Leap into LAKES

Teacher Resource Guide



Acknowledgements

PRODUCED BY:

Madison Children's Museum, 2008 In conjunction with the *Leap Into Lakes* outreach program

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SPECIAL THANKS TO



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* Introduction

Madison Children's Museum's *Leap into Lakes* outreach program is designed to spark children's curiosity and engage them in the exploration of lakes, plants, fish, birds, habitats, watersheds, ecosystems, and the water cycle, while familiarizing them with lake life in their local communities. The exhibit components provide children with focused experiences that challenge their ideas about the world and help them develop more complex theories about the natural environments that surround them. *Leap Into Lakes* supports an inquiry-based science curriculum that builds on children's spontaneous exploration and guides them to be more attentive in their observations and investigations. *Leap into Lakes* offers children opportunities for connected learning.

Madison Children's Museum is dedicated to hands-on exploration that stimulates inquiry and is driven by children's interests. *Leap Into Lakes* will provide children with multiple forms of representation as they explore important concepts about lakes and watersheds. Children will learn to plan, explore, look for patterns, investigate, and draw conclusions about aquatic life, and will be encouraged to examine their own questions and ideas in an environment that supports inquiry-based learning.

This resource guide is designed to support the museum's *Leap Into Lakes* outreach program by providing classroom activities to extend and reinforce the concepts introduced during Madison Children's Museum's classroom visits. This guide will enhance classroom curriculum and offer opportunities to use *Leap Into Lakes* to explore science, literature, music, art, and math. The *Leap into Lakes* exhibit and Teacher Resource Guide will stimulate brain development as children are introduced to a science curriculum that allows them to explore and investigate their questions about the world.

* (|assroom science Activities

Children are driven by curiosity, and hands-on science activities enhance an inquiry-based preschool science curriculum. Children learn in a complex assortment of ways and will develop essential skills when they are exposed to hands-on activities. These activities challenge their curiosity and teach children how to hypothesize, investigate, observe, and draw conclusions from their discoveries. Young children use their senses to investigate and compare objects. They will be provided with tools that will help them gather information, test observations, measure, look for patterns, and observe processes and relationships. These scientific experiments are inquiry-based, and children should be given the opportunity to describe their predictions as they test their observations and compare materials. These experiments will increase children's understanding of water and aquatic life.

SUGGESTED MATERIALS FOR CLASSROOM SCIENCE CENTER

Magnifying glasses Petri dishes

Eyedroppers Shallow pans or trays

Rulers PVC pipe

Tape measures Plastic measuring cups
Scales Student field guides

TubesRocksFunnelsShellsBug jarsBones

Plastic soda bottles Pinecones

Clipboards/writing utensils Rope or string

Natural objects Magnets

Exploring water Drops

MATERIALS Eye droppers

Wax paper

Food coloring

Coffee filters

Cookie sheets, meat trays, or other vessels to contain paper

ACTIVITY

- 1. Give children eyedroppers and a small cup of water. To practice measuring, give a concrete measurement of 4 oz. and let children measure and pour water into their individual vessels.
- 2. Let the children use the eyedroppers to take water out of the cup and squirt it into a piece of wax paper.
- 3. Have them observe whether the drops stay together or separate on the paper.
- 4. Let children use the eyedropper to move the drops of water around the wax paper.
- 5. Let children use the eyedroppers to squirt colored water onto the wax paper and then onto a coffee filter.
- 6. Make observations about the water on the wax paper and the coffee filter.

CONCLUSION Children will discover that wax paper does not absorb the water and they can separate and combine water droplets. They will also discover that coffee filters absorb water. The wax paper can be compared to bird feathers that repel water and the coffee filter can be compared to animal fur. Discuss animal habitats related to specific adaptations of animals such as feathers and fur. Why does a water bird need webbed feet and feathers that repel water? Why would a raccoon live by the water but not in it?

GOAL Children will make comparisons and apply their knowledge to a new context as they explore water on different surfaces.

