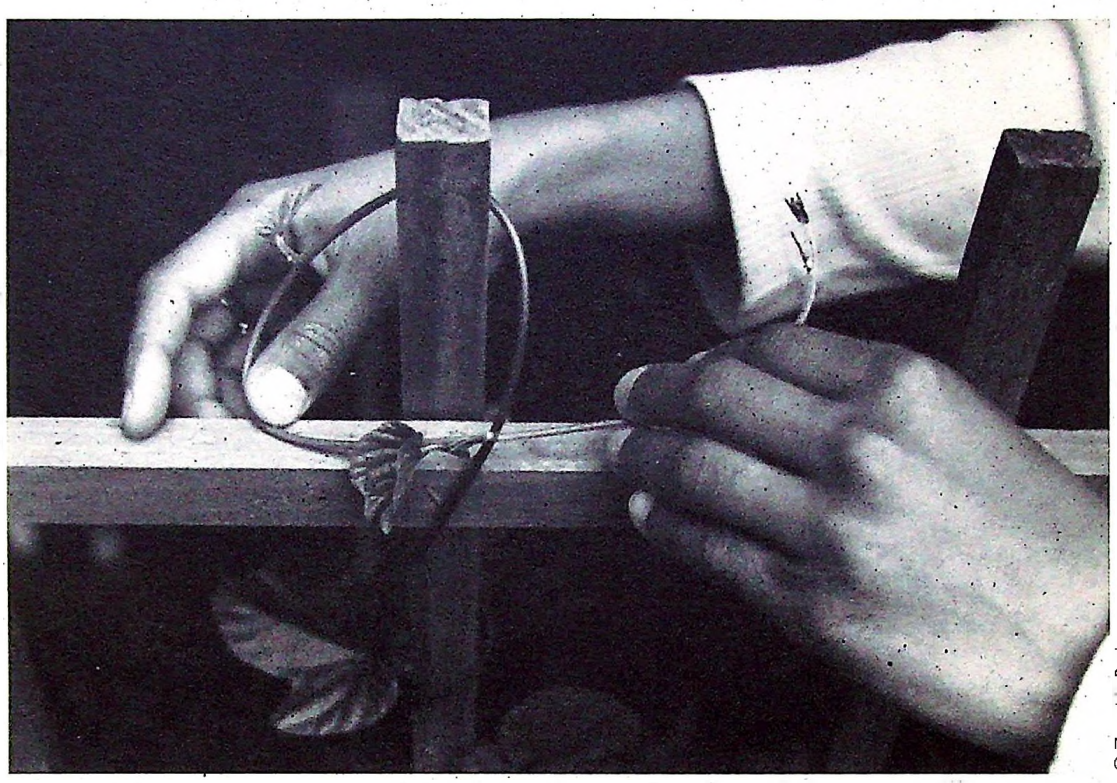
Working Systemically

Food Systems Project



© Zenobia Barlow

The Food Systems Project is working to improve the health of children and families in the Berkeley Unified School District by:

- supporting a garden classroom in every school in the district,
- developing a district-wide food systems-based curriculum,
- improving food access and nutritional health in the BUSD child nutrition service,
- linking family farms to schools,
- tackling food related public policy issues,
- supplying leadership and support for the Berkeley Food Policy Council.

The Food Systems Project has been designated as a Pilot Project of the USDA "Farm to School Initiative," which supports direct relationships between farms and schools.

Transforming the School Nutrition Service

The Food Systems Project is linking the Berkeley Unified School District to family farms practicing sustainable agriculture on the urban fringe. The inclusion of fresh, locally grown produce raises the quality of the food served in the school nutrition program. For local farmers, the institutional buying power of the school district has the potential to sustain farming as a way of life in the region.

The Berkeley Child Nutrition Service works with 15 schools, from elementary to high school. The district serves approximately 9400 children and touches the lives of thousands of families. When the BUSD purchases an apple a day for its students from local sustainable agriculture, local farmers acquire a nearby dependable market without incurring marketing or advertising costs. A single school district can rescue a local apple industry from extinction.

The project has networked with parents and educators to redesign the school lunch menu. Corporate advertising for video games and television has been removed and replaced with a monthly letter from the district superintendent on topics such as the importance of sound nutrition to growing children and the value of eating a good breakfast before school.

The new menu offers a fresh fruit or vegetable choice with lunch and a vegetarian entree choice daily. It has included the schedule for farmer's markets in the neighborhood and a "Parent's Corner" question and answer column responding to inquiries about the meal program and nutrition.

The goal is to ensure that meals served at school are part of the overall education of students, with lessons on food production, nutrition, preparation, waste reduction and composting.

As a pilot project of the USDA, the Food Systems Project, (a project of the Center for Ecoliteracy), "Farm to School Initiative," provides a classic "win-win" situation for community residents because projects like this help farmers stay in business and protect open space. The schools benefit because they obtain nutritious food at affordable prices, and students benefit because they are served fruits and vegetables that are so fresh they are more likely to eat and enjoy them.

