

## **ACTIVITIES, LESSONS, BACKGROUND INFORMATION**

### **Biology for Every Kid: 101 Easy Experiments that Really Work**

By Janice VanCleave

A book for young readers, parents and teachers that teaches the basic principles of biology through fun and educational experiments.

Published by John Wiley & Sons, Inc.

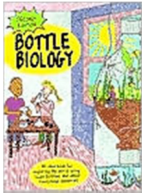
### **Botany on Your Plate: Investigating the Plants We Eat**

By Katherine D. Barrett, Jennifer M. White, Christine Manoux

A life science unit for grades K-4 that inspires children to explore the fascinating realm of plants we eat.

Published by the National Gardening Association, Burlington, Vermont.

### **Bottle Biology**



By Mrill Ingram

Uses recyclable containers as building blocks that can be put together to form any number of bottle systems to explore science, nature, and the environment.

Bottle Biology Project

[www.bottlebiology.org](http://www.bottlebiology.org)

### **Growing Food: Farm to Table and Beyond**

By Pamela A. Koch, Angela Calabrese Barton, and Isobel R. Contento

Linking food and the environment, an inquiry-based science and nutrition program.

Published by the Teachers College of Columbia and the National Gardening Association.

### **Nature with Children of all Ages**

By Edith Sisson

Activities and adventures for exploring, learning, and enjoying the world around us.

Prentice-Hall, Inc.

### **No Student Left Indoors: Creating a Field Guide to Your Schoolyard**

By Jane Kirkland

A wonderfully organized resource for teachers to utilize the schoolyard as a classroom to explore nature. Stillwater Publishing.

### **The Private Eye**

By Kerry Ruef

A guide to developing the interdisciplinary mind, hands-on thinking skills, creativity, and scientific literacy.

The Private Eye Project, P.O. Box 646, Lyle, WA 98635.

[www.theprivateeye.com](http://www.theprivateeye.com)



### **Science Is ...**

By Susan B. Bosak

A source book of fascinating facts, projects and activities.

Published by Scholastic Canada LTD.

### **The Sense of Wonder**

By Rachel Carson

A book of words and pictures to help keep your child's inborn sense of wonder alive and renew your own delight in the mysteries of earth, sea and sky.

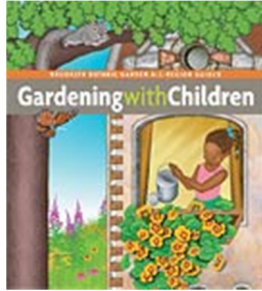
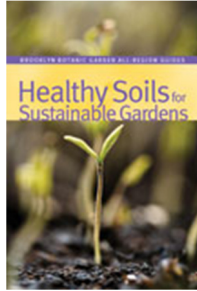
Published by Harper Collins.

**Ten-Minute Fieldtrips** A Teacher's Guide to Using the School Grounds for Environmental Studies  
By Helen Ross Russell  
Provides a framework to help urban young people see their world with positive eyes.  
National Science Teachers Association

### Brooklyn Botanical Garden

[http://shop.bbg.org/mm5/merchant.mvc?Screen=CTGY&Store\\_Code=BGGS&Category\\_Code=BBG](http://shop.bbg.org/mm5/merchant.mvc?Screen=CTGY&Store_Code=BGGS&Category_Code=BBG)

Great selection of "how to" books and articles.



### Discover Nature in the Garden: Things to Know and Things to Do

by Jim Conrad  
Pub. Date: April 1996  
Publisher: Stackpole Books  
ISBN-13: 9780811724425  
ISBN: 0811724425

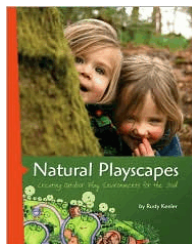


Presents garden life—from flowers and weeds to earthworms and moles—in remarkable detail, with information on anatomy, food webs, and ecology.

## OUTDOOR SPACES

### Natural Playscapes: Creating Outdoor Play Environments for the Soul

by Rusty Keeler



Pub. Date: September 2008  
Publisher: Exchange Press  
ISBN-13: 9780942702477  
ISBN: 0942702476

You can create extraordinary outdoor places for young children without highly complex play contraptions surrounded by a sea of wood chips or gravel... Places for children that tickle the imagination and surprise the senses... Places for young ones of all abilities to discover themselves and the world around them. This book is about a new movement in children's outdoor play areas, natural playscapes - Where the entire space and is filled with art, hills, pathways, trees, herbs, open areas, sand, water, music, and more... Where children find places to run, climb, dig, pretend, and hide, with opportunities to bellow or be silent.

