

**USING ARTISTIC EXPRESSION IN THE STUDY OF WATERSHEDS:  
CREATION OF WISCONSIN RIVER OF WORDS**

by

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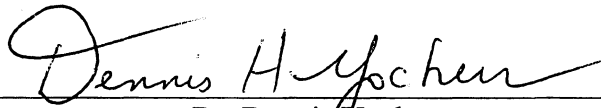
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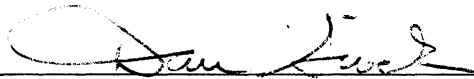
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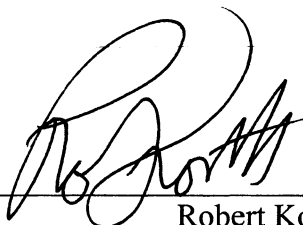
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## **ABSTRACT**

River of Words (ROW) is an international art and poetry program created to promote literacy and environmental awareness. Through resources for educators and an annual K-12 art and poetry contest on the theme of “watersheds,” ROW encourages educators and youth to investigate their natural surroundings and express their experiences, thoughts and feelings through art and poetry.

In this project, I created a “Wisconsinized” version of ROW. By contacting ROW programs in other states, possible program components were explored. I conducted professional development workshops for educators, and with feedback from participants developed a Wisconsin ROW Educators’ Guide. In addition, Wisconsin ROW was marketed to various groups in the state. This project is part of a comprehensive development of Wisconsin ROW being undertaken by the Wisconsin Lakes Partnership.

## ACKNOWLEDGEMENTS

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In addition, I would like to thank members of the Wisconsin Lakes Partnership. Jeff Bode and Robert Korth, who have been very supportive of the development of Wisconsin River of Words from the moment I first mentioned it, truly see the value of children's art and poetry in the quest to "protect in partnership our legacy of lakes."

Lastly, thanks and love to Stephen Grohmann, who is the rock enabling me to climb higher.



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## **Chapter One**

### **Introduction to the Project**

The Wisconsin Lakes Partnership (WLP), composed of the University of Wisconsin-Extension, Wisconsin Department of Natural Resources, and Wisconsin Association of Lakes, completed a 10-year strategic plan entitled, “The Water Way,” in March, 2001. Goal A of the plan seeks to “educate for lake leadership and informed decision-making for all ages.” The strategies for this goal include:

- Work to develop awareness, knowledge, communication and leadership skills.
- Develop, provide and promote water education materials.
- Improve our capacity to deliver water education by fostering collaborative educational efforts with other partners.

The WLP developed anticipated accomplishments of their goals. An anticipated accomplishment of this education goal is, “We have developed focused educational programs and educational tools for teachers, youth leaders, lake organizations and agency personnel. We provided assistance in supplying materials to support their work and provided needed facilitation and leadership training.”

While the Wisconsin Lakes Partnership sponsors many educational programs that meet the education goal, none of them included the arts. WLP wanted to find a means to encourage children to not only study their local water resources, but to give voice to their concerns in an imaginative manner. There exists a belief that technical analyses of ecosystems does not lead to the motivation to protect the ecosystem; instead, it is a profound connection to the land that leads people to protect.

River of Words (ROW) provided a program format and materials to bring the arts into WLP's educational offerings, and 2003 provided a significant year in which to do it. In October 2002, Governor Scott McCallum declared 2003 the Year of Water in Wisconsin, and Governor Jim Doyle reaffirmed the designation upon acquiring the office. The Waters of Wisconsin (WOW) initiative was undertaken by the Wisconsin Academy of Science, Arts and Letters. WOW sought to bring Wisconsin's citizens together to identify specific actions that could move the state towards the goal of water resource sustainability.

The WOW Forum, held in Madison, Wisconsin on October 20-22, 2002, attracted over 600 people to begin the process. The arts were an integral part of the Forum, thereby setting a tone for the Year of Water. Plenary sessions featured poetry, song, and native dance, while each concurrent session began with a Wisconsin poet reading his or her work regarding the state's water.

One of the recommendations developed by WOW involved broadening educational efforts during the Year of Water and beyond. Waters of Wisconsin: The Future of Our Aquatic Ecosystems and Resources is the "final report" of the WOW effort. This report states that "effective stewardship of Wisconsin's waters depends on broad citizen awareness and on actions taken at the individual, community, and watershed levels. This in turn depends on the widespread acceptance of a shared water ethic that combines a critical understanding of water with an attitude of care and concern." The report calls for

a partnership of educators and institutions to review and assess water education efforts, paying special attention to K-12 water education programs and needs. In order to meet future K-12 needs, according to the report, educators must assess, inventory and review existing curricula, define essential water concepts for Wisconsin students, and “identify opportunities to integrate water education into existing science, math, history, health, social studies, language arts, visual arts, and other programs” (WASAL, 2003).

On November 3, 2003, the Wisconsin Academy hosted a “closing” to the Year of Water. The seminar, entitled, “Community, Arts and Culture,” highlighted creative ways that schools and organizations are incorporating the arts into water education. This focus on the arts to complete the Year of Water further demonstrated the importance of a program like River of Words to the state’s educational offerings.

### **Project Goal**

The project will create and promote Wisconsin River of Words, a statewide program providing resources to educators interested in incorporating the study of their local watershed through art and poetry into classroom curricula or youth programs.

### **Objectives**

1. Examine components of existing River of Words programs in other states.
2. Design program components for Wisconsin River of Words.
3. Promote WROW to educators throughout the state.

4. Enhance environmental education skills through a series of professional development workshops focusing on watersheds, poetry and art.
5. Determine whether educators used the information from the professional development workshops.
6. Develop a WROW resource guide for educators to complement the national River of Words program.
7. Make recommendations for the continuation of the Wisconsin River of Words program to the Wisconsin Lakes Partnership.

### **Limitations**

1. The generalized materials distributed in workshops may or may not be helpful to individual educators due to their specific position and/or prior knowledge.
2. It is difficult to reach all educators within the state with information about a program.
3. Not all other states with ROW programs will be contacted.
4. Not all water or arts-related organizations will be asked to partner in this endeavor, therefore, some potentially good partnerships may be missed.
5. All educators who attended the professional development workshops may not provide feedback.
6. There is no guarantee that Wisconsin River of Words will be continued after the initial development.

## **Assumptions**

1. River of Words is a quality environmental education program that will benefit Wisconsin's educators and students.
2. There are other organizations within Wisconsin that will be interested in taking part in the implementation of River of Words.
3. Educators will be interested in attending a River of Words professional development workshop.
4. The Wisconsin Lakes Partnership will continue to offer River of Words to educators in the future.

## **Definitions of Terms**

*Environmental education* – a form of education which leads to an informed and involved citizenry having the creative problem-solving skills, scientific and social literacy, ethical awareness and sensitivity for the relationship between humans and the environment, as well as the commitment to engage in responsible actions (based on definition provided by the Wisconsin Environmental Education Board, [www.uwsp.edu/cnr/weeb/supportpages/mission.htm](http://www.uwsp.edu/cnr/weeb/supportpages/mission.htm), May 17, 2004).

*Environmental sensitivity* – viewing the natural world with empathy.

*Place-based education* – a form of environmental education which uses local environments as the framework for students' educational experiences.



*Sense of place* - the meaning, values, and feelings that people associate with physical locations because of their experiences there.

### **Abbreviations**

EE – Environmental Education

ROW – River of Words (will be used to indicate the national River of Words program, based in California)

UWEX – University of Wisconsin- Extension

WDNR – Wisconsin Department of Natural Resources

WDPI – Wisconsin Department of Public Instruction

WLP – Wisconsin Lakes Partnership

WROW – Wisconsin River of Words

## **Chapter Two**

### **Review of the Literature**

#### **Introduction**

This chapter will explain the nature of River of Words (ROW) as well as its connections to environmental education (EE). It will be shown that ROW, with its focus on local watersheds, is a place-based poetry and art program that can help build an individual's sense of place. ROW can be an integral part of a curriculum, as it can be used to meet academic standards, both in Wisconsin and nationally. The theory of multiple intelligences will be outlined to show that the use of poetry and art in the study of watersheds can strengthen many of the intelligences. Finally, the biophilia hypothesis will be explained. By giving students a chance to nourish their biological need to be emotionally connected to other living things, they may become more environmentally sensitive.

#### **About River of Words**

According to the River of Words Educator's Guide, "ROW is an international poetry and art program created to promote literacy and environmental stewardship. By helping youth to explore and interpret their watersheds through a multidisciplinary curriculum that combines science, history, geography, math, language and the arts, ROW is helping children to develop respect for the natural world and an understanding of their place in it" (October, 2001).

ROW was started in 1995 by then-U.S. Poet Laureate, Robert Hass, and Pamela Michaels, a writer from California. It provides resources for educators through a binder of activities and readings, a website, and publications of student art and poetry. For students, it conducts an annual K-12 art and poetry contest on the theme of “watersheds.” While ROW was started as a national program, it has since expanded to include international entries to the art and poetry contest. The contest is portrayed as a means of sharing and disseminating student work.

The ROW contest has four age level categories in art and four in poetry, giving a total of eight Grand Prizes. These eight Grand Prize winners, along with one International Grand Prize winner and one Teacher of the Year, receive a trip to Washington, DC to be honored at an awards ceremony, public reading and art show at The Library of Congress.

ROW has put together an Educator’s Guide containing readings and activities. Section headings include: Education for Sustainability, About Watersheds, Sense of Place, Science and Arts Connection, Teaching Poetry, Social Studies, Additional Classroom and Field Activities, and Resources. The overall guide is meant to be a framework to assist educators in designing a program, and does not indicate specific grade levels or outcomes for specific activities, as other water education activity guides (Project WET, for example) do. In addition, it does not tie the activities to academic standards.

The original intention of ROW organizers in California was to initiate the program across the U.S. However, their small staff size and low budget proved inadequate for the size of

the task. ROW is currently in the process of recruiting organizations in individual states to act as statewide coordinators.

### **Poetry and art programs in Wisconsin**

A search of the internet revealed few poetry competitions in Wisconsin; the poetry competitions that do exist are primarily for adults, such as a contest offered by the Wisconsin Academy of Sciences, Arts and Letters. Only one organization was found, the Wisconsin Fellowship of Poets, which offers a contest for students. Students in grades 6-12 are invited to enter a poem on a topic of their choosing. Cash awards are given in this annual contest ([www.wfop.org](http://www.wfop.org), September 25, 2003).

A contest in Washington County called “Champions of the Environment” encourages local K-12 students to “demonstrate their environmental knowledge” in the divisions of poster, spokesperson, mixed media display, environmental writing, and project.

([www.co.washington.wi.us/lcd](http://www.co.washington.wi.us/lcd), September 26, 2003). The Wisconsin Center for the Book sponsors a K-12 writing contest entitled, “Letters About Literature.” Letters About Literature (LAL) is a national program of the Library of Congress and administered by affiliate state Centers for the Book. Children in grades 4-12 write a personal letter to an author, living or dead, from any genre, explaining how that author’s work changed the student’s way of thinking about the world or themselves. There are three competition levels and winners receive cash awards at the national and state levels ([www.loc.gov/loc/cfbook/letters.html](http://www.loc.gov/loc/cfbook/letters.html), December 1, 2003).

The Wisconsin Land and Water Conservation Association sponsors a K-12 speaking contest and a K-12 poster contest, on a theme that changes annually. There are three levels to the contests. Students enter in their home county contests; winners have the option to enter their local Area Association contests, and winners of the Area Association contests can enter their speech or poster in the state contest. All entrants to the state contest receive a certificate, and first, second, and third place winners are awarded a trophy (speaking) or plaque (poster) (<http://www.wlwca.org>, September 21, 2003).

While not poetry per se, there are only topic and time-length guidelines for the speaking contest; the researcher supposes a student could compose and read poetry. The poster contest has elements in common with the art component of ROW, although posters are encouraged to include written slogans and messages, and ROW artwork is purely visual.

The Wisconsin Department of Natural Resources, Forestry Division, sponsors an annual Arbor Day Poster Contest and a Forest Appreciation Week Writing Contest. Again, as in the example above, posters are encouraged to include written slogans. The poster contest is for 5<sup>th</sup> graders only. The writing contest, for 4<sup>th</sup> graders only, can include poetry, essays or other creative writing. The top 12 entries in each contest are featured in an annual calendar. Poster and writing winners receive plaques and savings bonds, as well as a tree to plant (information taken from 2004 Arbor Day/Earth Day calendar).

Another art/slogan contest is sponsored by the K-12 Energy Education Program (KEEP). KEEP holds an annual bookmark contest on a theme. Winning bookmarks are printed

and distributed throughout the year (<http://www.uwsp.edu/cnr/wcee/keep/>, April 23, 2004).

A review of the web page of the Wisconsin Council of Teachers of English Language Arts (<http://facstaff.uww.edu/wctela/index.html>, April 27, 2004) did not reveal a promotion of any particular poetry program. However, the Wisconsin Art Teachers Association web page did feature information on Youth Art Month, which is a compilation of student artwork showcased in the State Capitol during the month of April (<http://www.wiarted.org/>, April 27, 2004).

In a telephone conversation of April 28, 2004, Martin Rayala, Wisconsin Department of Public Instruction (WDPI) visual arts consultant, told the researcher of two additional art contests. Annually, student artwork on a theme is chosen to be displayed at the Wisconsin Association of School Boards. Mr. Rayala suggested that linking into WROW and a theme of watersheds could be a future possibility for that particular art display. The second contest he mentioned revolves around the annual park sticker used by the Wisconsin Department of Natural Resources, where high school students can enter art on the year's theme.

Both Mr. Rayala and Gerhard Fischer, WDPI language arts consultant, confirmed the lack of specifically place-based K-12 poetry and art programs in Wisconsin (via phone conversations of April 28, 2004). Both WDPI consultants were enthusiastic about WROW and the prospects of working with the Wisconsin Lakes Partnership on the

program. Mr. Fischer suggested that since ROW is an international program, students here could work with Wisconsin's sister states of Chiba, Japan and Hesse, Germany, to share artwork and poetry about watersheds.

### **Environmental education (EE)**

ROW is essentially a language arts and visual arts program. However, its topic of watersheds is more likely to be studied in the field of science. The interdisciplinary nature of ROW and the fact that one of the goals is to have students explore and interpret their home watersheds moves the program into the realm of environmental education.

For most environmental educators, an understanding of effective EE was established by the Belgrade Charter and the Tblisi Declaration. The Belgrade Charter, which provides a widely accepted definition of environmental education, is a result of a 1976 United Nations conference. It states:

*The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and prevention of new ones (UNESCO-UNEP 1976).*

Two years after the Belgrade Charter, a declaration was adopted at the world's first intergovernmental conference on environmental education. Known as the Tblisi Declaration, it provides three broad objectives for environmental education:

- To foster clear awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas;
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment;
- To create new patterns of behavior of individuals, groups and society as a whole towards the environment (UNESCO 1978).

Most environmental educators share an instructional vision. According to "Guidelines for the Initial Preparation of Environmental Educators" (North American Association for EE, 2000), the following phenomenon occur in competent environmental education:

- Instructors teach across disciplines.
- The learner is an active participant.
- Instruction engages the learner in the process of building knowledge and skills.
- Educators take a balanced approach to instruction.
- Learners are provided with early and continuing opportunities to explore their environment.
- Learners are provided with opportunities to enhance their capacity for independent thinking and effective, responsible action.
- There exists a strong emphasis on developing communication skills.



In a poetry and art program focusing on watersheds, many of these occur. ROW encourages interdisciplinary study and construction of ideas by learners. Communication of ideas through art and poetry is emphasized. Students are encouraged to explore their home watershed whether it be urban or rural. Because of this emphasis on the local watershed, ROW can be said to be place-based education, a subset of EE.

### **Place-based education, sense of place and environmental sensitivity**

In “The Practice of the Wild,” poet Gary Snyder states, “To know the spirit of a place is to realize that you are a part of a part and that the whole is made of parts, each of which is whole. You start with the place you are whole in” (1990, p. 38). A rather confusing statement at first, it embodies the essence of place-based education. Students need to know and understand their own communities before branching out to larger regions and the world.

Place-based education has been promoted by progressive educators for more than 100 years, but has only recently been given a name. In 1915, John Dewey wrote in “The School and Society”: “Experience [outside the school] has its geographical aspect, its artistic and its literary, its scientific and its historical sides. All studies arise from aspects of the one earth and the one life lived upon it.”

Place-based education utilizes local environments as the framework for students’ educational experiences, ultimately enhancing the students’ sense of place. The word “environment” is used broadly to include social, cultural, economic and political aspects

of a place, as well as the natural environment. A person with a strong sense of place understands how human and nonhuman elements mutually benefit and enhance the existence of each other. Matt Sanger (1997) defines “sense of place” as “an experientially based intimacy with the natural process, community, and history of one’s place.”

Place-based education has also been referred to as “community-oriented schooling.” According to Janice Woodhouse and Clifford Knapp (2000), this approach, while still evolving, has some fundamental characteristics:

- It emerges from the particular attributes of a place. The content is specific to the geography, ecology, sociology, politics, and other dynamics of that place. This fundamental characteristic establishes the foundation of the concept.
- It is inherently multidisciplinary.
- It is inherently experiential. In many programs this includes a participatory action or service learning component; in fact, some advocates insist that action must be a component if ecological and cultural sustainability are to result.
- It is reflective of an educational philosophy that is broader than “learn to earn.” Economics of place can be an area of study as a curriculum explores local industry and sustainability; however all curricula and programs are designed for broader objectives.
- It connects place with self and community. Because of the ecological lens through which place-based curricula are envisioned, these connections are pervasive.

These curricula include multigenerational and multicultural dimensions as they interface with community resources.

Gregory Smith (2002) describes the unique characteristics of place-based education slightly differently, to include: students have the opportunity to produce rather than consume knowledge; teachers act as colearners and guides, rather than as instructors; and questions and interests of students become the center of the curriculum. While the approach can be demanding because of its difference from traditional teaching methods, studies have shown enhanced student engagement and performance.

A 1998 study used qualitative data obtained from 40 U.S. schools that use local social, cultural and natural features as the context for learning. The study found that students act more independently and responsibly, display pride in and ownership of their accomplishments, exhibit improved discipline and self-control, and academically outperform their traditionally-instructed peers. Using quantitative data, the study illustrated that students involved in place-based learning earned higher grade point averages and scored higher in standardized tests in language arts, math, and social studies (Lieberman & Hoody, 1998).

In today's schools, students are often discouraged from forming an attachment to place and community. Textbooks and learning are standardized, language and metaphors reflect an industrial worldview, and individuals are encouraged to be autonomous beings,

rather than part of a community. In this way, students are taught to “reside in”, rather than “inhabit,” the places they live (Vickers and Matthews, 2002).

In the words of Robert Hass, co-founder of River of Words and U.S. Poet Laureate in 1995-1997, “The idea of River of Words is to ask them (children) to educate themselves about the place where they live and to unleash their imaginations” (October, 2001).

Through its mission and resources, ROW promotes place-based, interdisciplinary, hands-on education through the study of home watersheds. In a conversation with the researcher about the advantages and disadvantages of the “contest” aspect of the program, ROW co-founder Pamela Michaels said she sees the contest as a way to acknowledge children’s creativity and concerns while helping them to give back to their communities through dissemination of their poetry and art (via telephone, August 5, 2003). A look at children’s poetry and artwork on the ROW website, or in the annual booklet they publish, confirms that students are learning about the places they live. Not all poems consider natural studies. Many poems include cultural, historical, political, or social aspects of the place they live. Students demonstrate an understanding of their place, which shows a success of place-based education. When students can directly experience what they learn in contexts familiar to them, their capacity to understand and communicate its meaning increases (Cummins, 1996).

The Orion Society, an organization based in Massachusetts, has the mission to inform, inspire, and engage individuals and grassroots organizations in becoming a significant cultural force for healing nature and community. One of the ways they do this is to offer

annual teaching fellowships in a program called Stories in the Land. Stories in the Land is designed to help teachers foster an education of place through the study of local landscapes and histories, the reading of regional literature, and through encouraging creative student responses to their home communities. This interdisciplinary inquiry utilizes science, history, literature, and art in a web of stories that define a particular community. "Through immersion in the local landscape and its cultural history, a bioregional sensitivity is fostered, and a sense of environmental and ethical responsibility arises naturally among students" ([www.oriononline.org](http://www.oriononline.org), September 25, 2003).

According to the Orion Society webpage, the goals of Stories in the Land are to acquaint students with their local natural and cultural communities through extensive study in the field; to form connective tissue between strictly divided academic disciplines; to re-enliven the educational process by actively involving students in documenting the cultural and natural history of their regions; and to nurture ethical attitudes toward local environments and neighboring communities.

Place-based education has its critics. Some critics believe that the primary goal of schooling is to prepare students for a future of working in a highly technological and consumer-oriented society. Place-based educators, however, believe that a child's education should prepare him or her to live and work to sustain the cultural and ecological integrity of the places they inhabit. To do this people must have knowledge of ecological patterns, systems of causation, and the long-term effects of human actions on those patterns (Orr, 1994). For this reason, place-based education, as a subset of

environmental education, plays an important role in the sustainability of our society by creating citizens who not only interact on a cultural level, but also display environmental sensitivity.

Environmental sensitivity relates to experiences that “predispose an individual to view the natural world from an empathetic perspective” (Sward and Marcinkowski, 1998).

According to various studies, there are experiential, affective and cognitive aspects to its development that are consistent among conservationists, environmental educators and environmental activists. Environmental sensitivity can start at an early age, and frequent outdoor experiences contribute greatly to both the initial feelings and the strengthening of the sensitivity throughout a person’s life. Role models, such as parents or teachers, play a large role in the development of an individual’s environmental sensitivity. Positive role models may participate in outdoor experiences, such as exploring, hunting, fishing, or vacationing in natural areas. Knowledge can play a role in environmental sensitivity, as can alterations to a natural place that an individual values.

Participation in a program such as River of Words can address the factors affecting the development of environmental sensitivity. By taking students outdoors to explore their home watershed, a teacher is being a positive role model. Students are gaining knowledge about their homegrounds, further heightening their environmental sensitivity.

Some of the questions that arise frequently when considering budgets for educational programming of the Wisconsin Lakes Partnership reflect, “Why do we need poetry and

artwork? Shouldn't we be spending our money on programs such as water quality monitoring or shoreland restoration...programs that get kids outside and making a difference?" Poetry and artwork are often seen as "fluff," nice but not necessary. Consider the words of Rachel Carson in her book, A Sense of Wonder (1956):

If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil in which the seeds must grow. The years of early childhood are the time to prepare the soil. Once the emotions have been aroused – a sense of the beautiful, the excitement of the new and the unknown, a feeling of sympathy, pity, admiration or love – then we wish for knowledge about the object of our emotional response. Once found, it has lasting meaning.

Based on case studies of placing environmental issues within a social science framework vs. using basic research methods to study the environment, focusing on the affective domains of learning (such as "enjoyment" and "emotion") actually enhances the quality of student learning (Ballantyne et al., 2001). This phenomenon was further studied by Loughland, et al. (2003), who found that students who identify a balance of environmental and social concerns are more likely to have a "relation" conception of environment, rather than an "object" conception. The "relation" conception means they see the environment as something interrelated with them, not just as a place "out there." However, they found that the majority of young people have an "object" conception of the

environment. Only one in eight of the students studied perceived the environment as being related to them. The study also found that knowledge seems to have little influence on creating this “relation” conception, and actually knowledge has a small negative influence in primary school.

Why would knowledge have a negative influence on the “relation” conception? David Sobel has extensively studied the development of environmental values, and has found that “what’s important is that children have an opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds” (1996, p. 10). While issues such as global warming or species extinction are important realities, educators should respect a learner’s developmental readiness for such issues. Children should first have experiences to build relationships for places close to home. Place-based education can have direct bearing on creating a responsible and politically-active citizenship by connecting students to the place they live, rather than standardizing their experiences so they may compete in the global economy (Gruenewald, 2003).

Nina Leopold Bradley, daughter of Aldo Leopold, one of Wisconsin’s great conservationists, writes about her childhood in terms of her relationship to the land. Her family restored their acreage, planted trees and prairie, and watched wildlife respond to the changes. Her childhood experiences had a profound effect on her life’s work. She writes of that piece of land, “This place taught me how to look, how to live, and at last to sing its poetry” (1998).



The Mayville Sense of Place Project provides a good example of cultivating environmental sensitivity with place-based education in a school setting. In summer of 2003, the Department of Natural Resources and the U.S. Fish and Wildlife Service teamed up with the Mayville School District to offer specific summer school classes meant to nurture students' knowledge and sensitivity of their watershed. Students visited the Horicon Marsh and the Rock River. They interviewed elders in the community, learning about what the marsh and river were like years ago. They took part in art activities, song and poetry writing, and hands-on investigations. A celebration was held for students to share their newfound knowledge with people of the community. Through this project, students met with teachers and agency personnel serving as role models in outdoor studies, they gained knowledge about the watershed (past and present) and were able to spend time enjoying and getting to know their marsh and their river. The experiences, stories, and poems are shared in a booklet, entitled, "Coming Home to Mayville, the Rock River and Horicon Marsh: Through Our Eyes, Ears and Words" (2003). According to Ruth Johnson, Wisconsin Department of Natural Resources (via conversation November 19, 2004), the project was so well received and successful that more towns in the Rock River Basin plan to replicate it.

While a good example of cultivating environmental sensitivity, the place-based Mayville project also serves as an excellent model of the interdisciplinary nature of EE.

### **Integrating arts/language arts with EE and science**

Environmental education involves a combination of many disciplines and there are specific examples related to combining art and poetry with EE and science. “A primary strength of the arts is their power to move students, and this emotional connection, paired with ecological knowledge, is a powerful combination that can enhance environmental education,” said Susan Holmes (2002) as she described her research in teaching EE using the arts.

In an article about “Eco-Art,” a type of art where artists explore relationships between their built and natural environments, Hilary Inwood describes how art can be used to investigate scientific and ecological concepts. “The learning strategies of the arts add a subjective dimension to environmental education that enhances both intellectual and affective learning about environmental issues” (Inwood, 2003).

Poetry and art have the ability to make science relevant, by giving it a human dimension. Often, “good” science is seen as something cold, without feeling. However, science and poetry have a lot in common. They both aim to explore the unknown, to extend connections and relationships. Observation and sense perception are used to bring light to unfamiliar subjects in succinct ways. Models and metaphors are used to experience, envision, understand, describe, explain and predict. “Poetry and science can work together to enable learners to grow in familiarity with the concepts, facts, principles and processes with which they are working” (Watts, 2001). In addition, poetry can serve as a bridge to further understanding by bringing student’s prior knowledge into the

experience. Reading aloud poetry with strong sound elements, such as rhythm, can grab attention and result in new insights (Harms and Lettow, 2000). When it comes to being the writer of poetry, elements critical to scientific inquiry, such as paradox, creative thinking, attention to detail and discovery, are all elements also critical to poetry (Walders, 2000).

The integration of arts and/or language arts with science and other disciplines is encouraged by the Wisconsin Department of Public Instruction (WDPI). According to the WDPI, “teachers in every class should expect and encourage the development of...shared applications, both to promote the learning of the subject content and to extend learning across the curriculum.” Learning across the curriculum results in increased ability to think, skills in communication, the production of quality work and connections with community (<http://www.dpi.state.wi.us/dpi/dlsis/cal/applying.html>, October 8, 2003).

Environmental education is mandated in Wisconsin schools. All early childhood, elementary, agriculture, science and social studies teachers are required to achieve EE competencies as a prerequisite for certification. In addition, all districts are mandated to have K-12 environmental education curriculum plans in place. Wisconsin Administrative Code PI 8.01[2][k] states:

Environmental education objectives and activities shall be integrated into the kindergarten through grade 12 sequential curriculum plans, with the greatest emphasis in art, health, science, and social studies education.

### **Relating ROW to Wisconsin's Model Academic Standards**

Wisconsin uses Model Academic Standards to specify what “students should know and be able to do, what they might be asked to do to give evidence of standards, and how well they must perform” (<http://www.dpi.state.wi.us/dpi/dlsis/cal/questions.html>, October 8, 2003). According to the WDPI website, standards reflect the collective values of the citizens and are tailored to prepare young people for economic opportunities.

While Vickers and Matthews (referenced above) may feel that this view expressed by the WDPI may encourage students to adopt an industrialized worldview, academic standards are used in Wisconsin and teachers are asked to cover them in their curriculums. ROW concepts (watersheds, poetry and art) could be utilized to cover standards in science, language arts, art, and significant to this project, environmental education (EE).

