Action Program

THE WONDERFUL World of Water

Turning Education into Action — Program #14

Without water, we can not live.

What's Water? It's one of the simplest things on Earth. And one of the most precious. It's 2 hydrogen atoms (H) and 1 oxygen (O). So it's "nickname" is H_2O. Even though it's so simple, water is very important. All living creatures need *water!*

You are all wet! It's true!!! More than half of your body is water. Human bodies need about 2 1/2 quarts of water a day. Much of this comes from the water we drink and some of it comes from the food we eat. There's water in fruits, vegetables, meat and even cakes.

We need water for showers, washing clothes, watering lawns, flushing and much more. Industry needs water for manufacturing. We need water to put out fires. Waterways are necessary for shipping. Don't forget all the fun we have boating, swimming and even skating because of water. The Earth is truly a water planet.

H_2Oh-Oh!!!

The problem is that we aren't treating water carefully! About 3/4 of our planet's surface is covered with water and much of it isn't very healthy. Only 3% is fresh water and only 1% of water is available for drinking. Most fresh water is frozen as ice caps. There is as much water on this planet as there ever will be but there are more people living on Earth and using more water.

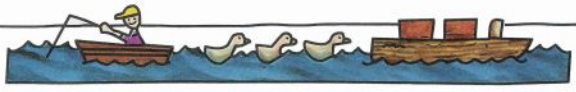
All water starts out good, but often it can be filled with bad things (*polluted*). When that happens, people and other precious *species* (all life) may get sick when using it to drink, to live in, to wash or to water crops. Sometimes water gets poisoned from natural events, but very often it is people who create unhealthy water problems.

We put chemicals on our lawn, down drains, and in our lakes. We put human and animal waste into our waterways. When rain falls through the pollution we put in our air, such as car exhaust, it becomes *acid rain*. Acid rain falling into our lakes and streams can hurt the animals that live there. When we cut down our forests around waterways, the soil on the banks is more easily *eroded* (worn-away). This harms animals' water homes, creating problems for the animals that live there. Sometimes water that soaks beneath the land's surface (*groundwater*) becomes polluted when certain chemical pesticides drain into the soil. Groundwater supplies us with much of our drinking water. We need to keep this water safe to drink.

Some people actually throw trash into our waterways! Kids in New Jersey listed all the trash they found along a river near their school. What they saw made them sad. They found tires, socks, a flower pot, newspapers, cardboard, soda cans, chip bags, lawn chairs, a blanket, a shopping cart, a fence, cinder blocks, oil cans, golf balls, shopping bags, floor tile, a wig head, milk cartons, paper plates, garbage bags, roof shingles, cigarette butts, and a kitchen sink. Wow! People did this and people can undo this!

Contact your local government or state environmental protection agency to see if you can help with water testing and protection programs.

WaterWays:



A trickle of water tumbling down a hillside joins with other water to become a *brook* flowing to meet other streams. As they meet larger streams, they become *branches* or *tributaries* of a *river*. As water flows downstream it wears away the surrounding soil and rock creating valleys or even canyons. Much of the soil that a river moves is finally dropped off at the *mouth* where the river enters the sea. This soil creates new land called a *delta*. From the trickle to the mighty river, waterways are homes for living creatures.

Rivers are water highways.

Rivers are important to the business growth of our planet. One ton of metal shipped on a barge on the Mississippi uses only 1 gallon of gas to go 500 miles. Wow! That's great mileage and means less pollution. Some industries are working hard to keep waterways clean and healthy, but others fill them with waste. American Iron is a company that specializes in recycling metal. This conserves our natural resources. They ship most of their scrap metal by barge on the Mississippi. For info about metal recycling or shipping on rivers, call American Iron at 612-529-9221.

Check out the industries in your neighborhood. Ask what they're doing to protect the water.

The Mississippi and Its Watershed.

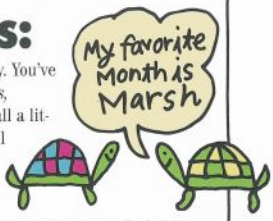
A *watershed* is a neighborhood of waterways that connect and drain into a bigger body of water.

The Mississippi River and its watershed is one of the largest on Earth. It's 2,550 miles from the head waters in Minnesota to Louisiana, where it drains into the Gulf of Mexico. Two thirds of all lakes, streams, wetlands, rivers and even groundwater in the U. S. drain toward the Mississippi. That's a lot of water!

The Mississippi River is a water highway for animals, people and boats. Millions of people count on it for drinking water. This famous river has inspired people to write songs, plays, and stories about river life.

KSE, along with other friends, is beginning a project to help protect the Mississippi and the land around it. If you would like to help, write or give KSE a call!

Wetlands:



They're mushy and gooey. You've heard them called *swamps, marshes* or *bogs*. They're all a little different, but they're all lands that are wet and filled with incredible life.

Bogs depend on rainwater, while *marshes* and *swamps* are usually fed by rivers and streams. Marshes are mostly filled with grasses, while swamps often contain trees or shrubs.