Properties of water

Eyedroppers **MATERIALS**

Food coloring

Water

Ice trays

Thermometer (optional)

- **ACTIVITY** 1. Give children clear glasses of water.
 - 2. Let them add a drop of food coloring and stir it up.
 - 3. Use a thermometer to measure the temperature of the water.
 - 4. Document the temperature.
 - 5. Let children use eyedroppers to put the water in ice cube trays.
 - 6. When the trays are full, tell the children that you will put them in the freezer overnight.
 - 7. Have the children predict what they think will happen to the water.
 - 8. Document their predictions.
 - 9. Freeze the water overnight and put the ice cubes in the sensory table for the day.
 - 10. Have children predict what will happen to the ice.
 - 11. As it melts, take the temperature of the water.
 - 12. Compare temperatures.

CONCLUSION

Water has a liquid and solid form. The temperature needs to be cold to create a solid form and warm for a liquid form.

GOAL Children will have growing awareness of language and ideas related to water in its different forms and learn how temperature affects water.

Hands-On water Exploration

MATERIALS Sensory table or vessel that holds water

Funnels

Tubes

Measuring cups

Hoses

Ice cubes (optional)

ACTIVITY Supply children with water and many tools to explore and investigate

water. Allow children to experiment with pouring, dumping, and

measuring.

GOAL Children will use their senses and a variety of tools to measure,

investigate and understand the properties of water.

Rainstorm in a Jar

1 clear glass or plastic jar **MATERIALS**

Hot water

Tin foil

Ice

Flashlight

ACTIVITY

- 1. Fill 1/3 of the jar with hot water.
- 2. Put tin foil on the top of the jar and make a depression into the foil.
- 3. Set ice cube on the foil.
- 4. Shine a flashlight through the jar and observe.

CONCLUSION Children will observe that when hot air mixes with cold air, condensation or rain will develop. They gain a better understanding of the water cycle.

GOAL Children will gain observation skills and learn to ask questions through active participation.

BOOK Read *Up, Down and All Around* to supplement the experiment.

How Plants Absorb water

MATERIALS Two jars

Food coloring

3 White carnations, daffodils, or celery sticks

ACTIVITY

- 1. Put blue food coloring in one jar with a small amount of water.
- 2. Put red food coloring in the other jar with a small amount of water.
- 3. Have children hypothesize what they think will happen if you put plants in the jars with the food coloring.
- 4. Write down their hypotheses.
- 5. Put one plant in the blue jar.
- 6. Put one plant in the red jar.
- 7. Split the stem of the third plant and stick half of the stem in each jar.
- 8. Leave the experiment on the science table for several hours and examine it periodically.
- 9. Observe it at the end of the day and compare observations and predictions.

CONCLUSION

Children will discover that the plants absorb the colored water through the stem. They will see veins of color as the water travels up the stem to the leaves or flower.

GOAL Children will increase their ability to make predictions and observe and compare objects. They will explore cause and effect relationships.

water Filtration (How to clean water)

MATERIALS 1 clear plastic 2-liter bottle

Cotton

Large gravel

Small gravel

Large grain sand

Small grain sand

Coffee filter

Clean cup

Rubber band

Tin foil

ACTIVITY

- 1. Cut the bottom off the bottle.
- 2. Place tin foil on the top where the cap would be and tighten it on with a rubber band. Make a small hole in the tin foil so that it can drain.
- 3. Begin making the filter by having children stuff cotton down toward the cap from the bottom of the bottle.
- 4. Add 1" fine grain sand
- 5. Add 1" large grain sand
- 6. Add 1" small gravel
- 7. Add 1" large gravel
- 8. Lay filter on top
- 9. Have children predict what will happen if we pour muddy water over the filter and through the layers of sand and gravel.
- 10. Write down their predictions.
- 11. Pour cups of muddy water through the filter.
- 12. Compare predictions.

CONCLUSION

Children will see how the ground filters water. They will gain a better understanding of natural water filtration.

GOAL Children will be driven by curiosity and gain awareness of natural processes.

The Effects of Pollution on Birds

MATERIALS Cooking oil

Bird feathers

Medicine dropper

Magnifying glasses

- **ACTIVITY** 1. Let children examine the feathers with magnifying glasses.
 - 2. Have children hypothesize what will happen to the feathers when they get wet.
 - 3. Write down some of their hypotheses.
 - 4. Let children use eyedroppers to put water on their feathers. Look at the feathers again under the magnifier.
 - 5. Have children hypothesize what will happen to the feathers when oil gets on them.
 - 6. Write down some of their hypotheses.
 - 7. Let the children use eyedroppers to apply oil to the feathers. Compare hypotheses and observations.
 - 8. Apply water again. Let children observe what happens.