A review of Wisconsin's Model Academic Standards in Environmental Education and those in Science revealed no specific mention of the watershed concept. However, some performance standards could be met by studying the local watershed. For instance:

- Use the science themes to develop explanations for the connections among living and non-living things in various environments (F.4.4, Model Academic Standards for Science).
- Find patterns and cycles in the earth's daily, yearly, and long-term changes (E.4.6, Science).

- Describe natural and human-built ecosystems in Wisconsin (B.4.5, Environmental Education).
- Distinguish between point and nonpoint source pollution (B.8.19, Environmental Education).

In addition, by assigning students to express their knowledge and concerns about the home watershed through art and poetry, teachers can meet some of Wisconsin's Model Academic Standards for English Language Arts and Art and Design Education. For instance:

- Create or produce writing to communicate with different audiences for a variety of purposes (B.4.1, Model Academic Standards for English Language Arts).
- Plan, revise, edit, and publish clear and effective writing (B.12.2, English Language Arts).
- Create works of art that have meanings (G.8.4, Art and Design Education).
- Make art that shows how they sometimes feel (1.4.2, Art and Design Education).

Using the concepts of ROW can tie these disciplines together into a water-themed curriculum. By going outdoors and studying science concepts in their watershed, keeping journals about the experiences, and then writing poetry or creating artwork, students can learn many of the concepts required in Wisconsin. If the culture and history of the watershed is also studied, standards in social studies may also be met.

## **Relating ROW to National Standards and Benchmarks**

By going to the U.S. Department of Education homepage (<http://www.ed.gov>) and searching for standards, the researcher was sent to the Mid-Continent Research for Education and Learning website, where standards and benchmarks are listed (<http://www.mcrel.org/standards-benchmarks>, 2/28/04). The following examples of standards and benchmarks could be attainable through the use of ROW:

- Language Arts Standard 1. Uses the general skills and strategies of the writing process.

Benchmark: Writes narrative accounts, such as poems and stories (e.g., establishes a context that enables the reader to imagine the event or experience; develops characters, setting, and plot; creates an organizing structure; sequences events; uses concrete sensory details; uses strategies such as dialogue, tension, and suspense; uses an identifiable voice) (Level II, Grades 3-5, #8).

- Language Arts Standard 2. Uses the stylistic and rhetorical aspects of writing.

Benchmark: Uses descriptive words to convey basic ideas (Level I, Grades K-2, #1).

Benchmark: Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes (e.g., to stimulate the imagination of the reader, to translate concepts into simpler or more easily understood terms, to achieve a specific tone, to explain concepts in literature) (Level IV, Grades 9-12, #1).

- Visual Arts Standard 2. Knows how to use structures (e.g., sensory qualities, organizational principles, expressive features) and functions of art.

Benchmark: Understands how different compositional, expressive features (e.g., evoking joy, sadness, anger), and organizational principles (e.g., repetition, balance, emphasis, contrast, unity) cause different responses (Level II, Grades K-4, #2).

The national visual arts standards have nothing to do with being able to “create” artwork, just understanding what it is, its history and culture. Searching the standards and benchmarks on the key word “watershed” produced no results. A reading of the science section did not yield any standards or benchmarks that had to do with the study of watersheds. The Wisconsin Model Academic Standards are more comprehensive and detailed than the national standards.

### **Multiple Intelligences**

Much has been said over the past few years about the concept of multiple intelligences, and a cross-curricular environmental education program can serve different students’ specific strengths. According to Kathy Checkley, intelligence refers to the human ability to solve problems or to make something that is valued in one or more cultures (1997). American society generally refers to I.Q. (intelligence quotient) as the measure of a person’s intelligence. In the early 1980s, Howard Gardner defined several separate intelligences. The criteria for each intelligence included the above two references, as

well as particular representation in the brain, the existence of populations that are especially good or especially impaired in an area, and an evolutionary history that can be seen in animals other than humans. To this end, Gardner defined seven intelligences, shared here in a simplistic manner:

- Linguistic – has capacity to use language to express and to understand others
- Logical/Mathematical – understands underlying principles of causal systems and/or can manipulate numbers
- Spatial – has ability to represent the world spatially within the mind
- Bodily Kinesthetic – has capacity to use parts of or the whole body to make something or solve problems
- Musical – can think in music, can hear, remember and manipulate patterns
- Interpersonal – understands other people
- Intrapersonal – understands oneself

Years later, Gardner was asked to explain the achievements of great biologists. They had an understanding of species and taxonomy and could see patterns in nature. This type of ability did not seem to fit into the seven intelligences. Could the capacity to classify nature be a separate intelligence? After researching the concept, Gardner added an eighth intelligence – the naturalist intelligence. The naturalist intelligence denotes the human ability to “discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations)” (Checkly, 1994).



To further explain the definition of the naturalist intelligence, we can turn to Gilbert White, famed naturalist/parson of Selbourne. White was an individual with an apparent naturalist intelligence. He enjoyed studying the flora and fauna of his local countryside. He took a great deal of notes, from which he discovered new things about certain animals. White valued the beauty and diversity he found on his walks and the 1789 publishing of his collection of letters on the natural history of his parish, *The Natural History of Selbourne*, became one of the best-loved books in the English language (Worster, 1977).

Over evolutionary time, the naturalist intelligence is essential for the survival of humans: we need to know which animals to hunt and which to run away from. For the same reason, other animals need to have the naturalist intelligence. In addition, Gardner claims in the Checkly interview (1994) “there are certain parts of the brain particularly dedicated to the recognition and the naming of what are called ‘natural’ things.”

It is important to realize that Gardner believes all human beings have all eight intelligences (and possibly more). Each of us is unique because of our strengths in certain intelligence areas. The use of a poetry and art program focusing on nature, such as ROW, can strengthen many of the intelligences, including the linguistic, spatial, musical, intrapersonal, and naturalistic intelligences.

If all humans have the naturalist intelligence, it can be nurtured. Are our schools nurturing the naturalist intelligence? Maggie Meyer (1998) lists some opportunities that

could be provided for students in order to nurture the naturalist intelligence, many of which could be part of a ROW program:

- Sensory observations – feeling, smelling, listening
- Field studies and data collection
- Observation of animal behavior
- Growing things – plants, gardens
- Observation using microscopes, telescopes, binoculars, hand lenses
- Drawing, sketching, photographing nature
- Journaling
- Making scientific or collection instruments (inventing)
- Writing poems or songs
- Identifying shapes and patterns in nature
- Performing role plays of cycles, animal behavior, plant growth

Notice that this list includes the use of other intelligences such as the linguistic, kinesthetic, musical and intrapersonal intelligences, among others. The innate naturalist intelligence can be fostered along with, and part of, the other seven intelligences.

### **Biophilia**

Biophilia, a concept developed by Edward O. Wilson, supports the idea of an innately emotional affiliation of humans to other living organisms. In Biophilia (1984), Wilson sought to explain the human connections to nature as a biological need, central to the human physical and mental development processes. He defined biophilia as “the innate

tendency to focus on life and lifelike processes” (Wilson 1984). The biophilia hypothesis involves some assertions that can be difficult to believe when one looks at them with a Western scientific outlook. The assertions, for example, suggest that the human inclination to focus on life and lifelike processes is:

- Inherent (biologically based);
- Part of our species’ evolutionary heritage;
- Associated with human competitive advantage and genetic fitness;
- Likely to increase the possibility for achieving individual meaning and personal fulfillment; and
- The self-interested basis for a human ethic of care and conservation of nature, most especially the diversity of life (Kellert, 1993).

How did biophilia evolve? Wilson (1993) references a biocultural evolution. A certain genotype makes a certain response. That particular outcome enhances survival and reproductive fitness, leading to a spread of that genotype throughout the population. The “culture” portion of “biocultural” is the strong natural tendency of human beings to explain feelings with dreams and myth. For example, why do most people fear snakes?

Wilson explains it as such: Poisonous snakes cause sickness and death to mammals. Old World monkeys and apes fear snakes because of this, and use vocal communication to warn others about snakes in their area. They also are fascinated with snakes, and in groups will follow snakes until they leave the monkeys’ territory. Human beings are genetically adverse to snakes, developing fear and phobias even without negative

reinforcement. However, humans are also fascinated with snakes. Many cultures have woven them into stories, myth and religious symbolism.

Over evolutionary time, constant exposure to the poisonous, dangerous snake has encoded humans with a hereditary aversion and fascination. These are manifested in the stories and symbolism of evolving cultures.

Humans value nature for many reasons that are biologically inherent. The following nine values hypothesized by Stephen Kellert (1993) show that the dependence of humans on the natural world has many potential advantages. The cumulative impact of these values may contribute to a more fulfilling personal existence.

*Utilitarian* – Nature provides physical benefits to humans that result in basic sustenance, protection and security. We exploit nature for food, medicines, clothing, tools and other materials benefits.

*Naturalistic* – Humans derive satisfaction from direct contact with nature. We often feel a sense of wonder, fascination and awe of nature's complexity and diversity. Included in this value category is the modern practice of outdoor skills such as hiking and climbing. Those who take part in such outdoor physical activities cite benefits such as tension release, relaxation, peace of mind and enhanced creativity.

*Ecologistic-Scientific* – Humans have an intense curiosity and fascination with the systematic study of the natural world. Ecological experiences involve an emphasis on interconnection and interdependence in nature while the scientific is

often more reductionist. Related within this value category is the belief that nature can be understood through empirical study. Kellert recognizes that people value this category at varying levels, as most people direct their emotional and conscious awareness of nature to larger invertebrates and prominent natural features. These people, however, do understand that the large animals they care about depend upon ecological processes lower on the food chain. In general, even if we only develop an understanding of only a fraction of life's diversity, we have gained value in our enhanced knowledge.

*Aesthetic* – Humans value the beauty of nature. The aesthetic response is complex. We feel a response from a wide-range of situations: the setting sun, white-tailed deer running through a field, ocean waves, bright green leaves on a spring day, or butterflies feeding on wild lupine. The response can also be powerful, as nature's beauty induces inspiration, harmony and a feeling of peace.

*Symbolic* – Humans use nature as a means for expressing and communicating thought. Animals are very symbolic. Ancient peoples named their clans were after animals, sacred stories used animals to relate ideas, artwork revolved around the power and action of animals, and humans used masks to become animals and play out their roles. Today children read books featuring animals and clutch stuffed faux animals. In general, our modern metaphors and symbolic expression of nature are not as rich as they were in the past, but the fact is that our modern industrial/technological lifestyle is short in comparison to the long human evolution in which our language developed using nature as the main influence. Hence, nature is held within our expression and communication of thoughts.

*Humanistic* – Humans display feelings of deep emotional attachment to individual elements of nature. This tendency is shown in bonding and companionship, altruism and sharing. We commonly bond with animals, but humans can feel emotional attachment to other natural objects such as trees or certain landscapes.

*Moralistic* – Strong feelings of affinity, ethical responsibility and reverence for the natural world are moralistic experiences of nature. Humans can find order and meaning in life through this value. Views of indigenous people are often associated with the moralistic value. They emphasize the belief that the Earth is a living and vital being which gives life to humans and is inextricably linked to them.

*Dominionistic* – This value reflects a desire to control and have dominance over nature. While its occurrence today is reflected in destructive tendencies and waste, during human evolution dominance played an advantageous role as it fostered increased knowledge of the natural world. For example, whether one is stalking deer or gathering mushrooms, one is learning about how the natural world functions and how to advance survival. The “imperial” stance towards nature is one that seeks to establish man’s dominion over nature.

*Negativistic* – Characterized by fear, aversion and alienation from certain aspects of nature, the negativistic experience is a response to threat and danger. While over evolutionary time this fear has helped the human species to survive, today it can foster infliction of excessive harm and cruel behavior towards certain animals and other elements of nature. For example, in Wisconsin the wolf population was extinguished due to the fear that wolves would attack livestock and humans.

Kellert notes, however, that some measure of fear might be necessary in order to appreciate and experience the magnificence of nature.

Creating art and poetry from watershed studies can reinforce the emotional affiliation felt by students for other living beings within their watersheds. Naturalistic, aesthetic, ecologicistic, symbolic, humanistic and moralistic values could all be experienced, possibly leading to the care and conservation of nature through environmental sensitivity. These values, combined with the skills and knowledge needed to be a productive citizen, can lead to a population able to protect and improve the environment – the goal of environmental education.

### **Summary**

*For each home ground we need new maps, living maps, stories and poems, photographs and paintings, essays and songs. We need to know where we are so that we may dwell in our place with a full heart.*

*-Scott Russell Sanders*

River of Words is a place-based environmental education program. Its focus on local watersheds and use of poetry and art can help build an individual's sense of place and environmental sensitivity. Students who spend time outdoors and experience a direct connection with their watershed will better understand its ecological processes.

ROW activities can be integrated across the curriculum and correlated to academic standards. There are not any watershed-based poetry or art programs currently in Wisconsin, and the Wisconsin Department of Public Instruction is interested in collaborating with the Wisconsin Lakes Partnership on the WROW program.

The creation of poetry and art based on local watershed studies can strengthen many of the intelligences, including the naturalist intelligence. By giving students a chance to nourish their biological need to be emotionally connected to other living things, they may become more environmentally sensitive. ROW, by encouraging students to explore and interpret their watersheds, helps them develop respect for the natural world and an understanding of their place in it.



## Chapter Three

### Methodology

The purpose of this project is to create and promote Wisconsin River of Words (WROW), a statewide program providing resources to educators interested in incorporating the study of their local watershed through art and poetry into classroom curricula or youth programs.

The seven objectives to be addressed in this project are described below.

#### **Objective 1**

*Examine components of existing River of Words programs in other states.*

Although ROW as a national program is accessible to students throughout the United States, some states have instituted localized, statewide ROW programs. While creating a successful ROW program for Wisconsin, the researcher could learn from the successes and shortcomings of ROW program components available to ROW participants in other states.

(October, 2003-February, 2004) The researcher conducted telephone interviews with ROW program coordinators in other states. State coordinators are listed on the national ROW webpage, and at the time of the research, there were a total of 25 states listed (including Wisconsin). In order to choose which states to study, the researcher called the national ROW office to explain this project and ask which states had the strongest

programs. Sasha Rabin, of the national ROW program, answered this inquiry on October 2, 2003. Based on her suggestions, the researcher chose five state ROW coordinators to interview. The states are Georgia, California, Iowa, Alabama and Rhode Island.

An interview guide was developed to facilitate the telephone discussions. Because the researcher was using an informal conversational interview style, the conversations were allowed to flow. The interview guide was mainly used so the researcher would discuss the same topics with each state. Topics in the guide consisted of: program offerings, numbers of educators/students involved, special events, teacher/student awards, resources for educators, successes, letdowns, and future plans. The researcher took notes during each telephone conversation and wrote a synopsis of the state's ROW program.

## **Objective 2**

*Design program components for Wisconsin River of Words.*

(July, 2002) Based on knowledge of other environmental education programs and information taken from the ROW website, the researcher designed a listing of all possible components of the WROW program.

This list was sent via email to Robert Korth, UW-Extension Lakes Program; Jeff Bode, Department of Natural Resources; and Donna Sefton, Wisconsin Association of Lakes with a note asking for input, with the consideration of time allotment for staff, current WLP goals and objectives, and future direction of the WLP. With the feedback provided,

a goal for WROW and possible short-term and long-term objectives were finalized. The list was understood to be a working list. Not all components of the list are part of this particular project, and allow for future growth of the program.

### **Objective 3**

*Promote WROW to educators throughout the state.*

There are three main categories of educators that the WROW program can reach:

1. Formal educators, consisting of K-12 classroom teachers.
2. Non-formal educators, include nature center and state agency personnel as well as youth group (4-H, Boy and Girl Scouts, etc.) leaders.
3. People who are involved in youth lake education. (While educators in this category do fall into either the formal or non-formal educator categories, the researcher chose to make them a separate category because WROW is sponsored by the Wisconsin Lakes Partnership. The involvement of WROW in lake education will be vital to its continued funding.)

In order to initially promote WROW to various educators throughout the state, the researcher:

1. (March, 2002) Listed potential partnering organizations and contacted them via phone with information about WROW and ways to help promote it. Potential

partners were identified using the researcher's knowledge of water organizations in Wisconsin and assistance from Robert Korth, UWEX-Lakes Program.

2. (July, 2002) Created a marketing image for WROW by designing a logo, modifying the national ROW logo, creating a brochure, and creating a tabletop display. These items were created by the researcher using imaging and publication software, with design input from Robert Korth, UWEX-Lakes Program.
3. (July, 2002 and periodically updated) Produced a web page at [www.uwsp.edu/uwexlakes/row](http://www.uwsp.edu/uwexlakes/row) with initial information about the program.
4. The researcher attended a conference focusing on each group of identified educators, either providing the display and brochures, a concurrent session on WROW, or both.
  - (October, 2002) - Formal educators: Wisconsin Education Association Council Convention
  - (October, 2002) - Non-formal educators: Wisconsin Association for Environmental Education Fall Conference
  - (April, 2003) - Lake educators: Wisconsin Lakes Convention
5. (November, 2001 and June, 2002) Articles about WROW were published in *Lake Tides*, the newsletter of the WLP, and *Wisconsin Rivers*, the newsletter of the River Alliance of Wisconsin.

## **Objective 4**

*Enhance environmental education skills through a series of professional development workshops focusing on watersheds, poetry and art.*

In order to create the professional development workshops, the researcher:

1. (April, 2003) Met with a board member of the Wisconsin Center for the Book, Casey Martin, who volunteered to co-facilitate some of the workshops.  
Workshop logistics were discussed, such as possible locations and activities.
2. (April, 2003) Chose five locations around the state and reserved meeting space.  
Locations were chosen due to their surrounding natural beauty, suitable indoor conditions, and ease of travel for participants.
3. (June, 2003) Created a list of objectives for the workshop. Objectives consisted of knowledge that each participant should have the opportunity to acquire at the workshop.
4. (July, 2003) Decided upon activities and drew up a tentative agenda for the workshops. The agenda was emailed to Casey Martin for feedback, and revised accordingly.
5. (April-August, 2003) Collected information and resources as handouts for the participants.
6. (June, 2003) Wrote a media release and emailed it to newsletters of organizations such as Rivers Alliance of Wisconsin and Wisconsin Fellowship of Poets, all University of Wisconsin-Extension Community and Natural Resources

Development agents for local distribution in their counties, and schools surrounding the workshop locations. A flyer listing all locations and contact information was also created and handed out at workshops, conferences and meetings attended by the researcher and UWEX-Lakes staff.

7. (June, 2003) Created an online registration form and database to collect registrant information.
8. (June, 2003) Applied to the Wisconsin Department of Public Instruction for permission to provide clock hour credit to participants upon request.
9. (August, 2003) Wrote an evaluation for participants to fill out at the end of the workshops to determine whether objectives were met.
10. (August, 2003) Contacted guest speakers for the two workshops that Casey Martin would not co-facilitate.
11. (August-October, 2003) Facilitated the professional development workshops.
12. (November, 2003) Compiled the evaluation data and wrote a report. The report was provided to the WLP and the Wisconsin Center for the Book.
13. (November, 2003) Sent a follow-up letter and extra resources to each participant.

### **Objective 5**

*Determine whether educators used the information from the professional development workshops.*

While the evaluation data gathered at the end of the workshops provided useful information, the researcher needed to find out if educators were indeed utilizing the

resources they gained at the workshops. If they were not using the resources, the success of the workshops would be questionable. In order to find out this information, the researcher:

1. (January, 2004) Designed an online survey to find out if and how the educators used the knowledge and resources gained from the workshops.
2. (January, 2004) Sent an email to all participants requesting that they fill out the online survey.
3. (February, 2004) Compiled the survey data.

#### **Objective 6**

*Develop a WROW resource guide for educators to complement the national River of Words program.*

While handouts were provided to the participants of the ROW workshop, a more formal guide would lend professionalism to WROW. To create the guide, the researcher:

1. (February, 2004) Wrote objectives for the resource guide, based on feedback from the workshops, the mission of ROW, and knowledge gained from studying other states' ROW programs.
2. (February, 2004) Produced an initial table of contents for the resource guide. The objectives and table of contents were reviewed by the researcher's graduate advisor and UW-Extension Lakes program personnel.

3. (February-March, 2004) Collected or developed information and activities.

Permission for use was obtained when necessary.

### **Objective 7**

*Make recommendations for the continuation of the Wisconsin River of Words program to the Wisconsin Lakes Partnership.*

The organizations that make up the Wisconsin Lakes Partnership (UW-Extension, Department of Natural Resources, and Wisconsin Association of Lakes) offer various programs for youth and adult education. The addition of WROW, while adding an arts component to the program mix, contributes expenses to an already difficult budget.

Because of this, the researcher needed to not only justify the expense, but also find ways to improve and nurture the program on a limited budget.

(April, 2004) A report on the findings of this project and possible future avenues was compiled and given to: Robert Korth, Director, UW-Extension Lakes Program; Jeff Bode, Section Chief, Lakes and Wetlands Division, Department of Natural Resources; and Peter Murray, Director, Wisconsin Association of Lakes.



## Chapter Four

### Results

#### Objective 1

*Examine components of existing River of Words programs in other states.*

The ROW coordinators in five states were interviewed via telephone between October 2003 and January 2004. The states studied were Alabama, California, Georgia, Iowa and Rhode Island. During each conversation, the researcher asked questions regarding the ROW program components and how the program is run in the state. After each conversation, the researcher immediately wrote a synopsis of the state's ROW program. The whole synopses are included as Appendix A. Figure 1 below gives an overview of each state's program components.

Item	IA	GA	CA	AL	RI
State contest	P	✓	P	P	P
Educator's Guide		✓	✓	P	
Info on website	✓	✓	✓	P	
Awards ceremony		✓		P	P
Teacher award		✓			
Brochure or mailing	✓	✓	✓	✓	✓
Dedicated staffing		✓			
Display of winning entries		✓			
State book, journal, etc.	P	✓			
ROW t-shirt, hat, etc.	P				
Educator training					
Partnering organizations		✓	✓	✓	

✓ = currently has

P = future plan

*Figure 1. ROW components of five states.*

The only program component that all five states had in common was a brochure or a similar form of promotion. Each of these states mails their promotion piece to schools at the beginning of the school year. Other than that similarity, the states were all at different levels in their plans and program implementation. Georgia had the most comprehensive program, with a state contest and award ceremony, website, teacher award, traveling display of winning entries, and an annual publication of entries. Georgia, of all five states, was the only one that had staff time dedicated to the ROW program. Monica Kilpatrick of Georgia said that because they have been managing their program essentially the same for many years, it “basically runs itself” (via telephone, 2/5/04). Georgia ROW is run out of the Project WET office, which has four employees. By comparison, Alabama has just begun their ROW program in the fall of 2003 and is primarily in the planning stages.

California also has an educator’s guide, which is posted on their website. California is planning a statewide contest for the future, as is Alabama and Iowa. Rhode Island had a state contest for two years, but funding was cut for the program. The Rhode Island coordinator, however, mentioned that he would like to re-establish the state contest.

Georgia, California and Alabama all run ROW through partnerships with various organizations. The state’s Center for the Book is involved in all three states, with that organization taking the lead in Alabama and California.

None of the states studied offer teacher training dedicated to ROW, although it is promoted in Iowa and Georgia in other water-related teacher training sessions.

The overall plan for Wisconsin ROW calls for partnerships, educator trainings, a statewide contest and awards ceremony, brochure, website and methods to link educators with poets and naturalists (see Objective 2). In talking with the ROW coordinators in these five states, the researcher found that Wisconsin's plan is ambitious and goes even further than other states by including educator trainings. The researcher also found that there is a need by state coordinators just starting out to network with other coordinators to get ideas and find out what is happening in other states. The researcher did receive good ideas and advice from the states that have had the program in place for a few years, such as Georgia. With states that are just starting out or do not have strong programs, the researcher found herself being asked questions and sharing the successes and trials of Wisconsin's young program.

## **Objective 2**

*Design program components for Wisconsin River of Words.*

The goal for WROW decided upon by the WLP is "to foster children's appreciation and knowledge of Wisconsin's water resources through artistic expression." The rationale given for this goal is stated as, "Wisconsin lake management and educational training is heavily weighted toward the scientific, technical and legal aspects of resource management. Through ROW, Wisconsin's citizens, agencies, and institutions concerned

with the state's waters will be able to expand the message of stewardship through the arts."

The document outlining the goals and objectives for WROW is presented as Appendix B. Possible program components are numerous. They include partnerships, educator trainings, a statewide contest and awards ceremony, brochure, website and methods to link educators with poets and naturalists. It is understood that this is a working list. Not all possible program components are part of this particular project, and the list allows for future growth of the program. The main components met by this project fall under the heading of encouraging educators to take part in watershed education and enter the ROW contest: publicize the ROW program, provide access to watershed maps and activities, and provide teacher trainings on watersheds and poetry.

### **Objective 3**

*Promote WROW to educators throughout the state.*

A list of organizations that may become potential ROW partners was created. The researcher contacted each one by phone and spoke with the person indicated:

- Wisconsin Wetlands Association (WWA) – Jeffrey Potter
- River Alliance of Wisconsin (RAW) – Lisa Goodman
- Wisconsin Academy of Sciences, Arts and Letters (WASAL) – Michael Strigel
- Wisconsin Center for the Book (WCFTB) – Casey Martin
- Wisconsin Ground Water Association (WGWA) – Boyd Possin

- Wisconsin Fellowship of Poets (WFOP) – Peter Sherrill

All of the above individuals were interested in getting their organizations involved in ROW. RAW helped out with this project by advertising ROW and the professional development workshops in their newsletter. WCFTB provided assistance with workshop facilitation. WCFTB is also providing cash awards for the statewide judging of ROW entries (not part of this project, but part of the overall WROW program).

In order to promote the program, the researcher needed to create an image for WROW. Appendix C contains the logos for WROW, the brochure and a picture of the tabletop display, as seen at the Wisconsin Education Association Council (WEAC) Convention in October of 2002.

A website was created at [www.uwsp.edu/cnr/uwexplakes/row](http://www.uwsp.edu/cnr/uwexplakes/row) for WROW information.

The researcher handed out brochures to formal educators at the 2002 WEAC convention and invited them to view the display. While many of the educators took a brochure, some said it was not for themselves. They said they would give the brochure to their language arts teacher. Most of the more interested parties were language arts or visual arts teachers. This demonstrated how ROW can interest non-science teachers in an environmental education program.

At the 2002 Wisconsin Association for Environmental Education (WAE) Fall Conference, the researcher again displayed WROW. In addition, a one hour-45 minute session on WROW was offered. The session, entitled, "River of Words...Poetry to Connect Kids with Their Watersheds," was listed in the program with the following description:

"River of Words asks students to educate themselves about the place where they live, then unleash their imaginations. Beautiful art and poetry are one result, judged in national and statewide competitions. The best results are kids with a sense of pride and purpose and a love of our amazing Earth. Discover ROW and practice a poem or two with Wisconsin's ROW coordinator."

The researcher's agenda for the WAE session is included as Appendix D. Ten people attended the session. Nine of those filled out a session evaluation dispensed by WAE. All nine of the respondents answered either "strongly agree" or "agree" to the following five statements:

- 1) The information presented is applicable to my classroom/work.
- 2) Content of session was well organized/presented in a clear, concise manner.
- 3) Handouts were informative and useful.
- 4) I am motivated to implement elements from this session
- 5) I would recommend this session to a colleague.

The Wisconsin Lakes Convention was held in April, 2003. A 20-minute session entitled, “River of Words – Using Poetry to Connect Kids with Their Watersheds” was offered by the researcher. The agenda described the session as follows: “Wisconsin River of Words seeks to connect kids with poets, artists, and naturalists to create visual and oral images of their feelings towards the natural environment. Learn how lake organizations can participate and gain insight into the wonderful things that can be done with the resulting poetry and artwork.”

In this session attended by 23 lake residents, the researcher used PowerPoint to present information on ROW, Wisconsin’s goals for the program, and how lake associations can become involved, such as:

- Collaborate with local schools and youth organizations (scouts, 4-H, etc.) on writing/art projects about your lake.
- Create a listing of local naturalists, artists and poets able to work with kids.
- Publish local poetry and artwork in newsletters.
- Use a lake fair event to highlight local children’s work.
- Write ROW participation into a Planning Grant as the educational portion.
- Send an interested lake organization member to a ROW educator workshop to be held in Fall 2003.

