responsive to the needs of local communities, resource managers, and teachers, FFEC partners initially solicited input from community members, teachers, and forestry professionals on the concepts and experiences that students should have in a curriculum about forest stewardship. In Vermont, each of the four agencies and organizations that came together to develop and facilitate FFEC had a major stake in the future of the Vermont landscape.



PROGRAM ELEMENTS

“This experience has renewed and re-energized me.... The ultimate benefit has been the energy, enthusiasm, and knowledge... which is being transferred to my students.”

– FFEC Participant, 2002

FFEC has four main elements:

- 1) A workshop series immerses teachers in multi-dimensional field studies of the forested landscape.
- 2) Workshops culminate in a week-long summer institute.
- 3) FFEC created a participant teacher listserve so that support for teachers continues after the year is completed.
- 4) A small grants program provides teachers with extra resources for tools, materials and expertise they may need to enhance work beyond the classroom.

The workshops are designed to help teachers create interdisciplinary curricula connecting their students to the public forestlands in their communities. The program also encourages educators to find ways to integrate basic citizenship skills and service learning into their curriculum.

FUNDING

FFEC is supported through a combination of public and private funds. Each of the partners has been able to deliver funds at an opportune time to ensure financial support. The NPS has used Challenge Cost Share funding as one of its contributions to FFEC, and the USFS has regularly contributed funds vital to the program's success. In addition, numerous private foundations have supported FFEC.

EVALUATING FFEC

FFEC and its partners are part of the Place-based Education Evaluation Collaborative (PEEC), an effort that links multiple innovative place-based initiatives in order to assess the quality of each program. Participation in PEEC has allowed each partner an unusual opportunity to look beyond their own programs to learn from others. PEEC's evaluation in early 2004 stated that FFEC:

- Demonstrates best practices in place-based learning;
- Cultivates an understanding of public lands and the local community;
- Offers diverse and balanced perspectives about public lands issues;
- Develops relationships with teachers through sustained professional support;
- Fosters connections between the school, community, and resource specialists;
- Enhances the role of public and private organizations as community resources; and
- Fosters students as active participants in the care of public lands through service learning projects.

SHARING THE SUCCESS OF FFEC: PROGRAM DISSEMINATION

Program dissemination is an important objective of the FFEC partners. One of the strengths of collaboration is that each partner has its own set of professional networks – many of which overlap. Partners have been able to introduce the FFEC model directly and efficiently through these professional networks via conferences, web pages, leadership councils, and informal peer learning networks. Adaptations and replications are now in progress along the shores of Lake Champlain (A Watershed for Every Classroom), through the National Park Service along the length of the Appalachian Trail (A Trail to Every Classroom), and through the Forest Service in New Hampshire, Texas and in the Northern Region, including Montana, North Dakota and Idaho. For more information about replicating FFEC in your region, contact any of the FFEC partners.



One Teacher's Story

From a teacher's perspective, long term access to local experts, natural landscape resources, and to meaningful student project opportunities in the community can make the difference in giving students real educational growth opportunities. At the Hartford Middle School in Vermont, 7th and 8th grade science teacher Michael Quinn has looked to place-based learning partnerships that connect him with like-minded teachers, local land managers and the local conservation commission to design meaningful experiences for his students.

According to Quinn, "It can be difficult to try to combine standards-based learning objectives and our conventional approaches to meeting these, with non-traditional investigations out in the communities where students live and learn. It helps when teachers, whether they are brand new to the profession or experienced, can plug themselves into a program. They need the structure that a place-based initiative can provide, whether that means workshops out in the community run by professional educators and supported by forest management experts brought in for the day, or new place-based curricula designed collaboratively by local citizens, teachers and students."

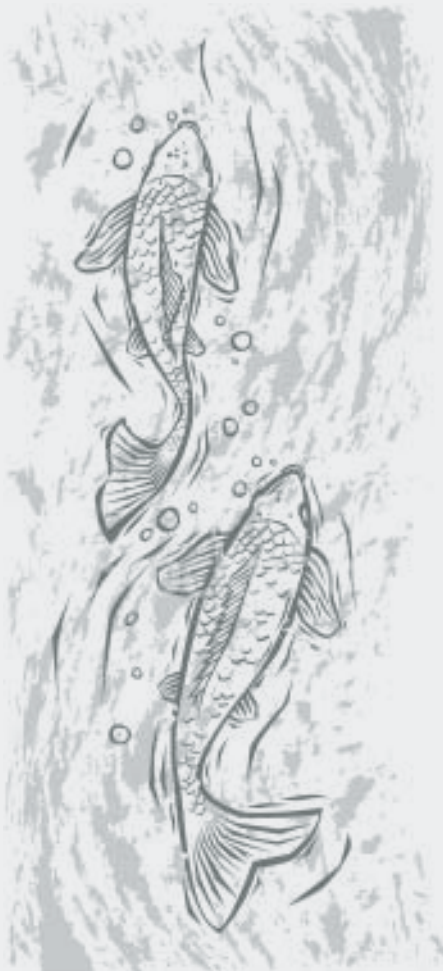
"Place-based approaches recognize that learning is way more than words on a page," said Quinn. "It's water moving around our boots, it's mud and cold. It's all these sensory dimensions in the real world we're part

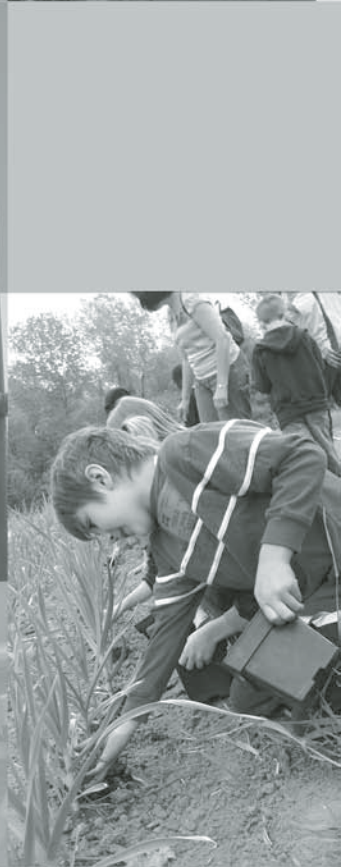
of. If it's rivers kids are learning about, then standing in one and turning over stones to find stoneflies, for instance, teaches in new ways that connect them. They gain new respect for the river. They have opportunities to see themselves as a part of something that has a long history and a long future. They become more hopeful. Through the experience they learn to become stewards."

Quinn has been a part of numerous student projects in his community over the years. On occasion his students have made real contributions to community understanding that sometimes extend beyond the local. In one project, his 7th and 8th graders inventoried and mapped vernal pools for the local conservation commission. One of Quinn's students, twelve year-old Emily Scribner, conducted an inventory

of the invasive, non-native Rusty Crayfish in a section of the White River that flows near her school. Scribner's work got the notice of state biologists who were unaware of the extent to which the invasive species had displaced the native species of crayfish. Now other schools have begun monitoring their rivers for Rusty Crayfish.

