

## APPENDIX I

SOURCE WATER BIBLIOGRAPHY: Based on the 122 curricula in the *Educating Young People About Water* database evaluated prior to September 1997 and newly acquired curricula under evaluation for source water education needs

### **A Child's Place in the Environment: Caring for Aquatic Systems**

1997 – Grades: 1-6  
California Department of Education  
Bureau of Publications, Sales Unit  
PO Box 271  
Sacramento, CA 95812-0271  
916/445-1260  
800/995-4099

An interdisciplinary, thematic curriculum requiring students to construct knowledge. Composed of twenty sequential lessons divided into four units linked by a story. Units include: Water Cycles Through Living and Nonliving Things; Water is Essential to All Living things; The Ways People Acquire and Use Water Affect Living Things; and People Can Choose to Conserve Water, Maintain or Improve It's Quality, and Protect Specific Bodies of Water.

### **A Guide to Your River Basin**

1992 – Grades: 3-5  
Washington State University  
Cooperative Extension  
URL: <http://hermes.ecn.purdue.edu/cgi/convwqtest?/em-4863.wa.ascii>

Through map analysis, activities, and stories; students' explore their local watershed, water and agriculture, fisheries, water use, and water pollution. The core curriculum is available on-line, additional resources are required in order to complete the units.

### **All the Rivers Run**

1997 – Grades: 4-8  
Cuyahoga Valley Environmental Education Center  
3765 Oak Hill Road  
Peninsula, Ohio 44264

Using a watershed approach, this curriculum guide is designed to create a holistic, theme-based on-site experience for a four-day residential program. The curriculum combines art, science, multiculturalism, global connection, and environmental responsibility in an artistically presented format.

### **Always a River: Supplemental Environmental Education Curriculum on the Ohio River and Water**

EPA Office of Research & Development  
26 W. Martin Luther King Drive  
Cincinnati, OH 45268  
513/569-7562

This curriculum includes four primary objectives: 1) to demonstrate that the Ohio River is part of a total ecosystem; 2) to introduce the science of water and its importance to living things; 3) to explore human use and environmental impacts of human activity; and 4) to examine the influence of the river on historical and modern culture. The 1 "Careers on the River" activity is unique—authors suggest holding a "career day." Includes appendices on making aquaria, guidelines for interviewing people, and field ethics.

### **Aquatic Ecosystems**

1996 - Grades: 7-8  
Adopt-A-Watershed  
PO Box 1850  
Hayfork, CA 96041  
916/628-5334

Through exploration of a local wetland or creek, in conjunction with observations of a classroom aquarium, students' investigate and analyze the components and interactions within an aquatic ecosystem. Data collected is used to initiate a public education or restoration project. The curriculum concludes with a *Watershed Art Show* as students communicate and share their knowledge. Supplementary resources incorporated into the Aquatic Ecosystems curriculum include:

- *Wetland Protectors: Guarding Our Wild and Watery Lands*
- *Creek Watchers: Exploring the Worlds of Creeks and Streams*
- *Mapping Fish Habitat*
- *The Making of a Naturalist*
- *The Clean Water Book: A Guide to Reducing Water Pollution in Your Home and Neighborhood*
- *Water Quality: A Field-Based Water Quality Testing and Monitoring Program for Middle Schools and High Schools*
- *Give Water a Hand (Leader Guidebook)*

### **Aquatic Project Wild**

1992 (updated yearly)  
Project Wild  
PO Box 18060  
Boulder, CO 80308-2390  
303/444-2390

Activities in this guide emphasize water habitats that support wildlife. Authors summarize each activity with student age, subjects, skills, duration, group size, setting, conceptual framework reference, and key vocabulary. The background section addresses the main concepts. Materials include suggestions for aquatic extensions of existing Project Wild instructional activities. Exceptional appendix materials including:

- Extensions to existing Project WILD activities
- Use of the outdoors as a classroom
- Maximizing use of local resources.