The PowerPoint presentation is attached as Appendix E.

In an attempt to market the idea of WROW to educators not attending these conferences, articles were published in *Lake Tides* (Summer 2002) and *Wisconsin Rivers* (Summer

2002). These articles are attached as Appendix F. The professional development workshops (Objective 4) were promoted separately and will be explained in the following section.

#### **Objective 4**

*Enhance environmental education skills through a series of professional development workshops focusing on watersheds, poetry and art.*

The researcher chose five locations around the state to hold River of Words Educator Workshops. The workshops were scheduled for late summer/early fall of 2003 in Madison, Milwaukee, Tomahawk, Hudson and Sturgeon Bay. The series was promoted as “educator workshops” so as to attract both formal and non-formal educators. Dates and places were chosen with the assistance of a board member of the Wisconsin Center for the Book, Casey Martin, who volunteered to co-facilitate some of the workshops. The Milwaukee workshop was canceled due to a small enrollment, but an extra workshop was scheduled in Fish Creek.

A listing of objectives for the workshops was created by the researcher. Each participant would:

- 1) Understand the definition of a watershed.
- 2) Know what their home watershed is and how it works.
- 3) Be introduced to using “sense of place” as an educational tool.
- 4) Use their senses to establish emotional connections with their watershed.



- 5) Participate in at least two watershed awareness activities that can be replicated with students.
- 6) Participate in at least two poetry or art activities that can be replicated with students.
- 7) Understand how to utilize the national and Wisconsin River of Words program.

A tentative agenda, based on the objectives, was drawn up and shared with Casey Martin. Facilitator tasks were divided. The agenda for each workshop was basically the same, but Casey Martin was only available for three of the five workshops (Madison, Fish Creek and Sturgeon Bay). The Tomahawk workshop was facilitated completely by the researcher, and the Hudson workshop was facilitated by the researcher, Kate Hofman (University of Wisconsin-Stevens Point graduate student), and Dale Cox (National Park Service Ranger and poet). Because of these changes in facilitation, the workshop agendas varied slightly. In addition, some activities took longer in some of the workshops so other activities were cut. The basic agenda (as given to the participants in the first workshop) is included as Appendix G. Explanations of the items on the agenda follows:

- *Introduction – Biopoems.* Each participant was given paper and colorful markers and pencils. They were asked to write their name down the side of the paper, then use words beginning with the letters in their names to describe themselves (also called an anagram).

- *Introduction to ROW.* The researcher described the goals of the national and Wisconsin ROW program, and explained the rules of the ROW contest.
- *Watershed Activities.*
  - Watershed in a Box – This activity from Water Action Volunteers (WAV) shows how to build a simple runoff model. Participants learned the definition of watershed, and used powdered drink mix representing nonpoint source pollution to demonstrate how this pollution affects surface water.
  - Seeing Watersheds – This activity from *Discover a Watershed: Watershed Manager Educators Guide* (from The Watercourse) shows how to locate the main stem, tributaries and headwaters of a watershed and outline a watershed's boundaries. Participants practiced this skill on maps of their local watershed.
  - Homeground Mapping – Participants were asked to draw a map of their home area when they were children and include things important to them. Maps were then shared among the group. Invariably, a water body was shown as an important component of their childhoods. Freedom to explore natural places was also seen as an important benefit to their developments.
- *Journaling and making journal.* Participants were shown examples of homemade journals and given time to make their own. They then took part in a few journaling activities, such as drawing a natural object by memory and then by

observing detail. The journals were later used outdoors during the Discovery of Place time.

- *Incredible Journey using haikus and watercolors.* The Incredible Journey, from Project WET, is an activity that describes the movement of water through the water cycle. After becoming a water molecule moving through the water cycle, participants were asked to write a haiku and/or create a watercolor describing their journey.
- *Outdoors – Grounding.* After eating lunch, participants were asked to find a comfortable spot on the ground, close their eyes and relax. The researcher then led them on a visualization exercise where they grew imaginary roots that held them to the ground. The purpose of this exercise was to relax the participants so they could open their senses for the Discovery of Place activity.
- *Outdoors – Discovery of Place.* The participants were given time to walk around the property, sit and observe, and/or write and draw in their journals. With instructions to use all of their senses, they could take with them magnifying glasses, loupes, and a device which magnifies sound. Participants were told that they should collect “bones for poems” as a poem-writing activity would follow.
- *Pantoum – “Where We Are.”* A pantoum is a form of repeating verse that lends itself well to a group poem-writing exercise. Using a very specific format, four of the five workshops wrote a pantoum as a group. The pantoum is about the place that the workshops were held: Aldo Leopold Nature Center, Treehaven Field Station, Peninsula State Park and Whitefish Dunes State Park. The pantoums are included as Appendix H.

- *Evaluations/Questions/Resources.* Participants were asked to fill out workshop evaluation forms. Any questions were addressed and attention was called to the many resources the researcher had on display.

The workshop participants received a binder of information to help meet the objectives and give them further educational resources for their ROW endeavors. The binder format gave the researcher a means to remind educators of the ROW workshop in future months, by mailing additional resources for the binder. The binder was separated into eight categories:

- 1) River of Words Information
- 2) Watersheds
- 3) Sense of Place
- 4) Poetry
- 5) Art
- 6) Journaling/Writing
- 7) Outdoor Activities
- 8) Resources

A listing of activities and articles included in the binder is attached as Appendix I. All the participants in each workshop received the same binder materials, except for the contents of the watersheds section. The researcher provided maps and information on the local watershed for each workshop. Because Casey Martin and the researcher added materials as the workshop series progressed, all the participants received a follow-up mailing of additional resources to add to their binders.

Resources collected by the researcher for the binder assisted in meeting the challenge of Objective 5.

To advertise the workshop, a media release was written by the researcher with the assistance of Jo Futrell, UW-Extension University Relations Specialist (see Appendix J). The release was emailed by Jo Futrell to all University of Wisconsin-Extension Community and Natural Resources Development agents for distribution in their respective counties. The researcher emailed the media release to all Boy Scout and Girl Scout Councils in Wisconsin, to WDNR Lake Coordinators and UWEX Basin Educators. A flyer designed by the researcher (see Appendix K) was sent out to schools using the EE Network and the workshops were listed in *EE News*. The researcher faxed the media release and flyer to newspapers, television stations, and schools in areas directly surrounding workshop sites. An article about the workshops, based on the news release, appeared in *Lake Tides*, *Wisconsin Rivers*, and *The Lake Connection* (Wisconsin Association of Lakes newsletter). In addition, the researcher found the article in *The School News*, *The Mature Times*, and a midwestern equestrian newspaper entitled, *Horse'n Around*. WAOW, a television station serving Wausau and Rhinelander areas, featured footage of the Tomahawk workshop along with an interview with the researcher and one participant on their local news broadcast.

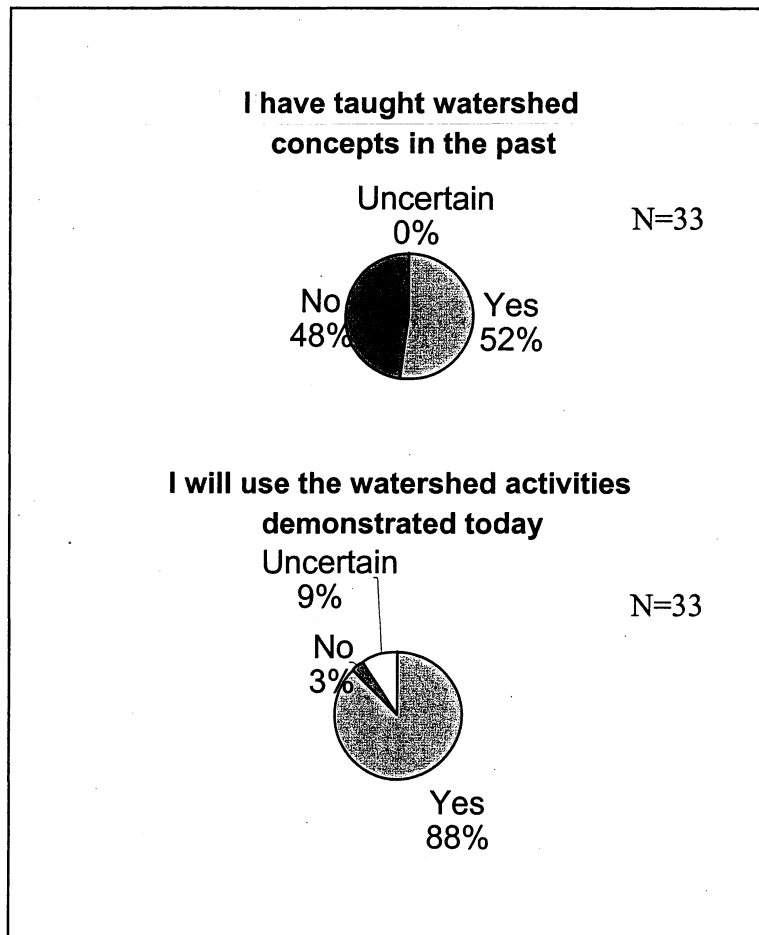
Participants could register via an online form located on the UW-Extension Lakes Program website. All but one, who did not have computer access, used the form. A total

of 38 educators attended the workshops: 24 school teachers (representing elementary, middle and high school); one college student; three government agency personnel (National Park Service, UW-Extension and a county Land & Water Conservation Department); and ten non-formal educators representing Girl Scouts and various nature centers and environmental non-profit organizations.

At the end of each workshop, participants were asked to fill out an evaluation. The evaluation collected demographic information as well as current feelings regarding the workshop proceedings and resources. The evaluation appears as Appendix L.

The data from the professional development workshop evaluations were compiled into a database. Following are the results:

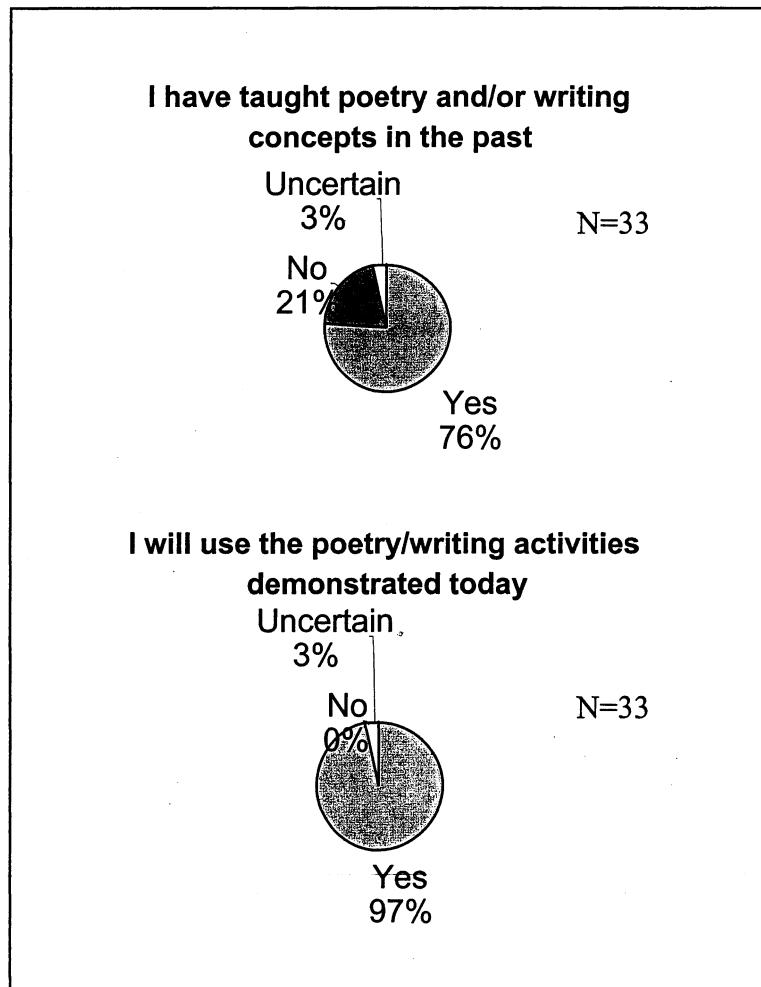
Thirty-three evaluations were turned in. By their estimation, those 33 educators have contact with 10,386 students per year. Of the 31 who answered Question 4 (Overall, how would you rate this workshop?), 18 rated the workshop as “excellent,” 11 as “very good,” and 2 as “good.” No participant indicated “okay” or “poor” for Question 4. Because 90% indicated “very good” or “excellent,” the researcher concluded that the participants were satisfied with the overall workshop.



*Figure 2. Watershed Concept Questions*

Fifty-two percent of the respondents indicated that they have taught watershed education in the past, and 88% said they would use the watershed activities reviewed during the workshop (see Figure 2 above). Therefore, the researcher concluded that the amount of watershed education being taught to students of this group of educators may increase. It is wise to keep in mind, however, that the evaluation was done immediately after the workshop. At that time educators may be excited about the prospects, but not able to complete their intentions once they are back at their jobs. Three percent indicated they would not use the watershed activities, and 9% were uncertain. While it was not

analyzed what subjects each educator taught, it is possible that those who answered “no” or “uncertain” view the watershed activities as science education and therefore not appropriate for their language arts or visual arts curriculum.



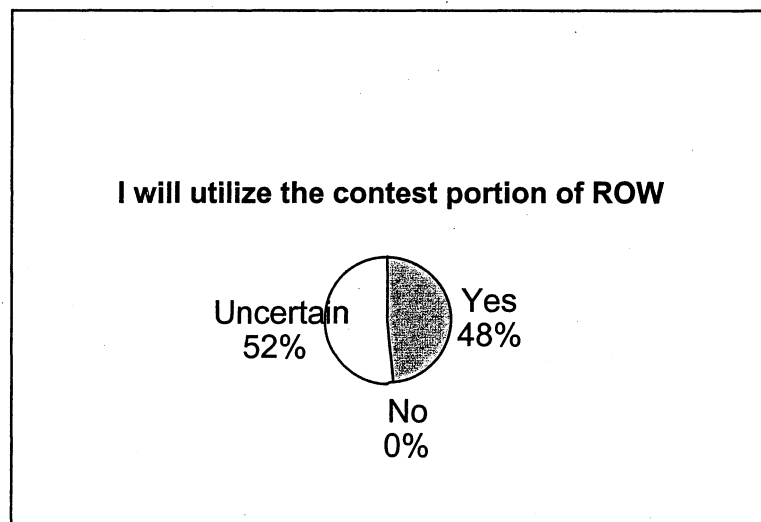
*Figure 3. Poetry/Writing Questions*

When it came to the writing and poetry activities, 76% of the respondents indicated that they have taught poetry and/or writing in the past. A full 97% indicated that they would use the poetry and writing activities presented in the workshop (see Figure 3 above).

While no one said they would not use the activities from the workshop, 3% were



uncertain. The researcher concluded that the poetry/writing activities presented in the workshop were well-chosen and, if educators follow through on their intentions, would increase the amount of poetry and writing activities being completed by students of this group of educators.



*Figure 4. ROW Contest Question*

Question 9 (I will utilize the contest portion of ROW) yielded an unexpected result. Only 48% of the educators answering that question indicated that they would make use of the ROW contest (see Figure 4 above). The other 52% were uncertain; no one indicated that they definitely would not use the contest. The researcher concluded that more emphasis should be placed on the benefits of the ROW contest in ROW publications and workshops.

The last three questions were open-ended. All of the comments are included as Appendix M. On the subject of the best features of the workshop, all 33 of the evaluations turned in

had comments in this section. Sixteen participants specifically mentioned the activities, both watershed and poetry, as being the best part of the workshop. Other comments being repeated regarded the appreciation of new ideas and the pleasure of being outdoors for part of the workshop.

The second open-ended question asked for thoughts for improvement of the workshop. Of the 24 respondents that answered that question, only 15 had suggestions (others answered with remarks such as “none” or “I loved it all!”). Seven of those thought that we needed more time; the workshop was too short. Other repeated comments involved wanting more activities, and more attendees.

“Other comments” were asked for at the end of the evaluation. Nineteen respondents filled in this area. All of them were positive and expressed enthusiasm for the workshop and ROW in general.

In general, the workshops attracted a mix of formal and nonformal educators, and people who work with all grade levels. At each workshop, there was a mix of knowledge; many participants could not even define “watershed” at the beginning of the workshop, while others had a good understanding. Likewise, there was a difference in participants’ writing abilities and experience. These mixtures created excellent opportunities for sharing and learning from each other.

The above information gathered from the evaluations was made available in an 11-page report to the Wisconsin Lakes Partnership and the Wisconsin Center for the Book.

In November of 2003 a follow-up packet was sent to each participant. The packet included a letter and any binder resources that were added during the time the workshops were taking place. The letter thanked the participants for taking part in the workshops and offered the researcher's assistance in implementing their ROW undertakings. The letter also stated that a follow-up survey would be mailed in late January.

### **Objective 5**

*Determine whether educators used the information from the professional development workshops.*

Even though educators have good intentions toward using materials from professional development workshops, they might not find the time. Three months after the last workshop, the researcher used a survey to determine:

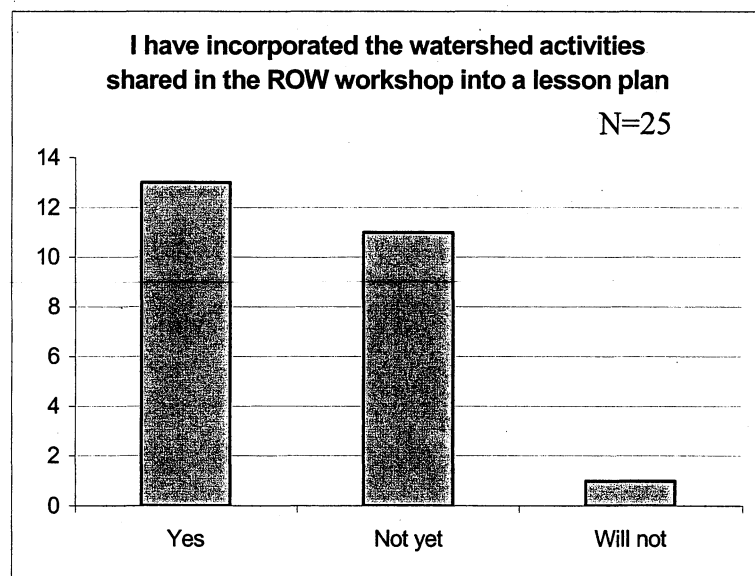
- Whether information and activities from the workshop were used;
- How information and activities from the workshop were used; and
- Which materials the educator found most helpful.

The researcher created the survey on the UWEX-Lakes website, so that workshop participants could go online and quickly fill in the information. An email was sent to all

participants with email addresses requesting that they fill out the survey. The one workshop participant without an email address was mailed a hard copy.

One week after the initial email was sent, eight had responded to the online survey. The researcher then sent out hard copies of the survey as a reminder, along with a cover letter and self-addressed stamped envelope. Nine hard copies were sent back, along with few more people using the online form. In all, 25 of the 37 participants sent surveys responded, for a return rate of 68%. The survey is included as Appendix N.

A summary of the follow-up survey is below. All answers to the open-ended questions are provided in Appendix O.



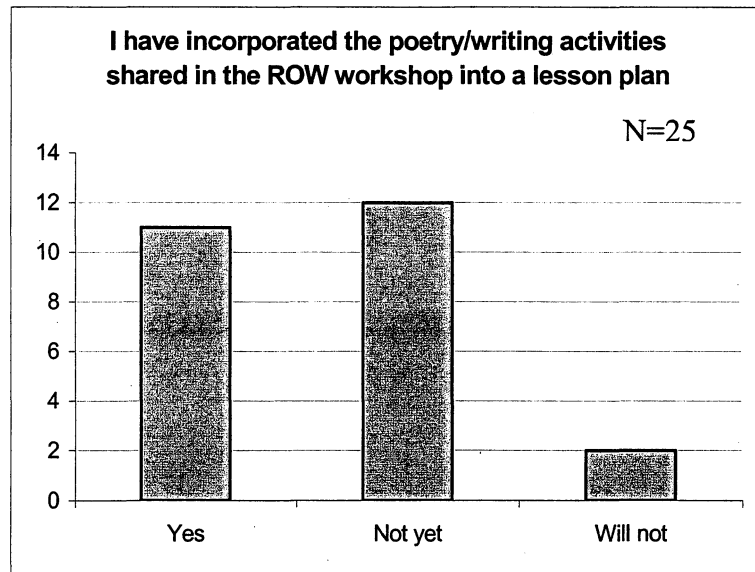
*Figure 5. Follow-up watershed activity question*

Of 25 respondents to Question 2 (see Figure 5 above), 52% (13) indicated that they have incorporated the watershed activities from the professional development workshop into a

lesson plan. Another 44% (11) responded “not yet,” which implies that they will do so. Only 1 respondent said they are not planning to use the watershed activities. The descriptions provided in Question 3 (Please describe how you used the watershed activities) show that The Incredible Journey activity from Project WET was used frequently, as well as the watershed model and maps:

- *“We talked about the watershed we live in and the effects of erosion...we did the activity with the raindrop...when we did the Jason Project, they were already familiar with watersheds and could compare our watershed to the Panama Canal Watershed.”* - Gifted and Talented teacher
- *“...this year I was able to add the maps I received in the ROW workshop. Students colored them in and learned terms like secondary tributaries and headwaters. The maps enhanced the lesson and have become a part of each students’ Study Book.”* - 5<sup>th</sup> grade teacher
- *“We used the cool point/non-point source pollution model with Kool-Aid to show how different types of pollution affect a watershed.”* - Teacher
- *“Have used The Incredible Journey.”* - St. Croix Cty. Information & Education Activities Specialist

- *“Built on existing watershed/macrobenthos education at Gaylord Nelson Education Center...also discussed importance of watersheds to Clayton High School art students.” - Naturalist/Volunteer Poet*

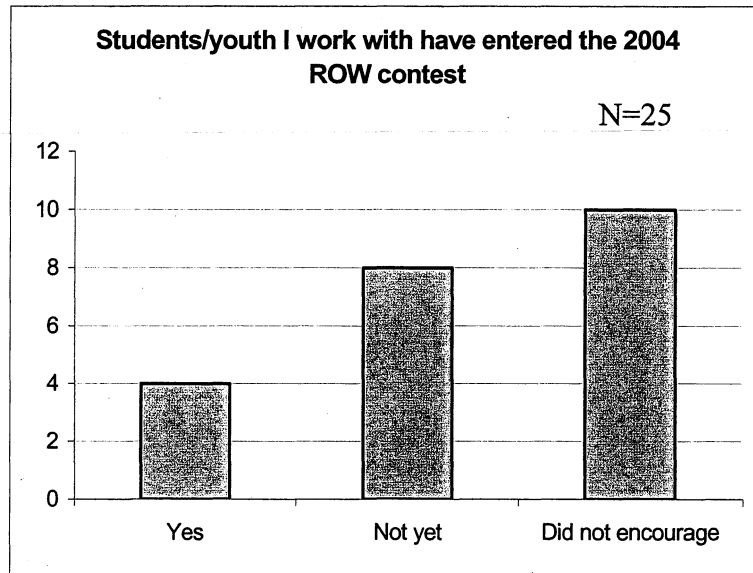


*Figure 6. Follow-up poetry/writing activity question*

Of 25 respondents to Question 4 (see Figure 6 above), 44% (11) indicated that they have incorporated the poetry/writing activities from the professional development workshop into a lesson plan. Another 48% (12) responded “not yet,” which implies that they will do so. Two respondents said they do not plan to use the poetry/writing activities. The descriptions provided in Question 5 (Please describe how you used the poetry/writing activities) show that they were not only used in many creative ways, but also shared with others:

- *“We did the pantoum with the outside observations first.” - Teacher*

- *"I used them in getting students to make stronger word choices."* - 6<sup>th</sup> grade teacher
- *"Brainstormed with English teachers."* - Library/media specialist
- *"I used several of the techniques including one line poems, poems describing pictures and several other techniques to introduce writing poetry in our class."* - Teacher, Kindergarten
- *"This year my students wrote...twice, out in the woods behind our school once in the fall, and again in the woods behind our school on the first good snowfall. Two of those poems qualified to be submitted to the Yahara Rivers Writers Workshop."* - 5<sup>th</sup> grade teacher
- *"I do not have lesson plans myself but shared what I learned with six teachers in the Middleton-Cross Plains Area School District."* - Education coordinator, Non-profit conservation group



*Figure 7. Follow-up ROW contest question*

Question 6 asked whether students the educator works with entered the 2004 ROW contest (see Figure 7 above). Only 18% (4) of the 22 respondents to this question indicated that their students had, but another 36% (8) answered “Not yet, but they plan to enter.” Considering that the survey came out two weeks before the national contest deadline, they still had time to send in entries. 45% (10) of the respondents, however, noted that they have not encouraged students/youth to enter the contest. While more respondents had a favorable answer to this question, these numbers may indicate, as they did on the first workshop evaluation/survey, that the contest portion of ROW needs to be emphasized in a positive manner.

Questions 7 and 8, asking for ratings, were poorly written. The researcher used a number scale from 1 to 5 but only attached words to numbers 1 and 5. Therefore, unless respondents circled the 1 or 5, there are no words to give the number meaning. Heather



Boyd, UW-Extension Evaluations Specialist, suggested that the researcher could validly use the numbers of people who answered either a 1 or 5 (via telephone, 2/27/04).

Seventy-one percent (17) of 24 respondents to Question 7 indicated that they “strongly agree” with the statement, “The study of watersheds can be enhanced by incorporating art and poetry into the lessons.” (The remainder of respondents circled 2 for this question, and the average was 1.3.)

Question 8 dealt with the resources provided in the binder. Since the workshop participants had time to look them over more carefully and actually use them, it was useful for Objective 6 to survey what they thought of each resource. The survey produced the following results:

- 70% (16 of 23) found the poetry activities “very valuable”
- 62% (13 of 21) found the watershed activities “very valuable”
- 59% (13 of 22) found the watershed maps “very valuable”
- 55% (12 of 22) found the sense of place readings “very valuable”
- 52% (11 of 21) found the outdoor activities “very valuable”
- 48% (10 of 21) found the resource lists “very valuable”
- 43% (10 of 23) found the journaling/writing activities “very valuable”
- 43% (9 of 21) found the art activities “very valuable”

The order of this list changes slightly if both 1 and 2 are counted. “Journaling/writing activities” moves up the list to be the third most popular resource and “watershed maps”

moves down to seventh place. It was expected that because the workshop participants hold varied job positions, they would value different resources. No one resource stood out as not being effective for any of the respondents.

The open-ended follow-up questions regarding the binder yielded some suggestions. Question 9, answered by 13 respondents, requested that any particularly valuable binder material(s) that should be included in a WROW educator resource guide be named. The watershed and poetry activities, along with the maps, were the most frequently mentioned. Sample responses were:

- *"I loved the poetry items. They really brought out the creative side to the students."* - Teacher, grade 6-8.
- *"I found the maps to be very beneficial in helping my students see the 'bigger picture' of their immediate environment."* - 5<sup>th</sup> grade teacher
- *"I was impressed with all the material. I particularly liked that everything could be integrated with the arts."* - Teacher, Kindergarten

Again following up on the binder materials, Question 10 asked if the respondent knew of any additional beneficial resources for the resource guide. Only seven responded to the question, but with good ideas such as:

- *“Maybe the WAV curriculum so teachers can really tie it in with more activities. More science watershed stuff.”* - Teacher
- *“Additional ideas for art activities.”* - Special projects coordinator
- *“...samples of student poetry or artwork...”* - Graduate student

Sixteen people responded to Question 11, which asked for the best feature of ROW.

Most of the comments made reference to either the activities or being outdoors, and many blended the two. These comments show that some workshop participants appreciated the place-based education approach of ROW. A sample of comments include:

- *“The whole idea of being outside and really listening/watching nature.”* – Teacher, grade 6-8
- *“My students are beginning to recognize the depth of their connection to the natural world by taking the time to observe it and write about it.”* - 5<sup>th</sup> grade teacher
- *“Hands-on, with tender loving care!”* - Education coordinator, non-profit conservation group

- *“Blending experience with expression through art and writing/speaking. I would find it difficult to use these materials without getting out of a classroom or building.”* - Environmental educator
- *“The activities are presented with plans and materials listed. They give students hands on opportunities.”* - Gifted and Talented teacher

The final question on the follow-up survey asked, “From my experience with ROW, it could be improved by...”. Eleven people submitted comments, the majority offering suggestions for workshop improvement. Question 12 yielded some good suggestions for the researcher to take into consideration:

- *“Have follow-up meetings.”* - Teacher, Kindergarten
- *“I would like to see more activities geared to upper grades. More advanced watershed activities/journal activities/art.”* - Teacher
- *“Our ‘class’ went quick. I would have loved to have done more. Maybe next year!”* - Teacher, grade 6-8
- *“Please let more people know about ROW. Please, please. It’s wonderful.”* - Teacher, adult

In summary, the follow-up survey yielded helpful information for the development of the educator's guide and advice for future workshops. It also showed how educators are using the materials gained at the professional development workshop and confirmed that they believe art and poetry can enhance the study of watersheds.