CONCLUSION Children will discover that feathers repel water. They will observe that the feather's ability to repel water is effected by its exposure to oil.

GOAL Children will explore cause and effect relationships and coordinate handeye movement as they use the medicine droppers to manipulate the oil and water. They will learn to hypothesize and make predictions.

Discuss how birds can be in the rain and water without getting wet. Discuss the harmful effects of pollutants on birds.

Density of Hot and (old water

MATERIALS 1 clear plastic glass of hot water

1 clear plastic glass of cold water

Eyedropper Food coloring

Thermometer

ACTIVITY

- 1. Measure the temperature of the water. (Optional)
- 2. Ask children what they think will happen if they mix hot water and cold water together.
- 3. Write down their hypotheses.
- 4. Gather the materials and let children work individually or create a small group activity out of the experiment.
- 5. Add food coloring to the hot water.
- 6. Let children use an eyedropper to put colored hot water into the cup of cold water.
- 7. Observe what happens.
- 8. Measure the water's temperature again.
- 9. Record observations.

CONCLUSION Children will observe that the colored water stays on top of the clear water. This demonstrates that hot water is lighter and less dense than cold water.

GOAL Children will develop a growing awareness of attributes related to the temperature of water.

Hot and Cold Air DenSity

MATERIALS One plastic 16 oz. soda bottle

One balloon

1 tub of hot water

1 tub of cold water

- **ACTIVITY** 1. Attach a balloon to the top of the soda bottle so that the balloon opening goes over the bottle threads.
 - 2. Fill up one large bowl or tub with hot water.
 - 3. Fill up one large bowl or tub with cold water.
 - 4. Ask the children what they think will happen when you put the bottle in the hot water.
 - 5. Put the bottle in the hot water.
 - 6. Ask children what they think will happen when you put the bottle in the cold water.
 - 7. Put the bottle in the cold water.
 - 8. Observe air changes in the balloon.

CONCLUSION Hot air is light and rises, causing the balloon to expand. Cold air is dense which causes the balloon to deflate.

GOAL Children will learn to observe and hypothesis and have an increased awareness of the effects of temperature on air.

★ Art Activities

Art is a process-oriented activity that gives children the opportunity to express themselves. Children are able to take their knowledge of the world and create symbolic representations using a variety of mediums. They use their senses and learn to work independently. They gain fine muscle control and hand-eye coordination as they work with a multitude of materials. These art projects allow children to deepen their understanding of lakes and aquatic ecosystems while providing an outlet for self-expression.

Sponge Painting Lake Ecosystems

MATERIALS Kitchen sponges cut into fish and plant shapes

Colored washable tempera

Paper

ACTIVITY Discuss lakes and underwater habitats with the children or read a book

from the bibliography. Have children create their own lake worlds by

painting with fish and plants.

GOAL Children will progress in their ability to create paintings and build on

their knowledge and ideas by adding creative detail. They will have the

opportunity to explore with their senses.

Paper Maché Fish

MATERIALS Small pear-shaped balloons (inflated and knotted)

Large bowls of flour and water mixed together

Newspaper strips

Paint

Cardboard or construction paper for tail or fins

ACTIVITY Have children dip their newspaper strips into paper maché mixture. Have

them cover the balloon with newspaper until no balloon parts are showing. Allow to dry for two to three days. Let children paint the fish when they are dry and decorate them with fins or tails. Hang in the classroom to create an undersea world or let the children bring their fish creations home. For a faster-drying project, use a mixture of equal parts water and white school glue in place of the flour mixture.

GOAL Children will get to use their senses for creative expression while they experience using different art media.

Lake Life (ollages

MATERIALS Paper

Glue

Cut-out pictures of birds, frogs, fish, insects and plants from magazines or clip art

ACTIVITY Children will use their knowledge of lakes and watersheds to choose animals for their collages that make habitats in an aquatic ecosystem.

GOAL Children will learn to arrange objects while coordinating hand-eye movement.