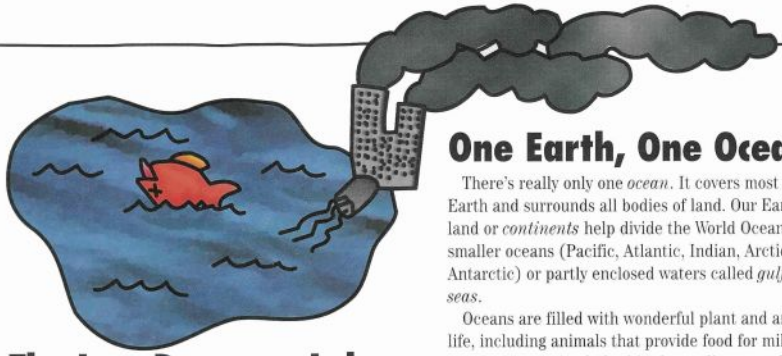
Wetlands provide homes for precious species and act as filters to remove pollution. Like a sponge, they soak up water. This helps prevent flooding. They help stop shorelines from wearing away. Yet in the U.S. alone, wetlands have been drained and filled at a rate of 1,000 acres a day. Does this make sense?? The Earth needs its wetlands!

Rainforests have wetlands too. Find out how you can help protect The Kids For Saving Earth Rainforest in Costa Rica. Call or write KSE.

Creature Features

Dragonflies can zoom around a wetland at up to 60 miles per hour (97 KM). They like to munch on insects like mosquitoes and flies. Dragonflies are acrobats. They can spin just one wing at a time. They can hover, eat, and lay eggs all while in the air. Their 2 huge eyes make spotting food a snap.

Dragonflies spend 1 to 4 years of their life underwater, looking like caterpillars. Then they surface, shed their skin, spread out their 3-5 inch wings and take off.



The Low Down on Lakes

A *lake* is a body of water that is totally surrounded by land. Some lakes were formed from volcanoes, some from land wearing away. Thousands of lakes were formed as glaciers moved soil and rocks. Most lakes on Earth are fresh water. Lake Superior in the U.S. has the largest surface. Lake Baikal in Asia is the deepest, containing almost as much water as all the Great Lakes combined. The Dead Sea and the Great Salt Lake are two large salt water lakes.

You may think that lake water is used just for swimming and fishing. But industry uses the most water on Earth, including lake water. Lake water is pumped into industrial plants for cooling, cleaning and more. When it is returned to the lake it is often dirty and too warm. This can destroy animals and plants in the lake.

Let's ask industry to help protect the water they use for their work.

One Earth, One Ocean

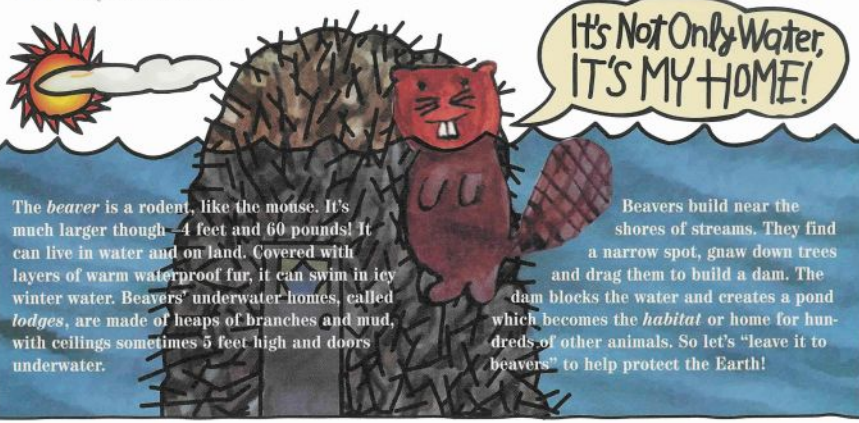
There's really only one *ocean*. It covers most of the Earth and surrounds all bodies of land. Our Earth's land or *continents* help divide the World Ocean into smaller oceans (Pacific, Atlantic, Indian, Arctic, Antarctic) or partly enclosed waters called *gulfs* or *seas*.

Oceans are filled with wonderful plant and animal life, including animals that provide food for millions of people. Most animals feed in the sunlit areas of the ocean where plants can grow. But there are creatures we have never seen in ocean depths of up to 7 miles.

It's important to protect all forms of life on this planet because everything has a purpose. For example, besides being a habitat for hundreds of living creatures, the colorful, living coral reefs of Belize help protect its coastline from wearing away. But, these reefs are being destroyed. They're polluted by sewage and oil spills, chopped up for building materials, torn out for souvenirs, and dynamited by fishermen.

All oceans contain valuable *resources* like oil and even gold. Careless removal of resources from under the ocean floor can cause pollution problems. Shipping accidents and oil rig explosions mean trouble for turtles, manatees, shrimp and all water habitat animals.

To learn more about protecting reefs and other ocean life, call or write KSE.