According to Quinn, "place-based approaches need to work for everyone who shares a love of their community: landowners, town officials, teachers and students. It's working here because students are developing understanding, love and enthusiasm for the places we all call home. That's what we hope to instill in our students."







Appendices

APPENDIX A

Selected Bibliography of Place-Based Learning and Civic Engagement Resources and References

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Selected Websites

For a portal to all things PBL and CE, go to: www.promiseofplace.org

Within this site, for a broad and continually updated list of websites useful for work with PBL and CE, go to: www.promiseofplace.org/resources_curriculum/links.shtml

Sites of particular note include:

www.fs.fed.us/kids/—the US Forest Service's webpage for kids

www.nps.gov/civic—information on the National Park Service's civic engagement program

www.nps.gov/csi— Conservation Study Institute

www.nps.gov/mabi—Marsh-Billings-Rockefeller National Historical Park

www.peecworks.org—a compendium of PBL research and evaluation reports and tools

www.servicelearning.org—a clearing house for information on service learning

www.shelburnefarms.org—Shelburne Farms



APPENDIX B

Exercises for Building Understanding and Engagement

from Clark and Glazer (2004)

CONVIVIAL RESEARCH (A.K.A. COMMUNITY RESEARCH)

If you have access to a larger group of community members (20 to 60, or more) and have the time to lead them in a more structured activity, try Convivial Research, named for the fun and social atmosphere in which it is carried out.

In preparation, consider the questions you would find most interesting and helpful to pose to a group of fellow community members. If you could see inside their minds, understand their particular perspectives and set of experiences with regard to your community, what would you like to know about? Develop that list of questions, making it long enough that there is one question for every two people in the group with which you will be working. For sample questions, see below.

Next, prepare a set of Convivial Research Response Forms, using the template found below. If you have a very large group, you will probably want to prepare a second page of the grid as well. Print enough forms so that there is one form for every two members of the group. Glue or write a different question in the space on each form. The more colorful and decorative you make the forms, the more convivial this exercise will seem—which is good for getting the creative juices flowing.

Gather the group and explain that they are going to be conducting important research about the special features of your community. You have arranged an opportunity for them to interview notable experts on the subject—each other! Following the interviews, they will be collating and interpreting the data to present to the rest of the group.

Break group members into pairs, and assign each pair one question. Instruct them not to answer their own question but rather, working as a pair, circulate through the room, approaching all the other pairs—and asking each member of that pair to succinctly

answer the question. They should answer other groups' questions in return. Encourage the groups to keep moving, spending no more than a few minutes with each group/question. All groups may not get fully around the room, but they should hit as many other groups as they can, taking brief but clear notes on each answer. Try to allow at least 20-30 minutes for these interviews.

At this point, you can choose to wrap up the exercise in one of three ways depending on your goals and the amount of time available.

1. If you want to build a sense of community and buy-in to the project, and have 45 minutes, supply each pair with a large sheet of paper and some markers or crayons. Instruct them to take about 20 minutes to create a poster that graphically depicts their findings, making sure that they include their question on the poster. Tape the posters up around the walls of the room as they are completed, and lead a "gallery tour." Let each group carousel around to visit all of the posters, studying them and raising questions. Ask each pair, to briefly introduce two highlights of their findings.
2. If you have less time, conclude the interviews by holding up a newspaper and saying that it is an edition of your local paper from five years in the future. The lead story on the front page, above the fold, is related to their particular question—what does the headline read? Give each pair a couple of minutes to develop a headline, then sweep around the room, with groups reading their headlines.
3. You can also choose to do a simple report out. Give each pair a moment to read over their findings, then ask each group to share something that surprised them from doing this exercise.

No matter which concluding exercise you choose, be sure to gather the sheets to serve as a data bank. You may want to type the notes and distribute them to each member of your group, so each participant has a copy, and can continue to add on to it. Or you might find a partner group (or a class of middle school students) to edit and bring this Community Resource Directory to publication.



QUESTIONS FOR THE CONVIVIAL RESEARCH ACTIVITY MIGHT INCLUDE:

- What was something you did as a child that helped to make the world a better place?
- Not counting any of your classroom teachers, who was your most important teacher as a child or youth, and what is one thing you learned from him or her?
- What is one special place somewhere in your community that every local person ought to visit at least once?
- What are two service projects or organizations in your community that would benefit from kid power and provide a valuable learning experience for students?
- Vision 2020: If you could look in a crystal ball and ask one question about what your community will be like in the year 2020, what would you ask?
- Which groups in your community tend to be very involved in community affairs? Which tend not to be very involved?
- What are the biggest barriers to open communication among various groups in your community, including youth, about dreams for the future of the community?
- How do local culture and traditions get passed down to younger people in your community?
- What are two opportunities for leadership roles in your community, both formal and informal? What preparation would youth need to fill them?
- What are three ways that people in your community do or could demonstrate their respect for young people?
- What are three ways that parents and other community members could help in our school, that are not already happening now?
- How does the story of our community connect to the “bigger stories” of the region, the nation or the world?
- What are the two most magical, attractive and fascinating places in our community for kids, either on the inside or the outside?
- What is one way you could use local public lands to teach a part of your present curriculum?
- What are three organizations in our community that might be interested in co-sponsoring an educational activity that benefits the community?
- Do you know of any unusual sources for interesting facts or photos about our community’s heritage or natural history?
- If you could bring a small group of children to spend an afternoon talking with one of our community’s residents, whom would you choose? Why?
- What two places would you bring a group of students to, if you wanted to demonstrate to them the underlying driving forces of the economy in our community?
- What are three ways that members of the Conservation Commission (or other local elected officials in charge of conservation or access to public lands) could help you in your teaching?
- What are two valuable learning experiences that your class could have that could make some nearby public lands a better place?
- What do kids do after school in our community?
- If you were to create the perfect place for people in our community to gather, what would be three features it would include?
- If you could look in a crystal ball and ask one question about the ways kids would be learning in our community in the year 2020, what would you ask?
- What are two businesses in our community that would make good field trip destinations? Why?

[illegible]



SENSE OF PLACE MAP

If you're working alone, an engaging way to set your mind freely roving through the special places of your community is to create a free-form map of the variety of places and ways you connect to your community—a solo brainstorm. Find twenty minutes, a piece of paper and something to write with. If you want to really open up, try to find a big piece of paper and some colorful pen or pencils to write with.

Draw a “map” of your place, your home community. It might look like a geographic map, or it might be more representational—a sun, or a tree with the roots and leaves representing different aspects of your life and your relationships to your community. Next, place symbols on your map for each of the following categories, tailoring the list with additions or subtractions if desired. You might want to make notes along with the symbols to identify the particulars.

