



## Water is a Resource Lessons

### Websites

#### General

##### [The Fragile Fringe: A Guide for Teaching about Coastal Wetlands](#)

This USGS sponsored site includes background information for teachers as well as activities that focus on the vital ecological role of coastal wetlands. Includes sections on wetlands loss, the Barrier Islands and Mississippi Delta. Though activities cover all grade levels, ones for elementary students are identified. Includes a glossary.  
( [http://www.nwrc.usgs.gov/fringe/ff\\_index.html](http://www.nwrc.usgs.gov/fringe/ff_index.html) )

##### [Kirsten Findell's Water Quotes and Poetry](#)

Dr. Findell works in The Climate Dynamics and Prediction group at The Geophysical Fluid Dynamics Lab, which is a global climate modeling center run by The National Oceanic and Atmospheric Administration. Use the material here to supplement the poetry and proverbs in the student reference book.  
( <http://www.gfdl.noaa.gov/~klf/h2oquotes.html> )

##### [Quotations About Water](#)

The Quote Garden, a commercial site, provides a number of famous authors' thoughts about water. Use the material here to supplement the poetry and proverbs in the student reference book.  
( <http://www.quote garden.com/water.html> )

##### [River of Words](#)

River of Words' multidisciplinary, hands-on approach to education nurtures students' creative voices through instruction and practice in art and poetry. This site features some amazing examples of student art and poetry, a source of inspiration for language arts and art extensions. Don't miss the thoughtful and moving contributions by the young Afghan refugees!  
( <http://www.riverofwords.org/> )

##### [Water Quotes – Pausing to Think](#)

This site, part of the Northwest Kansas Groundwater Management District Number Four's webpage, lists water related quotations and poetry throughout history and from many cultures. Use the material here to supplement the poetry and proverbs in the student reference book.  
( <http://www.gmd4.org/quotes.html> )



### [Water Science for Schools](#)

This kid-friendly portion of the USGS website offers information on many aspects of water and includes pictures, data and maps. Parts of the web site are interactive, allowing students to give opinions and test their water knowledge. Also includes a glossary of water terms.

( <http://ga.water.usgs.gov/edu/> )

### [Water, Hydrology, and Macroinvertebrates](#)

For student enrichment, GLOBE water investigations help students understand the natural environment and to what extent human activities are affecting the quality of water. An additional activity involves identification of Macroinvertebrates in water samples, which can be a valuable indicator of pollution levels.

(<http://www.globe.org.uk/activities/water/watert.htm>)

### [Oceans Alive!](#)

Learn all about the global seas on this website. Topics include: the water planet, oceans in motion, life in the sea, and scientist at sea.

(<http://www.mos.org/oceans/>)

### [USGS Water Data for the Nation](#)

The pages on this website provide access to water-resources data collected at approximately 1.5 million sites in all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

(<http://waterdata.usgs.gov/nwis>)

### [Rivers and Coasts](#)

Information about rivers and coasts, including what happens when the two meet, can be found on this website.

(<http://www.bbc.co.uk/schools/riversandcoasts/mainmenu.shtml>)

### [Journey to El Yunque](#)

Students see how a hurricane can affect the water, carbon and nitrogen cycles in a tropical environment.

(<http://www.elyunque.net/english/resources.html>)



## **Water Is a Resource**

### **Is the Oasis Vanishing?**

This is a transcript of the PBS show "Think Tank." Host Ben Wattenberg is joined by Peter Gleick, President of the Pacific Institute for Studies in Development, Environment, and Security in Oakland, California, and author of *The World's Water*, a biennial report on freshwater resources; and Peter Rogers, professor of city and regional planning and environmental engineering at Harvard University and author of *America's Waters*. The guests discuss the issues of the Earth's limited water resources.

( <http://www.pbs.org/thinktank/transcript1106.html> )

### **UNICEF: Water, Environment, and Sanitation**

This site provides an outstanding overview of the water and sanitation issues confronting over two billion people around the world. Though it highlights the work of UNICEF to improve water supplies and sanitation for communities worldwide, the site also provides statistics, links to resources, news articles about child-focused projects, and real-life stories about children and water. ( <http://www.unicef.org/wesindex.html> )

### **Water on Tap: What You Need to Know**

This site contains a downloadable version of this EPA booklet. Topics include the following: Where does your drinking water come from? How do you know if your drinking water is safe? How can you protect it? What can you do if there's a problem with your drinking water? This is a comprehensive and useful reference tool for teachers and parents.

( <http://www.epa.gov/safewater/wot/index.html> )

### **Water Treatment Process**

This EPA-sponsored site for students follows a drop of water from the source through the treatment process. Students can click on a graphic of a typical water treatment facility and learn more about that step in the process.