Joel Berg
Coordinator of Community Food Security
U.S. Department of Agriculture

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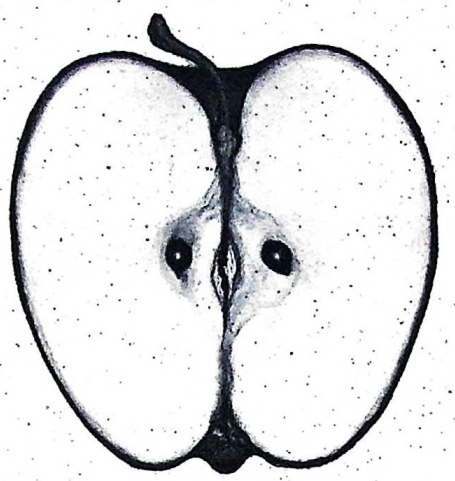


BERKELEY UNIFIED SCHOOL DISTRICT
FOOD POLICY

Responsibilities

The Board of Education recognizes the important connection between a healthy diet and a student's ability to learn effectively and achieve high standards in school. The Board also recognizes the school's role, as part of the larger community, to promote family health, sustainable agriculture and environmental restoration.

The Board of Education recognizes that the sharing of food is a fundamental experience for all peoples; a primary way to nurture and celebrate our cultural diversity; and an excellent bridge for building friendships, and inter-generational bonds.

Mission

The educational mission is to improve the health of the entire community by teaching students and families ways to establish and maintain life-long healthy eating habits. The mission shall be accomplished through nutrition education, garden experiences, the food served in schools, and core academic content in the classroom.

Goals

1. Ensure that no student in Berkeley is hungry.

2. Ensure that a healthy and nutritious breakfast, lunch and after school snack is available to every student at every school so that students are prepared to learn to their fullest potential.

3. Eliminate the reduced-price category for school lunch, breakfast and snacks, so that all low-income children have healthy food available at no cost.

4. Ensure that all qualified children become eligible for free meals by frequently checking with Alameda County Social Services.

5. Ensure maximum participation in the school meal program by developing a coordinated, comprehensive outreach and promotion plan for the school meal programs.

6. Shift from food-based menu planning to nutrient-based planning (as set forth under USDA guidelines) to allow for more flexible food selection.

7. Ensure that the nutritional value of the food served significantly improves upon USDA Dietary Guidelines by providing nutritious, fresh, tasty, locally grown food that reflects Berkeley's cultural diversity.

8. Ensure that the food served shall be organic to the maximum extent possible, as defined by the California Certified Organic Farmers.

9. Eliminate potential harmful food additives and processes, such as bovine growth hormones, irradiation, and genetically modified foods.

10. Serve meals in a pleasant environment with sufficient time for eating, while fostering good manners and respect for fellow students.

11. Maximize the reduction of waste by recycling, reusing, composting and purchasing recycled products. Each school site shall have a recycling program.

12. Ensure that a full service kitchen will be installed at school sites where public bond money is expended to repair or remodel a school.

Strategies

A. Integration into the Curriculum

1. Integrate eating experiences, gardens, and nutrition education into the curriculum for math, science, social studies and language arts at all grade levels.

2. Establish a school garden in every school. Give students the opportunity to plant, harvest, prepare, cook and eat food they have grown.

3. Establish relationships with local farms. Encourage farmers and farm workers to come to the school classroom and arrange for students to visit farms.

B. Student Participation

1. Solicit student preferences in planning menus and snacks through annual focus groups, surveys, and taste tests of new foods and recipes.

2. Ensure that 5 students are represented on the Child Nutrition Advisory Committee.

C. Waste Reduction

Sustainable Communities

The Center for Ecoliteracy is dedicated to fostering the experience and understanding of the natural world in educational communities. In providing support to educators, we empower them to help children learn the values, knowledge, and skills that are crucial to building and nurturing ecologically sustainable communities.

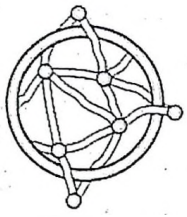
In our efforts to build and nurture sustainable communities we can learn valuable lessons from ecosystems, which themselves are sustainable communities of plants, animals, and microorganisms. Being ecologically literate means understanding the basic patterns and processes by which nature sustains life and using these core concepts of ecology to create sustainable human communities, in particular, learning communities.

Applying this ecological knowledge requires systems thinking, or thinking in terms of relationships, connectedness, and context. Ecological literacy means seeing the world as an interconnected whole. Using systems theory, we see that all living systems share a set of common properties and principles of organization. Thus we discover similarities between phenomena at different levels of scale—the individual child, the classroom, the school, the district, and the surrounding human communities and ecosystems. With its intellectual grounding in systems thinking, ecoliteracy offers a powerful framework for a systemic approach to school reform.

Fritjof Capra
Chair, Board of Directors
Center for Ecoliteracy

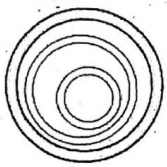
Principles of Ecology

Core concepts in ecology that describe the patterns and processes by which nature sustains life.



NETWORKS

All members of an ecological community are interconnected in a vast and intricate network of relationships, the web of life. They derive their essential properties and, in fact, their very existence from these relationships.

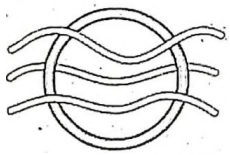


NESTED SYSTEMS

Throughout nature we find multi-leveled structures of systems nesting within systems. Each of these forms an integrated whole within a boundary while at the same time being a part of a larger whole.

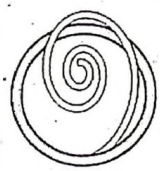
CYCLES

The interactions among the members of an ecological community involve the exchange of energy and resources in continual cycles. The cycles in an ecosystem intersect with larger cycles in the bioregion and in the planetary biosphere.



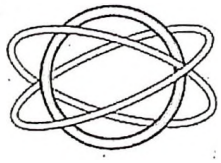
FLOWS

All organisms are open systems, which means that they need to feed on a continual flow of energy and resources to stay alive. The constant flow of solar energy sustains life and drives all ecological cycles.