**Earthplay** [http://www.earthplay.net/store\\_book\\_nat\\_playscapes.html](http://www.earthplay.net/store_book_nat_playscapes.html)

We believe that children should be surrounded by beautiful environments filled with nature, art and love. This website is designed to inspire you to create the natural playscape of your dreams.

**Natural Learning Initiative** <http://www.naturalearning.org/>

The purpose of the Natural Learning Initiative is to promote the importance of the natural environment in the daily experience of all children, through environmental design, action research, education, and dissemination of information.

### **Children, Spaces, Relations:**

#### **Metaproject for an Environment for Young Children**

Reggio Children and Domus Academy Research Center, Giulio Ceppi, Michele Zini, editors, 1998, Illus. softbound, 160 pp. Reflections on the tools of design, with indications regarding both the distribution of space and the "soft qualities" (light, color, materials, smell, sound, microclimate). The objective is to provide tools of analysis and practical indications for both the interior and exterior design of infant-toddler centers and schools for young children.



#### **Plants for Play: A Plant Selection Guide for Children's Outdoor Environments**

By Robin C. Moore

A reference volume for what plants to plant for what purpose (shade, climbing, play materials, etc.) and also includes a handy section on what not to plant (toxic!) Very helpful for parents and anyone responsible for outdoor play environments.

MIG Communications.

#### **Natural Learning: The Life History of an Environmental Schoolyard**

By Robin C. Moore and Herbert H. Wong

An important guidebook for teachers, administrators, designers, and parents on how to create, redevelop, and use naturalized schoolyards.

MIG Communications.

#### **Last Child Last in the Woods: Saving Our Children from Nature Deficit Disorder**

By Richard Louv

"...Child advocacy expert Richard Louv directly links the lack of nature in the lives of today's wired generation--he calls it nature deficit--to some of the most disturbing childhood trends, such as rises in obesity, Attention Deficit Disorder (ADD), and depression."

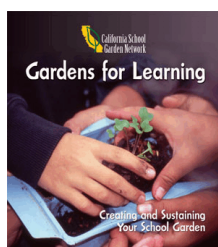
Algonquin Books of Chapel Hill.

## **SCHOOL GARDENS**

**California School Garden Network** <http://www.csgn.org/>

We and our partners represent a variety of state agencies, private companies, educational institutions and non-profit organizations all dedicated to the mission of creating and sustaining gardens in every willing school in California. The Network serves as a central organization to distribute school garden resources and support throughout the state.

### **Gardens for Learning - Creating and Sustaining Your School Garden**



Download the Complete PDF of **Gardens for Learning**

<http://www.csgn.org/page.php?id=36>

**Garden in Every School® Search** The National Gardening Association

<http://www.kidsgardening.com/school/searchform.asp>

Tens of thousands of schools internationally sport gardens, greenhouses, and schoolyard habitats that enrich learning. We have developed this Registry to document and highlight these projects. We invite you to use this search tool to find out what other school gardeners are up to and to make fruitful connections with those who share your interests.

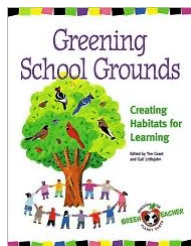
**The National Gardening Association** <http://assoc.garden.org/about>

A nonprofit leader in plant-based education. We serve a national audience with timely materials designed to foster an appreciation for the benefits of gardening. Our Mission: To promote home, school, and community gardening as a means to renew and sustain the essential connections between people, plants, and the environment.

**Roots and Shoots School Garden** <http://www.rootsnshoots.info/>

The Roots and Shoots School Garden opens for children the mysteries of nature - a sprouting seed, a blooming flower, the wonders of the earthworm, all the miracles and beauty of the natural world. The complete handbook available for purchase has everything you will need to know about implementing your own garden program. It is a hands-on, feet-first approach to a school garden where everyone can have a good time learning and working together. This is a great time saver for those who want to start a Roots and Shoots Garden. Order form available <http://www.rootsnshoots.info/>

**Greening School Grounds**



by Grant, Gail Littlejohn (Editor)  
Pub. Date: May 2001  
Publisher: New Society Publishers  
Format: Paperback, 144pp  
ISBN-13: 9780865714366  
ISBN: 0865714363

An outstanding anthology of twenty-three articles showcasing K-12 strategies for renewing and enhancing a physical environment conducive to children's learning processes and attitudes in Greening School Grounds: Creating Habitats for Learning. More than just a collective overview, the contributors offer a wealth of ideas and examples dealing with a wide range of projects including vegetable and butterfly gardens to an amphibian oasis and avian attractors.