Paper Plate Pond Mosaics

MATERIALS Paper plates

Small pieces of blue paper or tissue paper

Shapes of aquatic animals or fish from magazines or clip art

Green tissue paper plant shapes

Glue

Paintbrushes

ACTIVITY Children will glue colored paper pieces and shapes onto paper plates to create a pond.

GOAL Children will develop small muscle control in their hands and have the opportunity for creative expression that draws upon their knowledge of the aquatic world.

Plastic Bottle Lakes

MATERIALS Food coloring

1/4 - 1/2 cup Water

1/4 - 1/2 cup Oil

Small plastic water or soda bottles

Glitter, sand, beads, shells or other small object (optional)

Funnels

ACTIVITY Children will use the funnels to fill the bottles with a little water, a little oil

and food coloring. They will observe that oil and water do not mix.

GOAL Children will practice measuring and pouring. They will have increased

awareness of attributes related to oil and water.

Math Activitie ✓

Math activities offer children opportunities for problem-solving. They learn important skills as they classify, sort, compare, measure, look for patterns, identify shapes, and determine quantities. Math activities enhance logical thinking. As children problem solve, they build awareness of simple math concepts and learn to recognize common geometric shapes, understand spatial relationships, and identify patterns.

Fish and Pretzel Sorting

MATERIALS Cheddar goldfish crackers

Pretzel sticks

Cheese spread or peanut butter

ACTIVITY

Let children have a snack-size helping of goldfish and pretzels from a bowl. Give them a tablespoon of cheese spread or peanut butter on their napkins. Have children sort the fish and pretzels. See if some children can count their fish. Let children use the pretzel rods as fishing poles and have them dip them in the cheese or peanut butter to go fishing for goldfish.

GOAL

Children will develop an increased awareness of determining quantities and counting. They will learn to sort and arrange objects.

Fish (lassification Game

MATERIALS Wisconsin Wildcards (included in classroom kit)

Copy machine

Scissors

Colored construction paper Laminating supplies (optional)

ACTIVITY Make enlarged photo copies of various sizes of Wisconsin Wildcards.

Cut the fish out and attach them to different colors of construction paper

to make cards. Use one color of paper for each species of fish. Have the children sort and classify them according to species, size or color. Have rulers out so that children can measure their fish. Laminate if desired for durability.

GOAL Children will learn number recognition through measuring and learn to classify fish species according to size, shape, and color.

Aquatic Ecosystems Shapes Game

MATERIALS Paper shapes

Fish shapes

String, pipe cleaners, or lanyard

Scissors

Noodles or large beads

ACTIVITY

Give children an assortment of paper shapes (triangles, circles, squares, rectangles, ovals, diamonds, and hearts). Punch holes in the shapes for easy stringing and manipulation. Children will have the opportunity to string the shapes on a lanyard with noodles or large beads and wear their shape necklaces. Have children match shapes to objects found in natural environments or lake ecosystems.

GOAL Children will learn to recognize common shapes and patterns in nature. Fine motor skills will be enhanced as children string shapes on a lanyard to create a necklace. Children will be introduced to math concepts and geometry as they count and recognize shape patterns.

Sink or Float

MATERIALS Sensory table or vessel that holds water

Water

Rocks, sticks, corks, shells, plastic aquatic animals, etc.

ACTIVITY Fill the sensory table or vessel with water. Set out the objects and ask the children if they think each object will sink or float. Sort the objects according to their attributes and make comparisons. Make a chart with number of votes for sink and float. Count how many votes each object received. Weigh the objects.

GOAL Children will learn to sort and classify. They will learn about the properties of objects in relation to water.

* Songs

GOAL Songs offer opportunities for children to build on their knowledge of nature and its functions while increasing their interest and enjoyment in the curriculum. Lyrics connect children to concepts related to watersheds and aquatic environments. Children will be given openended opportunities to express themselves through music and

Four Big Lakes

movement activities.

(To Three Blind Mice)

Four big lakes, four big lakes
In Yahara watershed, in Yahara watershed
Mendota, Monona, on top they go
Waubesa, Kegonsa are down below
Yahara River makes the lakes flow
Four big lakes, four big lakes

(uatro Grandes Lagos

Cuatro grandes lagos, cuatro grandes lagos En la cuenca del Yahara, en la cuenca del Yahara Mendota, Monona, arriba van dos Waubesa, Kegonsa abajo otros dos Y el río Yahara los une veloz Cuatro grandes lagos, cuatro grandes lagos.