DEVELOPMENT

The unfolding of life, manifesting as development and learning at the individual level and as evolution at the species level, involves an interplay of creativity and mutual adaptation in which organisms and environment coevolve.



DYNAMIC BALANCE

All ecological cycles act as feedback loops, so that the ecological community regulates and organizes itself, maintaining a state of dynamic balance characterized by continual fluctuations.

About the Center for Ecoliteracy

MISSION STATEMENT

The Center for Ecoliteracy is dedicated to fostering experience and understanding of the natural world.

A public foundation, the Center for Ecoliteracy (Center) supports educational organizations and nurtures communities in schools that teach and embody ecologically sustainable ways of life. The Center acts as a grant-making organization, sponsors donor-advised funds, and shelters projects consistent with its mission.

CENTER FOR ECOLITERACY NETWORK

We convene our network of grantees in an ongoing cycle of seasonal retreats and educational experiences. The Edible Schoolyard project is one vital node in this vibrant network of schools exploring the natural world and its enriched contexts for learning.

LEARNING IN THE REAL WORLD®

The Center acts as a publishing resource under the imprint, Learning in the Real World®. As a publishing resource, the Center provides consultation, editorial, design, and production services, and access to the Center's growing archive of photographic images of children learning in the real world.

PUBLICATIONS

The Edible Schoolyard is the second in a series of publications that illustrate diverse efforts in fostering ecological literacy through gardening, cooking, sustainable agriculture, and habitat restoration.

Getting Started: A Guide To Creating Gardens as Outdoor Classrooms. The tried and true techniques presented here are based on Life Lab Science Program's 20 years of experience in helping teachers establish school gardens. Lavishly illustrated with delightful black-and-white photographs of children engaged in the exploration of their gardens, this informative booklet covers everything from outdoor classroom design and site selection, to strategies for gardening with students, to creating community support that will sustain a school garden program. The Center provided Life Lab Science Program with design and production services and the use of images from its photographic library. *Getting Started* was selected by the California Department of Education as a key resource in support of the Department's vision of "a garden in every school."

Ecoliteracy: Mapping the Terrain. Using a Bay Area watershed restoration project funded by the Center as context, this book of collected essays by Fritjof Capra, David Orr, Jeannette Armstrong, and others brings breadth and depth to what is meant by "fostering ecoliteracy." The essays address

the "process of fostering ecoliteracy" from different perspectives, including systems theory, systemic school reform, and an ages-old technique perfected by indigenous people for building sustainability principles into community process. Vivid images capture the enthusiasm of the children exploring their local watershed.

SELECTED PROJECTS

Berkeley Food Systems Project. The Edible Schoolyard has inspired, and been inspired by, the district-wide Berkeley Food Systems Project, an effort to revitalize the Berkeley Unified School District (BUSD) food service, create a garden in every school, implement innovative food-related curriculum, and increase reliance on regional sustainable agriculture. With 85% of farms facing extinction on the edges of urban sprawl, linking schools to farms will, in author Wendell Berry's words, "solve for pattern." The Berkeley alliance is exploring solutions that work harmoniously with the regional food system.

Learning in the Real World. This non-profit organization in Woodland, California, was established "to create a mainstream debate regarding the use of computers and other 'educational technology' in the classroom." Learning in the Real World analyzes and distributes information that encourages rational decisions about when and where education technology is a positive tool for children and when it detracts from their development. It also provides research grants to university investigators in the areas of educational performance and cognitive development.

For additional information and to place orders, please contact:

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ABOUT THE CENTER FOR ECOLITERACY

The Center for Ecoliteracy is a public foundation that operates a grantmaking program, convenes networks of its grantees, shelters projects consistant with its mission, sponsors donor-advised funds, and manages a communications strategy, including the publishing imprint Learning in the Real World®.

MISSION

The Center for Ecoliteracy is dedicated to education for sustainable living by fostering a profound understanding of the natural world grounded in direct experience.

We recognize "ecological literacy" as a central aspect of the collective wisdom that enables a community to live sustainably, reproducing its patterns of living over time without diminishing nature's inherent ability to sustain life.

VISION

The Center for Ecoliteracy supports school communities and educational organizations in creating contexts in which children learn the values and gain the knowledge and skills that are essential to creating ecologically sustainable communities. Our vision is to discover, with educators, ways to reconnect children to the natural world.

SELECTED PROJECTS

The STRAW Project
(Students and Teachers Restoring A Watershed)

The STRAW Project coordinates and sustains a network of teachers, students, specialists, and community members planning and implementing riparian studies and restoration projects in Marin and Sonoma counties. STRAW provides students and teachers with scientific, educational and technical resources that prepare them for hands-on outdoor watershed studies, including the ecological restoration of riparian corridors. STRAW's goals include fostering ecological literacy, empowering students, supporting teachers, reconnecting communities and restoring the environment.

The Food Systems Project

The Food Systems Project uses a whole systems approach to learning, linking children's health, school meal programs and family farms to education for sustainable patterns of living. The core elements of the project include: supporting instructional gardens, developing food systems-based curriculum, improving food access and nutritional health in child nutrition services, linking family farms to schools, and tackling food related public policy issues. The Center and its Food Systems Project also convene the Fertile Crescent Network, bringing together food systems related grantees and their allies from counties in northern California.

