



Tales from the Field
PLACE-BASED EDUCATION IN ACTION

*Tale #2: Helping Protect
the River Shoreline*



In this northern Michigan rural community, there is a well-used waterway that connects nearby resort lakes. The river is just a block down the hill from the school behind the commercial district. A locally-famous “swing bridge” is also located on this waterway.

Twenty-four 6th grade students, under the guidance of their teacher, undertook a study of the conditions of the waterway as part of a DTE Freshwater Institute place-based education project. In asking students questions of what they knew about the river prior to selecting the project, she realized that their knowledge and understanding were “severely lacking.” “Only three or four had been to the river . . . and that was to use a small swimming beach.” So, the teacher decided to embark on a more thorough study of the River. The place-based unit began in April with a field trip to the nearby State fish hatchery, and subsequent visit by hatchery staff to her classroom, to learn about fisheries and water resource management.

Then in early May, students spent two mornings traveling on the river in pontoon boats. A local marina owner (and active member of the local historical society) donated the use of the boats. Along with the school’s art teacher, who is also a member of the Sheriff’s Water Patrol, they provided students with a guided tour of the river, pointing out landmarks, natural features, and water resource management issues. One of the problems along this river is shoreline erosion due to inappropriate boating practices.

During the trip, students recorded their observations in a journal. They saw a Bald Eagle, mink, waterfowl, songbirds, and other wildlife. One student said, “It was the first time I’d ever seen a muskrat in real-life.” Another said, “Seeing the animals and the eagle at the lake was unique!” The information they gathered will be used to prepare a “community newsletter” about their experiences.

After the river tours, students brainstormed about actions they could take to help protect the river. They decided to address the issue of shoreline erosion. They did more research through the Internet and by talking with experts to better understand the issues. Subsequently, they produced a tri-fold brochure, “Saving the River Shoreline,” that includes a description of “No Wake Zones” and ways for shore line owners to help prevent erosion. The brochures were created by the students and teacher using computer publishing software. They incorporated photos from their trip and a narrative about the issues and actions people can take to help.

Students identified effective and not-so-effective ways to preserve and protect the shoreline. The teacher said, “They came to realize that a well manicured lawn right down to the shoreline was not necessarily the best way to protect it. They learned that a buffer of natural plants would be better.” They also note in their brochure that putting rocks along the shore (illustrated with the photo) “allows the water to move between rocks and makes it possible for organisms to still live on the shore.” They also say that using metal or concrete (also illustrated with a photo) “is not a good way to protect our local waterways. These materials prevent safe places for animals and plant life to live.”

This teacher is in her third year of teaching, and doing a long-term place-based project was a significant undertaking. Although she had done “hands-on” activities with students before, they had never been so

real-world focused or comprehensive. Initially, she was unsure about how students would react to such a project, but was very pleased with the work they did. The involvement of community members and area natural resource experts was also a highlight of the project for her. She said, “Without the DTE program, I don’t think I could have gotten so much help and support for doing this project . . . and I also got so much help from the program staff . . . I’m ready to do another project again next year.”

In talking about her students, the teacher said, “This was important for them to learn about their own immediate community and do something to help protect their own environment.”

In reaction to the project, one student said, “It was the coolest field trip ever!”

This is one of several *Tales from the Field* prepared by the external evaluators of the DTE Freshwater Institute, Science and Mathematics Program Improvement (SAMPI) at Western Michigan University. This vignette is based on an interview with the teacher and review of student work and final products. It is part of a comprehensive evaluation that was conducted during the 2005-06 school year of the entire DTE Energy Freshwater Institute. For more information about the evaluation, contact Dr. Mark Jenness, SAMPI—Western Michigan University (269-387-3791 or mark.jenness@wmich.edu). For more information about the DTE Freshwater Institute, contact Becky Ewing, Great Lakes Water Studies Institute, Northwestern Michigan College (231-995-1787 or beewing@message.nmc.edu). Prepared 7-06.