### **Objective 6**

*Develop a WROW resource guide for educators to complement the national River of Words program.*

Based on the feedback provided by the professional development surveys, the mission of ROW, and the experience of Georgia and California (the two states studied that have educator's guides), the researcher created objectives for a WROW resource guide. The objectives are:

- a. To explain the ROW and WROW program components, including the contest.
- b. To provide a definition of watersheds and activities to explain the concept, along with Wisconsin watershed maps and availability information.
- c. To provide poetry activities.
- d. To give users a knowledge of the concept of "sense of place" and activities to cultivate students' sense of place.
- e. To provide guidance to web and print resources on poetry, artwork, sense of place, Wisconsin, and watersheds.

While journaling/writing activities scored high on the follow-up survey as a useful item in the workshop binder, the researcher decided to exclude these from the initial WROW educator's guide. In the interest of keeping the educator's guide inexpensive to print, not everything that was in the workshop binder can be included in the educator's guide. The researcher contacted Kate Hofman, UW-Stevens Point graduate student, about using her journaling activities guide for WROW.

Based on the above objectives, the researcher produced an initial table of contents for the resource guide, and collected or wrote information for each section. Permission for use was obtained when necessary. A draft of the WROW Educator's Guide is included as Appendix P. The final layout and design of the Guide will be up to the Wisconsin Lakes Partnership. The draft Table of Contents is as follows:

What is River of Words?	
How to Use This Guide	
Wisconsin River of Words	
National Contest Rules and Guidelines.	
Common Questions	
Entry Form	
<b>Sense of Place</b>	
What is Sense of Place?	
Homeground Mapping	
Mapmaking from the Inside Out by David Sobel	
Mapmaking Activities	
<b>Watersheds</b>	
What is a Watershed?	
Seeing Watersheds	
Watershed in a Box	
Wisconsin Watershed Maps	
<b>Poetry</b>	
Tips for Writing Poems by Robert Hass	
Life is the Teacher: Writing Poems from Daily Experience by Sanford Lyne	
<b>Resources</b>	

Throughout the final version of the WROW Educator's Guide should be samples of student artwork and poetry, along with references to other Wisconsin environmental education programs that have correlations with the activities used (i.e. Water Action Volunteers, Angler Education, etc.)

### **Objective 7**

*Make recommendations for the continuation of the Wisconsin River of Words program to the Wisconsin Lakes Partnership.*

The researcher compiled a summary report on this project and possible future avenues for expansion and improvement. The report was given to members of the three programs that make up the Wisconsin Lakes Partnership: Robert Korth, Director, UW-Extension Lakes Program; Jeff Bode, Section Chief, Lakes and Wetlands Division, Department of Natural Resources; and Peter Murray, Executive Director, Wisconsin Association of Lakes.

## **Chapter Five Recommendations**

The goal of Wisconsin River of Words is to foster children's appreciation and knowledge of Wisconsin's water resources through artistic expression. All of the objectives of the program are presented as Appendix B. This project only addresses a few of those objectives. It began to form some partnerships with artistic and educational communities (such as the Wisconsin Center for the Book and the Wisconsin Department of Public Instruction). The project mainly addressed the objective: "To encourage educators to take part in watershed education and enter the ROW contest." By publicizing the program through printed and electronic materials, providing professional development workshops, and creating a WROW Educators' Guide, educators are becoming aware of the program.

This awareness has resulted in more entries to the ROW contest. In 2003, there were 53 Wisconsin entries sent to the national competition. For the 2004 competition, 464 entries were received. Many of these entries came from students whose teachers took part in the professional development workshops. One student even became a national finalist in the Grades 10-12 poetry category. Joanna Foster's poem, written on the shores of Lake Michigan, shows her attachment to her home watershed as she prepares to move out-of-state to attend college:



### Along the Shore

Pearly grey of sky unites  
With pearly grey of lake  
Silent drifting depths dream on  
Softly murmured sigh

Etched into the rusted shore  
An aimless path winds off  
Polished bones softly laid  
Upon these sands of rest

Caught in a branch strewn on the strand  
A wisp of paper, gently blown  
Waves a sad farewell.

*Joanna Foster, 2004 National ROW Finalist  
Age 17, Fish Creek, Wisconsin*

In 2004, WROW held its first statewide competition. First- and second-place winners were chosen for both art and poetry in four age categories. The entries will be displayed on the WROW website, printed in *Lake Tides* and *The Lakes Connection*, and made available to other entities such as the River Alliance of Wisconsin. A statewide press release highlighting the winners and the program will be distributed by UW-Extension.

Other objectives are being worked on at the same time as this project. The PEN Pilot Project, funded by a grant from the Quixote Foundation, has begun. PEN (for Poet-Educator-Naturalist) is a collaboration of the WLP, the River Alliance of Wisconsin, Judith Strasser (Wisconsin poet) and Martin Scanlan (educator). In the 2004-2005 school year, 4<sup>th</sup> and 5<sup>th</sup> graders and their teachers in four Wisconsin watersheds will work with local poets and naturalists to learn about their watershed and express their concerns through poetry and art. Community celebrations of the resulting works will call attention to the watershed and the students' experiences with it. These four pilot projects will

result in a guide for schools and communities that will outline how to organize and fund a WROW-PEN project.

There are several recommendations to be made to the Wisconsin Lakes Partnership in order to build on the initial successes of WROW.

1. *Dedicate funding to the implementation of WROW.* WROW must be considered an important part of the WLP's programming in order for the rest of the recommendations to occur.
2. *Dedicate staff time to the implementation of WROW.* Of the five state ROW programs studied, only one (Georgia) funded staff time to the program. Georgia has a very successful, long-lasting ROW program.
3. *Continue to offer professional development workshops.* Many of the educators that attended the workshops used the activities with students, as shown by the follow-up survey. In addition, the growth in number of contest entries from 2003 to 2004 is attributable to the workshops. This translates into better publicity opportunities for the program, the Wisconsin Lakes Partnership, and watershed education in general. Professional development workshops could be advertised through or sponsored by professional teacher associations.
4. *Complete other parts of the WROW plan (statewide contest, awards, traveling display, etc.).* Attention to other WROW objectives will help the program grow and address the opportunities stated in #2 above.
5. *Continue to create and strengthen partnerships.* Groups such as the Wisconsin Fellowship of Poets and River Alliance of Wisconsin endorse WROW by printing

information in their newsletters. The Wisconsin Center for the Book sponsors WROW by providing funds for awards. Partnerships such as these should be cultivated. In addition, other organizations such as the Wisconsin Council of Teachers of English Language Art and the Wisconsin Art Education Association should be approached for endorsements. Other possible partners include nature centers to teach watershed concepts or corporate sponsors to provide sponsorships.

6. *Print and distribute WROW Educators' Guide.* This resource will give educators a place to start. It will also emphasize that WROW is about getting students outdoors and learning about their home watersheds, and is not just an art and poetry competition. The draft copy provided as Appendix P should be reviewed by educators for comments before final lay-out and printing. The final product should include sample poems and artwork scattered throughout the book.
7. *Emphasize the intergenerational linkages.* Adults need art and poetry, too, and their sense of place is important to ecological well-being. These linkages can be emphasized by training adults to volunteer to teach students about their home watershed, or take part in writing poetry or creating art with students.
8. *Make sure to get teachers across the curriculum involved.* There were few art teachers in the professional development workshops. These cross-curricular linkages need to be emphasized.
9. *Supply journaling activities.* Journaling is important to creating poetry and artwork, and in developing a sense of place. A separate publication on nature

journaling could benefit many other environmental education program besides WROW.

10. *Create linkages to other programs in Wisconsin.* WROW can easily become part of an educator's plan for other programs such as Adopt-A-Lake, Water Action Volunteers, Groundwater Guardians, and Angler Education. Students taking part in any of these activities can create poetry or artwork about their experiences.
11. *Research the outcomes of WROW.* This project dealt with the creation of the program. Future outcomes should be measured in order to help determine the success of the program. Questions to be answered should include: Do students (and/or educators) have increased knowledge of their home watershed? Has a positive sense of place been cultivated in students (and/or educators)? In addition, records should be kept regarding how many educators and students have participated.

WROW has benefited from many small accomplishments over the past few years. The above recommendations will help to ensure that the program continues to grow and that the Wisconsin Lakes Partnership can meet its WROW goal of fostering children's appreciation and knowledge of Wisconsin's water resources through artistic expression. In addition, WROW will help to meet WLP's overall educational goals in its strategic plan which seeks to educate for lake leadership and informed decision-making through objectives such as focused water education programs and tools for educators. WROW can help to create informed citizens through focusing on watershed knowledge, fostering a positive sense of place, and the practice of communication skills through poetry and artwork.

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# APPENDICES



# **APPENDIX A**

## **Synopses of state ROW programs**

## **ALABAMA**

Jay Lamar, Auburn University Center for the Arts & Humanities

334/844-4947

October 2, 2003

The Auburn University Center for the Arts & Humanities houses the Alabama Center for the Book (ACFB), which sponsors the Alabama ROW program. They are just starting with ROW, and the first promotion, in the form of a brochure, has gone out in fall of 2003. They are marketing to public libraries, public and private schools, and home school associations. In order to reach teachers, they are going through media specialists and school librarians. In addition to the brochure, they are currently working on a website that is not yet online.

ACFB has many plans for its ROW program. They are hoping to develop a curriculum, as well as hold a statewide contest. For now, they are directing teachers to existing curricula on the environment and the arts. The ACFB has many partners in this endeavor, including Auburn University Environmental Institute, Water Watch (a citizen organization), and Alabama Alliance for Arts Education.

They are planning a pilot project for this school year. Students in Wilcox County, the poorest county in Alabama, will be bussed to the local Friedman Farm, a small natural area. Students will take part in some hands-on environmental education activities, as well as art and writing activities. Friedman Farm will also be used as the site of the ROW awards ceremony.

## **CALIFORNIA**

Natalie Cole, California Center for the Book

310/206-2464

October 2, 2003

The California Center for the Book (CCFB) sponsors the CA River of Words program. Their main resource is a website at [www.calbook.org](http://www.calbook.org). On the website, they offer a resource guide for educators and a listing of events and activities surrounding ROW in California (although there was only one event listed on October 2). Anyone can submit an activity and it will be added to the website.

California does not currently have a statewide competition, although it is something they would like to do in the future. They try to involve teachers and "environmentalists," but have not marketed the program to Scouts, 4-H, or other youth organizations.

In addition to the website, they mail out an annual postcard to teachers using the state Department of Education's mailing list. The Department is then listed as a supporter of the program. Because of budget cuts, they plan to transition the mailing to be an email rather than hard copy mailing.

The CCFB also sponsors a program called, "Letters about Literature" (LAL). They send out River of Words information to all the teachers involved in LAL, combining marketing costs for the programs.

## **GEORGIA**

Monica Kilpatrick

404/675-1762

February 5, 2004

Georgia's ROW program is run by the Georgia Project WET office, which has a staff of four. Because they have been managing the program essentially the same for many years, it "basically runs itself."

Each fall, a Georgia ROW (GROW) brochure is printed and sent to every public and private school. The brochure includes a tear-off sheet to send in for a free educator's guide. The educator's guide includes activities and maps of Georgia's watersheds. Over the winter, they send out the 300-400 guides annually requested by teachers, Boy and Girl Scout leaders, 4-H leaders, and homeschoolers.

Georgia judges a statewide contest of entries sent to the national competition. Over 1000 entries are returned to Georgia in late April, are judged, and awards are given at a ceremony before school lets out for summer. The awards ceremony is held at the Atlanta Botanical Gardens and includes entertainment (speaker or music), pizza and other food, a state dignitary in attendance, and the first viewing of the year's traveling exhibit. There are 30 student winners (over and above the national winners from Georgia) who receive a certificate and a "goodie" such as a journal or water bottle. They also recognize a GROW Teacher of the Year for outstanding watershed studies within the classroom setting.

Other components of the program include an annual published booklet of that year's winners. The booklet goes to teachers and families of winners, and anyone who requests the educator's guide. Georgia also has two traveling exhibits of winning entries. One is kept in their office and anyone can borrow it. The other is paid for by the Georgia Center for the Book. The Center coordinates the display's travel to libraries across the state. The exhibits are made up of copies of the winning work. All original works, winning and non, are returned to the children who created them.

GROW does not have any plans to change their offerings at this time.

## **IOWA**

Brian Soenen, IOWATER Coordinator

515/281-6640

February 4, 2004

Iowa ROW is coordinated by IOWATER, a program of the Iowa Department of Natural Resources. IOWATER's mission is to protect and improve Iowa's water quality by

establishing and supporting a statewide volunteer water monitoring program. Because water quality monitoring is heavily weighted towards science, IOWATER looks towards ROW as a way to integrate other subjects. As IOWATER's website states, "Imagination *and* knowledge are essential for a sustainable future and we would like to suggest a way to nurture both in our young people" (<http://www.iowater.net>, 2/4/04).

IOWATER began coordinating Iowa ROW in March of 2002. However, they have not dedicated staff time to ROW and it is a low priority. Because of that, they have sketchy plans. The one thing that Brian deemed "successful" was a ROW brochure that was mailed to all K-12 science, visual arts and language arts teachers in Iowa (about 10,000) in May of 2003. The mailing incited some phone calls asking for more information and entry forms. Brian is hoping that the mailing will generate entries to the ROW contest. In 2003, there were only 2 entries from Iowa.

If there are enough entries in 2004, Iowa will judge a statewide contest. Plans are "only in Brian's head," but he is hoping that an awards ceremony could be held in Des Moines at the capitol building, with Iowa's First Lady in attendance. He doesn't know what the awards will be. His possible plans also call for Iowa ROW t-shirts, hats, maybe even a calendar of children's work or a coffee table book.

Iowa has not focused on ROW for any professional development training. They do include ROW in their water quality monitoring trainings, although with limited interest since most of the teachers at the trainings are secondary science teachers.

## **RHODE ISLAND**

Rick Benjamin, Rhode Island Service Alliance

401/351-4258

October 2, 2003

The Rhode Island ROW program focuses on students in Providence, using a "trickle-down teaching" approach. The point of the approach, according to Rick Benjamin, is to "transfer knowledge, creative energy and skills." Benjamin and another coordinator serve as mentors to Brown University students, who then mentor Hope High School students, who then work with local elementary students. This is a very urban environment, where kids struggle with social justice issues and do not have time to think about the natural processes that take place within their watershed.

While they used to sponsor a statewide contest, budget cuts forced them to stop. They still do annual mailings to teachers to encourage participation in the national competition. While he would like to again sponsor a contest and the unique celebration of students' poetry that an awards ceremony entails, Benjamin likes the fact that without the contest, the program puts the educational aspect front and center.

The environmental curriculum used in the program changes every year, as it is designed each year by the high school students who go into the elementary schools. Educators outside the Providence program do not have access to the curriculum. Entire classes of

high schoolers become involved through their teachers; classes include language arts, English as a Second Language, and Special Education students. College students from Brown go into the high school classes to work with the adolescents on

In the beginning of the use of the “trickle-down” model, some elementary teachers complained. Hip-hop, tough high school boys were coming to their class using language that teachers were trying to keep out of their rooms. In some cases, the high schooler sent didn’t speak English. All these complaints are now gone, as the success of this program proves on an annual basis that tough adolescents can teach environmental concepts and poetry to little kids.

In appreciation of participation in the program, an environmental arts library was started at each school so students and teachers could continue their learning and grow their enthusiasm. To celebrate the program’s success, each year high school students are treated to a river trip. For many of them, it’s their first time paddling. High school students also publish anthologies of their elementary students’ work.

While formal evaluations each year show a successful program, Benjamin feels that the real way to measure success is having learners (including himself) report both intellectual growth and creative growth in thinking about who they are and where they are.

# **APPENDIX B**

## **Goals and Objectives for WROW**

## Wisconsin River Of Words

*The goal of the ROW program in Wisconsin is to foster children's appreciation and knowledge of Wisconsin's water resources through artistic expression. Wisconsin lake management and educational training is heavily weighted toward the scientific, technical and legal aspects of resource management. Through ROW, Wisconsin's citizens, agencies, and institutions concerned with the state's waters will be able to expand the message of stewardship through the arts.*

Five objectives, as well as methods of meeting the objectives, will help us to define Wisconsin's ROW program:

**Objective 1: To form partnerships with Wisconsin's artistic and educational communities which will advance ROW's goal.**

- Research and contact organizations such as the Wisconsin Center for the Book, the Wisconsin Fellowship of Poets, the state's library system, etc.
- Research and contact nature centers, the Wisconsin Art Education Association, the Wisconsin Council of Teachers in English and Language Arts, etc.

**Objective 2: To encourage educators to take part in watershed education and enter the ROW contest.**

- Publicize the ROW program to teachers, nature center, libraries, youth groups, etc.
- Provide access to watershed maps and activities.
- Provide teacher trainings on watersheds and poetry.
- Bestow a Wisconsin ROW Teacher of the Year Award.
- Connect teachers who are participating in ROW with each other.

**Objective 3: To link educators and children with local poets, artists and naturalists to help them explore their watershed and the artistic opportunities available to them.**

- Create a list of local poets and artists to work with children.
- Create a list of local nature centers and naturalists to explore watersheds with children.
- Help create links between classrooms and poets, artists and naturalists.

**Objective 4: To judge a Wisconsin ROW contest consisting of entries from the state sent to the national competition.**

- Bring together panels of Wisconsin poets and artists to judge Wisconsin entries to the national ROW contest.
- Award prizes in the same categories as the national ROW contest.
- Hold a Wisconsin ROW award ceremony in Madison.

**Objective 5: To celebrate Wisconsin children's poetry and art by highlighting winners and others.**

- Publish poems and artwork in *Lake Tides* and other statewide newsletters.
- Publish poems and artwork on the Wisconsin ROW webpage at the UWEX-Lakes Program website.
- Display poems and artwork at libraries, bookstores, etc. throughout the state.

Rev. 7/16/02

# **APPENDIX C**

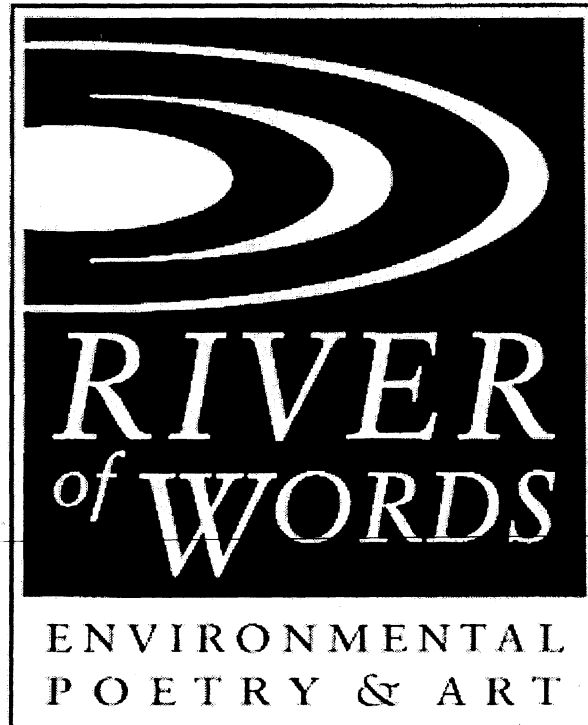
## **Logos for WROW, brochure and display**





**Connecting students with poets,  
artists, and naturalists.**

Wisconsin



## About the contest...

Children ages 5-19 may enter through a school, nature center, library, museum, club, etc. or as an individual. Entry forms must be included with each piece entered. The annual deadline for submissions is February 15. ROW awards four national Grand Prizes in poetry and four Grand Prizes in art, in the following categories:

Category I – Grades K-2

Category II – Grades 3-6

Category III – Grades 7-9

Category IV – Grades 10-12

At the international level, Grand Prize winners win a trip to Washington, DC with a parent. They are honored at an Award Ceremony and luncheon at the Library of Congress, have a VIP tour of the White House and visit many historical sites. There are also 50 Finalist awards given nationally, as well as an International Winner. Wisconsin will hold a separate contest to highlight local winners.

All children entering the contest receive a "Watershed Explorer" certificate from River of Words.

### *Smaller Point of View*

*I sink slightly as I step on the  
expanse of sand  
which supports an entire lake full of life.  
I am mesmerized as the distant sun falls,  
shimmering atop the vast, rippling surface,  
kissing the waves whipped around me.  
I gaze into the glowing water,  
barely knee-high,  
And take note of the minute creatures  
swimming freely about my toes.  
And wish I could see the beauty  
from yet a smaller point of view.*

Submitted by  
Caleb, age 10, Stevens Point, WI 2001

### *Wingra*

*Water looks shiny and bright.  
In little stick nests, chicks sing.  
No leaves are the same color.  
Great blue herons wade; still calm.  
Ripples in the water float.  
A bird soars high through the sky.*

Submitted by  
Caleb, age 10, Stevens Point, WI 2001

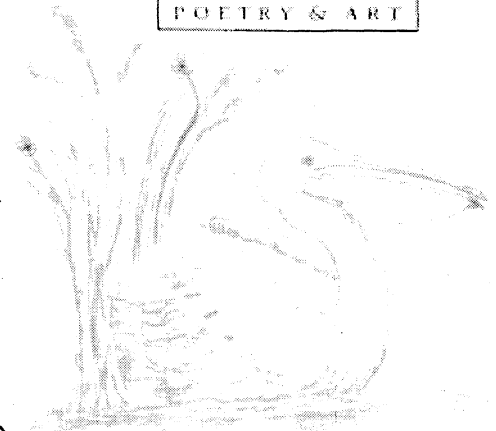
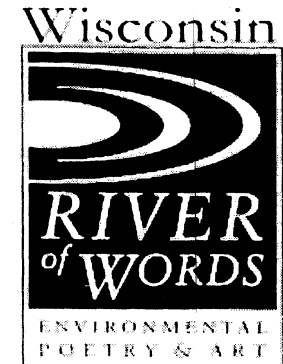
Wisconsin River of Words is an educational program of the Wisconsin Lakes Partnership. The partnership between the Department of Natural Resources, University of Wisconsin-Extension, and the Wisconsin Association of Lakes is recognized by the state as a model program for ensuring the protection of Wisconsin's lakes for future generations.

The international River of Words was created in affiliation with the Library of Congress Center for the Book.

**UW  
Extension**



**River of Words  
UW-Extension Lakes  
UW-Stevens Point  
Stevens Point, WI 54481  
Ph.: 715-346-4978  
Fax: 715-346-4038  
uwexplakes@uwsp.edu**



Wisconsin River of Words  
is a project of the Wisconsin Lakes Partnership.

# Wisconsin River of Words

Connecting students with poets,  
artists, and naturalists.

**The goal of River of Words (ROW) in Wisconsin is to foster appreciation and knowledge of Wisconsin's water resources through artistic expression.**

Wisconsin ROW is a part of an international K-12 environmental art and poetry program created to promote watershed awareness, literacy, and the arts. Through an annual art and poetry contest and educator's tools, ROW helps communities begin exploring the natural and cultural history of their own homegrounds.

**Get on board! Participation in ROW can:**

- Help young people and their wider communities develop a sense of belonging to a particular place.
- Provide communities with a simple, elegant, low-cost tool for building community partnerships in support of education for conservation and restoration.
- Promote critical thinking and multiple literacies (visual, oral, nature, etc.) through holistic, investigative, place- and project-based activities.
- Give students skills and practice in nature writing, poetry, observation, and art.
- Provide educators, schools, nature centers and other learning centers with a simple, effective, flexible model of multidisciplinary, place-based education.
- Assemble and celebrate the poems, songs, paintings, legends and stories that a particular place has inspired.
- Honor, encourage, support, and promote youth art and poetry.

**Grab an oar and help us ROW! Future plans for Wisconsin ROW include:**

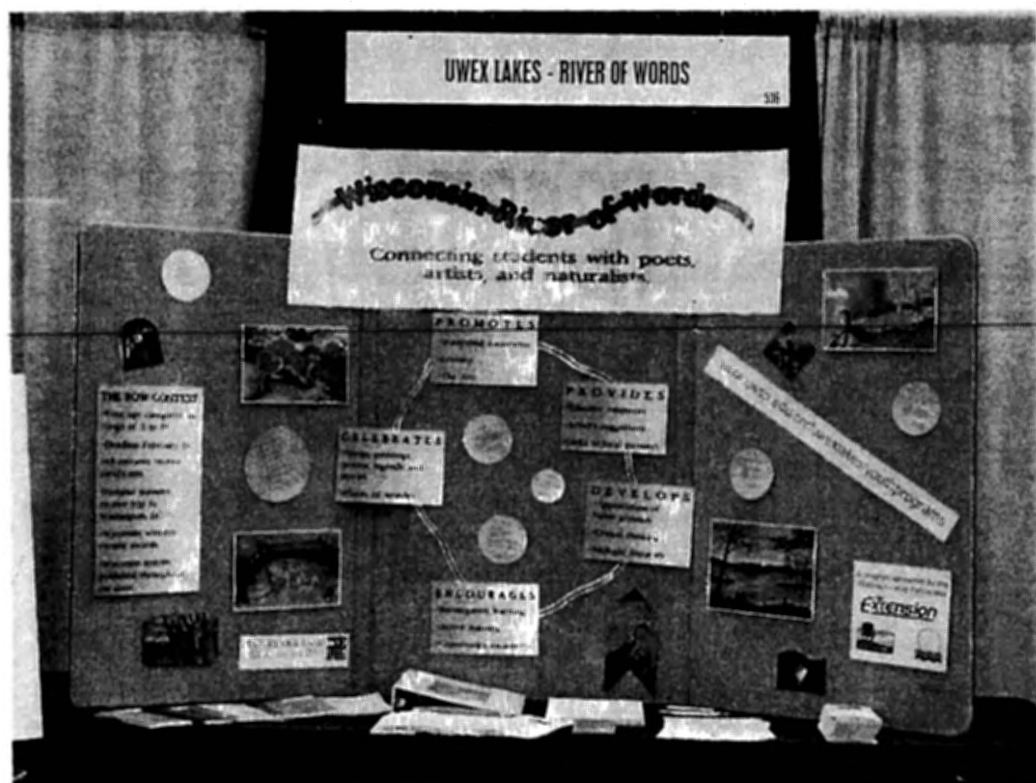
- Partnerships with water resource organizations, art and poetry organizations, youth groups and schools.
- Distribution of resources for educators and activities about watersheds.
- Presentation of awards to exceptional Wisconsin youth entries and educators involved in the program.
- Link ROW educators to each other, as well as to naturalists, poets and artists in their local areas.
- Publish Wisconsin children's art and poetry in various statewide newsletters.

Wind  
With the wind,  
I dance away  
the troubles  
that I had today.

Anna Young  
Grade 4, Randall School,  
Madison 2001

**Check the Wisconsin ROW website frequently to see our progress! The website also links to the international ROW site where you can find contest entry forms, educator resources, and winning art and poetry.**

**[www.uwsp.edu/cnr/uwexlakes/youthprograms](http://www.uwsp.edu/cnr/uwexlakes/youthprograms)**



**APPENDIX D**  
**WROW session agenda,**  
**WAEE Fall Conference**  
**(October 5, 2002)**



**Connecting students with poets,  
artists, and naturalists.**

River of Words...Poetry to Connect  
Kids with their Watersheds  
WAEE Fall Conference  
Saturday, October 5, 2002

- 
1. Give each a ROW poem as they come in. Time to practice, reflect on what the poet was feeling, the meaning of the poem. Read aloud with introduction of self. 30 minutes
  2. Discuss ROW. 10 minutes
  3. Discuss watersheds. What is it? What land uses are in your home watershed? 5 minutes (objective is just to make sure all understand the concept)
  4. Introduce web of life concept. Hand out sheet. 5 minutes
  5. Poetry writing exercise using two 5-minute poems. Share. 20 minutes
  6. Hand out Lions Camp web worksheet. Discover Lions Camp relationships (outside with worksheets and clipboards) 20 minutes (note: discuss analogies as "bones for poems")
  7. Come together to share discoveries and analogies. Write Lions Camp poems TO HANG up someplace. 20 minutes


**Handouts:**

Booklet of info  
Pamphlets  
Web sheet

**Need:**

Paper (white, colored)  
Copies of ROW poems  
Lions Camp web worksheet  
Pencils, pens  
Clipboards  
Big paper or whiteboard for writing everyone's ideas on...markers



**APPENDIX E**  
**WROW session slides,**  
**Wisconsin Lakes Convention**  
**(April 11, 2003)**



Connecting students with poets,  
artists, and naturalists.