Learning in the Real World®
Educational Networks

The Center for Ecoliteracy selects and supports whole schools committed to environmental project-based learning, curriculum integration using ecological themes, a dedication to shared leadership, and a connection to the larger community and ecosystem in which the school is embedded. Educational leaders from schools are convened in networks and supported by professional development programs.

PUBLICATIONS from
Learning in the Real World®

Getting Started: A Guide for Creating School Gardens as Outdoor Classrooms, published in collaboration with Life Lab Science Program, is a step-by-step guide for creating a healthy, productive garden that serves as an educational environment for students.

The Edible Schoolyard guides the reader through the challenges of starting an innovative garden or watershed project within the framework of the public school, illustrating diverse efforts in fostering ecological literacy through gardening, cooking, sustainable agriculture, and habitat restoration.

Ecoliteracy: Mapping the Terrain, offers a comprehensive look at ecological literacy, using the STRAW project, a Bay Area watershed restoration and K-12 education project, as its focus.

Each publication is illustrated with vibrant images from the Center for Ecoliteracy's Learning in the Real World® Image Bank.

The Edible Schoolyard and *Getting Started* have been selected by the California Department of Education as key resources in support of the Department's Vision of "A Garden in Every School". These two publications are currently available free of charge through the California Department of Education Press; for more information call (916) 445-0850.

WEBSITE
www.ecoliteracy.org

For more information on the Center for Ecoliteracy, funding guidelines, in-depth project descriptions, and an explanation of the conceptual framework of ecological literacy, please visit our website at www.ecoliteracy.org. The website includes articles, K-12 curriculum resources, links to like-minded organizations, and the opportunity to subscribe to an online quarterly newsletter filled with useful information, beautiful images and inspiring stories from our Ecoliteracy network of grantees.

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Ecoliteracy: Practicing a Systemic Approach to Education

by Sandy Neumann

Program Officer for Education

Center for Ecoliteracy

Education in our time should aim at nothing less
than the renewal of wisdom, the rebirth of gratitude,
and the recovery of a sense of beauty
large enough to embrace esthetics and justice.

—David W. Orr

There is widespread recognition that the educational system in the United States needs to change. There are broad recommendations outlining what students need to know and be able to do at various points in their academic careers. However, there is no widespread consensus that provides a long-standing basis for coherent action in schools to accomplish this reform. To further challenge the reform effort, each school community has its own set of conditions that must be considered when designing a plan for whole school change. However, one generalization that can be made about school communities is that they are made up of multiple interconnected systems and the more we look at these systems, the more complex they appear. Thinking systemically to affect school change is a new way of thinking about schools. As Ann Lieberman and Lynn Miller, two noted specialists in teacher development and school reform, have pointed out, "Teachers are learning that any change, whether it focuses on the whole school or on one grade level, never remains only one change. It is transformed into many changes

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taking place at the same time. This kind of thinking is not intuitive for people who have been thinking in terms of *my* classroom and *my* kids for most of their professional lives. Thinking systemically needs to be learned." (Lieberman & Miller, 1999).

In 1992, I was Principal of Brookside School, a suburban elementary school of 550 students and 26 full time teachers, in California's Marin County. Trying to find a balance between state mandates for higher test scores and meaningful learning experiences for our students, we found ourselves engaged in a systemic approach to our school reform effort. Initially, it began with a grant from a local foundation. As we would find out, that path was not a straight one. While there are many approaches one can take to initiate the work of reform, we chose an approach that emphasized active learning and shared decision-making while reaching a higher level of academic achievement. We began a daunting, yet exciting, journey.

COMMUNITY OF LEARNERS

In 1990, Brookside received funding from the Marin Community Foundation for a Collaborative Learning Community Initiative. Initially, we used the funding to provide time for collaborative planning to build a sense of community within our school. The goal was to have a community of peers, each with his or her own special talents, and to establish strong bonds with each other. Staff was empowered to demonstrate their leadership. I invited each staff member to share with me what their vision and purpose was in education. There were dual objectives here: to build trust and respect, which in

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turn would create the type of environment that would encourage teachers to engage in active dialogue, and to offer differing opinions, which provided multiple perspectives.

It is generally accepted that informing new ways of teaching and learning takes time. (Loucks-Horsley et al., 1998). This type of reform does not happen as the result of a day-long workshop or even multiple-day institutes. It requires creating new understandings, active participation, and reflection. While it is not necessary to turn the whole system upside down to achieve this, it is important to turn the perception of the role of teacher as content-deliverer upside down. Current school reform emphasizes the role of the teacher as one in which there is less emphasis on transmission of knowledge and skills through lecture and more emphasis on learning through inquiry. As such, learning to teach does not end with college graduation—it becomes a lifelong professional endeavor. To provide reflection and planning time that is needed to bring about these changes, Brookside used substitute teachers to provide classroom teachers time for grade-level meetings. One requirement was that the grade-level groups report on their work to the whole staff so that everyone was kept informed of the progress we were making.

We were also determined that in our collaborative learning community, we would become a systemic group of learners that included the Brookside parent community, the teachers, and the students. Together, we would become active learners. Reform efforts have shown that if parents are kept informed of the need to change as well as the nature of the change, they become strong advocates and can help the reform effort by supporting their children to learn in new ways. (Loucks-Horsley et al., 1998).