### **Children's Festival Outreach Packet**

1992-Grades: 4-6  
Nebraska Groundwater Foundation  
PO Box 22558  
Lincoln, NE 68542-2558  
402/434-2740

These materials help prepare students for the annual Nebraska Children's Groundwater Festival. Activities were adapted from other curricula and put into a framework suitable for Nebraska water education needs. Includes activities that emphasize the effects of human activity on water resources, both above and below ground. The packet includes: "groundwater basics," an instructional packet and two video supplements that provide additional activities. Viewing videotapes is not an essential precursor to the supplemental activities.

### **Clean Water, Streams and Fish: A Holistic View of Watersheds, Elementary and Secondary Editions**

Washington State Office of Environmental Education  
17011 Meridian Avenue, North, Room 16  
Seattle, WA 98133  
206/542-7671

Both curricula are written to help elementary (grades 6-9) and secondary (grades 9-12) youth understand watersheds, the effects of human activities within watersheds, and how to minimize those effects. Week-long, interdisciplinary lesson plans focus on fish life cycles and habitat, stream dynamics, natural and human activities. Youth are then exposed to various controversies on issues that occur in the Pacific Northwest such as private and

commercial fishing, Indian Treaty Rights, development and logging. The “Solutions” unit suggests ways to address problems within the watershed.

**Comprehensive Water Education Book (The)**

1994–Grades K-6  
International Office for Water Education  
UMC 82  
Utah Water Research Laboratory  
Logan, UT 84322  
800/922-4693

Activities for school setting seek to develop water literacy through active learning. Activities stress comprehension of water concepts, attitudes about water issues, and skills to solve water issue problems. Concepts/vocabulary may be difficult for some. (E.g., porosity, saturation, volume, density).

**Discover a Watershed: The Everglades**

1996 - Grades: 6-12  
The Watercourse  
201 Culbertson Hall  
Montana State University  
Bozeman, MT 59717-0057

Centered around the Kissimmee-Lake Okeechobee-Everglades ecosystem, this curriculum can be utilized as a six to an eight-week unit on watersheds, or as a source of individual activities for water education needs. The curriculum includes a reference section, a discussion of contemporary issues and possible solutions, and learning activities designed for both classroom teachers and non-formal educators.

**Discover Wetlands**

1988 - Grades: 4-8  
Washington State Dept. of Ecology  
Wetlands Section  
Mail Stop PV-11  
Olympia, WA 98504  
206/438/7538

These materials were developed to enhance the ability of the Washington State Department of Ecology in preserving and managing wetlands in Washington. Activities cover typical wetland topics such as definition and functions, field studies, and human effects. The materials were designed as a unit or integrated into existing curricula. Materials are activity-based and applicable to other regions of the country. Authors prompt the idea that both action and inaction affect the outcome of environmental issues.

**Ecological Citizenship (EcoCit): Precious Water**

Grade 5  
The Chicago Academy of Sciences  
2001 North Clark St.  
Chicago, IL 60614

This is one of nine units in the Eco-Cit urban environmental education program written for grades K-8. The multi-disciplinary, action-oriented curriculum involves students, parents, teachers and the community. Topics covered include the water cycle, human inputs, and ways to conserve water resources. Eco-Cit is based on a philosophy of constructivist and cooperative learning for ecological citizenship.

**Estuary - Net**

1996 - Grades: 9-12

Wells National Estuarine Research Reserve

Wells, Maine

URL: <http://inlet.geol.sc.edu/curr.htm>

This curriculum contains lessons divided into three levels, each including 14 activities. Students are introduced to watershed variables and processes, develop and apply a water-sampling plan to a local stream site, and verify the validity of their data through analysis and review. A background section on Estuarine Ecology includes information on Estuarine Factors and Processes, Interactions in Ecosystems, Habitats and Communities, People and Estuaries, Metadata, and Data Management. Telecommunications is incorporated into the curriculum, although inclusion is optional for curriculum utilization.