- A favorite place in your community to go for a walk.
- A favorite public place to chat.
- A local sacred place or healing place that always makes you feel better.
- An older person in the community whom you appreciate knowing and spending time with.
- Something special you've noticed in your community that you suspect few people know about.
- A place where you connect personally with an element of your community's local or regional economy.
- A place where you connect personally to the human history of your community.

You can also do this exercise with a friend, family member or neighbor, and compare notes. You may also decide to lead a group of partners through this exercise together. In addition to generating some specific ideas for educational program sites, themes, and stories, the exercise will yield a range of possible paths to pursue for more ideas. For example, it might be high time for you to invite that older person in the community for lunch and find out some of the nuances of *their* sense of place.

MAPPING PLACE-BASED LEARNING OPPORTUNITIES

Gather around a large sheet paper, the bigger the better, and distribute markers to everyone. Draw a shape roughly approximating the shape of your community in the center, with lots of room around the edges. Ask group members “What's important to have on a map of our community? What places do we know about that we think other people would find interesting?” Invite them to sketch in and label anything that seems important, for instance:

- Key public buildings like the post office or a museum
- Key private buildings like a popular store or well-known restaurant
- Geologic features like hills or valleys
- Watercourses like rivers, ponds or lakes
- Cultural landmarks like statues or historic markers
- Public lands like municipal parks or surrounding national forest
- Bordering communities
- Natural features like a favorite tree or swimming hole
- Each group member's favorite places

In this somewhat chaotic but creative atmosphere, ideas breed more ideas and you'll find that your map is soon overflowing. Remember to notice the people who seem to know everything—you may need them later in the project.

Now, step back from your map. Using different colored markers, highlight:

- Locations of key learning opportunities
- Locations of possible service learning projects
- Locations of possible project partners

Following the exercise, post the map in a place where group members can continue to access the ideas generated, or add more.



CONNECTING PEOPLE TO PLACE: A COMPENDIUM OF TECHNIQUES FOR GETTING TO KNOW YOUR PLACE

by Pat Straughan

Whether starting a program, or building on an existing one, it is always a good idea to get people out onto the site together. From a natural park to a historic site, from a schoolyard to a sidewalk, every place can be a whole new world to explore with the senses, even for people who think they already know it well. These exercises will help you to encourage students, staff, teachers or community volunteers to slow down, open their eyes and ears, and discover some new ways to “know” a nearby place. Each activity requires about five to ten minutes. Make the outing as long as you want by selecting several activities or taking several shorter outings. Most of these activities require no materials, or low-cost things you can easily find. The following activities can be done in any order, but the first one is a great way to make sure the group is alert enough to explore a place.

Sharp Eyes:

Materials: none.

Give the following directions: Stand opposite your partner. Take a really close look at what each of you is wearing. Be sure not to miss any details. Look so closely that if anything were to change you would notice it! Then, turn away from each other and each change *one* thing about your dress. (roll up a cuff, move a ring, undo a shoelace, etc). Now your partner has to find out what has changed. If they can't, give them a clue (It's above the waist, etc). When you feel your detective skills are honed, set off to explore.

Silent Activity:

Materials: None, except Sound Maps, which require a piece of paper on clipboard and pencil.

Use a solo spot or Power Spot to sit quietly in a place and acknowledge the various sounds around them. This may involve:

- Simply sitting alone and quiet—rare event for many. Keep it fairly short.
- A fistful of sounds—students count on fingers every different noise that they can hear.

- Sound map—students try to develop a visual representation or key for different kinds of sounds and record their hearings on a paper, with themselves marked in the center as an x.
- A symphony of sounds—in which all are sitting with eyes closed, moving arms to conduct the sounds they hear. The leader can pick one child at a time to open his eyes to see the other conductors at work.

Make sure to share and debrief what the students heard.

Color Search:

Materials: Small color paint chips from hardware store—either a variety of colors or many different shades of green or brown. Or: small cards colored with crayons.

Look around the place. Ask your group what colors they see most of around them, then challenge them to look harder for unexpected colors. Use a variety of unusual colors or shades to challenge them to find the closest match they can. They do not need to pick things, just share it with another person. Using a variety of bright colors will bring surprising finds in the habitat, but using many shades of green, for example, will highlight small differences between grasses, leaves and mosses. In an urban setting bright colors will be easier to match, so shades of one color might prove more challenging.

After the activity discuss their findings. Were they surprised by the colors they found, or the number of variations of a single color?

Shape Search:

Materials: Small pieces of card cut into squares, circles, oblongs and “squiggles” etc.

Take a new look at this place by trying to see it as a collection of shapes. Take one card at a time and try to find the shape in the plants, buildings, water or animal tracks in your place.

Texture Match or Wake Up Fingers!:

Materials: Brown bags, each containing a household object with a distinctive texture— sandpaper, crumpled aluminum foil, plastic bags, packing bubbles, etc.

To get a feel for your place, lay the bags along a trail or in a circle and challenge students to use their fingers



only to investigate the texture in the bag *without* looking at the contents. Ask them to give a good word to describe the feel of the object. They can then take their fingers and touch things in the place until they find the best match. Share. Compare several textures.

Nice-Smell Social or The Whiffing Party:

Materials: Tiny tasting cup or other “sundae” container for each person.

Take a deep breath in your habitat. Can you detect any special aroma in this place?

What if you were to take a closer smell around you? Challenge each member of the group to think of this as an ice cream social, but instead of composing a sundae out of their favorite ice cream and toppings, they will create a “sundae” of the best smells they can find in the place. When sundaes are complete, have a social! Take a relaxing tour around all the members of the groups and find out what their aromatic ingredients are.

Mirror Magic:

Materials: A hand mirror for each participant.

Take a mirror out to your special place. Sit down and look at your surroundings reflected in your mirror. They will be upside down! Talk about a fresh look! Can you see anything about the trees, for example, that you had not noticed before? Pick an object of interest, such as an architectural detail, try to describe where it is to a friend looking through their own mirror. See if you can give good enough spatial directions so that they can find it too.

Mystery Collection:

Materials: Egg cartons with two words written on bottom (one word on left, one on right). One carton per pair or small group.

Ask the pair or group to look at their words written on the bottom of the egg carton. Keep the words secret from other groups! The challenge is to fill 6 spaces in the carton with items that fit one descriptive word, and fill the other half of the carton with items fitting the other word. When the collection is as good as it can be, take it to another group and challenge them to figure out what the hidden words might be.

In a human-made setting you could distribute the descriptive words on paper, along with paper and crayons for rubbings, then ask group to collect rubbings of the texture described. Or, flag textures that cannot be collected (e.g. different building surfaces) and then take another group on a mini-tour to feel them and guess the words.