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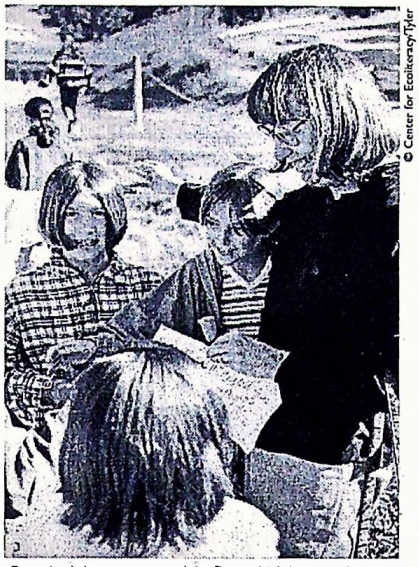
SEEKERS OF MEANING

We know from brain research that humans are seekers of meaning. As educators, we can ask the open-ended questions that elicit other questions—questions that engage—or we can go in the opposite direction and believe we already have all the answers. Renate and Geoffrey Caine, learning and education researchers who developed the principles of brain/mind learning, stress the importance of experiential learning. Their approach suggests designing integrated curriculum that emphasizes contextual knowledge in which subject areas are perceived as resources in the service of a central focus. At Brookside, we used environmental project-based learning as the way in which teachers could achieve this integration. Students were engaged in learning experiences in complex, real-world projects through which they developed and applied skills and knowledge. Author and systems theorist, Fritjof Capra advocates that "learning in the real world aids the development of both the individual student and the school community, and it is one of the best ways for children to contribute to building a sustainable future."

From the start, what drove much of our work at Brookside was our school mission and our clear vision for the school. This began with a desire to create a learning community with shared leadership. Slowly the system began to change from a traditional top-down, hierarchical one to a system in which staff, students, parents, and other community members were included as active participants in the leadership and networks of the school. With this type of system in place, everyone shares information that improves the organization and builds up the community.



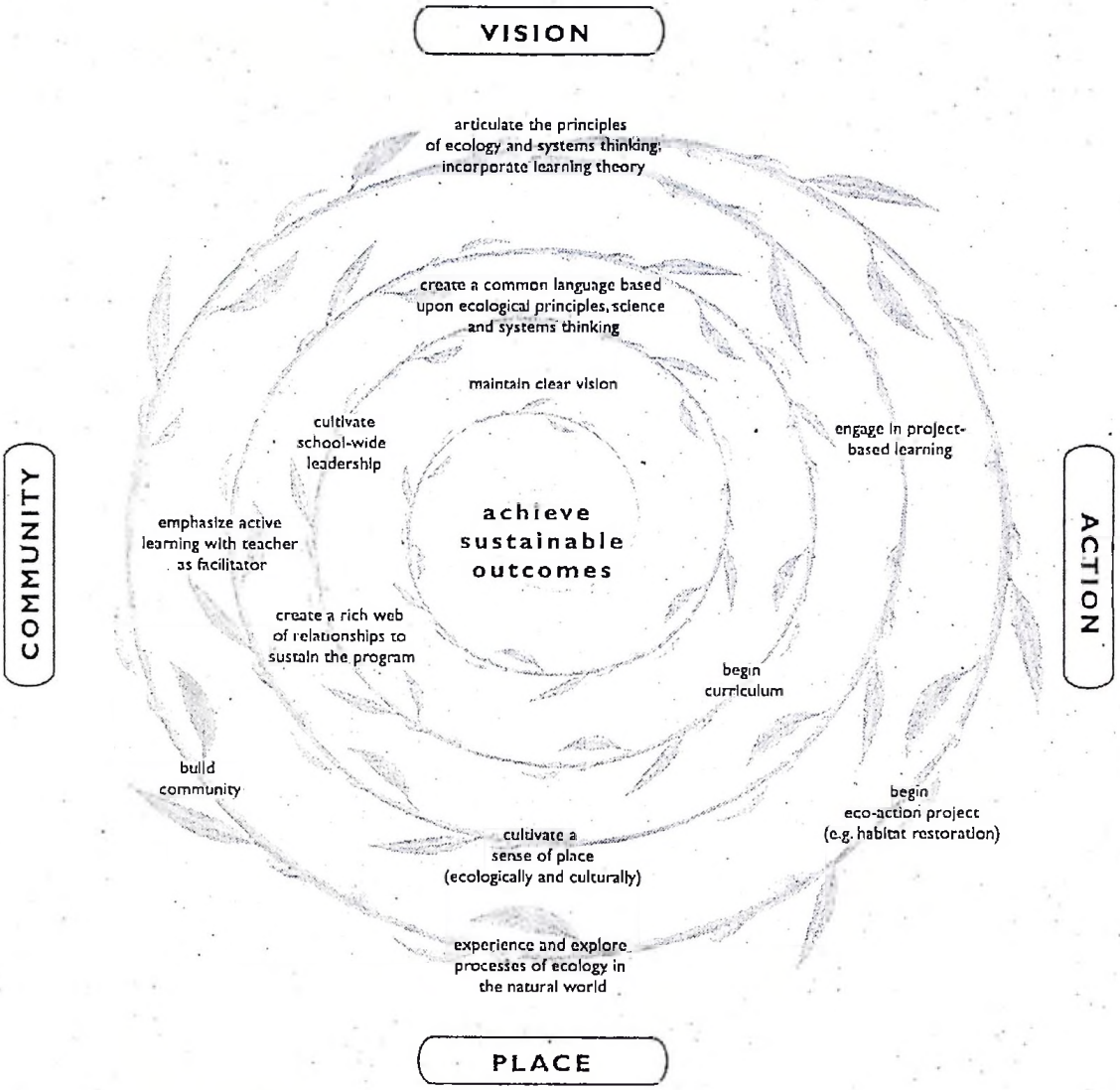
Sandy Neumann with Brookside students.