The *beaver* is a rodent, like the mouse. It's much larger though—4 feet and 60 pounds! It can live in water and on land. Covered with layers of warm waterproof fur, it can swim in icy winter water. Beavers' underwater homes, called *lodges*, are made of heaps of branches and mud, with ceilings sometimes 5 feet high and doors underwater.

Beavers build near the shores of streams. They find a narrow spot, gnaw down trees and drag them to build a dam. The dam blocks the water and creates a pond which becomes the *habitat* or home for hundreds of other animals. So let's "leave it to beavers" to help protect the Earth!

The Company We Keep

Shaklee®... Our Earth needs businesses to care about its health. Shaklee produces home and personal care products, nutritional supplements, and water treatment systems that are scientifically researched. They know that creating products "in harmony with nature" makes good business sense. And Shaklee is helping KSE produce educational materials. Check out the KSE Earth Works Central from Shaklee, an environmental center for your classroom! Call KSE at 612-559-1234. Check out the Shaklee Web site: http://www.shaklee.com!

UnderWater World... You'll look up, you'll look around, you'll learn, and you'll have fun as you travel on a moving walk through acrylic tunnels, surrounded by hundreds of sea creatures in their marine habitat. And you'll learn even more when you attend education classes provided by The Tarlton Institute for Marine Education. Teachers can sign up their students for the Tarlton class of their choice by calling 612-883-0070 in Minnesota and 415-623-5376 in San Francisco.

The Cousteau Society... Dedicated to preserving and protecting life, it supports Cousteau expeditions, ocean awareness and conservation projects. Call 757-523-9335.

Arctic Perspectives... Teaches about all aspects of life of the northern Arctic. E-mail ArcPersp@aol.com or call 612-292-8599.

The Wild Dolphin Project... Researches and reports on a pod of free ranging dolphins to better understand and protect all dolphins. Call 310-791-5878

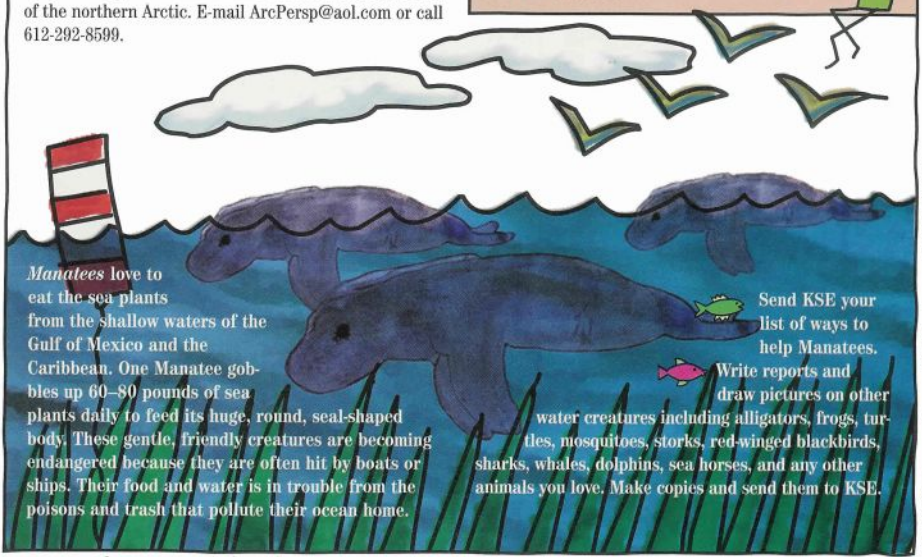
Children's Health Environmental Coalition (CHEC)... Dedicated to protecting children from illness due to environmental causes. Call 310-573-9608.

Join KSE Worldwide

Send your name, address, phone #, number of members, and grade level to KSE (see "How to Reach KSE"). When you join you will receive your choice of the KSE Action Guide or The Little Kids Guide for instructors, plus *The KSE News* and *Action Programs* as issued, and a colorful certificate for each member. Join as an individual kid ($7), family ($12), club ($15), school ($9 per class/minimum 3 classes).

How to Reach KSE Worldwide

Write: KSE Worldwide, P.O. Box 421118, Plymouth, MN 55442.
Phone: 612-559-1234, 612-559-0602.
E-Pal Connection™: KSEWW@aol.com.
Fax: 612-559-6980.



Manatees love to eat the sea plants from the shallow waters of the Gulf of Mexico and the Caribbean. One Manatee gobbles up 60–80 pounds of sea plants daily to feed its huge, round, seal-shaped body. These gentle, friendly creatures are becoming endangered because they are often hit by boats or ships. Their food and water is in trouble from the poisons and trash that pollute their ocean home.

Send KSE your list of ways to help Manatees. Write reports and draw pictures on other water creatures including alligators, frogs, turtles, mosquitoes, storks, red-winged blackbirds, sharks, whales, dolphins, sea horses, and any other animals you love. Make copies and send them to KSE.

For more Healthy Waters info call ▷ American Rivers 202-547-6900 ▷ Clean Water Action 202-457-1286 ▷ Save Our Streams, Izaac Walton League 800-284-4952