Poesy Poetry:

Materials: Three trees/flowers/pigs/ecosystems/buildings/parks ... whatever you are studying; three envelopes each containing several small pieces of paper and one big one, and several pencils.

Here’s a wonderful way to take a closer look at the differences among, and essential characteristics of, three items that at first look belong to the same grouping: three trees, three windows, three flowers, three gravestones etc.

Select the group of items you are going to explore, which provide a useful piece of community exploration. Lay an envelope next to each one. Pile the pencils and small papers outside the envelope.

Each person in the group should visit each of the three items, in any order. They should spend a little time contemplating the building/tree/fence type, etc., choose a word or short phrase that they feel captures the spirit or feel of that particular example, write it on a small paper and put it in the envelope. Each person does this for each of the three items.

When all are finished describing, gather the envelopes and bring the group together. Challenge them to divide into three groups, each taking an envelope, and creating a poem from the words inside the envelope.

Rules: They may *not* omit any words (e.g. if there are four “tall” words, they must include them all.) They can add extra words if they wish.

When the group has compiled their poem, gather the three poems and read in turn back to the group, giving it your best performance! Which poem described which item?

Congratulate the group on their marvelous descriptions and productive teamwork.



Place Poem:

Materials: One piece of paper and pencil.

With younger students, one can use a similar technique to capture the essence of a place—useful when we can’t take this place back to the classroom with us to share!

Gather students in a comfortable spot. Ask them to look around this place and think of one word that describes it for them. Silently! Walk down the line and have each student *whisper* their word to you as you record them on a paper.

Simply read back the list with a “poetic” voice, and you have all created a wonderful poem that can transport any reader to this place. Do this in two or three town parks/ecosystems/stores, and you have a comparative study and word bank!

Find Your Friend Again:

Materials: One leaf/pine cone/acorn for each person. Choose an appropriate item, but make them all similar—e.g. all maple leaves.

Gather in a circle. Give an item (in this example, a leaf) to each person. Ask them to take a couple minutes to get to know this leaf so well that if they were to lose it they could recognize it again. Gather all leaves. Begin to pass the leaves, one at a time, to your right. Give the following instructions: “If it’s *your* leaf, hold onto it. If it’s not, pass it on.” When all have been reunited, share some of the characteristics they used for identification. How did they feel when they found their friend again?

Andy Goldsworthy Sculptures:

Materials: If possible, a book of Andy Goldsworthy’s nature sculpture photographs to show the possibilities.

Divide into small groups and ask each group to create a sculpture from natural materials within the place, *in* the place. They can be of any size, shape or complexity. Set appropriate boundaries, such as no picking of anything green. Share the sculptures with a gallery walk, allowing each group to describe and name their piece. Leave for others to enjoy if appropriate.

Drawing Swap:

Materials: Small clipboards and paper and pencils. Best done in forest.

Have the group line up along a stretch of trail, along a sidewalk or down one side of a park and sit down. Ask each person to pick *one* tree or building, for example, that they find particularly interesting. They must draw the portion of the tree or building that makes it unique. They do not necessarily have to draw the whole thing. When they are satisfied that they have captured the distinctive quality of the tree/building, have them switch drawings with a friend. The task of the friend is to try to find the one that was drawn.

Belly Botany or Lie Down and Look:

Materials: Hula hoop or circle of string; paper and pencil.

Lay down the hoop, or use a string to make a circle on the ground. Lie down and look. Draw a circle on your paper. Map everything you can find within the circle. Share. What did you find that surprised you? Take an ant’s eye view of life in this small plot. This works on a lawn, forest floor, sidewalk, (where safe) or park.

Animal Camouflage:

Materials: None. Best done in forest or shrubby area, or a city park/playground with lots of hiding spots.

Find out what it’s like to be an animal in this place! You can start by being “it” in the middle. Close your eyes and count to 15 or 20. While your eyes are closed, the children should hide themselves. Open your eyes and call out the names of anyone that you can see without moving from your spot. The ones you can see are out and should come to the middle with you. Close your eyes and count again. The children should move in and camouflage themselves again. Repeat a couple of times. Whoever is the closest person to the “it” at the end of the last round and is still camouflaged is the winner. If you do not feel comfortable enough with your group to be “it” with your eyes closed, have one of the children be “it” and help them. Don’t forget to tie this in with animals’ need to escape their predators.



Art Gallery:

Materials: Cardboard frames, one for each pair.

Gather the group in your place. Have the participants take a partner. Give a cardboard frame to each pair. One person is the artist, the other will hold the frame for them. The artist can choose their favorite view within the place and position the frame exactly to capture that view. The frame holder must keep the work of art as it is, while other artists view the gallery and visit all the chosen works of art. Then switch roles within the partners. Discuss the natural elements or architectural details that captured the notice of the artists.

Becoming One With This Place:

Materials: None. Works best in forest.

As you move through the place, leave one person at a time to be placed in the habitat—lying down and being covered slightly with sticks, ferns, leaves etc from the ground. Having the weight of forest floor debris over your body helps to ground you in this place. All lie still and silent until everyone is in position. Allow the group an appropriate time to spend simply being part of this place. Use a gentle symbol such as a soft bell to end the activity. Gather and silently leave the place. Share thoughts a little ways off.

Last Picture:

Materials: None.

This activity is similar to Art Gallery, but simpler. Before you leave a place, have the group imagine that they have one picture left in their camera. The “camera” is made by framing pointer fingers and thumbs into a square and looking through it. Which “shot” would each person choose for their last picture. Share. Remember this place.



APPENDIX C:

Worksheets to help you develop your PBL/CE program

Place-based Learning and Civic Engagement Can Play an Integral Role in Achieving Your Organizational Goals

To ensure that PBL is consistent and complimentary with what your institution and your partners' institutions are trying to accomplish, use this worksheet as a discussion tool with organizational leadership.

State your organization's overall mission:

	Your Goals for the Next Three Years	Specific Opportunities That Could Be Leveraged by PBL – CE Programming
Program		
Resource Management		
Publicity and Community Relations		
Financial Stability or Growth		
Administration and Personnel		
Other		

Place-based Learning and Civic Engagement Partnership Development

Many natural and cultural resource conservation organizations attribute their success at building local consensus and momentum for their mission to their ability to build strong partnerships within their community. Place-based learning offers an ideal opportunity for the development of strong, positive partnerships—in fact, it can't succeed without them.

List the stakeholders in your community (including businesses, municipal boards, NGOs, federal and state agencies, churches, civic organizations, schools, clubs, etc). Be specific, listing actual names if you know them. For each, take a stab at naming their principal area/s of concern (quality after school programs, maintaining the fishery, etc). Then for each, note some possible concrete opportunities for place-based learning partnerships.

[illegible]



Place-Based Learning and Civic Engagement Project Development Worksheet

Project Name:

Brief Synopsis:

Big Idea—What is the main idea you want the students to come away from the unit knowing?