Wisconsin Lakes Convention  
April 11, 2003

Mary Pardee  
Wisconsin ROW Coordinator





### River of Words (ROW)...

- ...is a national/international program that promotes watershed awareness, literacy and the arts. Based in California.
- ...was started in 1995 by then-U.S. Poet Laureate Robert Haas.
- ...is coordinated in Wisconsin by the UW-Extension and Wisconsin Lakes Partnership. Started in 2002.

Boy

Once I was  
A scrawny boy  
I was full  
Of happiness,  
and love  
Of boaters  
Speeding along  
My voice -  
Ticking my  
face



### What are we ROWing towards?


- Help children and their wider communities develop a sense of belonging to a particular place.
- Provide communities with a simple, elegant, low-cost tool for building community partnerships in support of education, as well as for conservation and restoration.
- Promote critical thinking through holistic, investigative, place- and project-based activities.
- Give children skills and practice in nature writing, poetry, observation and art.

### ROW Goals, continued

- Provide educators, schools, nature centers, etc. with a simple, effective, flexible model of place-based education.
- Assemble and celebrate the poems, songs, paintings, legends and stories of a place.
- Honor, encourage, support and promote children's art and poetry.


Whisper

Water looks shiny and bright  
In little stick nests, chicks sing  
No leaves are the same color.  
Great blue herons wade, tilt, calm  
Ripples in the water float  
A bird soars high through the sky



### To Meet the Goals, ROW National...

- Provides a binder of watershed, poetry, art, and sense of place activities.
- Publishes a web page, calendar, annual book of children's art and poetry.
- Holds an annual K-12 environmental art and poetry contest.



### ROW International Art and Poetry Contest

- Children ages 5-19 enter through a school, nature center, library, club, lake association, or as an individual.
- Broken down into categories: Grades K-2, 3-6, 7-9 and 10-12.
- Annual deadline is February 15, entries sent to CA.
- Awards consist of eight Grand Prizes (trip to Washington, DC), 50 finalists, an International Winner, and a ROW Teacher of the Year.



### Wisconsin Gets on the Boat to ROW!

#### Statewide Objective #1

To form partnerships with Wisconsin's artistic and educational communities.

Wisconsin Center for the Book, Wisconsin Fellowship of Poets...

Wisconsin Art Education Association,  
Wisconsin Council of Teachers in English and Language Arts...

Nature and environmental centers, lake and river groups, Groundwater Guardian communities...



### Wisconsin Gets on the Boat to ROW!

#### Statewide Objective #2

To encourage educators to take part in watershed education and enter the ROW contest.

Publicize ROW to lake organizations, teachers, libraries...

Provide educator trainings on watersheds and poetry...

Provide access to Wisconsin watershed maps and activities...



### Wisconsin Gets on the Boat to ROW!

#### Statewide Objective #3

To link educators and children with local poets, artists and naturalists to help them explore their watersheds and the artistic opportunities available to them.

Create a list of local poets and artists willing to work with children...

Enlist the help of local nature centers and naturalists to explore watersheds with children...

Create links between classrooms/youth and poets, artists and naturalists...



### Wisconsin Gets on the Boat to ROW!

#### Statewide Objective #4

To judge a Wisconsin ROW contest consisting of entries from the state sent to the national competition.

Bring together Wisconsin poets and artists to judge Wisconsin's entries...

Award prizes in the same categories as national competition...

Hold a ROW awards ceremony to honor all entries...



### Wisconsin Gets on the Boat to ROW!

#### Statewide Objective #5

To celebrate Wisconsin children's poetry and artwork.

Publish poems and artwork in *Lake Tides* and other newsletters...

Publish poems and artwork on the UWEX-Lakes website and others...

Display poems and artwork at lake fairs, libraries, bookstores, etc. throughout the state...



### ROW and Lake Group Involvement

- \* Collaborate with local schools and youth organizations (scouts, 4-H, etc.) on writing/art projects about your lake.
- \* Create a listing of local naturalists, artists and poets able to work with kids.
- \* Publish local poetry and artwork in newsletters.
- \* Use a lake fair event to highlight local children's work.
- \* Write ROW participation into a Planning Grant as the educational portion.
- \* Send an interested lake organization member to a ROW educator workshop to be held in Fall 2003.

#### ROW Educator Workshops - 2003

August 9 – Aldo Leopold Nature Center, Madison  
August 23 – Urban Ecology Center, Milwaukee  
September 20 – Treehaven Field Station, Tomahawk  
September 27 – Great Blue Peace Camp, Hudson  
October 18 – Whitefish Dunes State Park, Sturgeon Bay



#### ROW Information

##### ROW National

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

##### Wisconsin ROW

[www.uwsp.edu/cnr/uwexlakes/youthprograms](http://www.uwsp.edu/cnr/uwexlakes/youthprograms)

##### Poems and artwork in this presentation by:

Gab Block, Grade 6, Madison  
John Krauss, Grade 6, Sturgeon Bay  
Jessica Mills, Grade 10, Beloit  
Courtney Fieser, Grade 2, Beloit  
Cody Limberg, Grade 4, West Salem  
Austin Stein, Grade 4, West Salem

 **Extension**



# **APPENDIX F**

## **Articles about WROW**

## River of Words

Mary Pardee  
UW Extension - Lakes Program

Do you know your watershed address? Are you looking for a way to intertwine ecology with poetry and art? River of Words (ROW), an international poetry and art project focused on watersheds can help K-12 educators do just that. Each year, ROW sponsors a poetry and art contest. Each child who enters receives a "Watershed Explorer" certificate. Grand Prize winners receive a trip to Washington, D.C. with their families to be honored at the Library on Congress.



Although ROW as a national contest has been available since 1995, Wisconsin is now taking it one step further. After national judging, all Wisconsin entries will be forwarded to the UW-Extension Lakes Program in Stevens Point, where Wisconsin winners will be chosen. Wisconsin students' poetry and art will be featured in various venues throughout the state.

The annual contest entry deadline is February 15. Students in both the national and Wisconsin contests are grouped into four categories - Grades K-2, 3-6, 7-9 and 10-12. Eight Grand Prizes are given away each year, four in poetry and four in art. ROW even accepts ASL poetry told via videotape. Wisconsin's entries will be judged in a state-wide contest in April of each year, after the national judging.

ROW supports educators with a guidebook of activities designed to help study your local watershed, as well as teach poetry and art. Wisconsin watershed maps and additional resources are available through UW-Extension Lakes Program. For further information on River of Words, contact Mary Pardee at 715-346-4978 or [mpardee@uwsp.edu](mailto:mpardee@uwsp.edu). Visit the ROW website at [www.riverofwords.org](http://www.riverofwords.org) to see past winning art and poetry.

Summer 2002

### Smaller Point of View

I sink slightly as I step on the expanse of sand  
Which supports an entire lake full of life.  
I am mesmerized as the distant sun falls,  
Shimmering atop the vast, rippling surface,  
Warming the waves wrapped around me.  
I gaze into the glowing water, barely knee-high,  
And take note of the minute creatures  
Swimming freely about my toes,  
And wish I could see the beauty  
From yet a smaller point of view.

-Cassandra Tuszka,  
Wausau West High School

### RIVER of WORDS

The Wisconsin Lakes Partnership is working to foster children's appreciation and knowledge of Wisconsin's water resources through the River of Words K-12 art and poetry program. Watch future issues of *Lake Tides* for more artistic expressions, as well as updates on the Wisconsin River of Words program.

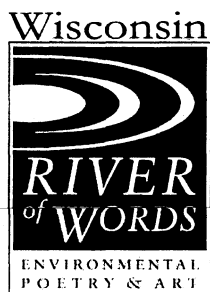
For more information, contact  
Mary Pardee at 715/346-4978  
or [mpardee@uwsp.edu](mailto:mpardee@uwsp.edu).



*Lake Tides* 27(3)

(Lake Tides Summer 2002)

**APPENDIX G**  
**WROW professional development**  
**workshop agenda sample**



## **Wisconsin River of Words: Connecting Kids with their Watersheds through Poetry and Art**

**August 9, 2003**

**Aldo Leopold Nature Center, Monona**

9:00-9:15	Introduction – Biopoems (Casey?/Mary)
9:15-9:45	Introduction to ROW (Mary)
9:45-11:00	Watershed Activities (Mary) Watershed in a Box Seeing Watersheds Homeground Mapping
11:00-11:45	Journaling and making journal (Casey)
11:45-12:30	Incredible Journey using haikus and watercolors (Mary/Casey)
12:30-1:00	Lunch
1:00-1:30	Outdoors – Grounding (Mary)
1:30-2:30	Outdoors – Discovery of Place (Mary/Casey/on their own)
2:30-3:30	Pantoum – “Where We Are” (Casey)
3:30-4:00	Evaluations/Questions/Resources

# **APPENDIX H**

## **Pantoums from professional development workshops**



ROW Workshops 2003

## Pantoums

Composed August 9 at Aldo Leopold Nature Center in Monona

Patchworks of color, sound and texture

Burley blue cloud cover

A swirl of white butterflies – dash, swoop, dart, dance, spiral, separate

Black-eyed Susans create a wide smile of yellow

Burley blue cloud cover

The wildflower waits – movement in the grass – insects copulate

Black-eyed Susans create a wide smile of yellow

Nature's music collides with the heavy drone of city noise

The wildflower waits – movement in the grass – insects copulate

Lawn sprinkled with white-cloverheads, spent stalks, and tufts of dandelions

Nature's music collides with the heavy drone of city noise

The shade smells of old things and bare wood

Lawn sprinkled with white-cloverheads, spent stalks, and tufts of dandelions

Patchworks of color, sound and texture

The shade smells of old things and bare wood

A swirl of white butterflies – dash, swoop, dart, dance, spiral, separate

Composed September 17 at Gibraltar School, Fish Creek (about Peninsula State Park)

Wind touch carries a promise

Sparkling dancing diamonds

Water stills my heart, trying to lure me in

Sinking sun warms my back

Sparkling dancing diamonds

The dance of sustenance

Sinking sun warms my back

Syncopated rhythm leaves shake like tambourines

The dance of sustenance

Flora and fauna flourish

Syncopated rhythm leaves shake like tambourines

I am not an island

Flora and fauna flourish

Wind touch carries a promise

I am not an island

Water stills my heart, trying to lure me in

Composed September 20 at Treehaven, Tomahawk

Red pine soldiers standing at attention  
Deer, unalarmed, browsing by the shadowed trail  
Winding through the coolness of the maple and birch woods  
Fallen white pine needles sticking to chrystalized sap

Deer, unalarmed, browsing by the shadowed trail  
Grasshoppers acting like whirligigs leading my path  
Fallen white pine needles sticking to chrystalized sap  
Sunlight reflecting off turtles' smooth shells

Grasshoppers acting like whirligigs leading my path  
Breathing in the happy scent of heated sweet fern  
Sunlight reflecting off turtles' smooth shells  
Sheltered refuge for them all, Treehaven

Breathing in the happy scent of heated sweet fern  
Red pine soldiers standing at attention  
Sheltered refuge for them all, Treehaven  
Winding through the coolness of the maple and birch woods

Composed October 18 at Whitefish Dunes State Park, Sturgeon Bay

Strange compass of the heart  
Crevassed in a cup of stone  
Visible dehydrated anchor  
Erosion tangles, shifts the balance

Crevassed in a cup of stone  
Points of convergence, now dry, turn to dust  
Erosion tangles, shifts the balance  
Spicy cedar and muddy lichen

Points of convergence, now dry, turn to dust  
Geese honking, sopranos overhead  
Spicy cedar and muddy lichen  
Simple stories echo on and on

Geese honking, sopranos overhead  
Strange compass of the heart  
Simple stories echo on and on  
Visible dehydrated anchor

**APPENDIX I**  
**List of activities and articles in WROW**  
**professional development workshop**  
**binder**

**Categories:**

River of Words Information

Watersheds

Sense of Place

Poetry

Art

Journaling/Writing

Outdoor Activities

Resources

**ROW BINDER**

<b>Name</b>	<b>Placement</b>
Focus on Sensory Awareness	Outdoor
The Outdoor Classroom	Outdoor
The Single Concept Field Trip	Outdoor
The Power of Story	Journaling
Creative Writing and the Water Cycle	Journaling
Coming Home	Sense of Place
Mapmaking from the Inside Out	Sense of Place
Tips and Tricks	Outdoor
Developing and Utilizing Outdoor EE Sites	Outdoor
How Nature Shapes Childhood	Sense of Place
Going Outside	Outdoor
Web of Life	Outdoor
List of web sites	Resources
DNR list of EE resources	Resources
ROW entry form	ROW
International and WI ROW	ROW
Watershed in a Box	Watersheds
Seeing Watersheds	Watersheds
Incredible Journey	Watersheds
Grounding	Outdoor
Water Messages in Stone	Art
Finding Your Bioregion	Sense of Place
Developing a Sense of Place	Sense of Place
Tips for Writing Poems	Poetry
Life is the Teacher	Poetry
WI Watershed map	Watersheds
US Watersheds map	Watersheds
Art Activities	Art
Local Watershed map	Watersheds
Local Watershed description	Watersheds
Journaling	Journaling
Journaling Resources	Resources

**APPENDIX J**  
**WROW professional development**  
**workshop press release**

University of Wisconsin Cooperative Extension News  
Community, Natural Resource and Economic Development  
July 2003

In the news this month:

River of Words connects kids with nature through poetry and art

NOTE TO AGENTS: Please customize this release in advance of any workshop in your area, allowing 3 to 4 weeks for registration.

For Release: July 2003

Contact: Mary Pardee, 715-346-4978, mpardee@uwsp.edu

River of Words connects kids with nature through poetry and art

MADISON, Wis.—The Wisconsin River of Words (ROW) program is designed to foster children's appreciation and knowledge of Wisconsin's water resources through artistic expression. A series of workshops for teachers and non-formal educators will provide information about specific watersheds and creative activities and techniques to get K-12 children to turn their observations of nature into works of art. ROW is a national art and poetry program focusing on watersheds, brought to Wisconsin by the University of Wisconsin-Extension Lakes Program and the Wisconsin Center for the Book.

Attendees will participate in watershed awareness and poetry/art activities that can be replicated with students. They will also receive a binder of educational materials. Workshop facilitators will include the Wisconsin ROW coordinator as well as local poets, artists or naturalists.

"We all live in a watershed," said Mary Pardee, UW-Stevens Point/Extension lakes education specialist. "ROW asks kids to educate themselves about their home watershed, then unleash their imaginations through art and poetry. This workshop will give those who work with children tools to start this process."

A watershed is an area of land through which water flows, both aboveground and underground, on its way to a stream, river, lake or ocean. Every time it rains, water flows off the land and into the closest stream or other waterway. On its way, it picks up sediment, trash, oil, fertilizer and debris and carries it along, eventually depositing everything into the nearest body of water. The entire area of land that drains into the same body of water makes up a watershed. Any landscape, rural or urban, is made up of many interconnected watersheds. To find your watershed, visit the EPA web site at: <http://cfpub.epa.gov/surf/state.cfm?statepostal=WI>

River of Words workshops are scheduled at the following locations:

August 9 -- Aldo Leopold Nature Center, Monona, 9 a.m. to 4 p.m.  
Limit of 25 participants.  
Cost: \$40 includes materials. Bring a lunch or go to a nearby restaurant.

August 23 -- Urban Ecology Center, Milwaukee  
Limit of 20 participants.  
Cost: \$40 includes materials. Bring a lunch or go to a nearby restaurant.

September 20 -- Treehaven Field Station, Tomahawk, 9 a.m. to 4 p.m.  
Limit of 25 participants.  
Cost: \$50 includes materials and lunch.  
Limited availability to Friday night lodging for an extra fee of \$30 (Call Mary at 715-346-4978 to inquire.)

September 27 -- Great Blue Peace Camp, Hudson, 9 a.m. - 4 p.m.  
Limit of 15 participants.  
Cost: \$45 includes materials. Bring a picnic lunch.

October 18 -- Whitefish Dunes State Park, Sturgeon Bay, 9 a.m. to 4 p.m.  
Cost: \$35 includes materials. Bring a picnic lunch.  
Note: A state park sticker will be required for entrance to the park. A \$5 day pass can be purchased at the park.

Participants are encouraged to register at least two weeks before the workshop they wish to attend. Register online on the Wisconsin ROW web site at <http://www.uwsp.edu/cnr/uwexlakes/row/>. For more information, contact Mary Pardee via email at [mpardee@uwsp.edu](mailto:mpardee@uwsp.edu) or call 715-346-4978.

Six DPI clock hours are available for the workshop. To finalize your registration, please send a check payable to UWEX-Lakes Program to: UWEX-Lakes/River of Words, College of Natural Resources, 1900 Franklin St., Stevens Point, WI 54418. To learn more about the national ROW program, visit the web site at <http://www.riverofwords.org>.  
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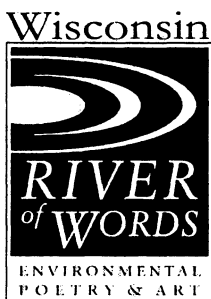
<http://www.uwex.edu/ces/news>

File: Lakes, Youth, Water, Conferences/Workshops

**APPENDIX K**  
**WROW professional development**  
**workshop flyer**



# Wisconsin River of Words: Connecting Kids with their Watersheds through Poetry and Art



Using Wisconsin River of Words (ROW) program materials, discover techniques to interest K-12 children in expressing their views of nature through words and images. ROW is a national art and poetry program focusing on watersheds, brought to Wisconsin by the Wisconsin Lakes Partnership and the Wisconsin Center for the Book. Open to both formal and nonformal educators, this workshop will supply you with knowledge about your specific watershed and creative activities to get kids to turn their observations of nature into works of art.

Please register at least two weeks before your workshop online at the address below or contact Mary Pardee at 715/346-4978 or mpardee@uwsp.edu.  
6 DPI clock hours available

**August 9, 9 a.m. to 4 p.m. – Aldo Leopold Nature Center, Monona**

Limit of 25 participants.

Cost of \$40 includes materials. Bring a lunch or head to a nearby restaurant.

**August 23, 9 a.m. to 4 p.m. – Urban Ecology Center, Milwaukee**

Cost of \$40 includes materials. Bring a lunch or head to a nearby restaurant.

**September 20, 9 a.m. to 4 p.m. – Treehaven Field Station, Tomahawk**

Cost of \$50 includes materials and lunch.

Limited availability of Friday night lodging for an extra fee of \$30.

**September 27, 9 a.m. to 4 p.m. – Great Blue Peace Camp, Hudson**

Cost of \$45 includes materials. Bring a picnic lunch.

**October 18, 9 a.m. to 4 p.m. – Whitefish Dunes State Park, Sturgeon Bay**

Cost of \$35 includes materials. Bring a picnic lunch.

*Note:* A park sticker will be required for entrance to the park. A \$5 day pass can be purchased at the park.



[www.uwsp.edu/cnr/uwexplakes/row](http://www.uwsp.edu/cnr/uwexplakes/row)

<sup>uw</sup>**EXTENSION**

# **APPENDIX L**

## **WROW professional development workshop evaluation**



**Wisconsin River of Words:  
Connecting Kids with their Watersheds  
through Poetry and Art**

**Educator Workshop Information/Evaluation**

1. Date of Workshop: \_\_\_\_\_
2. Job Position: (check only one)
  - ☐ Administrator
  - ☐ College Faculty
  - ☐ College Student
  - ☐ Government Agency Personnel
  - ☐ Non-formal Educator (naturalist, youth group leader, etc.)
  - ☐ Teacher- Early Childhood
  - ☐ Teacher- Elementary
  - ☐ Teacher- Middle
  - ☐ Teacher- Secondary
  - ☐ Teacher- Pre-service
  - ☐ Other \_\_\_\_\_
3. Number of students reached per year: \_\_\_\_\_
4. Overall, how would you rate this ROW workshop?
  - ☐ Excellent    ☐ Very Good    ☐ Good    ☐ Okay    ☐ Poor
5. I have taught watershed concepts in the past.                      ☐ Yes ☐ No    ☐ Uncertain
6. I will use the watershed activities demonstrated today.           ☐ Yes ☐ No    ☐ Uncertain
7. I have taught poetry and/or writing concepts in the past.        ☐ Yes ☐ No ☐ Uncertain
8. I will use the poetry/writing activities demonstrated today.    ☐ Yes ☐ No ☐ Uncertain
9. I will utilize the contest portion of ROW.                              ☐ Yes ☐ No    ☐ Uncertain
10. What were the best features of today's workshop?
11. What could be improved?
12. Other comments:

*Thank you!*

**APPENDIX M**  
**WROW professional development**  
**workshops evaluation –**  
**Results of open-ended questions**

# ROW Evaluation – Answers to 10-12

## Best features of workshop:

The games and activities used to portray the watershed and how to teach it without preaching.

a

them

The ability to actually do the projects and share with each other. It was a learning journey.

I really enjoyed the poetry session with Dale-He brought lots of good ideas and conviction for first-hand experience. I also really liked the mix of activities - writing, drawing, observations etc.

Discussion on ROW program

The whole thing.

Taking in nature, drawing and writing.

Hands on, doing the exercises

Time for writing and exploring the various forms.

Collaborative process, variety of activities that I can put into place, heart. open atmosphere.

everything

All of the great ideas for teaching and living.

Pantoum. Time to make natural observations.

-Poetry  
-Transition time in park observing, seeing past problems

Casey and Mary made us all feel at ease. Nice length- great time outside.

Ideas! Perfect timing

## What could be improved?

not much

If there were more people, a more structured lunch schedule. For our group it didn't matter. Sending out confirmation information earlier.

Turnout - not sure how though! More participants bring additional insights and energy. We did a lot with a small group though.

Nothing

More time with Mary "Casey"

Longer! Some books available to purchase.

Stronger tie between the watershed activities and the writing exercises.

wonderful program

Longer class another time.

More time for group activities and such.

More hands on activities with water and sharing of ideas

We squeezed it into a short time-I would like to do it for full 3 days

## Other comments:

This workshop was extremely helpful in giving ideas of how to connect children with nature and

special place while teaching

about their surroundings.

Thank you for providing this program. I had a wonderful experience.

The resource binder and all the other resources for perusing are great!

Thank you very much - I enjoyed the day very much!

Very informative, and had a "retreat"-like, mellowing effect.

I'm an advocate of this program. Call on me!

Very enjoyable day. Mary and Casey both shared from the

Inspiring setting.

Thank you so very much!

Many thanks

Drip, drop, drip, drop, when will it ever stop (this is talent!)

Love it!

## Best features of workshop: What could be improved?

## Other comments:

Super Ideas. Great idea to explore the Point

Great Job

Enjoyable, Good idea, Time to sit outside and write.

Demonstration of usable concepts

Group poem, name poems

We did not share much writing, wish we had more time!!

Ideas to engage kids in writing about the outdoors. Build confidence that I can engage kids.

In such as short time it is difficult. Great stuff presented. Maybe more watershed stuff

Actually doing the ROW activities.

Include more ideas/activities on art. Show examples of finished

Great workshop! I will definitely use the info in the future.

I'm excited to learn about ROW and I like the combination of today's watershed activities and poetry.

Presenters, material and location.

more attendees

Thank you. Helpful, informative and fun !

Group poem

Delineating the sections of focus, i.e. Announce topic, do presentation, announce end of topic. Give time to absorb before moving on.

You are doing great work. I am glad you are sharing this with Wisconsin!

Participation activities, watershed activities and information.

I appreciated the variety of activities-really nice balance of between the sciences and creative for an

Nice flow-I wouldn't change it!

I'm excited to use ROW in my classroom this year! Great time year for the workshop. Thanks making this non-threatening for art impaired person!

It was well organized- it went so fast! Great location. work!

I'd like more ways to directly bring in science into writing? More

Great job. Excellent binder materials. Thanks for all your

simplistic poems maybe. Something not so intimidating? Cool journal ideas, ways to make them, etc.

Experiential learning trainings

This was one of the best

with

I've been to. I can't wait to share this with colleagues and utilize

students!

Hands-on materials, Mary! ready to use resources for classroom use that are fun!

None

Excellent resource, you are,

Actually doing the activities before taking them back to the classroom.

none

So glad that class was not cancelled!!

none

**Best features of workshop:**

- 1) Unhurried atmosphere
- 2) Many activities that will spark student interest in writing and environment

All the variety of writing activities

Hands on activities-group poem, brainstorming

**What could be improved?**

None

I loved it all-Thanks!

It was great - Thanks!

**Other comments:**

None

# **APPENDIX N**

## **WROW follow-up survey**



# WROW Follow-Up Survey

You can either complete this paper copy and send in the enclosed self-addressed envelope or take the survey online at [http://www.uwsp.edu/cnr/uwexlakes/youthprograms/row\\_survey.asp](http://www.uwsp.edu/cnr/uwexlakes/youthprograms/row_survey.asp)

This survey is designed to find out **IF** and **HOW** you are using the materials and activities provided at the ROW Workshop. **If you feel you can't fairly answer a question, please leave it blank.**

1. Describe your position (teacher, volunteer, etc.) If a teacher, please include grade level:
  
2. I have incorporated the watershed activities shared in the ROW workshop into a lesson plan (check one).
  - ☐ Yes
  - ☐ Not yet, but I plan to use them
  - ☐ I do not plan to use them
  
3. If you answered "Yes" to Question 2, please describe how you used the watershed activities:
  
  
  
  
  
4. I have incorporated the poetry/writing activities shared in the ROW workshop into a lesson plan (check one).
  - ☐ Yes
  - ☐ Not yet, but I plan to use them
  - ☐ I do not plan to use them
  
5. If you answered "Yes" to Question 4, please describe how you used the poetry/writing activities.
  
  
  
  
  
6. Students/youth I work with have entered the 2004 ROW contest (check one).
  - ☐ Yes
  - ☐ Not yet, but they plan to enter
  - ☐ I have not encouraged students/youth to enter the ROW contest

7. With 1 being “strongly agree” and 5 being “strongly disagree,” please rate your answer to the following statement: The study of watersheds can be enhanced by incorporating art and poetry into the lessons (circle one).

Strongly agree    1    2    3    4    5    Strongly disagree

8. For each of the following resources provided in your workshop binder, please rate their value, with 1 being “very valuable” and 5 being “not valuable at all.” Circle one number for each resource.

a. Watershed activities

Very valuable    1    2    3    4    5    Not valuable at all

b. Watershed maps

Very valuable    1    2    3    4    5    Not valuable at all

c. Sense of place readings

Very valuable    1    2    3    4    5    Not valuable at all

d. Poetry activities

Very valuable    1    2    3    4    5    Not valuable at all

e. Art activity suggestions

Very valuable    1    2    3    4    5    Not valuable at all

f. Journaling/writing activities

Very valuable    1    2    3    4    5    Not valuable at all

g. Outdoor activities

Very valuable    1    2    3    4    5    Not valuable at all

h. Resource lists

Very valuable    1    2    3    4    5    Not valuable at all

9. Please name any particularly valuable material(s) in your binder that you feel should be included in the final Wisconsin ROW educator resource guide.

10. What additional resources would be beneficial to include?

11. From my experience with ROW, its best feature is:

12. From my experience with ROW, it could be improved by:

THANK YOU!