I'm a Little Fishy

(To I'm a Little Teapot)

I'm a little fishy I can swim
Here is my tail and here is my fin
When I want to have fun with my friends
I wiggle my tail and dive right in

Have you Seen a Sunfish?

(To Do You Know the Muffin Man?)

Have you seen a sunfish?
A sunfish, a sunfish?
Have you seen a sunfish?
That lives in Lake Mendota

Have you seen a musky? A musky, a musky? Have you seen a musky? That lives in Lake Monona Have you seen a carp?
A carp, a carp?
Have you seen a carp?
That lives in Lake Waubesa

Have you seen a catfish?
A catfish, a catfish?
Have you seen a catfish?
That lives in Lake Kegonsa

Food Web Song

(To Farmer in the Dell)

The earth circles the sun, the earth circles the sun Hi-ho the derry-o, the earth circles the sun.

The sun feeds the plants, the sun feeds the plants Hi-ho the derry-o, the sun feeds the plants.

Herbivores eat plants, herbivores eat plants, Hi-ho the derry-o, herbivores eat plants.

Carnivores eat animals, carnivores eat animals, Hi-ho the derry-o, carnivores eat animals.

Omnivores eat both, omnivores eat both, Hi-ho the derry-o, omnivores eat both.

Water gives life to us all, water gives life to us all, Hi-ho the derry-o, water gives life to us all.

Five Green Speckled Frogs

(counting game)

Five green speckled frogs
Sat on a speckled log
Eating the most delicious bugs
Yum, yum!
One jumped into the pool
Where it was nice and cool
Then there were four green speckled frogs
Repeat for four, three, two and one

• Glossary of Terms (English/Spanish)

Adaptation The process by which an organism or species becomes

suited to its environment.

Adaptación El proceso en que un organismo se adecúa a su ambiente.

Aquatic Growing or living in or near water.

Acuático Creciendo o viviendo en o cerca al agua.

Bird A feathered vertebrate with a beak, two wings, and two feet,

egg laying.

Pájaro Un vertebrado con pico, plumas y dos patas que se reproduce

por huevos.

Carnivore Any flesh-eating mammal or plant.

Carnívoro Un organismo animal o vegetal que consume carne.

Community A group of animals or plants living or growing together in the same area.

Comunidad Un grupo de plantas o animales que viven o crecen juntos en una

misma área.

Ecosystem A biological community of interacting organisms and their physical

environment.

Ecosistema Una comunidad biológica de organismos interactuando

entre si y su medio físico circundante.

Environment External conditions affecting the growth of plants and animals.

Medio ambiente Las condiciones externas que afectan la vida de plantas y animales.

Fish A vertebrate cold-blooded animal with gills, fins, living wholly in water.

Peces Un vertebrado acuático de sangre fría con branquias y aletas.

Food Web A series of organisms, each dependent on the next for food.

Cadena alimentaria Una serie de organismos cada uno dependiente al próximo para

su alimentación.

Habitat The natural home of an organism, consisting of food, water and shelter.

Hábitat El hogar natural de un organismo compuesto por su comida, agua y

amparo.

Herbivore An animal that feeds on plants.

Un animal que consume plantas.

Hypothesis A supposition made as a stating point for further investigation from

known facts.

Hipótesis Una suposición que forma un punto de inicio para la recopilación de datos.

Isthmus A narrow piece of land connecting two larger bodies of land.

Istmo Un terreno estrecho que se encuentra a menudo entre dos cuerpos de

agua que conecta dos terrenos amplios.

Lake A large body of water surrounded by land.

Lago Un cuerpo de agua dulce rodeado por tierra.

Life Cycle A series of changes in the life of an organism including reproduction.

Ciclo de Vida La serie de cambios en la vida de un organismo, incluyendo su

reproducción.

Marsh A lowland flooded in wet weather and watery at all times.

Pantano Tierras bajas inundadas durante épocas lluviosas y siempre saturadas.

Measurement An amount determined by measuring.

Dimensión La cifra obtenida por medición.