**From Ridges to Rivers: Watershed Explorations. Stage Two**

1996 - Ages 12-15

Tess Harback &amp; Judy A. Neuhauser

San Luis Obispo County, California

4-H Youth Development Program

In this guide, adult leaders learn to work with teens in non-formal educational settings. There are three goals: (1) to help learners understand their watershed; (2) to develop scientific inquiry and critical thinking skills; and (3) to encourage active, intelligent care of the earth's natural resource. Activities use watershed models to encourage hands on learning and to realize conflicting viewpoints on environmental issues.

**Give Water a Hand**

1995 - Ages: 9-14

University of Wisconsin

210 Hiram Smith Hall

1545 Observatory Drive

Madison, WI 53706

800/WATER20

Youth can make a difference through watershed-based, community action projects. Using the service-learning approach to environmental issues, youth gain experience in addressing water-related problems. The Youth Action Guide features a series of activities that walk youth through investigations, choosing a project, planning for action, taking action and evaluation. In the Leader Guide, adults will find tips on skill development, background information for each activity, and how to use experts as project collaborators.

**Ground Water Education for Secondary Students**

Date not specified - Grades: 7-12

Water Education Foundation

717 K. Street, Suite 517

Sacramento, CA 95814

916/444-6240

FAX: 916/448-7699

A booklet containing background information and activities designed to teach students about aquifers, and the interrelationship between ground and surface waters. The importance of water conservation, pollution prevention, and water resource management issues are also addressed.

**Groundwater Resources and Educational Activities for Teaching (GREAT)**

1989 - Grades: 7-9  
Conservation Education Center  
RR 1, Box 53  
Guthrie Center, IA 50115  
515/747-8383

Material is arranged in six units with the first one covering the basics of groundwater and hydrogeology in Iowa. The other five units cover Iowa's groundwater issues in priority as agreed upon by Iowa groundwater interest groups. These include fertilizers and pesticides, abandoned waste sites and landfills, leaking underground storage tanks and hazardous material's management, point source groundwater pollution, and land-applied wastes and sewage treatment. The curriculum should be accompanied by a set of six groundwater posters and a one-foot Plexiglas groundwater model.

**Groundwater Study Guide - Department of Natural Resources**

1991 - Grades: 6-9  
Wisconsin Agency Document Sales  
Box 7840  
202 S. Thornton Ave.  
Madison, WI 53707  
608/266-3358

Resource packet and activity ideas. Activities focus on the water cycle and hydrogeology, groundwater contamination, water and wastewater treatment, water conservation and groundwater use rights. Written materials may be challenging for 6<sup>th</sup> graders, the younger end of suggested grade range.

**H20 Below: An Activity Guide for Groundwater Study**

1997 - Grades: 6-8  
Rivers Project Southern Illinois University  
Box 2222  
Edwardsville, IL 62026-2222  
FAX: 618/650-3359

An interdisciplinary water quality river study program incorporating cooperative learning strategies. Chapters include: Water and Why It Is Important, How Water Moves Through the Ground, How Water Becomes Polluted, Clean Water Through Filtration, Protecting and Conserving Groundwater, Testing Groundwater, and Groundwater Issues.

**Hands-On Save Our Streams. The Save Our Streams Teachers' Manual**

1994 - Grades: 1-12  
Izaak Walton League of America  
Save Our Streams Program  
707 Conservation Lane  
Gaithersburg, MD 20878  
1/800/BUG-IWLA

Uses a watershed concept to teach about land use effects on stream quality. Highlights include human activities such as agriculture, mining, commercial/industrial, forestry, and construction. Activities are written for the entire audience and left to the educator to adapt to the appropriate age. Combines the SOS monitoring program technique into field activities. Appendices include SOS Stream Survey forms, sampling instructions and a useful Volunteer Water Monitoring Bibliography.