ENVIRONMENTAL PROJECT-BASED LEARNING

Changing a school system takes time. Researchers in school reform encourage an early focus on management and a later focus on student learning (Loucks-Horsley, 1996). About two years into the process of nurturing this learning community, Brookside began to use environmental project-based learning. Using this strategy with students encourages them to learn on their own while teachers facilitate the learning —from academic to organizational to social—that students will need to handle whatever may arise from their projects.

Additionally, environmental project-based learning allows curriculum integration. Fritjof Capra observes that "teachers, students, administrators, and parents are all interlinked in a network of relationships, as they work together to facilitate learning. The teaching does not flow from the top down, rather there is a cyclical exchange of information. The focus is on learning and everyone in the system is both a teacher and a learner. Feedback loops are intrinsic to the learning process and feedback becomes the key purpose of assessment. Systems thinking is crucial for understanding the functioning of learning communities." (*Understanding Living Systems,* unpublished manuscript).

Teachers in grade-level team meetings planned how to integrate their projects into the curriculum, looking at grade-level frameworks and state standards to see how they incorporated into the project. In all the environmental project-based learning that we did at Brookside, there were at least three different subjects integrated from the areas of language arts, science, math, social studies, art, or community studies. The prospect



Mapping the Terrain of Brookside School Reform

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of making environmental project-based learning the central focus of Brookside's school reform efforts was controversial among many of the staff. We spent a year debating various aspects of the proposal as we created our vision. In fact, it was during these discussions that Laurette Rogers and her fourth-grade class began the Shrimp Project, their watershed restoration to save the endangered California Freshwater Shrimp. In a sense, the Shrimp Project became a laboratory for testing our thoughts and expectations about project-based learning. Laurette generously shared her successes and mistakes with staff. Over the next few years, as we designed and implemented various projects, we became convinced that when students are problem solvers and learn how to use group process to accomplish tasks, everyone, including the teacher, becomes a learner and participant. In this way, learning has true meaning.

CONNECTING TO PLACE

In 1996, Brookside received a grant from the Center for Ecoliteracy to create an environmental project-based learning program, providing our students the opportunity to directly experience the natural world around them. Professor of Environmental Studies at Oberlin College and writer David W. Orr laments that, "other than as a collection of buildings where learning is supposed to occur, place has no particular standing in contemporary education. . . a great deal of what passes for knowledge is little more than abstraction piled on top of abstraction, disconnected from tangible experience, real problems, and the places where we live and work. . .Place is nebulous to educators because to a great extent we are a displaced people for whom our immediate places are no longer sources of food, water, livelihood, energy, materials, friends, recreation, or sacred inspiration." (Orr, 1992).

Rather than add more layers of curriculum to study place, we incorporated a sense of place into the work we were doing. Through environmental project-based learning we were able to combine intellectual growth with real-life experience. Learning takes place both inside and outside the school. Students learned from the creek that flows through the school campus and the gardens on the school grounds. Their learning focused on themes such as diversity, cycles, and interdependence. Students became familiar with our local landscape; they learned the names and habits of our flora and fauna. They adopted special spots on the school grounds to observe and chronicle the seasons. We invited members from the local community to share their knowledge and history of our place. The students grew to understand the place where they lived.

They also gained much more than an intellectual understanding of place. Through our projects we had opportunities for experiential learning. The Shrimp Project students worked on a tangible problem—restoration of a habitat to help save an endangered species, and we all learned in the process—students, parents, teachers, community members—to reinhabit our places, restoring context to our lives in the process.

What began as the effort of one class to help save an endangered freshwater shrimp has evolved into the STRAW Project (Students and Teachers Restoring a Watershed). Laurette Rogers, the teacher that originated the project in her 4th grade classroom at Brookside, is now the Director of the expanded program. STRAW, a project of the Center for Ecoliteracy and The Bay Institute, is an extraordinary collaboration of organizations dedicated to restoring watersheds. These partners share a common vision of sustainability and concern for our children and their future.

Over 100 classes participate in mapping riparian terrain, testing water quality, researching riparian wildlife populations, clearing creek debris, and implementing public education campaigns to clean up watersheds. As students come to understand their relationship to natural systems and cycles, they gain a useful context for understanding sustainable and equitable patterns of living.

In order to create sustainable communities there is a need to understand our place in nature, including watersheds, ecosystems, and the cycles of life. Through working together to restore this watershed we have renewed one another's sense of place and belonging.

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1. Ensure that cafeterias are part of the environmental education of students and staff through reducing waste, composting, recycling and purchasing recycled material.

D. Sustainable Agriculture

1. Purchase food from school gardens and local farmers as a first priority, based on availability and acceptability. Child Nutrition Services will coordinate its menus with school garden production and provide to garden coordinators a list of the produce it wishes to purchase.

2. Work with the Alameda County Cooperative Bid (13 school districts) to increase the amount of products purchased from local farms and organic food suppliers.

E. Nutrition Education and Professional Development

1. Provide regular professional development to enable the Food Services Staff to become full partners in providing excellent food for our students.

2. Provide regular training, at least annually, to teachers and the Food Service Staff on basic nutrition, nutrition education, and benefits of organic and sustainable agriculture.

3. Provide Child Nutrition Services with USDA approved computer software, training and support to implement nutrient-based menu planning.

F. Business Plan

1. The Board of Education shall do a comprehensive cost/benefit analysis and business plan. The plan shall include an examination of different development models of increased fresh food preparation at the central and satellite kitchens.