**APPENDIX O**  
**WROW follow-up survey –**  
**Results of open-ended questions**

Q3 – Describe how you used the watershed activities	Respondent
We went outside and wrote what we saw, heard, felt. Inside we put those thoughts on big paper (teacher did). We selected 8 phrases and wrote our pantoum.	teacher
I've had students create their own watershed with a great deal of discussion of land uses. I had also done the journey of a water molecule to show how molecule of water is continuous and how it could be affected by poor choices on a human's part. Students had mapped out various watersheds on maps.	
I have used the beads used in the bead exercise and poetry composition for personal inspiration.	Community Outreach & Citizen Monitoring, Rock River Coalition
Plan to use the "aluminum foil in cake pan" watershed tool in the context of rain gardens.	
These were used in some of my science lessons.	6th grade teacher
We talked about the watershed we live in and the effects of erosion. We wrote poems about our watershed. We did the activity with the raindrop. I used this activity for gifted classes in grades 3-6. The students enjoyed them very much. When we did the Jason Project, they were already familiar with watersheds and could compare our watershed to the Panama Canal Watershed.	gifted and talented teacher
Art activities that depict Wisconsin's watershed	elementary art teacher
We had a great time incorporating our poetry into our science lessons. A core group of science teachers, along with our Parent organization coordinator have enlisted the help of area artists to create a mural dealing with water. The poetry I will be sending is poetry worked on with Ellen Kort, who was a guest speaker.	Teacher---Grade 6-8
My students are part of a study that is in its 9th year. My fifth graders have been monitoring a nearby creek by measuring velocity, width, depth, water quality, and such. It is an in-depth study, and part of that study includes learning about the watershed we live in. Students make models of watersheds and watch the path of runoff in that model. This year I was able to add the maps I received in the ROW workshop. Students colored them in and learned terms like secondary tributaries and headwaters. The maps enhanced the lesson and have become a part of each students' Study Book.	5th grade teacher
We used the cool point/non point source pollution model with cool aid to show how different types of pollution affect a watershed.	Teacher
Arranged for a watercolor artist to work with middle school art classes on watercolor techniques and local land/waterscapes.	special projects coordinator
All poetry exercises preparing them for ROW contest	Teacher, Grade 7-8, English
Built on existing watershed/macrobenthic education at Gaylord Nelson Education Center (Clear Lake). Taught 4th grade. Also discussed importance of watersheds to Clayton HS art students.	Naturalist/Volunteer Poet
Have used The Incredible Journey	St. Croix Cty Information & Education Activities Specialist
Reviewed the activities w/teachers and brainstormed ideas for students projects	Library/media specialist

Q5 – Describe how you used the poetry/writing activities	Respondent
WE did the pantoum with the outside observations first, as described in the first box, which was for the watershed activities instead.	teacher
I used them in getting students to make stronger word choices.	6th grade teacher
We started by writing poetry about winter this month we will write poems about water. I used several of the techniques including one line poems poems describing pictures and several other techniques to introduce writing poetry in our class. Students wrote about their journey as a raindrop.	Teacher /Kindergarten
Possibly in cooperation with other teachers	gifted and talented teacher
The poetry is awesome. Living on a peninsula helps also.	elementary art teacher
I mentioned this in question 3.	Teacher---Grade 6-8
On one of the first days of our creek observations, my class brings tents and we "camp" for the day at a park near the creek. I have always used plans similar to those presented in your workshop for poetry/writing activities during this "Camp Froggy". This year my students wrote in this setting twice, out in the woods behind our school once in the fall, and again in the woods behind our school on the first good snowfall. Two of those poems qualified to be submitted to the Yahara Rivers Writers Workshop. Five more were submitted for publication in the Earth Preservers Environmental Newspaper. (Three were published in the January issue along with a front page article about our creek work. Two more poems will be published in the February issue.) I have many students who are now interested in submitting poems to the ROW contest. We are sending them in this week.	5th grade teacher
I used the art activity where students looked at the world around them through holes in artist mats. We cut out our own in various shapes - one did a pony; others, hearts or snowflakes - then we wrote haiku about what we saw. Students wrote Japanese poetry - haiku, tanka. Pantoum exercise was overwhelming success.	teacher, adult, especially senior citizens
I do not have lesson plans myself but shared what I learned with six teachers in the Middleton-Cross Plains Area School District. At least, three were interested in participating in the competition. I don't know if they followed through or not.	education coordinator, non-profit conservation group
Ellen Kort poetry workshop with 6th graders. She used her own techniques but we were encouraged to have this project through our participation in the ROW workshop. multiple	special projects coordinator
Combined personal poetry with ROW - each student in 3 classes wrote on their experiences. Clayton art students used St. Croix images for artistic interpretation.	Teacher, Grade 7-8, English
Brainstormed with English teachers, helped students find photos for their photo/essay project	Naturalist/Volunteer Poet
	Library/media specialist

Q9 – Name any particularly valuable material(s) in your binder that you felt should be included in the final Wisconsin ROW educator guide.	Respondent
I have not seen the binder as I sent a camp staff person to the training, Leah Hullinger. When she e-mailed me after the event, she seemed very pleased with the workshop. I assume she will use the materials at Camp 2004.	Director of Adult Development/Property
All of them + any more that may be discovered	
I was impressed with all the material. I particularly liked that everything could be integrated with the arts.	Teacher /Kindergarten
The watersheds information and activities were the most valuable	gifted and talented teacher
I loved the poetry items. They really brought out the creative side to the students.	Teacher---Grade 6-8
I found the maps to be very beneficial in helping my students see the "bigger picture" of their immediate environment.	5th grade teacher
Articles on sense of place/mapping especially valuable. Please include.	teacher, adult, especially senior citizens
watershed activities and poetry activities	education coordinator, non-profit conservation group
ALL - a valuable resource	special projects coordinator
Coming Home: What Childhood Maps Reveal about the experience of Place	Environmental Educator
Mapmaking from the Inside Out	
Finding Your Bioregion	
Life is the Teacher: Writing Poems from Daily Experience	
Nature Journaling Activity Guide-Kate Hofmann	
Teaching Nature Journaling & Observation	
Grounding: Journey into earth	
I was familiar with most of the material before receiving the binder, but I thought that the watershed activities were particularly nice introductions to the concept of a watershed, and that the other readings and activities provided good ideas for incorporating art and writing into the study of your local watershed.	graduate student
Children using nature to find a place for themselves	Girl Scout summer camp volunteer
The Incredible Journey, Watershed maps	St. Croix Cty Information & Education Activities Specialist

Q10 – Beneficial additional resources for binder	Respondent
<p>Since I visit classrooms on an occasional basis only, I don not develop "lesson plans"; however the workshop provided helpful background and tools which I have and will continue to use.</p>	<p>Community Outreach &amp; Citizen Monitoring, Rock River Coalition</p>
<p>Great list.</p>	<p>Teacher---Grade 6-8</p>
<p>Any other opportunities for using environmental type writing or poetry. (Other contests and such)</p>	<p>5th grade teacher</p>
<p>I read one of the books Mary "Casey" Martin included in her bibliography - "How to Haiku". Excellent. I suggest adding to resource list.</p>	<p>teacher, adult, especially senior citizens</p>
<p>Maybe the WAV curriculum so teachers can really tie it in with more activiites? More science watershed stuff.</p>	<p>Teacher</p>
<p>Additional ideas for art activities</p>	<p>special projects coordinator</p>
<p>I don't recall seeing samples of student poetry or artwork in the binder - could you include a few of these that teachers could share with their students?</p>	<p>graduate student</p>

Q11 – From my experience with ROW, its best feature is...	Respondent
Being outdoors and writing about it.	teacher
The hands-on activities to teach a very important topic!	
Interaction with other environmental educators/outreach people and participation in exercises.	Community Outreach & Citizen Monitoring, Rock River Coalition
The activities are presented with plans and materials listed. They give students hands on opportunities.	gifted and talented teacher
The whole idea of being outside and really listening/watching nature.	Teacher---Grade 6-8
Its best feature is pairing up environmental writing with a place (contest)to feature it and share it. My students are beginning to recognize the depth of their connection to the natural world by taking the time to observe it and write about it.	5th grade teacher
Everything. The workshop last fall was one of the best - if not the best - I have ever been to. Absolutely wonderful	teacher, adult, especially senior citizens
The variety of tools you gain from science to art to writing. Also the communication from Mary Pardee. VERY helpful.	Teacher
Hands-on, with tender loving care!	education coordinator, non-profit conservation group
connecting science, environmental education, art and language arts	special projects coordinator
Blending experience with expression through art and writing/speaking. I would find it difficult to use these materials without getting out of a classroom or building.	Environmental Educator
I hope to be able to include the activities in camps over the summer.	
The fact that it opens the eyes of both students and teachers to the possibilities for exploring and expressing your connection to a place in creative and artistic ways.	graduate student
Using art and poetry to connect to nature	Girl Scout summer camp volunteer
Just became aware - but the contest is good	Teacher, Grade 7-8, English
Opening the eyes and minds of students to watershed concept.	Naturalist/Volunteer Poet
The visit to Gibraltar and the outdoor activities	Library/media specialist



Q12 – From my experience with ROW, it could be improved by...	Respondent
It was great!	
Connecting with publication in community newspapers.	Community Outreach & Citizen Monitoring, Rock River Coalition
Have follow-up meetings	Teacher /Kindergarten
Including more hands on activities.	gifted and talented teacher
Our "class" went quick. I would have loved to have done more. Maybe next year!	Teacher---Grade 6-8
As a writing teacher, I don't think I will ever use the watershed activities - the science ones. Please let more people know about ROW. Please, please. It's wonderful.	teacher, adult, especially senior citizens
I would like to see more activities geared to upper grades. More advanced watershed activities/journal activities/art. Also, in the workshop, more focus on science and less on poetry?	Teacher
The contest seems to provide a focal point for the program, but I think it could be so much more (on a national level) than -just- a contest. The Wisconsin workshops are a good model for what else can be done with this topic.	graduate student
offering more workshops	Girl Scout summer camp volunteer
Earlier notification of workshops at the school level.	Naturalist/Volunteer Poet
communicate more frequently	Library/media specialist

**APPENDIX P**  
**Draft version of Wisconsin ROW**  
**Educators' Guide**

# **Wisconsin River of Words Educator's Guide**

**D R A F T**

**May 25, 2004**

# **Wisconsin River of Words**

## **Educator's Guide**

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## **What is River of Words?**

River of Words (ROW) is an environmental art and poetry program created to promote watershed awareness, literacy, and the arts. Through an annual art and poetry contest and educator's tools, ROW helps communities begin exploring the natural and cultural history of their own homegrounds.

ROW is an international program based in California. Wisconsin has a local coordinator to help Wisconsin's educators with ideas and training for implementing the program in their schools, nature centers, libraries or youth organizations. In addition, Wisconsin hosts a statewide contest to celebrate the art and poetry created by its youth.

Materials are available for educators from the international ROW office and the Wisconsin ROW (WROW) program, coordinated by UW-Extension Lakes Program. A "Watershed Explorer Curriculum" can be ordered from the international office, along with annual poetry chapbooks, calendars, and posters of artwork. The most current contest entry forms can be downloaded from the international ROW website.

WROW, along with providing this WROW Educator's Guide, can assist with finding local watershed maps and activities and equipment to make your watershed study complete. See the website for details on pilot projects, watersheds, and updated information.

### **WISCONSIN RIVER OF WORDS**

UWEX-Lakes Program  
College of Natural Resources/UWSP  
800 Reserve Street  
Stevens Point, WI 54481

Phone: 715/346-2116  
Email: [uwexlakes@uwsp.edu](mailto:uwexlakes@uwsp.edu)  
Web: [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes)  
(click on Youth Programs)

### **INTERNATIONAL RIVER OF WORDS**

P.O. Box 4000-J  
Berkeley, CA 94704  
Phone: 510/548-POEM (7636)  
Email: [info@riverofwords.org](mailto:info@riverofwords.org)  
Web: [www.riverofwords.org](http://www.riverofwords.org)

## **How to Use this Guide**

Welcome to Wisconsin River of Words!

This Educator's Guide has been put together to help you plan and implement WROW with your curriculum. WROW focuses on getting kids outdoors to learn about and experience their home watershed, then voice their concerns and feelings through art and poetry.

In this guide, you'll find activities to give you ideas about to how to help students develop a positive sense of place. By spending time with them outdoors, and being a positive role model, you are helping your students become environmentally aware.

You'll find watershed activities that you can do in the classroom. Understanding the watershed concept is becoming increasingly important. We all live in a watershed, and what we do in it determines the health of our waters and our natural environment. Once your students understand the watershed concept, they can map out their own watershed using Wisconsin maps or resources on the internet.

Poetry and artwork is central to WROW. While there are a few ideas to get kids going in this guide, their own creativity should be allowed to be unleashed. Poetry and artwork should reflect their time outdoors and their feelings and concerns about their watersheds.

There are many more resources in print and on the internet that can help you get kids outdoors to write and create. Those are listed at the end of this guide.

THANK YOU for your interest in Wisconsin River of Words and teaching about your home watershed!

## Wisconsin River of Words

Wisconsin River of Words (WROW) is coordinated by the Wisconsin Lakes Partnership. Since its genesis in the early 1970s, the Wisconsin Lakes Partnership has been recognized as a national model of collaboration. Three groups form the core of this team: the Wisconsin Department of Natural Resources (WDNR) supplies the technical expertise and regulatory authority; the University of Wisconsin-Extension (UWEX) builds linkages among stakeholders and provides supporting educational materials and programs; and local lake people are the third member, represented by the Wisconsin Association of Lakes (WAL).

We are all concerned with the future of our lakes, and have joined together in active cooperation and conscientious planning for lake and watershed protection. The Partnership belongs to everyone concerned with the future of our state's waters. Individuals, business partners, small groups and large organizations have all rolled up their sleeves to lend a hand. The Wisconsin Lakes Partnership is a statewide, multi-faceted effort. If it has to do with lakes, the "Lakes Partnership" is probably involved. Partnership activities include citizen volunteer monitoring, research, youth and adult training and education, aquatic plant protection, pollution prevention, invasive species education, water recreation planning, land and water regulation, and community assistance grants.

UWEX-Lakes takes on the main responsibility for the coordination of WROW. WROW was created to promote watershed awareness, literacy and the arts. **The goal of ROW in Wisconsin is to foster appreciation and knowledge of Wisconsin's water resources through artistic expression.**

WROW features:

- Educator's Guide
- WROW website
- Pilot projects
- Partnerships with artistic and educational communities
- Annual statewide contest and awards ceremony

The WROW contest is judged each year after the national competition. Only entries to the national competition are judged on a statewide basis. The **Wisconsin Center for the Book** provides cash awards to the top two entries in each of the following categories:

1<sup>st</sup> and 2<sup>nd</sup> Place in Poetry, one in each of four age categories:

Category I: (Kindergarten - Grade 2) Category II: (Grade 3 - Grade 6) Category III: (Grade 7 - Grade 9) Category IV: (Grade 10 - Grade 12)

1<sup>st</sup> and 2<sup>nd</sup> Place in Art, one in each of four age categories (same as above).

\*Wisconsin Lakes Partnership and the Wisconsin Center for the Book reserve the right to not award winners in any of the above categories if no entry merits such designation.

## National Contest Rules and Guidelines

*U.S. entries must be postmarked by **February 15**. Entries may be sent in at any time throughout the year.*

1. The contest is open to youth who are age 5-19, on the February 15 deadline date. Youth older than 19 who are still enrolled in high school are eligible, but college students, even if 19 or younger, are not. Entrants need not submit work through their school; individual submissions are also accepted.
2. Youth may enter the contest as many times as they like, but a separate entry form must be completed for each submission.
3. All entrants will receive a Watershed Explorer Certificate.
4. All poems must be original work. Written poetry must be either typed (preferred) or legibly written in ink (pencil does not photocopy); ASL poetry must be submitted on VHS videotape. **Poems should not exceed 32 lines in length (written) or 3 minutes (signed).** The student's name, school, city and state should be included on the poem, and a completed Entry Form should be attached. For ASL poetry, please include a brief written summary of the poem's content, and staple this summary to your entry form. For written poems, please staple the Entry Form to the poem so that each piece faces out. Collaborative poems are accepted, but only one child (chosen as the group representative) will be eligible for any prizes awarded. *We are able to accept poems only in English, Spanish and American Sign Language.*
5. All artwork must be original work. **Artwork should not exceed 11" by 17" in size.** Acceptable media are paint, pencil, markers, ink, crayon, chalk or pastel (fixed), photography, cloth, collage and computer art. All entries must contain the student's name, school, city and state on the back - do not use a marker or anything that will show through! A completed entry form must also be affixed to the back of each piece of artwork. Please attach the entry form with tape or other fixative (if using glue, be careful to use one that will not run through and damage the artwork) - also, do not use paperclips! High quality color reproductions of prize-winning artwork will be provided to their respective creators.
6. Art entries must be done on paper that will allow for duplication, display or framing. Please, no notebook or typing paper, and do not mat, mount, laminate, frame or fold artwork. Entries must be mailed flat or rolled in a tube - no folding, please!
7. Submissions become property of River of Words. Through submission of poetry or artwork, contestants and their legal guardians grant non-exclusive reproduction and publication rights to the works submitted.
8. All U.S. entries must be postmarked by February 15, and must be received by February 22. International entries must be received by March 1. We are not responsible for entries



that are late or lost in the mail. Entries received after the deadline will be automatically entered in next year's contest.

9. Winners will be announced in April of each year.\* Winners must sign an acceptance form. For a list of winners, please include a self-addressed, stamped (55¢) envelope when sending in your entry.

10. Grand prize: round trip transportation from the winner's nearest major airport to Washington, D.C. for the winner and one parent or guardian. Prize is not redeemable for cash. Accommodations and some meals will also be provided. Taxes and all other expenses are the responsibility of the winner. Winners must be available for travel sometime in April or May.\*\*

*\*River of Words reserves the right to not award a Grand Prize winner in any given category if no entry merits such designation.*

*\*\*International winners may be acknowledged at the Awards Ceremony for the following year's contest, if international travel logistics cannot be worked out in a timely manner.*

*This information is taken from the River of Words website at [www.riverofwords.org](http://www.riverofwords.org).*

## Common Questions

### Who is eligible?

Children 5-19 years of age, who are not yet in college. Youth older than 19, but still in high school, are eligible.

### When is the deadline?

Each year, U.S. entries must be postmarked by February 15th and received by February 22nd. International entries must be received by March 1st. Entries can be mailed in throughout the year; any entries received after the deadline will be automatically held for the next year's contest.

### Is there an entry fee?

No; the contest is free to enter.

### May I submit more than one piece?

Yes. You can submit as many poems and/or pieces of artwork as you wish (including poem/art combinations). **However, each entry must have a separate entry form.**

### How do I enter?

You may enter the contest through your school, environmental club, scout troop, art organization, or any other such group, or you may enter the contest on your own. Group entries should be sent to River of Words together in one envelope or package, rather than individually. All entries must be sent to us with a completed entry form, and should be sent to:

River of Words  
P.O. Box 4000-J  
Berkeley, CA 94704 USA

### Am I entering as an individual or as part of a group?

If you completed your River of Words contest entry through work with a class, scout troop, nature center, youth organization or other club, then you are entering as part of a group. (Individual work should still be marked as a group entry if it was completed through participation in a class assignment or group project). River of Words will mail group entrants' "Watershed Explorer Certificates" in one package to one address (school or scout leader's home, for example) for distribution.

If you are entering the contest on your own, (i.e., you did not do your work through participation in a class assignment or group project) then you are entering as an individual. You will receive your "Watershed Explorer Certificate" at your home address.

If you have any questions about your standing *in the national competition* (whether group or individual) please contact [info@riverofwords.org](mailto:info@riverofwords.org).

**How should I prepare my entry?**

Written poems should be no longer than 32 lines in length, and should be typed or neatly printed in ink (pencil does not photocopy!). Please staple your poem to your entry form such that each piece faces out. Remember, each poem you submit requires its own entry form!

ASL poems should be recorded on VHS videotape; each poem should be no longer than 3 minutes in length. Please sign your full name and the poem title (if it has one) at the beginning of your poem. In addition to your poem, please include a brief summary of your poem. This summary should be typed or printed neatly in ink, and stapled to your entry form. Remember, each poem you submit requires its own entry form!

Artwork should be no larger than 11" x 17" and should not be framed, matted, laminated or folded. If using charcoal or pastels, please remember to "fix" your artwork before sending. Please affix your entry form to the back of your artwork, using either tape or glue. Do not use staples, paperclips, or any glues that could seep through and damage your artwork! Remember, each piece of art that you submit requires its own entry form

**How should I attach my entry form to my work?**

For written poetry entries, please staple the entry form to your poem so that each piece faces out (in other words, after they are stapled together, your poem should show on one side and when you flip it over, the front of the entry form should show on the other side).

For videotaped poems (performed in ASL), please include all entry forms of students who appear on the tape in the same package. If other entries (written poetry or artwork) are being sent to River of Words in the same package, please place all the ASL entry forms together in an envelope and label them as ASL entry forms. Also, please remember to staple a short summary of the poem's content to the entry form.

For artwork, please affix your entry form to the back of your artwork with tape or glue. If using glue, be careful to choose a glue that will not seep through and damage your artwork. Please, do not staple or paperclip entry forms to the back of your artwork!

Remember, for each poem or piece of artwork that you submit, you need to complete a separate entry form.

**Where can I get entry forms?**

Go to [www.riverofwords.org](http://www.riverofwords.org) for a print-friendly entry form, or request one to be sent to you via mail, email or fax by contacting the national or Wisconsin River of Words office.

**Is work returned?**

No. However, by pre-arrangement, submissions from an entire state can be returned to one address (except for Grand Prize or Finalist artwork; in the case of winning artwork, high quality color reproductions will be returned instead). In Wisconsin, entries are returned to the coordinator and state-level ROW prizes are awarded.

**Who sponsors National River of Words?**

ROW is a non-profit educational organization, incorporated in the State of California. They are supported by grants from foundations and donations from individuals, businesses, and government agencies, like the Environmental Protection Agency. They are affiliated with The Library of Congress Center for the Book, the Library's literacy promotion division, which hosts our Award Ceremony and Luncheon each year, as well as a Teacher Training Workshop.

**What prizes are awarded?\******National:***

4 Grand Prizes in Poetry, one in each of four age categories:

Category I: (Kindergarten - Grade 2) Category II: (Grade 3 - Grade 6) Category III: (Grade 7 - Grade 9) Category IV: (Grade 10 - Grade 12)

4 Grand Prizes in Art, one in each of four age categories (same as above).

***International:***

One Grand Prize winner, in art or poetry, any age category.

***Finalists:*** About 50 finalists total, in art and poetry combined- the exact number of finalists selected each year varies depending on the number and quality of submissions.

***Teacher of the Year:*** 1 winner. There is no formal nominating procedure, but if there's a teacher you think we should know about (including yourself!) please let us know.

The 8 national grand prize winners, one international winner, and the Teacher of the Year win a trip to the award site with a parent or guardian. They are honored at an Award Ceremony and luncheon.

\*River of Words reserves the right to not award a Grand Prize winner in any of the above categories if no entry merits such designation.

**Are entries acknowledged?**

Yes; everyone who enters will receive a personalized Watershed Explorer Certificate, suitable for framing. A list of winners is sent to those who enclose a self-addressed, stamped envelope with 55¢ postage with their entries.

**What ROW resources are there?**

River of Words produces and distributes curriculum materials, community partnership resources, and children's art and poetry. For more details on what we offer, see the web site.

River of Words also conducts Educators' Workshops at various locations throughout the year. For upcoming workshops, visit our Educators page. (*Wisconsin ROW provides local resources.*)

**Who judges the National ROW contest?**

Poetry: Former U.S. Poet Laureate (1995-1997) and ROW co-founder, Robert Hass.

Art: Thacher Hurd

Spanish Poetry: John Oliver Simon and Francisco X. Alarcón

ASL Poetry: Ella Mae Lentz and Susan Rutherford

**FOR THE LATEST INFORMATION – please visit [www.riverofwords.org](http://www.riverofwords.org)**

## River Of Words Contest Entry Form

River of Words' Contest Entry Form Note: If we can't read your handwriting, you can't win a prize and you won't get your Watershed Explorer Certificate. So, please print carefully and use a pen!

Date: \_\_\_\_\_

I am entering as an individual\_\_\_\_, OR, as part of a class/group\_\_\_\_\_.

(IMPORTANT! If you are unsure, please see the Common Questions section of our website at [www.riverofwords.org](http://www.riverofwords.org), or call 510-548-POEM!)

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Age:\_\_\_\_ Grade:\_\_ Male: \_\_ Female: \_\_

Title of Submission: \_\_\_\_\_

Art:\_\_\_\_ Poem:\_\_\_\_ (Check one)

Note: If you are entering as part of a group you MUST indicate whether you are entering through your school, scout troop, summer camp, park district, library, or other organization below.

School or Organization \_\_\_\_\_

School/Org Address \_\_\_\_\_ City \_\_\_\_\_

State\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Country: \_\_\_\_\_

School Phone \_\_\_\_\_

Teacher/Facilitator(s) First Name \_\_\_\_\_

Last \_\_\_\_\_

Parent or Guardian's Name \_\_\_\_\_

Signature \_\_\_\_\_

Home Address \_\_\_\_\_ City \_\_\_\_\_

State\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Home Phone \_\_\_\_\_

I hereby grant and assign to River of Words (ROW) the non-exclusive right and permission, in respect of the original writing, artwork or photos that I have submitted to River of Words, to use, re-use, publish, and re-publish, and otherwise reproduce, and display the same, individually or in conjunction with other original artwork, writing, photos, and video, in any and all media now or hereafter known throughout the world, for illustration, promotion, art, advertising, and trade, or any other purpose whatsoever; and to use my child's name to identify the author of the work in connection with my participation in the River of Words Program. I understand that any use of this submitted work will include my child's name as its creator. I hereby release and discharge River of Words from any and all claims and demands arising out of or in connection with the use of the original artwork, writing, photos, and video, including without limitations any and all claims for libel or invasion of privacy. In any of the winning categories, River of Words maintains the exclusive right to declare no winner and withhold prizes if no poem or artwork of merit is found. ROW assumes no responsibility for lost or damaged poetry or artwork. River of Words may sell, assign, license, or otherwise transfer all rights granted to it hereunder. This authorization and release shall also inure to the benefit of the successors, legal representatives, licensees, and assigns of River of Words. I have read the foregoing and fully understand the contents thereof. This release shall be binding upon me and my heirs, legal representatives, and assigns. I further release River of Words from any responsibility for injury incurred during the research or production of the original writing, artwork, photos and video.

I, \_\_\_\_\_, being the parent or guardian of the above-named minor, hereby consent to and join in the foregoing release and consent on behalf of said minor.

Pledge of Originality: I declare and avow that the poem(s) or art I am submitting to the River of Words Contest is my own original work.

Student's signature \_\_\_\_\_

PO Box 4000-J, Berkeley, CA 94704 USA Tel: (510) 548-POEM (7636) Fax: (510) 548-2095  
Website: <http://www.riverofwords.org> Email: [info@riverofwords.org](mailto:info@riverofwords.org)

7/29/03

## **What is Sense of Place?**

Sense of place refers to the aesthetic, nostalgic, or spiritual effects of physical locations on humans based on personal, use-oriented or attachment-oriented relationships between individuals and those locations. It can also refer to the meaning, values, and feelings that people associate with physical locations because of their experiences there.

Think about where you lived as a child. Does that place hold special meaning for you? What other places inspire nostalgic feeling in you? What places do you hold to be very valuable to you? Where is your place?

The idea that a person who is comfortable in his or her environment, and feels a sense of attachment to one location is a "placed" person. That person is said to feel satisfied, more rooted, and has a greater sense of accountability to his or her surroundings. This attachment is often felt by a person who, after years away from a place, returns to find that trees and open lands have been replaced by stores and fast food restaurants.

# Homeground Mapping

Materials:

Paper

Colored pencils or markers

Whiteboard or flipchart

Wisconsin Model Academic Standards correlations:

Time needed:

Introduction: Read David Sobel's article, "Mapmaking from the Inside Out: The Cartography of Childhood," included in this guide for background information.

Procedure:

1. Ask the students to create a map of the places they like to be. They should think of places they play, either alone or with friends, and places they like to "hang out." Ask them to think of places that hold a lot of meaning for them. Let them know that the maps do not need to be to scale; they can include places miles from their home if necessary. (In general, younger children will include areas not far from their home. Older children will move out more.) In addition, let them know that they should not get bogged down in drawing everything perfectly. They should make general sketches to get their thoughts down on paper.
2. Arrange students in groups of three or four. They should share their maps with their group, explaining what the places on the maps are and why they are important.
3. When the groups are finished sharing, ask if the students noticed any types of places that were common to all or most people in their groups. Write these common places on the whiteboard or flipchart. Ask students to raise their hands when you call out a common place if they had included such a place on their maps. Keep count, as in the chart below.

Place	# students
Home	25
Woods	14
Soccer field	6
Grandma's house	12
Stream	21

4. How many students included a water body as an important place? Discuss the importance that certain places hold for student.