### **Investigating Groundwater: The Fruitvale Story**

1991 - Grades: 6-12  
Chemical Education for Public Understanding  
Lawrence Hall of Science  
University of California  
Berkeley, CA 94720  
510/642-8718

This module closely resembles steps taken in a real water contamination situation, e.g., identifies the problem, research, community involvement, decision-making and action. Requires the use of a chemistry kit. Activities build on each other; this curriculum represents one module.

### **Investigation H2O**

1993 - Grades: 5-6  
Cooperative Extension Service  
The University of Georgia  
College of Agriculture and Environmental Sciences  
Athens, GA

A good review of basic principles on water science, the water cycle, groundwater, wetlands, water quality and quantity issues, and water conservation actions. Contains lesson plans, worksheets and activities to complement an accompanying video. Uses examples specific to Georgia.

### **Investigating Your Environment**

1996 - Grades: 6-12  
United States Department of Agriculture Forest Service  
URL: [http://willow.ncfes.umn.edu/cons\\_ed/iyec/contents.htm](http://willow.ncfes.umn.edu/cons_ed/iyec/contents.htm)

An interdisciplinary, “hands-on” curriculum encouraging students to observe their environment and collect, record, and interpret the resulting data. Water-related units include Water, Ponds, and Riparian ecosystems.

### **Kids in The Creek**

1994 - Grades: 5-7  
Bonneville Power Administration  
Spokane Customer Service Center  
707 West Main, Suite 500  
Spokane, WA 99201-0641  
800/622-4520

Long-term stream health is assessed through the identification of aquatic insects in a local stream environment. The resultant water quality is studied as a function of the interrelationships between the watershed, forest canopy, and riparian areas.

### **Local Watershed Problem Studies–Elementary School Curriculum**

1982  
University of Wisconsin  
Water Resources Center  
1975 Willow Drive  
Madison, WI 53706  
608/262-3577

A collection of lessons written by teachers with a variety of backgrounds. Lessons vary in degree of detail. The focus is on the interface between land use and water pollution. Includes instructions on how to build water testing equipment. Provides many stories and folklore examples to enhance student enjoyment of a particular topic and to support language arts and education goals. The appendix includes suggestions for citizen and government action in controlling nonpoint source pollution in urban areas and rural areas, and a discussion on the role of values in environmental education.

**Nature of Water Power (The)**

1995 – Grades: 6-8

Foundation for Energy Education (FREE)

URL: <http://www.fwee.org/TG/nwaterpwr.html>

800/279-6375

info@fwee.org

Designed as a hands-on, thematic, and inquiry-based curriculum delving into the scientific and social aspects of generating electricity through water power usage. The five units include the nature of water and the hydrologic cycle, the environmental impacts of waterpower usage, and a cost and benefit comparison between hydropower and other energy sources.

**Project Water Science**

No date specified - Grades: 7-12

Water Education Foundation

717 K. Street, Suite 517,

Sacramento, CA 95814

916/444-6240

Consists of a series of fourteen activities intended for use in earth and physical science classes. Several of the activities are specific to California. Topics covered include: water chemistry, building a solar water purifier, the study of an aquatic ecosystem, water conservation, water treatment, and water pollution.

**Project Wet**

1995 - Grades: K-12

The Watercourse

201 Culbertson Hall

Montana State University

Bozeman, Montana 59717-0057

406/994-5392

FAX: 406/994-1919

e-mail: [rwwet@msu.oscs.montana.edu](mailto:rwwet@msu.oscs.montana.edu)

A collection of water-related activities addressing the physical and chemical properties of water, issues of water quantity and quality, ecosystems, aquatic wildlife, and management strategies. Each activity consists of a summary, objectives, materials list, making connections (lesson relevance), background information, procedure, assessment, extensions, and a resource list. Materials follow an interdisciplinary approach and recognize different learning styles.