State Standards—Which state educational standards do you want to address? Consider all relevant disciplines.

Essential Questions—What are the essential questions that will help guide students toward understanding of the big idea?

Community/Public Lands Opportunity—What opportunity or need exists in your school, community, or public land that could be addressed by a student project?

Project—What project(s) could students undertake that would both serve this opportunity and meet educational goals?

Disciplines—Which academic disciplines can you engage in this project?

Team—Who, within your organization, will work with you on this project?

Steering Committee—Would this project benefit from a community steering committee and if so, who might serve on it?



Place-Based Learning and Civic Engagement Project Development Worksheet – page 2

Youth Voice —How will students be involved in project design, ongoing decisions, and evaluation?	
Resources —What resources do you need to implement this project (documents, artifacts, supplies, people with local knowledge, printing, etc)? From where might you get them?	
Models —Where can you find excellent examples of similar student work to give students an idea of what success would look like?	
Timeline & Benchmarks —What is your timeline for implementing the project? What are several benchmarks along the way?	
Obstacles & Solutions —What do you anticipate as your principle obstacles in implementing this project? What are some possible solutions to these obstacles?	
Reflection —How will opportunities for reflection be built into your project design?	
Student Assessment —How will student learning and accomplishment be assessed?	
Final Product —What will be the final product of your project?	
Celebration —How will you celebrate and share the success of your unit with the students, school and community?	
Evaluation —How will you evaluate the project and make note of what worked well and what could be improved?	



APPENDIX D:

Synopses of Place-based Learning and Civic Engagement Projects from Around the Country

We've found that, as the adage goes, it's better to *grow* into business than to *go* into business. The introduction of a place-based learning and civic engagement approach in schools and communities seems to thrive best when the roots are given a chance to grow deep and strong before expecting too many flowers. The following examples were compiled from www.promiseofplace.org, www.schoolsgogreen.org, the partners of A Forest for Every Classroom, unpublished reports from Project CO-SEED of Antioch New England Institute, and www.nps.gov. They are included to illustrate the range of possibilities, large and small, that can be included in the launch of a place-based learning program. Use them as an idea bank and when you need material to make a case for the potential of place-based learning. You can search the examples by age group and themes using the matrix below.

These examples are just a sampler of the many excellent projects currently underway around the country. If you know of other particularly good examples, please submit them to www.promiseofplace.org.

1. Songbird Welcome Center

Elementary students in Kansas restored songbird habitat at the Marion Springs Environmental Center. High school shop students, biologists, and a local artist helped students construct birdbaths, benches and feeders, and selected soil amendments. A fourth- and fifth-grade recycling program partially funded the project. Success was measured by monitoring use of the plot by birds, students and community members.

*Marion Springs Elementary #348
Baldwin City, KS*

2. Gorham Town Forest

Gorham High School in New Hampshire worked with the town forester and the Appalachian Mountain Club to develop experiences that immerse students in the town forest. These include a freshman orientation, an ecology-based experience for sophomores, a water chemistry experience for juniors, and a support structure for the seniors to do senior projects based in the Town Forest that promote the forest's preservation.

*Gorham High School
Gorham, NH*

3. Mapping McCabe

Fifth graders explored and mapped the flora and fauna of the Society for the Protection of New Hampshire's Forests' McCabe Forest. Field and book research, and art activities helped them create maps that were scientifically accurate and aesthetically beautiful.

*Great Brook Middle School
Antrim, NH*

4. River Check

Students designed scientific experiments and took field trips to a local river, water treatment plant and wastewater treatment plant to learn local water pollution. They studied storm water runoff, erosion and deposition, nutrient overloading, groundwater, acid rain, and limnology. Students presented their findings and suggestions for improvement to the affected counties, the city and the State Department of Agriculture.

*Northstar Academy
Richmond, VA*

5. Reading the Forested Landscape

Eighth graders explored the community and land surrounding their school to uncover clues to human land use over the past 300 years. Students created a series of "Quests," self-guided treasure hunts that take followers on an educational tour of local points of interest. The Quests were published in a student-designed booklet and on the web, so that they could be used by families for years to come.

*The Compass School
Westminster Station, VT*



6. Reclaiming the Land

Mill Creek School is surrounded by reclaimed mining land, including a 250-acre tree farm, and a 2,600-acre wildlife area. Students visited these areas as they examined the history and impact of coal mining in their area and environmentally sound options to reclaiming the land. Students documented their discoveries in journals and public presentations to the school and community.

Millcreek Elementary
Hemlock, OH

7. Childrens' Forest—Nature's Playground

K-12 students worked with community members, the Helena National Forest, and the non-profit Montana Discovery Foundation to create a children's forest located on state school trust lands. Students used GPS devices to map a 1-mile trail and worked with members of the hotshot fire crew to build the trail. Features of interest, such as unique tree species, woodpecker holes, and old stumps are being marked for future interpretation.

Lincoln School
Lincoln, Montana

8. PLACE: Students Investigate Rivershore Park

Middle school students inventoried local flora and fauna, geology, soils, and historical use of land in a local rivershore preserve. Using GIS, they mapped the trails, and produced a brochure for trail users. Since it was published, hikers, bikers, and wildlife watchers have increased visitation to the preserve. Their project caught the attention of the governor, and won the 7th and 8th grade team the 2005 Vermont Governor's Award for Environmental Excellence.

Camel's Hump Middle School
Richmond, VT

9. VT FEED—Grains: Grow, Process, Use

First grade students studied how grains like wheat, rye, corn, and oats fit into a healthy diet. They studied how the Abenaki people, who were indigenous to their town, used the grains they grew. They then visited a nearby farm to see how grain is grown, ground their own corn to make hoecakes, and learned about life cycles of local farms and woodlands. Students presented food and recipes to their families as a culminating activity.

Hardwick Elementary
Hardwick, VT

10. Air Quality Sleuths

U-32 Jr/Sr High School was being renovated and rebuilt, and the drop-off area for buses was being redesigned. Students teamed up with AirNet to gather chemical data, and identify and map lichens as indicators of air quality. Students were asked to develop recommendations to improve air quality based on their findings, and reported their conclusions to the school board and community.

U-32 High School
Montpelier, VT

11. Urban Rangers

The Urban Rangers program used bicycles to teach that just as a bike can be repaired, a community torn by neglect and violence can also be repaired. Youth worked with a professional bike mechanic to refurbish bikes for resale. Participants gained skills in conflict mediation and took part in community service projects such as designing a wildlife habitat garden.

The Urban Rangers
Washington, D.C.

12. Welcome to Gorham

Third-grade students worked with a local children's book author to write a children's book about Gorham's past, present and future history. Local artists coached students in how to make their drawings consistent and effective. They published the book in full color and distributed it throughout the community.