G. Public Information

1. Each year in March, Child Nutrition Services shall prepare The Director's Annual Report for the Board of Education, which will include:
   a) Description of the level of service for each site and level of participation;
   b) Profit and Loss Statement for the past fiscal year;
   c) Outreach and Promotion Marketing Plan (with assistance from Advisory Committee);
   d) Budget for the future year;
   e) Report on the progress in meeting the food policy goals;
   f) Nutritional quality of the food being served;
   g) Inventory of equipment;
   h) Budget for maintenance and replacement equipment;
   I) Accounting of Child Nutrition Services' financial reserve and a budget allocating the reserve.

2. The Berkeley Unified School District's Food Policy, Director's Annual Report, Monthly Menus and food policy information shall be available at District Office and on the Board of Education's Web site.

3. A summary of the Director's Annual Report shall be distributed as part of the April and May menus.

H. Public Policy

1. Advocate for label disclosure:
   a) Request State and Federal representatives support legislation that will clearly label food products that have been irradiated, genetically modified or have been exposed to bovine growth hormones.
   b) Send a Board of Education resolution requesting support for labeling legislation to:
      1.) Every School Board in the State of California.
      2.) The State School Boards Association.
      3.) The Nation School Boards Association.

I. Establishment of a Child Nutrition Advisory Committee

1. Child Nutrition Advisory Committee shall be established to discuss food-related topics of concern to the school community and help make policy recommendations to the Board of Education.

2. The 24 Member Child Nutrition Advisory Committee shall be as follows:
   a) 10 Community/Parent representatives appointed by the Board of Education
   b) The Superintendent.
   c) The Director of Child Nutrition Services.
   d) 3 Classified employees appointed by their employee organization.
   e) 3 Teachers (elementary, middle and high school) appointed by their employee organization.
   f) 1 Principal appointed by their employee organization.
   g) 5 Students (3 middle school and 2 high school) appointed by student government

3. The Advisory Committee shall meet at least six times a year at hours convenient for public participation.

4. The Duties and Responsibilities shall be as follows:
   a) Present to the Board of Education an Annual Report in April of each year on the status of meeting the food policy goals. The report shall contain:
      1.) Review and comment on the Director's Annual Report, Profit and Loss Statement, Marketing Plan and Business Plan.
      2.) Recommendations for improving the delivery and cost effectiveness of food services.
   b) Assist the Director of Child Nutrition Service in the development and implementation of the Outreach and Promotion Marketing plan.
   c) Review and report by February 1 to the Board of Education on recommendations to eliminate potentially harmful food additives and processes.
   d) Make periodic reports, as the Advisory Committee deems necessary.
   e) Establish rules for decision-making.

J. Maintenance and Repair of Equipment

1. The Board of Education instructs the Maintenance Committee to include kitchen facilities, food preparation and storage of equipment as high priority in its comprehensive maintenance policy.

2. Modernize computer equipment and programs, and institute an automated accounting system.

K. Community Use of School District Property

1. District facilities, including school kitchens shall be available to community based groups for their use and enjoyment under terms established by the Board of Education.

A copy of this document is available at www.ecoliteracy.org.

A Garden in Every School

The garden classroom is an ideal setting in which students begin to understand the complexities of natural systems and the need to conserve resources. The Project calls for the creation of a garden classroom in every school in the Berkeley Unified School District, and the integration of a curriculum which promotes awareness of the relationship between the way food is grown, the environment, and health.

An integrated curriculum utilizes the garden as a context for teaching subject matter in the state frameworks. Math, history, science, literature, writing, art and music—all can be associated with activities in the garden and these subjects can be enriched and anchored by the energy and excitement found in the garden classroom.

Through studying the entire food system, from seed to plate, students come to understand how food reaches the table and the relationship of agriculture and environment. The garden classroom is used to illustrate cycles and systems, such as soil fertility, waste cycles, and watersheds.

As students come to understand their relationship to natural systems and cycles, they can begin to form a context for more sustainable and equitable patterns of living. Key to this understanding is the little garden at the school and the lessons it has to teach.

The partners in this effort share a common vision of sustainability and concern for our children and their future. They recognize a need to understand our place in nature, and to know more about food and ecosystems and the cycles of life in order to create sustainable communities.

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The study of ecology is,

very essentially,

a study of relationships.

Traditionally in science,

we have tried to weigh

and measure things,

but relationships cannot

be measured and weighed;

relationships need

to be mapped.

Fritjof Capra,
Systems theorist, author, and a founding director of the Center for Ecoliteracy

I have the audacity

to believe that peoples

everywhere can have

three meals a day

for their bodies,

education and culture

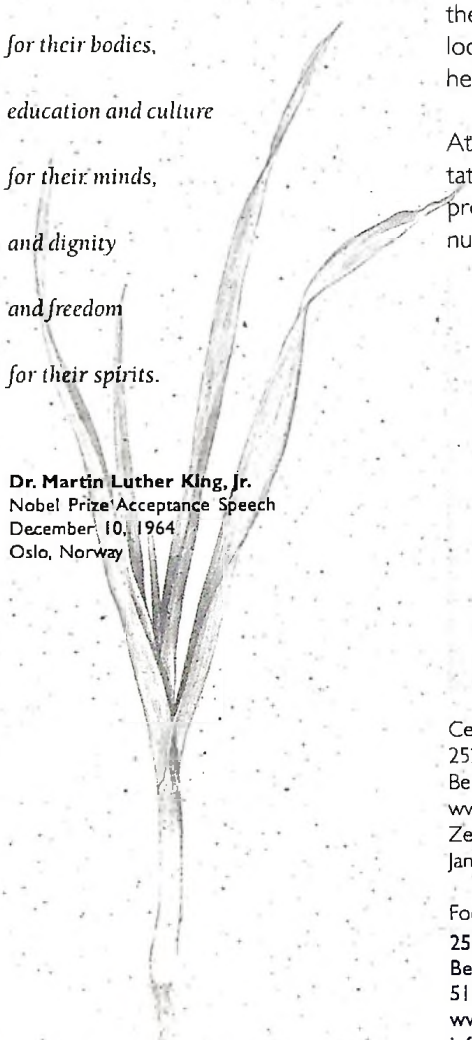
for their minds,

and dignity

and freedom

for their spirits.