**River: A Middle School Multi-Disciplinary Curriculum for The Rio Grande, Science Strand (The)**

1994 – Grades: 6-8

Peter Dyke, Resources Coordinator

110 Vuelta Montuoso

Santa Fe, NM 87501

505/983-5428

“The River” curriculum is designed for use in conjunction with the social studies and humanities strands. Concepts covered include: groundwater/surface water interactions; the hydrologic cycle, watersheds, wetlands, and riparian ecosystems; water quality tests; point and nonpoint source pollution; water treatment and purification; and sustainability.

**Rivers Project Curriculum Guides: Geography, Earth Science, Biology, Chemistry, Language Arts, Mathematics**

1997-1998 – Grades: 9-12

Acorn Naturalists

17300 East 17<sup>th</sup> Street, #J-236

Tustin, CA 92780

800/422-8886

FAX: 800/452-2802

Through field-based study students’ experience hands-on learning activities consisting of observing, measuring, testing, and writing about the waterway. Lessons include the environmental impact of human populations along rivers; biological factors; physical measurements; chemical tests as water quality indicators; the hydrological cycle; topographic maps; and the role of the watershed.

**Streets to Streams: Youth Investigations Into Water Quality**

1995 - Grades: 5 - 9

Household Hazardous Waste Project

1031 E. Battlefield, Suite 214

Springfield, MO 65807

417/889-5000

The purpose is to educate youth on surface water and ways to protect it. Suggested activities include a water festival and storm drain stenciling projects. The guide lacks pictures and graphics to illustrate key points.

**Sourcebook for Watershed Education**

1996

Global Rivers Environmental Education (GREEN)

721 Huron Street

Ann Arbor, MI 48104

313/761-8142

FAX: 313/761-4951

email: green@green.org

Provides guidelines to communities/schools interested in establishing or augmenting a watershed education program. Classroom activities focus on an interdisciplinary, problem-solving approach requiring students to analyze their data, study the components of their watershed, and take action based on knowledge gained. Strategies for developing community-school partnerships are identified and integrated into the Sourcebook.

**STREAMS: Science Teams in Rural Environments for Aquatic Management Studies**

1996 - Grades: 5-8

Office of Environment and Ecology

Department of Education

333 Market St.

Harrisburg, PA 17126-0333

717/783-6994

FAX: 717/787-7066

URL: <http://www.ems.psu.edu/HAMS>

Based on the study of a watershed in Pennsylvania, Streams is designed to increase student awareness of water resources, and involve students in water quality monitoring and community action. Students' investigate the interacting influences of a watershed, factors that negatively impact a watershed, and devise solutions to identified problems. Additional resources are identified in order to complete the curriculum including slides, videos, literature, scientific equipment, and printed materials.

**Streamside Community (The)**

1992 - Grades: 3-4  
Adopt-A-Watershed Program  
P.O. Box 356  
Hayfork, CA 96041  
916/628-5334

Students investigate a riparian ecosystem within their adopted watershed. This interdisciplinary curriculum addresses the composition of the riparian ecosystem and the importance of riparian vegetation. Activities focus on the concept that members of a community are interrelated and interdependent.

**Surface Water**

1988  
Water Environment Federation  
601 Wythe St.  
Alexandria, VA 22314-1994  
703/684-2400

Teacher's Guide provides background information and activities to complement the student video. Student Guide provides additional information about the water cycle, sources of water pollution, wastewater treatment, and citizen action. Materials address the concept of natural pollution, which is rather unique.

**That Magnificent Ground Water Connection: A Resource Book for Grades 7-12.**

1998  
New England Interstate Water Pollution Control Commission  
255 Ballardvale St.  
Wilmington, MA  
978/658-0500

Written for the New England region, the curriculum is divided into four sections: The Water Cycle and Water Conservation, New England's Ground Water Resources, Ground Water Contamination, and Protecting Ground Water. Designed to provide a progression of information, activities can also be utilized individually by teachers. Students are encouraged to hypothesize, experiment, analyze, draw conclusions, and apply their learning toward citizen involvement and action. This is one of the few curricula to identify and address protection programs on both the federal and local level.