Gorham Elementary School
Gorham, NH

13. Florida Habitat Garden

Students created outdoor classrooms that focused on providing habitat for box turtles, lizards, butterflies and native flowers. The fifth-grade gardening club maintained the outdoor classrooms. They participate in the Monarch Watch program and recently established a student-run company to raise and sell monarch chrysalids. They have received hundreds of orders from teachers and students.

Casselberry Elementary School
Casselberry, FL



14. Community Wildlife Habitat Initiative

Through The Burlington Community Wildlife Habitat Initiative, a National Wildlife Federation partnership program that brings people together to restore wildlife habitat throughout the city of Burlington Vermont, high school students created a new garden to help supply produce for the school cafeteria, and elementary students in a summer day camp planted a rainbow garden, a river garden, an herb garden, and two raised bed vegetable gardens in front of a local Community Center.

*Burlington High School and Sara Holbrook Center
Day Camp, Burlington VT*

15. Navajo Gardening Project

Students at Navajo Mountain High School constructed a greenhouse and planted a garden, providing produce to the community's elders. The garden emphasized Navajo cultural history. The interdisciplinary project included a mentoring component between high school and middle school students.

*Navajo Mountain High School
Tonalea, AZ*

16. Antrim Center Project

In response to a request from the Antrim Conservation Commission, sixth and seventh grade students and teachers took on the responsibility for surveying a 15-acre piece of land. They communicated with abutting land owners, planned a trail, designed trail signs and worked with a graphic artist to design a trail brochure. The once unused town land now serves as a local park.

*Great Brook Middle School
Antrim, NH*

17. Neighborhood Renewal Project

Inner-city elementary students participated in the improvement and renewal of their school and community. Through partnerships with neighborhood organizations, students restored the adjacent school garden and adopted a city block. Field trips to local nature centers and suburban areas allowed students to compare different neighborhoods and spark ideas for their own.

*William Hunter Elementary School
Philadelphia, PA*

18. Field Study Design Project

Middle and high school students at a residential school for at-risk youth worked with educators at an on-campus natural history museum to create a three-hour field study program for local schools, senior centers and community organizations. As a service-learning project, students assisted with the program design and presentation, as well as the collection of materials that were used at the museum.

*Goodwill-Hinckley Homes for Boys & Girls/
L.C. Bates Museum, Hinckley, ME*

19. Snowmobile Trail Mapping

As a part of their physical education and health classes, middle school students learned how to use GPS units and mapping software to create maps of local snowmobile trails. The old maps were dangerously vague. New maps produced by students included written descriptions and features of interest, and were distributed for public use.

*Hichborn Middle School
Howland, ME*

20. Kids for Karners

Through a collaboration between National Wildlife Federation, New Hampshire Fish and Game, U.S. Fish and Wildlife Service, and the Concord School District, over 600 students in Concord, NH transplanted 1000 lupines onto pine barrens. They learned about butterfly ecology while helping the New Hampshire Fish & Game department implement their recovery plan for the Karner Blue Butterfly, an endangered species.

Concord NH

21. Fellsmere Pond Exhibits

Students worked with the local metropolitan parks departments to design educational interpretive exhibits for an urban park. They developed a walking tour and accompanying brochure, and two Quests that lure local visitors to explore the pond and park. The Quests included some fake rocks crafted through the school's partnership with the local zoo. Students are also working on doing habitat restoration projects at the park.

*Beebe Environmental and Health Science Magnet
School, Malden, MA*



22. “Living Machine” & Wetlands Restoration

Seventh and eighth graders learned how wetlands function through a service-learning project with the Department of Environmental Protection’s Wetlands Restoration Unit. Students constructed a “living machine,” a self-sustaining, integrated, four-chambered ecosystem in which the waste from one chamber becomes the nutrients of the next.

*EastConn Alternative Design Academy
Hampton, CT*

23. Swan Valley Ecosystem

Volunteers from local schools and the community are matched with professionals in stewardship, research and monitoring projects to promote the study of the upper Swan Valley ecosystem and the development of ecosystem management techniques. They work with the U.S. Forest Service to assess the condition of the upper Swan Valley and the information is being used to set goals for the future management of the area.

Condon, Montana

24. The Power of Worms

Students used worm bins to recycle lunchtime food waste into fertile soil. Students wrote a children’s book about the life of a red wiggler, calculated reproduction rates of the worms, and created a play about soil organisms and decomposition. Students visited other elementary schools to share what they had learned, and used the soil to build community gardens.

*Schoolcraft Learning Community
Bemidji, MN*

25. Xeriscape Gardens

Preschool and kindergarten children worked with teachers, parents, experts from a local nursery, and peer mentors from a nearby elementary school to landscape their school grounds using xeriscaping – landscaping for arid environments. Plans included butterfly gardens, composting, and educating the community about water conservation and wildlife.

The Children’s Kiva Montessori Preschool and Kindergarten, Cortez, CO

26. Environmental Art Sculptures

Middle school students brought together art, culture and science to create ceramic art sculptures depicting current environmental issues. Students researched environmental problems, interviewed local businesses and community leaders, and then incorporated these ideas into environmental art sculptures modeled after the totems of the Northwest American Indians. They were displayed in a public park on a busy intersection and the town Council voted to install lighting so they could be seen from the road.

*Charles Wright Academy
Tacoma, WA*

27. Backyard Sanctuaries

Students researched, designed, and built “backyard sanctuaries” on school property, including bat and bird houses and a butterfly garden. Students planned and financed the project, soliciting donations from local businesses. They produced brochures for self-guided tours of the garden, and made presentations about their work at the Earth Day symposium. Students collected wildlife monitoring data and sent it to agencies such as Bat Conservation International, New Hampshire Audubon Society and Monarch Watch.

*Souhegan High School
Amherst, NH*

28. Wilderness Arts & Literacy

Students in the Wilderness Arts and Literacy Collaborative participate in academic courses that use outdoor experiences as the integrating framework. Hiking and camping trips expose inner-city, low-income students to wilderness areas they may never have visited otherwise, and connect these experiences back to their city lives through projects such as habitat restoration at a neighborhood park, a school recycling program and making environmental education presentations to other classes.

The Wilderness Arts and Literacy Collaborative (WALC) at Balboa High School, San Francisco, CA



29. School Yard Design Project

Students worked with community organizations to create a master plan for their school grounds. They started with trail enhancement, parking lot bio-filter revitalization, outdoor classroom construction and wetland system investigation, and then used created a vision for the property that integrated the interests of school and community.

*Monticello High School
Albemarle, VA*

30. Footprints in the Desert

Sixth-grade students gathered data on local flora and fauna and posted their findings on the World Wide Biome Project website. Students created digital field guides describing local plants and animals to be posted on a class website. Students studied how the growth of the Phoenix metro area has affected the Sonoran desert. Students examined their personal water use and how to incorporate sustainable practices into their daily lives.