Omnivore Feeding on flesh and plants.

Omnívoro Un organismo que consume carne y plantas.

Organism An individual live plant or animal.

Organismo Un individuo vivo animal o vegetal.

Plant Any living organism containing chlorophyll enabling it to live wholly on

inorganic substances and lacking specialized sense organs and the power

of voluntary movement.

Planta Un organismo vivo que contiene clorofila, lo que lo permite vivir

exclusivamente de sustancias inorgánicas con carencia de órganos

especializados de sensación y movimiento.

Prediction To make a statement about the future.

Predición Hacer una declaración acerca del futuro.

Pond A fairly small body of still water formed naturally or by hollowing or

embanking.

Estanque Un cuerpo de agua dulce pequeño formado naturalmente, o por

excavación.

Watershed All the land area that drains into a body of water.

Cuenca Todo el área terrestre que drena hacia un cuerpo de agua.

Definitions are from *The Oxford American Dictionary and Language Guide*, copyright 1999 by Oxford University Press, Inc., published by University Press.

Bibliography

GOAL These books will increase children's awareness and understandings of concepts related to aquatic ecosystems. Children will learn to demonstrate knowledge of the alphabet and recognize the association between spoken and written words. Literature reinforces learned material and gives children information to help them develop informed investigations and hypothesis. Children will develop environmental literacy and learn new vocabulary words related to lakes, watersheds and aquatic life.

Titles marked with an * are available through South Central Library Services. Visit <u>www.linkcat.info</u> to request books to be sent to your nearest public library for pickup.

Books on wetlands and Aquatic Species

Around The Pond: Who's Been Here*, by Lindsay Barrett George, copyright 1996 by Lindsay Barrett George, published by Willow Books. ISBN: 0688143768

Ducks Don't Get Wet*, by Augusta Goldin, illustrated by Helen K. Davie, text copyright 1965, 1989 by Augusta Goldin, illustrations copyright 1999 by Helen K. Davie, published by HarperCollins Publishers. ISBN: 0064451879 (paperback)

*Fish Eyes: A Book You Can Count On**, by Lois Ehlert, copyright 2006 by Lois Elhert, published by Harcourt and Brace Company. ISBN:015216281X

From Tadpole to Frog*, by Wendy Pfeffer, illustrated by Holly Keller, copyright 1994 by Wendy Pfeffer, illustrations copyright 1994 by Holly Keller, published by HarperCollins Publishers.

ISBN: 0060230444

ISBN: 0060231173 (library binding) ISBN: 0064451232 (paperback)

Here is the Wetland*, By Madeline Dunphey, illustrated by Wayne McLoughlin, copyright 1996 by Madeline Dunphey and illustrations copyright 1996 by Wayne McLoughlin, printed by Hyperion Book for Children.

ISBN: 0786801646 (trade) ISBN: 0786821361 (library)

*Herons**, by Margaret Hall, copyright 2004 by Capstone Press, published by Capstone Press. ISBN: 0736820647 (hardcover)

Jump, Frog, Jump*, by Robert Kalan, illustrated by Byron Barton, copyright 1981 by Robert Kalan, illustrations copyright 1981 by Byron Barton, published by Scholastic, Inc. ISBN: 0688148492 (paperback)

Learning About the Earth: Lakes, by Emily Green, copyright 2007 by Bellwether Media, published by Bellwether Media. ISBN: 1600140378

Near One Cattail, by Anthony D. Fredericks, illustrations by Jennifer Dirubbio, copyright 2005 by Anthony Fredericks, illustrations copyright 2005 by Jennifer Dirubbio, published by Dawn Publications ISBN: 1584690712

River Song, by Steve Van Zandt, illustrated by Katherine Zecca, copyright 2007 by Steve Van Zandt, illustrations copyright 2007 by Katherine Zecca, published by Dawn Publications. ISBN: 1584690941

The River, by Gallimard Jeunesse and Laura Bour, illustrated by Laura Bour, copyright 1992 by Editions Gallimard, published by Scholastic, Inc. ISBN: 0590471287

Squish! A Wetland Walk*, by Nancy Luenn, illustrated by Ronald Himler, copyright 1994 by Ronald Himler, published by Simon and Shuster. ISBN: 0689318421