# Mapmaking from the Inside Out: The Cartography of Childhood

By David Sobel

It was our heart's desire all the autumn of fourth grade. The corn fields, overgrown pastures, thickets, and wet lands of the old farm stretched out just behind Kevin's house. They were strictly off limits, of course. No Trespassing signs hung on the barbed wire at the far end of our kickball left field. But this patchwork of countryside lured us as if we were compass needles and there was a giant horseshoe magnet buried in a field-stone root cellar somewhere out there.

Greens Farms, our little corner of the Connecticut coast-line, had undergone its first phase of suburbanization by the mid-1950s. The shoreline was mostly claimed by elegant seaside mansions, but the interior was still a mix of scruffy wild places and casually tended farms. We had an array of haunts — the salt marshes and phragmites thickets of Sherwood Island State Park, the tidal flats, and the haunted house — lair of hoboes and ghosts — with its decaying outbuildings and greenbrier thickets. We cruised the railroad station, the railroad tracks lined with gravel pits, honeysuckle, and seaside rose, and the sea walls, pocket beaches, and immense rock jetties of the fancy houses. In the summer our adventures were all shore-based, but in the fall, we became more stealthy and secretive. We headed for the interior.

It started with a series of reconnaissance missions, short forays into the wilderness. After cookies and milk at Kevin's we would head out into the yard to play and, when no one was watching, surreptitiously slip under the bottom strand of barbed wire. There were rumors of shotguns loaded with rock salt and mean guard dogs. A fever pitch of alertness prevailed. On our initial foray, we made it to the edge of the first corn field and then retreated. Next time we made it down the dirt road into the woods to the old garage.

After each exploration we returned to Kevin's room to review our new discoveries. "The dirt road leaves the first corn field from this corner. There are really four corn fields, not three. Did you see the bats fly out the windows when we opened the garage door!? I wonder where the road goes after the garage?" When it became too much to keep in our heads, we drew a map, hid it under Kevin's bed, and revised it after each exploration.

It was not until November that we discovered the water tower, deep in the forest and located next to a puzzling, perfectly round pond with a perfectly round island at its center. The tower became the central feature of the map as we worked to figure out all the different possible access and escape routes. "How will we get away if he drives up the gravel road? Will he see us as we cut through this field?" And when we crept inside the tower and saw the ladders climbing up and up and up to a small windowed platform a hundred feet above, we knew our fate was sealed. If we made it up there, we'd be able to see everything sprawled out around us.

Progress up the ladders was like inching up an ice-and-rock pitch in the Himalayas. The ladders were vertical, creaky, and covered with pigeon droppings. We'd make it to the middle of the second ladder, imagine we heard a car coming, and then run the half-mile or more back to Kevin's house, never stopping to look back. We'd call each other chicken to taunt one another to climb higher, but fear would eventually overcome us.

After four trips and a bout of sewing machine legs, the platform and view was ours. The chimney of Kevin's house was barely visible beyond the maples bordering the fields. To the west, we could see out to Long Island Sound, to my house on the low ridge next to Burying Hill Beach, and over beyond the girls' school down to the salt marshes. Even better was an unexpected expanse of woods and freshwater wetlands that stretched east all the way to the beach in Southport. "That stream must flow into the upper end of the salt marsh. I wonder where it starts?" New horizons to explore and map. This was our land, from sea to shining sea.

Somehow, the explorations never continued after that fall. Kevin and I drifted apart and the map got lost or thrown away. I remember a solo expedition in powdery snow to the perfectly round island when the pond was frozen, but the unexplored territory beyond remained unclaimed. It's funny how it still gnaws at me, how I still want to feel in my body how it all fits together, to put the last pieces into the puzzle.

I escaped from crowded suburbia after high school and settled into the comfortable wilderness of southern New Hampshire, but a piece of me still feels rooted in the Connecticut coast. The sweet-and-sour smell of honeysuckle mixed with the sulfury smell of low tide makes me feel at home. The give of sun-softened asphalt under my feet evokes the thrill of night explorations. Whenever I draw a new map, I feel echoes of those first attempts to make paper match place. That first map was our way of both stepping back from and getting deeper into our discoveries — it preserved what we knew and launched us into further adventures.

Mapmaking, in the broad sense of the word, is as important to making us human as language, music, art, and mathematics. Just as young children have an innate tendency to speak, sing, draw, and count, they also tend to make maps. When children share their homemade maps with me, I see their active yearning to make sense of the nearby world, their desire to record and share discoveries and their connections to place. "Here's the kick-the-can hiding place. That's the little path to Erin's house. The cross is where we buried our cat Noah." The stories of their lives are folded into the niches of their neighborhoods; their maps are the weaving together of inner emotion and external forays. In a wonderful little article entitled "Homo Cartigraphicus," Tony Kallett says,

It seems to me that one can think of mapmaking as a fundamental human activity, if not the fundamental human activity... Learning consists of looking at something new and beginning to see paths into it. You construct a map or a series of maps, each one an approximation and probably wrong in details, but each one helping you to go further into the territory.

Kallet's description of learning captures perfectly the experience Kevin and I had exploring the old farm. We followed paths into it and used the map to assemble our experience. In the beginning the map was woefully incomplete, but it was as much as we knew at that point and it helped us go further.

Many teachers will recognize this as analogous to the Writing Process approach to teaching reading and writing. Children make their first forays into literacy by telling stories, drawing pictures of their stories, and then writing, in their own words and with invented spelling, about their pictures. The sketchy picture and meager words are beginnings, first steps down the pathway into the landscapes of drawing and writing. In spelling, children first learn their own names, then Mommy and Daddy, then I Love You. These first words are a clearing in the woods, a known place they can come back to and use as a reference point for figuring out the way to spelling other words.

I like this broad metaphoric use of the notion of mapmaking. Some educational theorists and neuropsychologists refer to constructing these maps of understanding as "conceptual mapping." The term suggests less of a linear and sequential model for how we organize knowledge in our brains and more of a spatial, multidimensional process. It's like the difference between tic-tac-toe on a napkin vs. the three-dimensional version. In British schools, educators add the skill of graphicacy to the traditional objectives of literacy and numeracy. By graphicacy they mean, "the communication of relationships that cannot be successfully communicated by words or mathematical notation alone." In everyday language this means being skilled at visual representations of information such as drawing, creating collages, constructing graphs, making diagrams, and making maps. Much good work has been done recently on the value of using concept mapping as an instructional device and as a tool for helping children organize their own thoughts. My desire is to forge an approach that fosters affective and cognitive connections — using mapmaking to teach the content of the social studies and geography curricula and as a tool for developing a sense of place.

We need to begin by rooting the cartographic experience in visual, kinesthetic, and emotional experiences. We do a disservice to children when we jump too quickly — at a prematurely abstract level — into map reading and mapmaking. Children can begin mapmaking the way they begin drawing, by representing the things that are emotionally important to them. Children's early maps tend to depict experiences of beauty, secrecy, adventure, and comfort. With these affective endeavors as a foundation, we can gradually start to focus on scale, location, direction, and geographic relationships. Developing emotional bonds and cognitive skills can go hand in hand.

Everyone has heard about the crisis in geographic education in the United States. Fifteen percent of our fourth grade students can't find the United States on a world map, fifty-five percent don't know the capital of France, and so on. This crisis has brought on an array of new programs in geographic education. Some are recitation and drill oriented with renewed emphasis on memorizing the state capitals and geography bees. The problem with these approaches is that they deny children firsthand experience. They emphasize

abstract, long-ago and far-away information instead of focusing on the here and now of the child's world, thereby giving children lots of facts and little understanding.

My eight year old, Eli, has picked up on my love of maps so we spend a lot of time poring over them. One day, during a four-month sojourn in Costa Rica, he drew two maps for me, one of the neighborhood we were living in, the other of the route from home to his school. The neighborhood map was a bit convoluted, but there were many recognizable elements and correct spatial relationships. His map of the route from home to school got the chickens in the road, the big hill, and the market in correct sequential order, but the school showed up right behind the gate to our neighborhood, despite the 15 kilometer distance between them. These maps were like the map Kevin and I drew of the old farm - partially complete and inaccurate, but good tries at making sense of his experience.

On the other hand, Eli came home from his first grade class during that same time proudly displaying his "book of continents" — a perfect example of the outside-in approach that I am not enthusiastic about. He had dutifully traced around the prefabricated continent shapes and then colored them in messily. South America as all red, Antarctica had some blue splotches on it, Australia looked like a blue and brown zebra. He was very proud of it, mostly because he knows I like maps, but he had no idea what continents were or which continent we were on. Asking first graders to make maps of their neighborhoods makes sense; asking them to make maps of continents puts the cart before the horse.

Another example: I was surprised last year to learn that the first-through-third multi-grade class at our local public school was studying the solar system. I have always been puzzled by the curricular commitment to studying the solar system because there is barely anything you can do that is tangible and hands-on. Very few teachers actually do night sessions so children can at least look at the planets and the moon. Instead, they make scale models of the planets and the information remains abstract. In the upper elementary grades studying the solar system jives with a developmental interest in exploration and outer space, but its presence in the early grades seems frivolous. When I asked the teacher why she was doing it, she said, "It's in the district science curriculum — I have to teach it."

Regardless of my concerns, the first grade daughter of friends loved the unit and knew all about the rings of Saturn and how hot it was on Mercury. She could breezily recite the order of the planets from the sun out to Pluto and even knew the name of a couple of the moons of Jupiter. On her way to a winter vacation with her parents, however, Monica wanted to know, "Mommy, which planet is Mexico on?" The ability to recite the names of the planets didn't mean that Monica had a grasp of planetary geography, or that she had developed any sense of scale.

These outside-in approaches to teaching do not tend to further the goals of geographic education. In actuality, they may do just the opposite. Instead of connecting children to place, this approach alienates them and cuts them off from their local environments. The

inadvertent hidden message is: Important things are far away and disconnected from children. Close-by things, the local community and environment, are unimportant and negligible. Learning becomes copying someone else's shapes and consuming someone else's facts rather than drawing your own maps and finding out things for yourself.

Don't get me wrong about having students engage with content. I knew all the state capitals by the time I was nine and I loved coloring in all those maps of Europe and Africa. And I quiz my own kids on New England state capitals. These approaches are fine as long as they are not done in isolation. Optimally, teachers will utilize both inside-out and outside-in approaches to mapmaking and social studies education in their classes and at times the two approaches will converge.

I witnessed an example of this kind of convergence last year with students from the Monadnock Waldorf School in Keene, New Hampshire. One of the themes for the fourth grade curriculum in Waldorf schools is local and state geography. So the students in Maggie Myer's class went on long walks exploring the neighborhoods around the school and drew pictorial and panoramic view maps of the area. They studied the plants and animals of New Hampshire, and each child made his or her own individual raised-relief map of the state in preparation for a three-day hiking trip in the White Mountains.

I was one of the parent chaperones for the outing and drove three of the children up into the mountains. As the Pemigewasset River valley narrowed and we approached Franconia Notch, I pointed out some of the mountains they had learned about when they made their maps. As Melinda gazed at the sinuous green peaks, she got a far-away look in her eyes and then exclaimed, "I know where we are! Remember where the mountains smush in close to the river between two long low mountains and then the big mountains are just beyond. We're between those low mountains and there's Cannon Mountain and the Franconia Range up there." As she spoke she gestured with her hands to show the river valley and ridge forms that she had shaped meticulously with her hands while making her raised-relief map. It was fascinating to watch the mapmaking images stored in her hands and mind snap into resolution with the mountain landscape spread out before us. The inner and outer worlds met in this ah-ha moment of well-crafted curricular experience.

Craig Altobell of Henniker, New Hampshire manages a similar convergence in his ingenious solution to the solar system problem with fifth and sixth graders. He asks the students to assume that the distance from the sun to Pluto is a mile. Then he takes the class for a walk through the village, using a pedometer to figure out exactly how far away a mile is. The students sketch the route of their walk and take notes. When they get back to the classroom, they make maps of the route from the school to the mile-away point showing all the landmarks they encountered along the way. Then, after they've done the math, converting the walked distance to map scale, they lay the planets out along the route. The sun is right in front of the school and most of the planets are right down the street by the town library. But it's a long haul from Jupiter out to Uranus and Pluto at the edge of town. Mapping the structure of the solar system onto a neighborhood map honors

the student's relationships with the community and provides an elegant bridge between the known and the unknown.

A geographic curriculum based on building a relationship between the structure of the local landscape and the shape of children's lives must replace our nonsensical focus on the long ago and far away. We need a curriculum that aspires to ecological literacy — a deep understanding of the flora, fauna, water, culture, climate, and communities that children live in. Whether in the hills of New Hampshire or the boroughs of New York, the initial emphasis should be on what is right outside the door. Lucy Sprague Mitchell, author of *Young Geographers* and a teacher at the Bank Street School, focused all of her projects for the primary grades on Manhattan. Children roamed the docks, fish markets, ethnic neighborhoods, and construction sites of the city and made maps of them. When her students outgrew the immediate environment in the upper elementary grades, their movement outward was organic:

When the children first leave New York City and the immediate environment can no longer supply all the source material, they will probably follow the routing of some produce they have seen arriving in the city. Usually this will take them up the Hudson by boat or train. Or they may be tracing their water back to its source in the Catskills.

The expansion beyond the local environment is achieved by tracing one of the pieces of the web of interconnections that ties city dwellers to the ecology of the surrounding countryside.

At the Greenfield Center School in Greenfield, Massachusetts, the curriculum expands outward in a similar incremental fashion. Kindergartners make block models of their classroom. After field trips to the furnace room, the office, and all the classrooms, first graders model the whole school. In second grade, students look at how the school is heated. They located and map where the oil is stored, who delivers it, how the heated air gets to the classroom, where the oil company's storage tanks are, and how the oil gets from the oil company to the school. By third grade the students study the city of Greenfield and in fourth grade they are taking canoe trips and making models of the Connecticut River valley in north-central Massachusetts.

These approaches nurture a sense of commitment to place and community; the objective is to teach kids to care deeply and to want to make a difference. "Love it or lose it," summarizes David Orr. This is our challenge. We engage children in a developmentally appropriate mapmaking and social studies curriculum with hopes that they will become advocates for preservation. We use mapmaking as a means to an end.

When the children in a northern New Hampshire town found out that the destination of their map-based community treasure hunt was a candidate for second-home development, they felt assaulted. "They can't do that. This is our place!" The students were immediately ready to jump into a study of zoning, land-use planning, and land owner's rights.

Knowing through mapping builds a foundation of ecological values. Maps are clothespins --- tools for hitching children's lives to their places.

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## **Mapmaking activities supplied by Clayton Russell**

(to be acquired)

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## What is a Watershed?

Imagine you a drop of rain falling from a dark, gray, rolling cloud. You fall to Earth, gravity pulling you down. You hit ground and join with other raindrops falling from the same cloud to become running water through a little rivulet that is being carved in the dirt. Downhill you rush with the tiny stream until your stream joins with another, and another, tiny stream to make a larger stream. This keeps rushing on as more and more water joins in. Now you're in a deeper stream, and joining with a river. This river sure has a lot of water in it! You wonder how many raindrops had to fall in order to make this much water. Rushing on, the river joins another river and becomes still larger. Rushing on and on, always downhill, an imperceptible slope sometimes, but enough to keep the water flowing. Always downhill, to the sea. You have just moved through a large watershed.

A watershed (also called a drainage basin) is a region that drains into a particular body of water, such as a river, lake, pond or ocean. The size of a watershed, as well as the speed and flow of its rivers, is determined by land forms. High ground directs water one way or the other. Within a large watershed, there are many smaller ones. For example, a small creek that flows into the Wisconsin River has its own watershed. The Wisconsin River's watershed includes that of the small creek. The Mississippi River's watershed encompasses the Wisconsin River's watershed.

No matter where you live – city, suburb, or rural – water flows downhill to a water body, and eventually to the sea. We all live in a watershed. What we do in our watershed, how we use the land, is reflected in the quality of our waters. Which of Wisconsin's 334 watersheds do you live in? Which larger watershed(s) is yours a part of? What land uses occur in your watershed that affect the water quality of your small watershed and in turn, larger watersheds?

We all live in a watershed...learning about our home watershed will help us to understand what is happening in others and how our actions affect habitats far away.

# Seeing Watersheds

Seeing a watershed on a map is easy after you learn how to see the parts: main stem, tributaries, head-waters, mouth, and drainage divides.

## Objectives

By participating in this activity, your group will:

1. Locate the main stem, tributaries, and headwaters of a watershed.
2. Outline the boundary of the watershed.
3. Apply this skill to a more detailed map.

## Materials

Copies of Seeing Watersheds Student Copy Pages One and Two (one of each per student)  
Blue, red, green, orange, and purple markers

## Background

Glance at a national map of Canada, the United States, or Mexico. Can you see the water-sheds? Most people couldn't show where the boundaries of their watershed are. In fact, in a recent national survey, only 20% of respondents were able to select the correct definition of a watershed from a list of possible answers. One reason the concept of a watershed is so difficult to understand is we seldom actually see our watershed's boundary—we see streams, lakes, and rivers, but have difficulty seeing the whole. "Seeing Watersheds" provides a simple method of delineating a river's watershed on a map that can be used for any watershed of any size, whether it's the huge Mississippi River Basin, the Everglades, or your local sub-basin.

Seeing watersheds on a map is as easy as tracing a line. You will need a map that shows rivers and smaller tributaries. It begins with knowing the name of the main river (main stem) in the watershed. If you know the name of the main stem, you know the name of the watershed (and vice versa). To learn how to see the watershed on any map, you will begin with tracing the pattern of the main stem and its tributaries on a simple line drawing. This starts the process of seeing the watershed.

## Procedure

### Warm Up

Review the definition of a watershed with the class, if necessary. Ask the students if anyone knows the name of the watershed the school is located in. Ask if they can name several features of the watershed such as all of the states it covers, the highest and lowest points, several cities, any tribal lands, and any national parks or forests. Tell the group that the only way to answer these questions and others about a watershed is to first know its boundary.

Show students a map of Wisconsin, the United States, Canada, or Mexico. Ask if they can see the watershed boundaries. Brainstorm methods to find the boundary of a watershed (possibilities could be to look at the map Selected Rivers and Watersheds of

North America, look up your watershed online, call a water resources office and ask for a map, walk along the rivers until you come to the headwaters, fly over in a plane, etc.)

Show the class the map again. Ask why it might be important to know the boundary of a watershed. There could be a wide range of ideas such as learning who or what is affecting the water supply, how much water is available to different towns, which water users are placing demands on the water quality or quantity, what the water rights are, or predicting future scenarios.

### The Activity

1. Tell the class you are going to teach them how to see watersheds on any map that shows rivers. For this exercise they will start with a large watershed, The Missouri River Basin. Distribute a copy of the Seeing Watersheds Student Copy Pages to each student, and make sure each student has a set of markers (blue, red, green, orange, and purple).
2. Begin with Seeing Watersheds Student Copy Page One. Instruct the students to use the blue marker to trace the main channel (main stem) of the Missouri River from its mouth at St. Louis (the point where the Missouri flows into the Mississippi River) all the way to its headwaters at Three Forks, Montana (the confluence of the Jefferson, Gallatin, and Madison Rivers).
3. Tell the class to use the red marker to trace the tributaries of the Missouri River. To do this, they can start at St. Louis again, and each time they encounter a river connecting to the Missouri they should follow that river from its mouth (where it flows into the Missouri River) to its headwaters (where it begins, as far away from the Missouri River as they can follow the tributary).
4. With a green marker, repeat the process for any smaller tributaries flowing into the ones marked in step 3.
5. Now it's time to find the drainage divides, the next step to locating the watershed boundary. Remember that streams flow from higher elevations to lower ones. Thus, each tributary or stream actually begins at some point on the land above the headwaters, usually a hill, mountain, or some other high point dividing this watershed from the one(s) next to it. Find a spot above the top of each river and mark it with an orange dot to indicate the divide.
6. Complete the process of seeing the watershed by connecting the dots with the purple marker. Start at a point near the mouth of the Missouri River and move in a clockwise fashion around the main stem. Continue connecting the dots all the way around until the purple line meets itself back at the mouth of the river (the confluence with the Mississippi River).
7. Repeat steps 2-6 for the three fictional watersheds illustrated on Seeing Watersheds Student Copy Page Two.

### Wrap Up

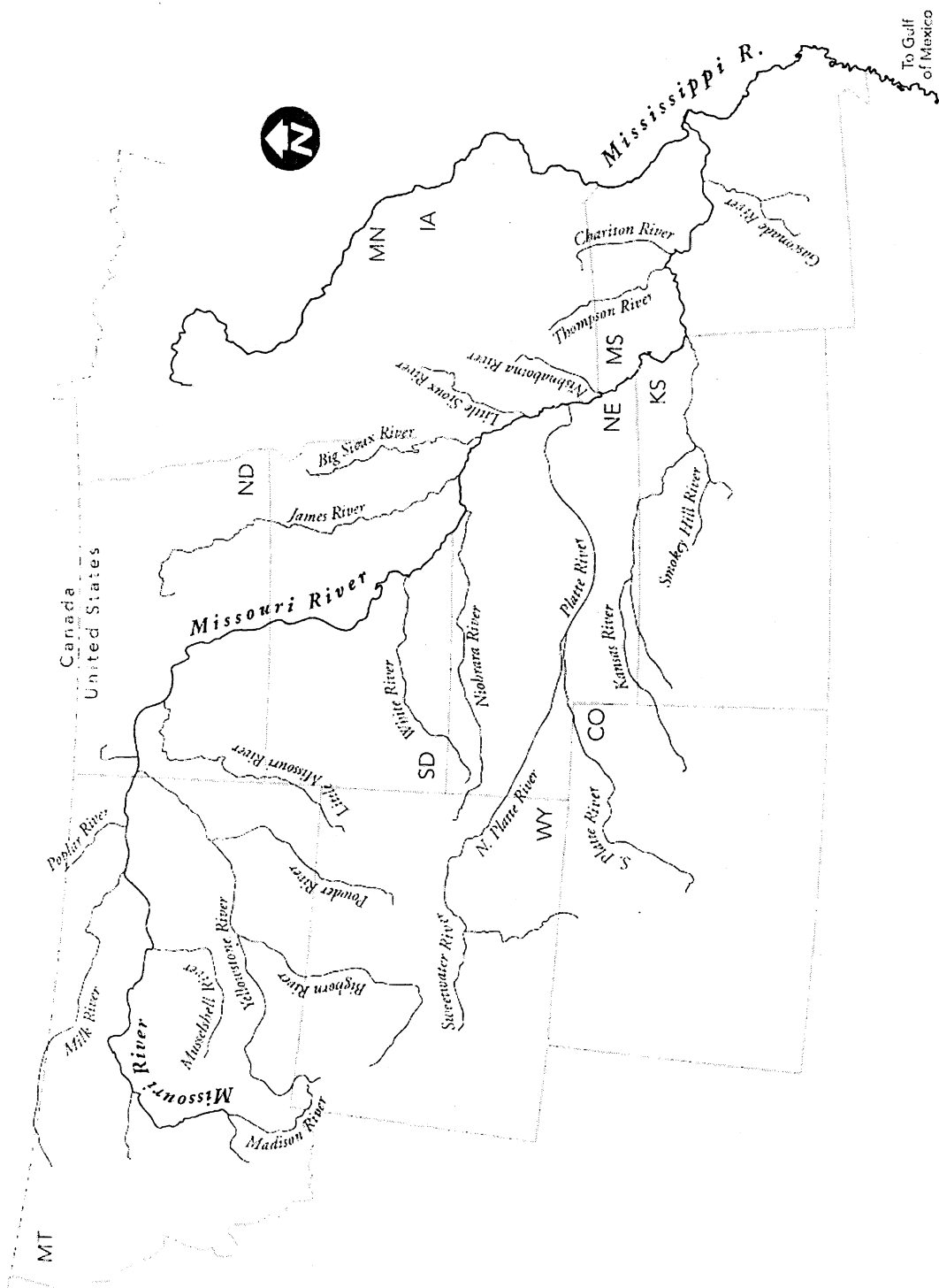
Have the students hang their watersheds (both copies) up around the classroom. Are they all the same? Where did difficulties arise, if any? Do they think they can duplicate the process for another river or watershed? Why or why not?

### **Extensions**

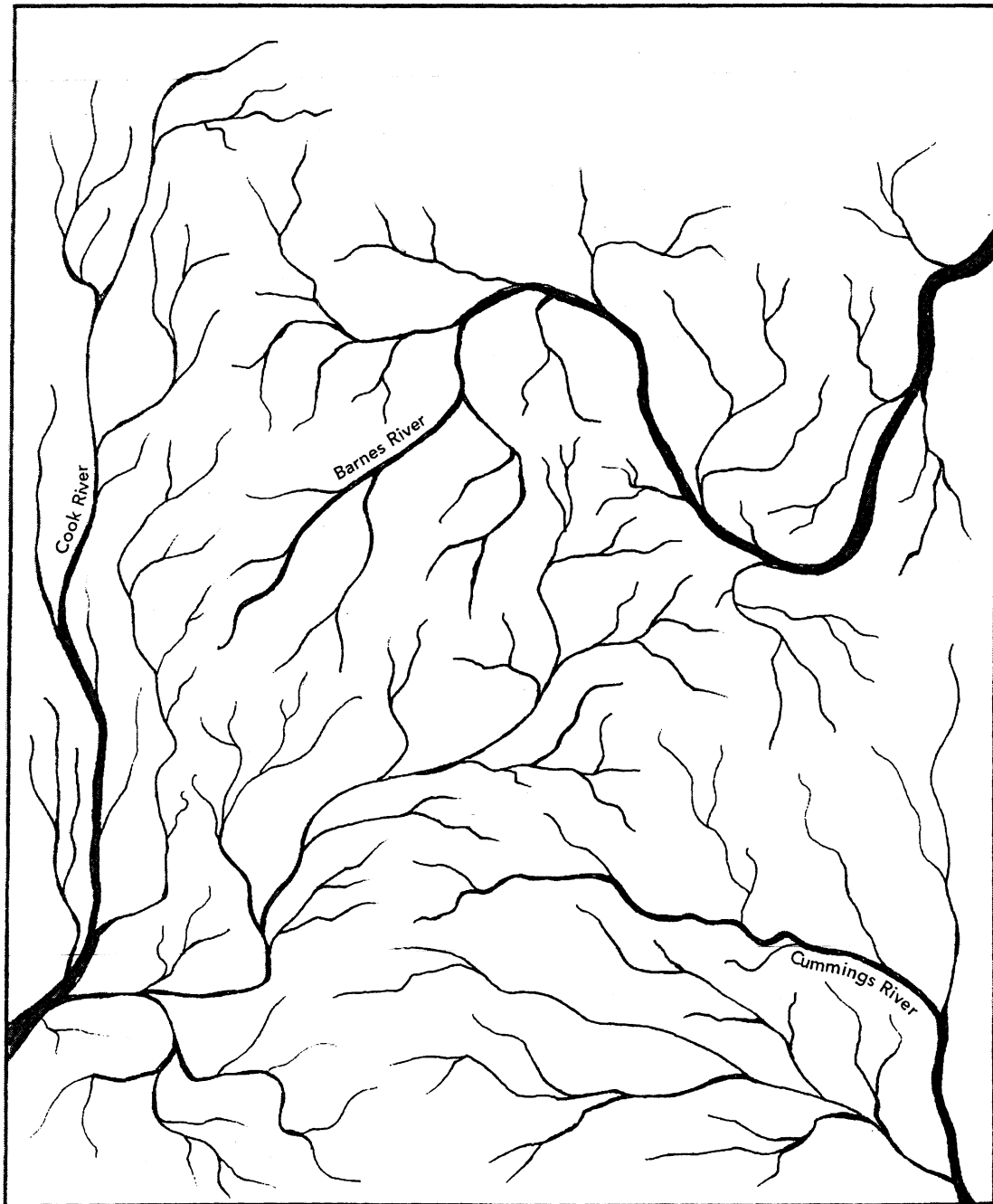
Using a Wisconsin map, challenge the students to delineate their basin (Lake Superior, Lake Michigan, or Mississippi River).

Ask the students to see the smaller watersheds within their home basin, follow the same methods of marking and outlining them, and be prepared to discuss the rationale behind the boundaries they have marked.

# Seeing Watersheds - Student Page 1



## Seeing Watersheds - Student Page 2



# **Watershed in a Box**

You and your group will build a simple runoff model and use it to demonstrate how nonpoint source pollution can affect surface water. Whether you live in a city, town or rural area, nonpoint source pollution can be a problem.