*Oak Tree Elementary
Gilbert, AZ*

31. Urban Ecology Project

Students were involved in all stages of design, construction, study and maintenance of planter boxes, bird houses and feeders, a weather station and a vermiculture station for their urban school. Inmates at Riker's Island prison constructed planters. Staff from the Horticultural Society of New York's Apple Seed Program helped design the curriculum.

*PS 101
New York, NY*

32. Cross-Rivendell Trail

Through the CO-SEED Summer Institute, a plan emerged to create a 40-mile long trail that links the four towns comprising this school district. An advisory council was formed to plan the trail and integrate it into the school curriculum. The project has attracted funding from both the states of Vermont and New Hampshire, the land is close to being secured for the trail, and multiple classroom initiatives have been implemented.

*Rivendell Interstate School District
Orford, NH*

33. Salamander Mark and Recapture Study

This study looked at longevity, growth, and dispersal of five species of salamander. Volunteer high school and college interns caught salamanders in the study stream area. Salamanders of a certain size were marked with an injected marking device, weighed and measured. Interns worked with visiting middle school and high school groups catching and studying salamanders.

*Appalachian Highlands Science Learning Center
Purchase Knob, Great Smokies NP, NC*

34. Fungi Map

Volunteers make observations of 50 easily identifiable species of fungi during their hikes in the park. Park staff use visitor reports to better understand where and when these species of fungi can be found in the park. These programs focus on involving volunteers in hands-on learning while providing valuable data for actual park research projects.

Great Smoky Mountains National Park, NC

35. Yellowstone Adventure

A one-room elementary school on the Wind River Indian Reservation visited Yellowstone National Park. Trip organizers hoped to build an understanding of and appreciation for environmental preservation, and bridge the gap between the students and the tourists who travel through the students' community on their way to the park each year.

*Crowheart School
Crowheart, WY*

36. Urban Garden

Students in Lackawanna, New York designed and planted a school garden. Educators hoped the experience of creating and caring for a garden would counter the negative forces of substance abuse, violence and truancy. The project was integrated into math, science, language and fine arts curriculum. A four-week summer program extended the project and provided a safe alternative activity for youth.

*Lackawanna Middle/High School
Lackawanna, NY*

37. James River Study

Students from six high schools in a South Dakota watershed conducted water quality tests along the James River and electronically shared data with each other, as well as with university students studying to become teachers, and local and state agencies. University students posted questions for students to research. Students conducted a fish survey, studied the Native American heritage of the river, and learned about water resources issues.

*Roncalli High School
Aberdeen, SD*

38. PLACE: Interdisciplinary Study of Dana Hill

Through a partnership between the University of Vermont, Shelburne Farms and Marsh-Billings-Rockefeller National Historical Park, 7th grade students went deep into the study of an abandoned homestead along the Appalachian Trail. They met with local experts to study the ecology, agricultural history and literature of the valley, and conducted oral histories and interviews about current agricultural and forestry practices. They produced a photo calendar, raising a \$1,000 contribution toward the restoration of the original Community House.

*Woodstock Union Middle School
Barnard, Bridgewater, Pomfret, Woodstock, VT*

39. Chimney Swift Homes

High school students planned and constructed a nesting tower for chimney swifts, birds that frequented a communal roost in the school's chimney. Students studied the natural history of chimney swifts through direct observation, research and communication with experts around the world. After construction, students monitored nesting activity and contributed data to the North American Chimney Swift Nest Site Research Project.

*Linworth Alternative Program
Worthington, OH*

40. Birds on the Move: Migration Studies

Fifth- and sixth-grade students learned to identify birds, mapped their school grounds, and landscaped the schoolyard to encourage migrants to nest, rest, and feed on the school campus. Students studied the cultures and economic situations in countries where neotropical migrant birds overwinter and the reasons for loss of habitat, and communicated with a Guatemalan organization working to conserve bird habitat.

*Pine Cobble School
Williamstown, MA*

41. Gesu Community Green

After the State of Michigan condemned the playground at Gesu School, the school, parish and neighborhood organization in Northwest Detroit came together with a plan to transform the asphalt school yard into an area of gardens, grass and trees, complete with safe play structures, drinking fountains, benches and a labyrinth for meditation.

*Gesu Catholic School
Detroit, MI*

42. Closing the Loop on Proctor's Food Cycle

Proctor Academy is working to close the loop on their food production/food waste system by expanding a fledgling organic garden and composting food scraps and napkins from the school's kitchen. The project provided fresh vegetables and reduced the school's waste, and served as an educational model for small-scale, low-input sustainable agriculture. Students, teachers, kitchen staff and the maintenance department were involved in various parts of the cycle.

*Proctor Academy
Andover, NH*

43. Bird Banding Internships

High school and college interns help run a bird banding station at Purchase Knob in the Great Smokies National Park. Nets to catch birds are open from sunrise (as early as 6:00 a.m.) and kept open for six hours. Birds caught are measured, identified to species, gender and age, banded, and released unharmed in an effort to better understand the population dynamics of species using the high elevation habitats found at Purchase Knob.

*Appalachian Highlands Science Learning Center
Purchase Knob, Great Smokies NP, NC*



44. Malden Recycles

Under a challenge from the mayor of Malden, Massachusetts, a student leadership group is working on plans to implement a school wide recycling program. The City of Malden presently has no city wide recycling program. The mayor is looking to the students to create first a school-wide program that can then be used as a model for other schools and businesses. Students are starting by surveying the school to understand the waste sources in order to create a recycling plan.

Beebe Environmental and Health Science Magnet School, Malden, MA

45. The Greening of Henniker Goes On

Working at an environmental education center created collaboratively by town government, area colleges, area and regional businesses and state agencies, 7th and 8th grade technical education students trained to become activity leaders for younger students. Together they influenced parents and community members to recycle and conserve energy resources, effectively increasing the town's recycling rate and lowering energy costs for the town and school.

*Henniker Community School
Henniker, NH*

46. Students as Scientists

Students as Scientists, based at the USFS Cradle of Forestry historic site, is part of a wider national inter-agency effort called Hands on the Land (www.handsontheland.org), designed to help link young people to their public lands through direct interaction. Students as Scientists provides procedures, methods, online databases and access to research scientists to give students a chance to participate in real-time science. Current science projects include an ozone monitoring protocol, bio-monitoring garden, and lichen monitoring.

*Cradle of Forestry Historic Site
Brevard, NC*

47. Mount Helena Tree Inventory

7th-graders team up annually with the Helena National Forest and the Society of American Foresters to do a tree inventory of Helena's 620 acre city park, Mount Helena, that rises 1,300 feet above the city. Student inventories include observing the impact of a recent bark beetle outbreak that severely

affected the lodgepole pine and many of the Douglas fir trees covering the hill.