*Turtle Splash**, by Cathryn Falwell, copyright 2001 Cathryn Falwell, published by Green Willow Books. ISBN: 0060294620 (trade)

What's in the Pond?*, by Anne Hunter, copyright 1999 by Anne Hunter, published by Houghton Mifflin Company. ISBN: 0395912245

Books on the water (ycle

Drip! Drop! How Water Gets in Your Tap*, by Barbara Seuling, illustrated by Nancy Tobin, copyright 2000 by Barbara Seuling, published by Holiday House Inc. ISBN: 0823414590 (hardcover)

A Drop Around the World, by Barbara McKinney, copyright 1998 by Barbara McKinney, published by Dawn Publications. ISBN: 1883220726

The Drop Goes Plop: A first Look at the Water Cycle*, by Sam Godwin, illustrated by Simone Abel, copyright 2005 by Sam Godwin, illustrations copyright 1998 by Simone Abel, published by Picture Window Books. ISBN: 1404806571 (hardcover)

The Snowflake: A Water Cycle Story*, by Neil Waldman, copyright 2003 by Neil Waldman, published by Millbrook Press. ISBN: 0761323473

*Water: Up, Down, and All Around**, by Natalie M. Rosinsky, illustrated by Matthew John, copyright 2003 by Window Picture Books, published by Window Picture Books. ISBN: 1404800174

Bilingual and Spanish Books

*Eliza and the Dragonfly**, by Susie Caldwell Rinehart, illustrated by Anisa Claire Hovemann, copyright 2004, published by Dawn Publications. ISBN: 158469067

El Agua: Arriba, Abajo Y En Todos Lados, by Natalie M. Rosinsky, illustrated by Matthew John, copyright 2003 by Window Picture Books, published by Window Picture Books. ISBN: 1404824871

El Autobus Magico Se Salpica Todo: Un Libro Sobre El Ciclo Del Agua, by Joanna Cole and Bruce Degan, copyright 1996 by Joanna Cole and Bruce Degan, published by Scholastic Inc. ISBN: 059085951X

El Agua Como Líquido, by Helen Frost, copyright 2006 by Capstone Press, published by Capstone Press. ISBN: 0736823123

*¡Salta, Ranita, Salta!**, By Robert Kalan, illustrated by Byron Barton, copyright 1981 by Robert Kalan, illustrations copyright 1981 by Byron Barton, published by Scholastic, Inc. ISBN: 0688138047

Teacher Reference Books

A Drop of Water*, by Walter Wick, copyright 1997 by Walter Wick, published by Scholastic, Inc. ISBN: 0590221973

Designs for Living and Learning: Transforming Early Childhood Environments*, by Deb Curtis and Margie Carter, copyright 2003 by Deb Curtis and Margie Carter, published by Redleaf Press. ISBN: 1929610247

Good Earth Art, by MaryAnn F. Kohl and Cindy Gainer, copyright 1991 by MaryAnn F. Kohl, published by Bright Ring Publishing. ISBN: 0935607013

Freshwater Habitats: Life in Freshwater Ecosystems*, by Laurie Toupin, copyright 2004 by Dembinsky Photo Assoc./NASA, published by Scholastic, Inc. ISBN: 0531123057

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

Disorder*, by Richard Louv, copyright 2005 by Richard Louv, published by Algonquin Books of Chapel Hill. ISBN: 1565123913

Project Wild Aquatic, by Council for Environmental Education, copyright 2005, 2004, 2003, 2002, 2001, 2000, 2000, 1992, 1985, and 1983 by the Council for Environmental Education, published by Council for Environmental Education. AISN: B00013Z421

*Water: Experiments to Understand It**, by Boris Arnov, illustrations by Giulio Maestro, copyright 1980 by Boris Arnov, published by Lathrop, Lee & Shepard Books. ISBN: 0688419275

Wetlands Plants and Animals Coloring Book, by Annika Bernhard, copyright 1994, published by Courier Dover Publications. ISBN: 0486277496

Worms, Shadows and Whirlpools: Science in the Early Childhood Classroom by Karen Worth and Sharon Grollman, copyright 2003 by Education Development Center, Inc., published by Heinemann. ISBN: 03250057737