U.S. Fish and Wildlife Service

**Schoolyard Habitat: Stewardship through Action**

<http://www.fws.gov/chesapeakebay/schoolyd.html>

Helps teachers and students create wildlife habitat on school grounds.

Habitat is the collective term for the food, water, shelter and nursery areas that all wildlife needs to survive. The loss of habitat is one of the greatest threats facing wildlife today.



**WEBSITES**

Agriculture in the Classroom

[www.agclassroom.org](http://www.agclassroom.org)

A grassroots program coordinated by the United States Department of Agriculture. Its goal is to help students gain a greater awareness of the role of agriculture in the economy and society, so that they may

become citizens who support wise agricultural policies. Offers teacher training and lesson plans about agriculture for grades pre-K-12.

California School Garden Network

[www.csgn.org](http://www.csgn.org)

Offers a publication *Gardens for Learning*; a comprehensive guidebook that provides a strong foundation to support the growing school garden movement.

Center for Ecoliteracy

[www.ecoliteracy.org/programs/index.html](http://www.ecoliteracy.org/programs/index.html)

Provides information, inspiration, and support to K-12 educators, parents, and others who are helping young people gain the knowledge, skills, and values essential to sustainable living.

Children & Nature Network

[www.childrenandnature.org](http://www.childrenandnature.org)

Created to encourage and support people and organizations working to reconnect children with nature. C&NN provides access to the latest news and research in the field and a peer-to-peer network of researchers and individuals, educators and organizations dedicated to children's health and well-being.

D.C. Schoolyard Greening

[www.dcschoolyardgreening.org/about/mission.html](http://www.dcschoolyardgreening.org/about/mission.html)

A program of the DC Environmental Education Consortium to increase and improve schoolyard green spaces to promote ecological literacy and environmental stewardship among students, teachers, parents and the surrounding community.

Edible School Yard

[www.edibleschoolyard.org/resources](http://www.edibleschoolyard.org/resources)

Provides resources to create and sustain an organic garden and landscape that is wholly integrated into the school's curriculum, culture and food program.

North American Association for Environmental Education

[www.eelink.net](http://www.eelink.net)

Pre-K to 12 resources for schoolyard ecology as well as environmental education classroom activities and lesson plans.

National Gardening Association

[www.kidsgardening.com](http://www.kidsgardening.com)

Provides a teacher resource room with lessons plans, a family resource room with activities, grant information and activities to engage children in the garden.

National Science Teacher Association

<http://science.nsta.org/earlyyearsblog>

Wonderful teacher blog through the website.

National Wildlife Federation

[www.greenhour.org](http://www.greenhour.org)

Offers inspiration and ideas for unstructured play and interactions with the natural world. A new activity is published every week to help guide exploration and focus on outdoor fun.

## **STATE AGENCIES**

Department of Conservation and Recreation

[www.dcr.virginia.gov/state\\_parks/ybc.shtml](http://www.dcr.virginia.gov/state_parks/ybc.shtml)

Offers *Your Backyard Classrooms* guide; a set of K-12 science and social studies activities tailored to the parks and can easily be adapted to the school yard. There are three editions: Chesapeake, Mountain and Piedmont. Each contains activities directly related to the natural environment in the region.

Department of Environment Quality  
[www.deq.state.va.us/education/resources.html](http://www.deq.state.va.us/education/resources.html)  
An extensive list of environmental education resources.

Department of Game and Inland Fisheries  
[www.dgif.virginia.gov/education](http://www.dgif.virginia.gov/education)  
Project WILD <http://www.dgif.virginia.gov/education/project-wild>  
Widely-used conservation and environmental K-12 education programs emphasizing wildlife. The Department's wildlife education program provides support to educators in meeting the wildlife related Science Standards of Learning.

Virginia Naturally  
[www.vanaturally.com](http://www.vanaturally.com)  
Virginia's gateway to environmental information and resources. Excellent source for teacher workshops, environmental education, lesson plans and community events.

## **CATALOGS**

Acorn Naturalists  
[www.acornnaturalists.com](http://www.acornnaturalists.com)

KidsGardening  
[www.gardeningwithkids.org](http://www.gardeningwithkids.org)

Delta Education  
[www.delta-education.com](http://www.delta-education.com)

Nature Watch  
[www.nature-watch.com](http://www.nature-watch.com)

Montessori n' Such  
[www.montessori-n-such.com](http://www.montessori-n-such.com)



Lewis Ginter Botanical Garden

Children's Garden Education  
1800 Lakeside Avenue  
Richmond, Virginia 23228  
804 262-9887 ext. 239  
[allison@lewisginter.org](mailto:allison@lewisginter.org)