*C.R. Anderson Middle School
Helena, Montana*

48. Air & Water Quality Program

High school students came to understand the importance of clean air and water as they monitored local air and water quality in the Connecticut River Valley and reported their findings back to the community through a student-built website, slide presentations to senior citizens, and production of a television program to be aired on local television.

*Bellows Falls Union High School
Westminster, VT*

49. Youth Forest Monitoring Program

Working with the Helena and Beaverhead-Deerlodge National Forests, nonprofits, and local counties, local high school students learn monitoring protocol for streams, weeds, soils, and wildlife. During a seven-week summer internship, these students return to forest monitoring sites that have undergone wildfire, historic mining, grazing, and recreation impacts and observed changes over time, then present management recommendations to Forest Service officials, county commissioners, and the general public.

Helena National Forest; Beaverhead-Deerlodge National Forest, Helena, Lincoln, and Deerlodge, Montana

50. Trustees of Reservations Quest

One hundred members of the Holyoke Boys and Girls Club turned their attention from nature study to the downtown landscape, discovering and documenting features and landmarks they'd never noticed before and learning about how the city had changed over time. Working with a local artist, they created a family-oriented, self-guided treasure hunt, complete with rhyming clues and a hand-drawn map, that is now available to teach the public about Holyoke's history and special places.

*Holyoke Boys and Girls Club
Holyoke, MA*

Matrix of PBL and CE Synopses of Exemplary Projects

The following matrix will help you to sort through the exemplary PBL and CE projects above.

Matrix Key	
1. Songbird Welcome Center	26. Environmental Art Sculptures
2. Gorham Town Forest	27. Backyard Sanctuaries
3. Mapping McCabe	28. Wilderness Arts & Literacy
4. River Check	29. School Yard Design Project
5. Reading The Forested Landscape	30. Footprints In The Desert
6. Reclaiming The Land	31. Urban Ecology Project
7. Air & Water Quality Program	32. Cross-Rivendell Trail
8. Groveton Heritage Project	33. Salamander Mark & Recapture Study
9. Sutton History Questing Project	34. Fungi Map
10. Air Quality Sleuths	35. Yellowstone Adventure
11. Urban Rangers	36. Urban Garden
12. Welcome To Gorham	37. James River Study
13. Florida Habitat Garden	38. Living On Earth Radio
14. Bread Baking Oven & Business	39. Chimney Swift Homes
15. Navajo Gardening Project	40. Birds On The Move
16. Antrim Center Project	41. Gesu Community Green
17. Neighborhood Renewal Project	42. Closing The Loop On Proctor's Food Cycle
18. Field Study Program Design Project	43. Bird Banding Internships
19. Snow Mobile Trail Mapping	44. Malden Recycles
20. Technical Science Writing Project	45. The Greening of Henniker Goes On
21. Fellsmere Pond Exhibits	46. Students as Scientists
22. "Living Machine" & Wetlands Restoration	47. Mount Helena Tree Inventory
23. Four Towns History Museum	48. Air & Water Quality Program
24. The Power Of Worms	49. Youth Forest Monitoring Program
25. Xeriscape Gardens	50. Trustees of Reservations Quest



Project Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Audience																									
Early Education	✿																✿								✿
K-5			✿			✿		✿	✿			✿			✿			✿		✿				✿	
Grades 6-8				✿	✿	✿			✿		✿			✿	✿			✿	✿	✿	✿		✿		
High School		✿		✿			✿			✿	✿				✿			✿	✿	✿	✿				
College Level																									
Adult Learners																							✿		
Focus																									
Agriculture & Food Systems														✿											✿
Arts, Expression, Literacy	✿		✿					✿	✿		✿													✿	
Civics & Social Responsibility				✿		✿					✿														
Mentoring, Intergenerational Studies								✿			✿			✿				✿					✿		✿
Consumer Choices																									
Ecology/Natural History	✿	✿	✿	✿	✿	✿			✿		✿	✿	✿			✿	✿	✿		✿		✿	✿		✿
Economics														✿											
Schoolyard Habitat Improvement	✿										✿		✿		✿		✿			✿				✿	
Environmental & Social Justice						✿				✿	✿														
Media Literacy & Public Education					✿		✿		✿	✿		✿				✿	✿	✿	✿					✿	
Natural Resources, Ecological	✿	✿		✿	✿	✿	✿				✿		✿			✿	✿	✿		✿			✿		✿
Cultural History					✿			✿				✿													
Sustainability, Energy Use, Recycling	✿													✿								✿			
Adventure Based		✿			✿				✿											✿	✿				
Geography, Mapping, Trail Building			✿		✿				✿							✿			✿	✿	✿				
Global Studies, Inter-racial Studies																									
Appropriate Technology & Applied Science				✿			✿			✿												✿			✿



APPENDIX E:

Working FFEC Logic Model

Hypothesis: If we implement comprehensive educator professional development on place-based and citizenship education, people (including youth) will contribute to the stewardship of public lands and communities.

Strategies		Audience	Intended Outcomes		
Inputs	Activities		Short term	Medium term	Long term
Technical Assistance from experts/contractors	Collaborative Partnerships		Develop and pilot a professional development model in place-based education and citizenship education.	Students who have the knowledge, skills and motivation (social potency) to be active stewards/citizens.	Strengthening civil society
Partners	Community Forum and other community events		Evaluation of program including:	Teachers/schools are committed to and have the capacity to create and implement place-based learning that fosters student participation in the community.	Stewardship of communities and special places.
• National Park Service	Sustained and embedded professional development		• Assessment in student learning and stewardship activities		
• Conservation Study Institute	Ongoing support for educators		• Teacher practices in place-based education pedagogy and service learning		
• National Wildlife Foundation			• Community involvement/investment		
• National Forest Service			• Partners' capacity		
• Shelburne Farms					
Teachers/Educators	Standards based curriculum development (instruction and assessment)		Resource development for replication in other communities		
Community	Peer coaching			Social Capital increases in the community demonstrated by increased interaction between school and community and stronger sense of place	
Forest Stewardship Network	Network building (sustained over time)			Government and non-government organizational effectiveness and capacity is increased by working together in partnership.	
Funding	Service Learning			Learning Organizations	
National Parks Service	Access to resource specialist and community resources				
JL Foundation	Mini grants				
Ittleson Foundation					
Wellborn Fund					
Promising Practices/Research					
Evaluation					
Graduate Credit					
Resource Materials					

**The Center for Place-based Learning
and Community Engagement**

A Partnership Program of the National Park Service Conservation
Study Institute, Marsh-Billings-Rockefeller National Historical Park,
and Shelburne Farms National Historic Landmark

A Forest For Every Classroom

A Project of Shelburne Farms, NPS Conservation Study Institute,
Marsh-Billings-Rockefeller National Historical Park, Green Mountain National
Forest, and the Northeast Office of the National Wildlife Federation