**Water Conservation - E2: Environment & Education**

1998 - Grades: 6-12  
Dale Seymour Publications  
2725 Sand Hill Road  
Menlo Park, CA 94025  
800/872-1100

Students use the school environment to investigate and analyze environmental issues in a cooperative learning environment. Activities are designed to create a transition from a traditional teacher-directed classroom format to a student-directed environment with the teacher as facilitator. In *Water Conservation*, students' explore the different uses of water and the ways in which it can be conserved, conduct a school water audit and investigate water conservation strategies, research proposed strategies, and submit recommendations to the school administration or environmental committee. *Water Conservation* is one of six environmental education modules within the program; each designed to stand alone or in conjunction with one another.

**Water Politics: A Water Education Program for High Schools**

1994

Metropolitan Water District of Southern California

Education Programs

PO Box 54153

Los Angeles, CA 90054

213/217-6739

The curriculum emphasizes water use and water conflict issues. Covers such issues as conflicts among urban, agricultural and environmental interests; water conservation vs. developing new supplies, including the public participation component. Uses case studies on water rights, canal building, landfill development, protecting reservoir quality, risks and water quality; water transfer, and the effect of the media on public opinion, use of the Colorado River, and saving endangered species. Some case studies seem biased in favor of development and do not present the ecological impact of decisions on either side. Sways students and teachers toward certain conclusions. Includes a map of California aqueducts, "California Water Resources," and the California Water Story, a video. Teacher background materials are excellent.

**Water Resources Professional's Outreach Notebook: Ground Water**

1994 - Grades: 6-8

U.S. Geological Survey

Earth Science Information Center

Open-File Reports Section

Box 25286, MS 517

Denver Federal Center

Denver, CO 80225

Education outreach materials designed to facilitate collaboration between an educator and an individual employed in a water-resources field. The goal of the notebook is to encourage students to pursue careers in engineering and science. Contains background information, five lesson plans (aquifer, porosity, permeability, wells, calculations), and a glossary.

**Watershed Connections**

Grades: 6-12

Purdue University

Cooperative Extension Service

4-H Youth Department

1161 Agricultural Administration Building

West Lafayette, IN 47907-1161

765/494-8443

e-mail: ncarroll@purdue.edu

*A Teacher's Guide* and *Youth Activity Worksheets* publication designed to be used in conjunction with each county's *Watershed Connections* publication in Indiana. Activities include: Watersheds of Indiana, River Discharge; Floods, Floodplains, and Flood Probabilities; Understanding Ground Water Flow; Your Drinking Water; Comparative Ground Water Vulnerability; Pollution Sources; Water Resource Terms; and Web Search.

**Water Quality: Critical Issues/Critical Thinking Experiences for Youth**

1995 - Grades not specified

"On Common Ground"

National 4-H Council

7100 Connecticut Avenue

Chevy Chase, MD 20815

301/961-2800

Publication # ES0039-3/95-25000

Applicable to formal and non-formal education needs, this booklet utilizes four activities (Water Quality & Supply Decision-Making Vignettes, Water “Burst” Collage/Poster, Thinking About Water Quality, and Promoting Water Quality & Supply Protection) to facilitate youth decision-making concerning water quality issues.

### **Water Quality**

1995 - Grades: 10-12  
Adopt-A-Watershed Program  
P.O. Box 356  
Hayfork, CA 96041  
916/628-5334

An investigative, action-oriented curriculum emphasizing student-directed teaching and learning and collaboration. Students study watershed concepts, learn mapping skills, and identify and engage in a water quality improvement project within their community. The *Rivers Project* curriculum is a key resource incorporated into the curriculum.