( [http://water.epa.gov/learn/kids/drinkingwater/watertreatmentplant\\_index.cfm](http://water.epa.gov/learn/kids/drinkingwater/watertreatmentplant_index.cfm) )

### **USGS Education: Science Resources**

This Web site contains selected USGS educational resources that may be useful to educators in primary school grades. Scroll to the bottom of the page for water resources.

( <http://education.usgs.gov/common/primary.htm#groundwater> )

### **Geological Society of America – Teacher Resources Water**

Lesson plans and list of lesson plan links about water can be found on this website.

( [http://www.geosociety.org/educate/lessonplans/i\\_water.htm](http://www.geosociety.org/educate/lessonplans/i_water.htm) )



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### Books

#### General

##### **A Cool Drink of Water**

By Barbara Kerley. (2002, National Geographic Children's Books)

Large, beautiful photographs of people using drinking water from all around the world. The photograph captions at the end of the book will inspire conversations about global water distribution and conservation. A brief, but interesting background information section at the end is a good springboard for additional study.

##### **A Drop of Water: A Book of Science and Wonder**

By Walter Wick; photography by the author. (1997, Scholastic)

Beautiful photography depicts properties and states of water. As the author writes, "The results seemed magical, but not because of any photographic trick; it was only the forces of nature at work." The captions introduce many water vocabulary terms and the notes at the end of the book encourage independent investigations. Selected in 1998 by the National Science Teachers Association for an Outstanding Science Trade Book for Children award.

#### Fiction Books

##### **The River**

By Gary Paulsen. (1998, Delacorte Press)

In this sequel to Paulsen's popular Hatchet, young Brian Robeson is asked by the government to repeat his astonishing 54-day ordeal, surviving in the wilderness with only a hatchet. But the experiment goes awry and Brian must build a raft to transport the injured government observer a hundred miles down a river. The fast-paced adventure provides vivid descriptions of water, as well as contrasting the life-giving and life-threatening nature of this most valuable resource. A great read for advanced readers or for use as a read-aloud book.



## **Nonfiction Books: General**

### **Awesome Ocean Science! Investigating the Secrets of the Underwater World. (Williamson Kids Can! Series)**

By Cindy Littlefield, illustrated by Sarah Rakitin. (2003, Williamson Publishing)

For students and teachers interested in ocean studies, this book explores the wonders of the sea, the seafloor, and the plants and animals that dwell there. It teaches how to protect these resources as well as providing hands-on activities for further exploration.

### **The Drop in My Drink: The Story of Water on Our Planet**

By Meredith Hooper, illustrated by Chris Coady. (2008, Frances Lincoln Children's Books)

A richly illustrated speculation about the history of a drop of water. Beginning with comets crashing on Earth's surface (which may have originally brought water to our planet), to the beginning of life on Earth, the age of the dinosaurs, and up to the present day. Describes how water has shaped our planet's geology as well as its importance to all life.

### **The Land Around Us: Rivers and Lakes**

By Mary Tull. (2004, National Geographic Society)

This comprehensive look at rivers and lakes focuses on geography and human interactions with rivers and lakes. Bright photographs and easy-to-read text make this an excellent resource for emergent readers. Includes a glossary and a section about reading bar graphs for information.

### **Our Wet World**

By Sneed B. Collard; illustrated by James M. Needham. (1998, Charlesbridge Publishing)

Readers will discover 13 different aquatic ecosystems as they read about the diversity of life found in the wet places on Earth. Colorful, detailed illustrations splash off the pages, and the fact-filled text provides a fascinating introduction to the flora and fauna that inhabit the waterways and oceans of our planet. Includes a glossary. Selected in 1999 by the National Science Teachers Association for an Outstanding Science Trade Book for Children award.



### **Pond**

By Gordon Morrison: illustrated by the author. (2002, Houghton Mifflin Books for Children)  
Witness the array of life in and around a pond throughout the course of a year. From the giant glaciers that carved the earth and melted to create the pond, to the microscopic plankton eaten by the mussels that slowly scoot along its bottom, no detail is too large or too small to be revealed and explained. With vivid watercolors, the author observes and describes this habitat through the seasons. Selected in 2003 by the National Science Teachers Association for an Outstanding Science Trade Book for Students award.

### **Books for Teachers**

#### **A Teacher's Guide to a Drop Around the World**

By Bruce and Carol Malnor. (1997, Dawn Publications)

This teacher's guide integrates character education with core science and language arts. Lessons include poetry and songs, water habitats around the globe, and skills for living.

#### **Water, a National Geographic Special Edition**

(November, 1993; National Geographic Society)

This special edition contains a variety of articles about water issues in the United States and around the world. An excellent source of information about water pollution and conservation topics, this publication will inspire and intrigue teachers.