Dr. Martin Luther King, Jr.
Nobel Prize Acceptance Speech
December 10, 1964
Oslo, Norway



Public Policy Initiatives

The Project works at multiple levels to bring about policy changes which affect regional food systems. Through the leadership of former Assemblyman Tom Bates and other community leaders at the school district level, the Berkeley Unified School District Board of Education has drafted a food policy which guides its school nutrition service. The premier goal of that policy is "to ensure that no student in Berkeley is hungry". In order to achieve that goal, the district is preparing to serve a healthy and nutritious breakfast, lunch and after school snack daily to every student at every school, regardless of ability to pay. The district has proposed that meals served at school exceed current dietary guidelines and are nutritious, fresh, tasty, organic, locally grown and reflective of Berkeley's cultural diversity.

At the municipal level, the Food Systems Project has assisted in the formation of a Berkeley Food Policy Council to assess the state of the local food system and to provide a framework for action for local government regarding issues of hunger, access and nutritional health.

At the state and federal levels, the project is working with representatives of the state and regional federal offices of the USDA solving problems collaboratively around policies which affect the school nutrition service, low income residents, and family farms.

Berkeley Unified School District Food Policy

"The BUSD Board of Education recognizes the important connections between a healthy diet and a student's ability to learn effectively and achieve high standards in school. The Board also recognizes the school's role, as part of the larger community, to promote family health, sustainable agriculture and environmental restoration. BUSD's educational mission is to improve the health of the entire community by teaching students and families ways to establish and maintain lifelong healthy eating habits through nutrition education, experiences in the garden and the food served in schools."

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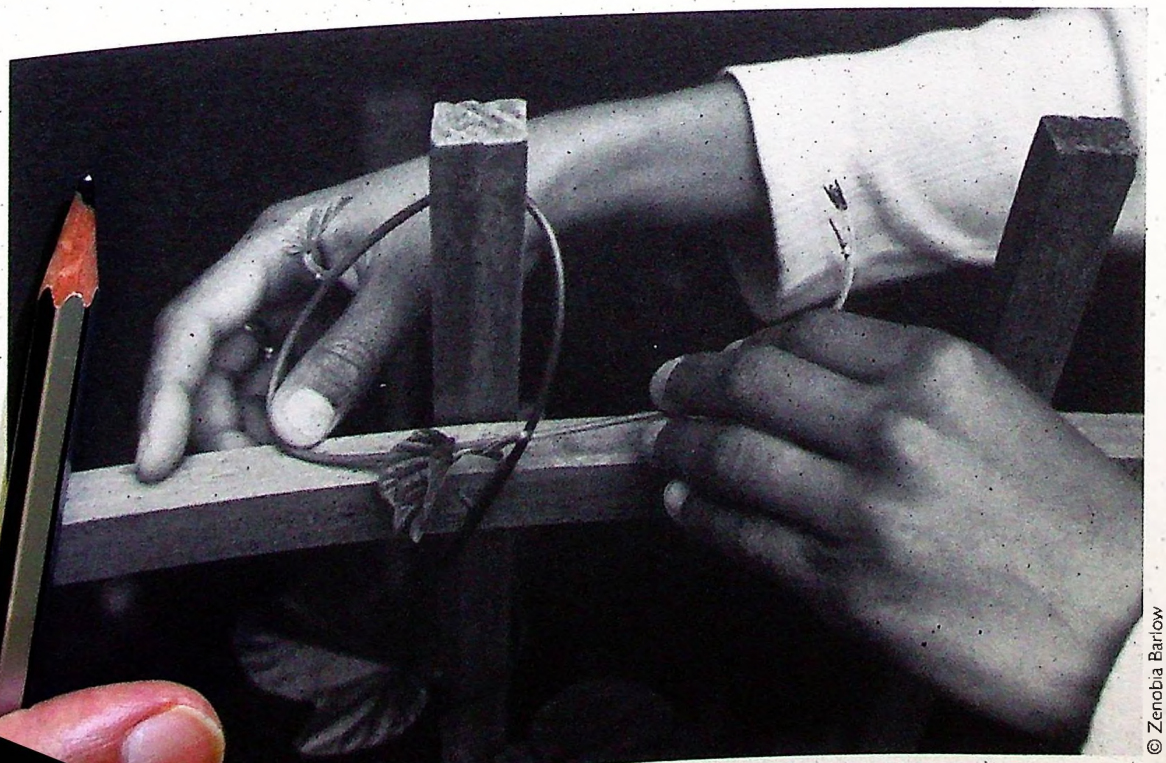
Working Systemically

Food Systems Project



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ect is working to improve the health of children and families in the
rict by:

m in every school in the district,
ems-based curriculum,
lth in the BUSD child nutrition service,

Council.

School