### **Watershed Science for Educators**

1999 - Grades: 6-12  
Cornell University  
Media and Technology Services Resource Center  
7 Cornell Business & Technology Park  
Ithaca, NY 14850  
607/255-2080  
FAX: 607/255-9946  
e-mail: Dist\_Center@cce.cornell.edu

Designed as a watershed monitoring resource packet, this curriculum can be incorporated into formal and non-formal education settings. Students will learn to: (1) read topographic maps, (2) interpret aerial photographs, (3) predict potential water quality impacts, (4) identify aquatic invertebrates, (5) calculate water quality indexes, (6) conduct water chemistry tests, (6) measure and record physical measurements of a waterway, and (7) organize and interpret data. The curriculum includes background information, activities, and assessments.

### **Water Sourcebook: A Series of Classroom Activities**

1994 – Grades: 3-5, previously evaluated  
1997 – Grades: 9-12  
1998 – Grades: K-2  
1998 – Grades: 6-8  
Water Education Federation  
601 Wythe Street  
Alexandria, VA 22314-1994  
800/666-0206  
FAX: 703/684-2492  
e-mail: msc@wef.org  
URL: <http://www.wef.org>

Developed as a supplement to a school water education unit, each Water Sourcebook is divided into six chapters: Introduction to Water, Drinking Water and Wastewater Treatment, Groundwater Resources, Surface Water Resources, and Wetlands/Coastal. Chapters are correlated with math, science, language arts, social studies and related arts curriculum goals. Each activity within a chapter includes: (1) background information (2) objectives, (3) subjects(s), (4) time allotment, (5) materials list, (6) advance preparation, (7) procedure, and (8) resources. A resource section, fact sheets, and a glossary are included at the end of each sourcebook.

**Water, Water Everywhere**

1991  
Hach Company  
Box 389  
Loveland, CO 80539  
1/800/227-4224

Includes teachers' guide to laboratory and field testing of water for a variety of parameters supplemented by a separate student text and teacher resource manual. One of few (if any) curricula to address radioactive waste. One of few curricula to address concept of how risk decisions are made in the water quality reference unit booklet. Includes homework activities.

**Watershed to Bay: A Raindrop Journey: A Critical and Creative Thinking Approach to Understanding Coastal Watershed Systems**

1995 – Grades 4-8  
University of Massachusetts-Cooperative Extension System  
212 Stockbridge Hall  
University of Massachusetts  
Box 30099  
Amherst. MA 01003-0099

Written for youth living in watersheds along the Massachusetts coast. Activities are designed to help learners develop critical thinking and investigation's skills and an understanding of basic science concepts about watersheds, estuaries and groundwater systems. This is accomplished through stories, models, experiments and observation. It also includes a teaching kit and includes the curriculum guide and complete supplies kit.

**Ways of The Watersheds (The): An Educator's Guide to The Environmental and Cultural Dynamics of New York City's Water Supplies**

1995 – Grades: K-12  
The Frost Valley YMCA  
2000 Frost Valley Road  
Claryville, NY 12725-9600  
914/985-2291  
FAX: 914/985-0056

A curriculum guide exploring the environmental and cultural dynamics surrounding New York City's watersheds. Units cover the hydrology, geology, and ecology of watersheds; pollution, development, and technology within the watershed; and conservation.

**World of Fresh Water: A Resource for Studying Issues of Freshwater Research**

1997 - Grades: 4-6  
U.S. Environmental Protection Agency  
Office of Research and Development  
National Health and Environmental Effects Research Laboratory  
Mid-Continent Ecology Division-Duluth  
6201 Congdon Boulevard  
Duluth, Minnesota 55804  
URL: <http://www.epa.gov/reg5oopa/teachers/curriculumwater.htm>

A collection of activities intended as an educational resource for supplementing existing curricula, or as a resource for new curriculum development. Topics covered in the twenty activities include: water availability and usage, exploration of a pond and wetland ecosystem, and pollutants in water. A glossary and resource list are included in this on-line resource packet.