## **Objectives**

By participating in this activity, your group will:

1. Define a watershed:
2. Use powdered drink mix to represent nonpoint source pollution and demonstrate how this pollution affects surface water.
3. Design a community that will try to minimize the effects of pollution on surface water.

## **Time**

The runoff model is very easy to build and takes approximately 15 minutes to construct.

## **Age**

This activity is appropriate for ages 8 and up.

## **Cost**

All supplies for the watershed model can be found in grocery stores, craft stores or your home.

## **Materials**

For each model you will need -

- A box cover or other shallow box that is 12" x 12" or larger
- Foam pieces, Styrofoam, or paper
- Heavy-duty aluminum foil or white plastic bag
- Permanent markers
- Spray bottle
- Cup of water
- Powdered, unsweetened drink mix — two or three different colors
- Bucket

## **Background**

No matter where you live, the water quality in rivers and streams is determined by what happens on the land around them. The land around a stream or river is called a watershed. One watershed is separated from another watershed by a low rise, the crest of a hill or a mountain chain. Rain or snow that falls on opposite sides of the higher land causes water to flow into different watersheds.

Not all watersheds are the same. Some watersheds are hilly, while other watersheds are flat plains. In all cases, precipitation that falls on the watershed flows over land to reach the lowest point – a lake, river or stream.

As water flows over land, it picks up soil, chemicals and other pollutants and carries them to lakes, rivers or streams. This water transportation system is called runoff. In rural or agricultural areas, runoff water carries a wide variety of materials, including pesticides, soil and animal wastes, directly into waterways.

In urban areas, hard surfaces such as driveways, sidewalks, rooftops and roadways prevent water from soaking into the ground. As a result, the runoff water, which can be contaminated with road salt, heavy metals, or automobile fluids, flushes quickly into storm drains that dump directly into streams and rivers.

Pollutants that do not have a single source are called nonpoint source pollution. This pollution originates from many different places.

Everyone lives in a watershed. We may not realize that what happens somewhere in the watershed will eventually have an impact on the lowest point in the watershed a lake, a river, or a stream.

### **Procedure**

#### **1. Get a box.**

Use a box cover or a shallow box to contain the runoff model.

#### **2. Create land forms.**

Arrange pieces of foam or crumpled paper to represent hills and land forms in the bottom of the box. Encourage your group to be creative. Remember, the highest points should be near the box walls. Leave a gully or valley in the middle of the box to represent a stream or river.

#### **3. Cover the land forms.**

Cover the land forms with a large piece of aluminum foil, shiny side up. Start in the middle of the box and gently press the foil into all of the hills and valleys, working your way towards the box walls.

Push the edges of the foil up along the walls of the box and fold the foil over the edge of the box. Be careful not to tear the foil.

#### **4. Create a community.**

With a permanent marker, draw on the foil to outline the streams or rivers in your model. Next, draw houses, roads, farm fields, feed lots, stores or anything else that you want in your community.

#### **5. Add some pollution.**

Sprinkle different colors of powdered drink mix onto the model. The colors represent different kinds of pollution. For example:

- Use red powder to represent yard care chemicals and sprinkle it around the houses.
- Use green powder to represent salt on the roads or automobile waste and. sprinkle it along roadways or in a parking lot.



- Use brown powder to represent exposed soil at a farm field or a construction site.
- Use blue powder to represent human or animal waste and leave little piles of powder near homes and farms.

6. Ask what will happen.

Ask the group what they think would happen if it rained.

7. Make it rain.

Using the spray bottle to represent a rain storm, spray water on the hillsides. Watch the water flow towards the rivers and streams.

8. Follow up.

Ask the group to tell you what happened. Then ask the group how they would redesign the community to prevent water pollution.

9. Try it again.

Dump the water from the model into a bucket. Remove the foil from the model and set it aside. Place a new piece of foil on the watershed. Ask the group to redesign the community to prevent water pollution.

Sprinkle powdered drink mix in the appropriate areas. Let it rain. Was there an improvement?

*This activity reprinted with permission from Water Action Volunteers, University of Wisconsin-Extension.*

# **Map of Wisconsin's Water Resources**

(being created)

## **Wisconsin's Major Basins**

The state is divided into 3 major river basins each identified by the primary waterbody into which the basin drains. In Wisconsin, they are the Lake Superior Basin, Mississippi River Basin and the Lake Michigan Basin.

(being created)

## **Wisconsin's Water Management Basins**

These 24 areas are hydrologically-based subdivisions of the larger Major Basins of the state. State of the Basin Reports are prepared by the Wisconsin DNR and can be viewed on their website.

(being created)

## **Wisconsin's 334 Watersheds**

(being created)

## Tips for Writing Poems

by Robert Hass, River of Words Co-founder &  
United States Poet Laureate, 1995-1997

Two very famous teachers of haiku gave very different advice about writing poetry. Basho, who many think is the greatest of haiku poets, had this to say: "Learn about pines from the pine, and about bamboo from the bamboo." In other words, pay attention. And Buson, another of the great haiku poets, when someone asked him how to improve the spirit of their work, said "Read Chinese poetry." In other words, if you want to write good poems, read good poems. It is an old debate: which comes first, art or experience? What if you have skill but no heart, or heart but not skill to express it? Luckily, young writers don't have to choose. So here are a few tips:

1. **Get something down on paper.** Or as the Irish short story writer Frank O'Connor said, "You can't revise nothing." Waiting for inspiration is like waiting to be asked to dance. If inspiration comes, it comes. And it will come more often if you show you are interested.
2. **Pay attention to what's around you.** If you write nature poems, look at things. If you write poems about people, notice them. There are ways to practice noticing: teach yourself the name of some of the birds in your neighborhood, the trees; learn the names of the stars overhead. Listen to the wind. Look at the way light falls on your street at different times of day.
3. **Pay attention to what you're feeling.** A lot of poetry has to do not with knowing what you feel, but discovering what you feel. Sometimes, if you notice what you're feeling, a phrase or an image for it will come to you out of nowhere. It will be a place to start and the result may surprise you. It's hard not to present to the world the feeling you think will please other people by having or seeming to have. Poetry ought to be the place where you don't have to do that.
4. **Pay attention to your own mind.** No thought is too weird for poetry. And everyone has weird thoughts all the time. Some people are just good at not noticing that they have them. Noticing is what makes any kind of art fresh and interesting.
5. **Say your poems out loud to yourself until you're pleased with how they sound.** Some thoughts are quick, some thoughts are slow and deep. Some skip, some pace slowly. The pleasure of poetry for people who write it a lot is mostly here, whether you write in rhyme with a definite beat, or write in the rhythm of natural speech. The poem isn't finished until it's pleasing to your ear.
6. **Read lots of poetry.** It will give you ideas about what poetry can do, techniques you can try. And real feeling will put you in touch with real feeling. Someone else's originality will make you feel yours.

*These tips reprinted with permission from the River of Word K-12 Educators Guide, available from the national ROW office. <http://www.riverofwords.org>*

## **Life is the Teacher: Writing Poems from Daily Experience**

by Sanford Lyne

*Sanford Lyne is an award-winning Louisiana poet and poetry teacher. Through his acclaimed "Inner Writer" program and the education programs of the John F. Kennedy Center for the Performing Arts, Lyne has taught poetry writing to over 40,000 young people and several thousand teachers nationwide. He is the author of several books, including two collections of poems by young people, "Ten-Second Rainshowers," and "Soft Hay Will Catch You."*

### **Poems as the "Fingerprint of the Soul"**

I like to start my poetry writing work with students by reminding them that each of us lives in two worlds—the outer world of the senses (what we can see, touch, taste, smell, hear) and the inner world of thought, emotion, imagination, and memory. One of the purposes of poetry writing is to go into these two worlds—we could say we are going in two directions, inward and outward—and find the places where the two overlap. I also like to tell students that a poem is "the fingerprint of the soul," and just as no two people have the same physical fingerprints, no two people put poems together in the same way. Our poems—the fingerprints of our souls—will also be different. In other words, be yourself on paper when you write.

### **The Web of Daily Relationships**

Everyone on earth lives within a web of daily relationships and experiences. Poets, in their developed awareness, use this web automatically in their poetry. The Web of Life diagram (page \_\_\_\_\_) provides a quick, simplified overview of this web. I ask students to think of this web as if it were a spider's web; each part may be connected to any other part, and each part may affect any other part or the whole. This interrelatedness and connectedness reflects, of course, the whole of nature and the operating principles of ecosystems, as well.

Before use the web for writing poems, begin by discussing each part of the web and how it affects each of us. What is our relationship with each part of the web? How are we affected physically, emotionally, and in our thinking and imaginations by each part of the web? Many students now grow up in a techno-materialistic consumer environment with a greatly diminished awareness of this web of daily relationships. This discussion helps them to establish their connections to the web. For example, I ask students to think about "place." We are always "somewhere," and we either like the place we are in or not. Places have "energy." Places feel quiet, or peaceful—like a pond, or a library, or a church sanctuary. Or places may feel "sad," or menacing, or disturbing—like a street corner where drugs are sold, or an abandoned building. Some places—like an artist's studio, or a field of wildflowers—may invite the natural flow of our creative juices. I ask students to give examples of places where they could feel the "energy" of the place and to name the feeling they had in that place.

## Using the Example of Chinese Poets

The next step is to try out the web in putting together a poem. I tell students that the poets who were great masters at using the web were the Chinese poets. As a short-hand, I sometimes tell students that we are going to be "Chinese poets," that is, to learn to master the use of the web in our writing. I tell students that two principles were key to the Chinese poets: 1. Be very present, in the here-and-now, and 2. Be honest. Since no two days are alike, if you write about today (the here-and-now) and tell the truth, each day you will have a new poem.

### The "Practice Poem"

I tell students that we are going to begin by writing a "practice poem," constructing the poem line by line by using the web. In the practice poem, I tell them, you may make things up, but the poem should seem to be here-and-now, and truthful. It should have the "ring of truth." I tell students that in Chinese poems, two parts of the web are almost always used—Self and Place. The Chinese poet puts himself in the poem as the observer and tells you where he is. In leading this exercise, teachers may come up with their own practice for a model or use mine. I start my poem by writing on the board the following sentence:

*I am walking down a dusty road.*

I ask the students if Place and Self are in that sentence, and, of course, they are. I then ask the students to write the first line or sentence of their poem, placing themselves in some outdoor place (outdoors we can more easily incorporate more of the web). I remind them to tell the reader what they are doing in that place. I tell students the sentence should sound real and truthful for someone of their age and experience, and I ask them to keep in mind an actual place they know about (as a source for details). After the students have had an opportunity to write the line, I have several read their line aloud. We check to see if each line sounds truthful, as both Self and Place, and tells what the speaker is doing. Sometimes, some other aspect of the web may have also appeared in the line, and that is perfectly fine. I then tell students that we are going to add a second sentence, this time putting in something about the Weather. My own example now reads:

*I am walking down a dusty road.  
The hot, dry wind blows about my face.*

The students then add their own second line, and again I have several of them read their poems aloud. I have the students read all they have written each time, so we can see if the parts are also fitting together. In the next line, I tell students to add something from the web (their choice) that they haven't put in yet. My example—adding something from the animal kingdom and something else from the plant kingdom—now reads:

*I am walking down a dusty road.  
The hot, dry wind blows about my face.  
The neighbor's horses take shelter under the cool pines.*



The students then add their third line, and again we read a few examples aloud, checking to see what aspects of the web have been introduced and to make sure all the lines fit together. I then ask students to complete their poems, adding more details from the web, and also any feelings, associations, memories, and reflections that seem to fit. I tell them that they may also change, delete, or rearrange anything in the poem. And I also want them to give a title to the poem. My own finished poem on the board now reads:

#### *SMART HORSES ON A HOT DAY*

*I am walking down a dusty road.  
The hot, dry wind blows about my face.  
The neighbor's horses take shelter under the cool pines.  
Pine needles make a soft bed for them to stand on.  
I think I'll join them.*

It is important when writing poems in the classroom to remember the rich diversity in the students, and to remember that no two students will put poems together in the same way. Some are more naturally extraverted and some more introverted. In their poems, some move more easily into the outward world, and some more easily into the inward. Some more easily see the overlap of the two worlds. The outer world is actually a mirror of our inner world. Ralph Waldo Emerson wrote: *The universe is the externalization of the soul.* Some students grasp this reflection more readily than others.

#### **More Practice Poems Using "Prompts"**

The next practice poem is designed to help students see this "mirroring" aspect to our inner and outer worlds. For the first line of the poem have all the students write:

*I am sad today.*

In the next line, have students put in something about the sky. Remind students that they are constructing a poem, line by line, and the lines must somehow fit together. Again, when done, have a few students read aloud what they've written. In the third line, have students put in something about a tree or trees (or parts of trees—leaves, trunks, branches). Then add a line putting in something about a bird or birds (better if it's a specific bird—crows, sparrows, doves). I then ask them to keep adding lines, using anything from the web, until the poem feels complete. I tell them again that they may change, delete, or rearrange anything in the poem. I also like students to title their poems when they are done. A title is a way of identifying to yourself what your poem is about, and it's an important developmental step, I think, for students to take in their writing.

In the above exercises, the idea is for students to build a "web of daily relationships" (things observed) around a central thought or feeling, allowing the details to enrich what is being experienced and expressed. In this way, students are also building connections with the world around them. In classrooms where I've introduced this exercise, teachers

have been awestruck by the depth, poignancy, and ingenuity of students in writing these poems. Sometimes I substitute for the opening line, *No one knows I'm here*, or with high school students, *Love found me today*. Sometimes students want to substitute the feeling in the opening line, changing "sad" to "happy," or "angry" or "at peace" or some other feeling. Said another way, the purpose of the practice exercises is twofold: 1. To help the extraverted or concrete-thinking student to see inner correspondences in feeling, and 2. To help the introverted and intuitive student to develop connections with the outer or physical world.

### **Helping Students Write Their "River of Words" Poems**

The above introduction to the Web of Daily Relationships, the discussion, and writing exercises take about one class period (50-55 minutes). The next step is to turn the use of the web toward writing poems about watersheds and the natural world. In writing this poem, each student should first choose a "place" to write about. This should be a place that the student knows about in as much richness of detail as possible. This might be a river, lake, pond, park, backyard, creek, or marsh that the class has visited together on a field trip, or it might be a place the student has frequented alone or with family or friends. Ideally, from first-hand experience or from field guides or local experts, the student should have some real knowledge of the land and flora and fauna (vocabulary names) of the place he or she is writing about. This writing exercise also takes one class period.

In the center of the page have each student write down the place they are writing about, putting that place in a circle. Then guide the students through a brainstorming exercise about the place, utilizing each aspect of the web. In doing this exercise, I model for the students by creating my own brainstorming page, bringing to it my knowledge base, sensory memories, and associations. Here are some suggested questions, using the web:

- Self: What thoughts and feelings come to mind when you think of this place? What parts of your body come to mind? What personal associations and memories?
- Others: What people come to mind, and why?
- Seasonal Details: What seasons and signs of seasons come to mind?
- Weather: What weather comes to mind? What experiences with weather?
- Time of Day: What part of the day comes to mind? How did things look then? Any special sounds? Was there a mood or feeling you remember then?
- Animal Kingdom: What animals, birds, insects, etc. did you see, hear, notice? What were they doing? What feeling did they give you? What did they tell you about the health and condition of the place?
- Mineral Kingdom: What rock, stone, or crystal formations did you see? What did they add to your experience of the place?
- Man-made Things: What man-made objects come to mind when you think of this place—boats, docks, fishing and hiking gear, structures of any kind, personal items and so on?
- Celestial Things: What things in the sky or heavens did you notice? How did they add to your experience?

- Spiritual Things: Was this in any way a spiritual place for you (whatever that means to you)? What spiritual thoughts, feelings, associations, or experiences did you have?
- Elements: In what ways did you notice earth, air, fire, or water in any form? What did they add to the place? What thoughts or feelings do they bring to mind?

### **Modeling for Students is Important**

In modeling for the students, I like to bring in personal material. For Self, I might write down that my feet liked walking on the boggy ground, or that I like the warmth of the sun on my face. For Spiritual Things, I might say something like *A beetle, green and Buddha-like, sits silent upon a warming stone*. The modeling can expand students' sense of what's possible. The modeling teacher grows along with the students.

### **Expect the Unexpected**

Once the brainstorming writing is done, the students should then begin to assemble their poems. Very often as we begin to assemble images and descriptions, "ideas" also begin to emerge; meanings begin to appear; the unexpected happens, and we begin to write things we didn't know we were going to say. Emerson wrote: *Every writer is a skater, and must go partly where he would, and partly where the skates take him*. Again, the poet in each student is different. One student's poem may have more of an inward direction; another's may have more outer world detail and direction.

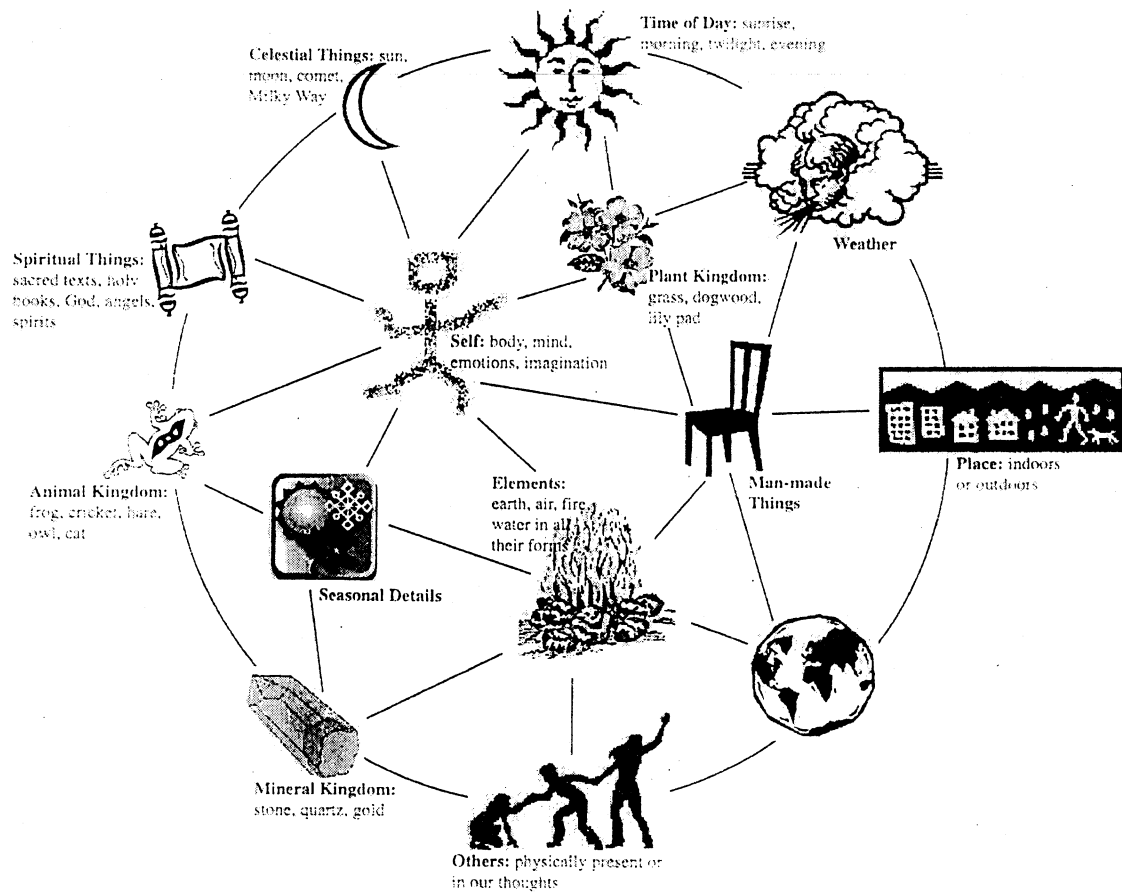
### **Utilize the River of Words Poetry Archive**

I strongly suggest that teachers and students familiarize themselves with the student poems on the River of Words Web site ([www.riverofwords.org](http://www.riverofwords.org)). The best poems have a keen awareness of the Web of Life. On the web site, students will find some poems with an outer direction, others with a more inward direction. Most poems will have an overlap of inner and outer worlds.

*This article reprinted with permission from the River of Word K-12 Educators Guide, available from the national ROW office. <http://www.riverofwords.org>*

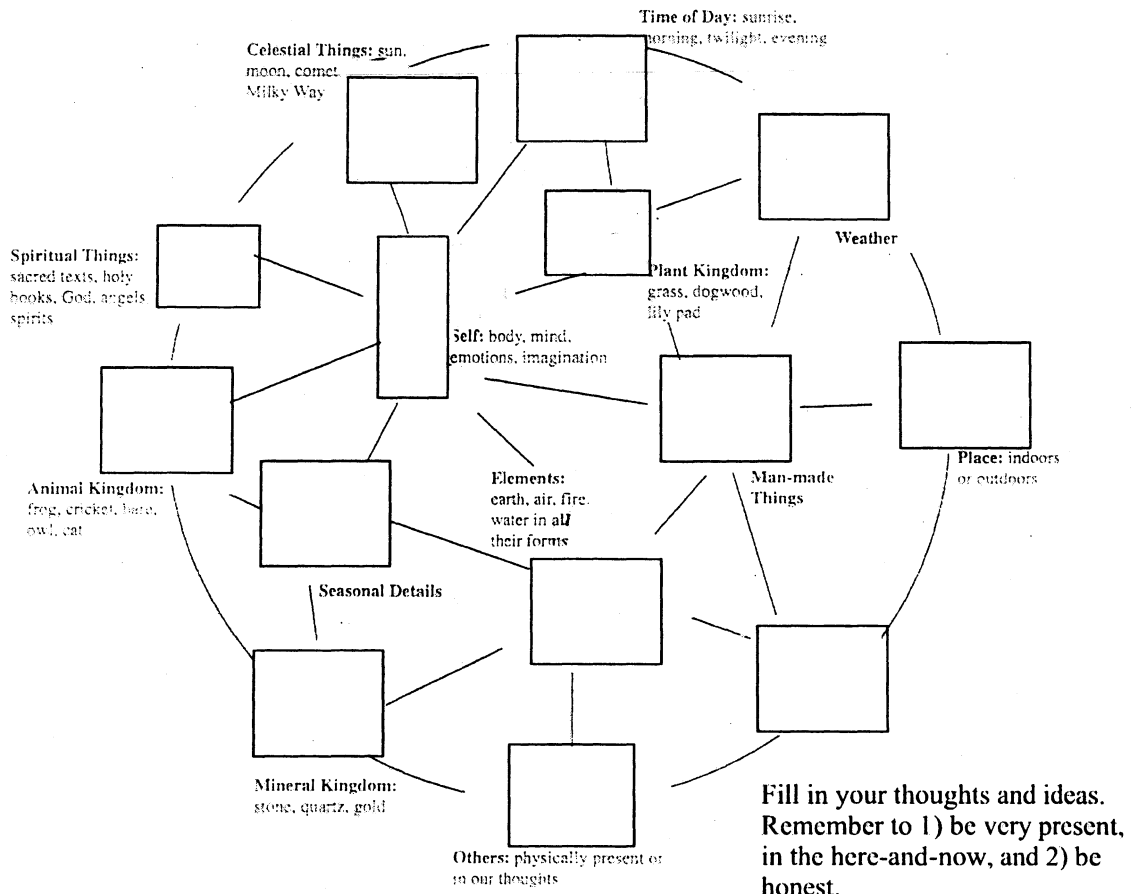
On the following pages are the Web of Daily Relationships and an empty version with squares to fill in. Filling in the Web will help students remember the thoughts and feelings they experience on their outdoor field trip.

# Web of Daily Relationships



(draft copy of diagram)

# Web of Daily Relationships



(draft copy of diagram)

# **Resources for Wisconsin River of Words**

## **Writing**

How to Write Poetry. Paul B. Janecko. Scholastic Inc., 1999  
ISBN 0-590-10078-5

## **Watersheds**

Watersheds – A Practical Handbook for Healthy Water. Clive Dobson, and Gregor Gilpin Beck. Firefly Books Ltd., 1999  
ISBN 1-55209-330-1

## **Sense of Place**

Community Culture and the Environment – A Guide to Understanding a Sense of Place. U.S. EPA Office of Policy and Office of Water. U.S. EPA Publication Clearinghouse, 2002, EPA 842-B-01-003

Stories in the Land – A Place Based Environmental Education Anthology. The Orion Society, 1998.  
ISBN 0-913098-51-5

## **Curriculum Resources**

Discover a Watershed –The Watershed Manager Educators Guide. Project WET, Discover a Watershed Series, and The Watercourse. The Watercourse, 2002 ISBN 188863111-2

Of Time and the River – Stories from the Fox and Wolf Rivers – An Educational Catalyst. Fox/Wolf Rivers Environmental History Project, P.O. Box 1161, Green Bay, WI 54305-1161, 920-336-4072. January 1996

POW! The Planning of Wetlands – An Educators Guide. Karen L. Ripple and Edgar W. Garbisch. Environmental Concern Inc., 2000 ISBN 1-883226-05-8

Project Learning Tree – Environmental Education Activity Guide – Pre K-8. American Forest Foundation, 1995. Project Learning Tree, 1111 19th St. NW Suite 780, Washington, DC 20036

Project WET – Curriculum & Activity Guide – K-12. Project WET, The Watercourse, and the Council for Environmental Education. The Watercourse and the Council for Environmental Education, 1995

Project WILD – K-12 Curriculum & Activity Guide. Project WILD and Council for Environmental Education. Council for Environmental Education, 2000

Project WILD Aquatic – K-12 Curriculum & Activity Guide. Project WILD and Council for Environmental Education. Council for Environmental Education, 2000

Sharing Nature with Children. Joseph Cornell. Dawn Publications, 1998 ISBN 1-883220-73-4

Working with Water – Wisconsin Waterways – Teachers Guide and Student Materials. Bobbie Malone, Ph.D., Jefferson J. Gray, Anika Fajardo. Wisconsin Historical Society Press, 2001 ISBN 0-87020-331-2

Working with Water – Wisconsin Waterways. Bobbie Malone, Ph.D., Jefferson J. Gray, Anika Fajardo. Wisconsin Historical Society Press, 2001 ISBN 0-87020-329-0

### **Websites**

EPA – Surf Your Watershed  
<http://www.epa.gov/surf>

Exploring Wisconsin Our Home – Wisconsin Educational Communications Board  
<http://www.ecb.org/exploring/wismaps.htm>

Netstate – Wisconsin and U.S. Map Links  
[http://www.netstate.com/states/maps/wi\\_maps.htm](http://www.netstate.com/states/maps/wi_maps.htm)

USGS Water Resources of the United States (includes WI-specific info)  
<http://water.usgs.gov/>

UW-Extension Basin Educator Sites Gateway  
<http://clean-water.uwex.edu/bassites.html>

Wisconsin DNR – Wisconsin's Waters  
<http://dnr.wi.gov/org/water/division/yow/>

Wisconsin DNR Webview – Interactive web viewer  
<http://dnr.wi.gov/maps/gis/appwebview.html>

### **Additional Wisconsin Water Programs**

Adopt-A-Lake  
Encourages positive lake stewardship practices through hands-on discovery of local lakes.  
UW-Extension Lakes Program  
715/346-2116  
[uwexlakes@uwsp.edu](mailto:uwexlakes@uwsp.edu)

#### Angler Education

Provides resources to teach about and practice fishing skills and water stewardship.

608/266-2272

[theresa.stabo@dnr.state.wi.us](mailto:theresa.stabo@dnr.state.wi.us)

#### Educating Young People About Water

Provides resources for youth program coordinators who are developing community-based water education programs.

608/262-0142

[erc@uwex.edu](mailto:erc@uwex.edu)

#### Groundwater Guardians

Supports, recognizes and connects communities of all size that are actively taking steps to protect groundwater.

715/346-2722

[gwguardians@uwsp.edu](mailto:gwguardians@uwsp.edu)

#### Give Water a Hand

Provides direction on how to take action in your community. Youth design their own project based on water investigations in their community.

800/928-3720

[erc@uwex.edu](mailto:erc@uwex.edu)

#### Water Action Volunteers (WAV)

An action oriented program that focuses on stream and river education for local citizens.

608/264-8948

[kris.stepenuck@ces.uwex.edu](mailto:kris.stepenuck@ces.uwex.edu)