

Willow Springs ArtStream Report, Fall 2006

by teaching artist Pat Hight

Goals:

- To introduce the students to the relationship of water quality in their town, Willow Springs, Missouri, located at the headwaters of the Eleven Point River, and the quality of water in the Eleven Point further downstream at Thomasville, Missouri.
- To explore the relationship of human actions to the quality of the environment, especially water quality.

Concepts:

Point and non-point pollution
Karst topography and losing streams
Watersheds

Practices:

1. Using the Bryant Watershed Education Project (BWEPP) web site
2. Learning to use Nature Journaling to explore the environment and to express personal responses.
3. Using Willow Springs School's Outdoor Classroom
4. Learning basic Water Quality Monitoring
5. Artistic expression of of basic concepts

Tools We Used:

1. BWEPP site used to study watershed concepts, karst and losing streams, and water quality monitoring.
2. Nature Journals were used to record information gained from trips to the Outdoor Classroom, and to record steps in identifying tree leaves using the dichotomous key. They also used their journals to draw examples of dolomitic limestone in preparation for their Karst sculptures, for drawing practice, and for personal expression with both words and drawings.
3. We used the Outdoor Classroom used as a place for being and

seeing in Nature, making and recording observations and recording personal narratives. The losing stream in their Outdoor Classroom served an example of one feature of karst topography.

4. Used the Bryant Watershed Education Project website to study benthic macroinvertebrates.

5. Artistic expression: Drawing lessons were applied to recording observations from visits to the Outdoor Classroom, and on their field trip. Blind contour drawings of pieces of dolomitic limestone helped them study how water has shaped our landscape and also to plan their Karst sculptures.

Activities:

1. The students, with the help of their teacher, used the Bryant Watershed Education Project web site to study watersheds, karst topography, and benthic macroinvertebrates. Supplies: access to a computer and the Internet, and the *Living on Karst Book*.

2. Introduction to using a nature journal, which we called “water logs” in this classroom. The Bryant Watershed Education Project provided journals which the children personalized by laminating a picture of their choice onto the front of their journals and by writing or drawing anything they wanted to on their first day with their journals.

They learned how to set up a nature journal page with their name, date, time, location, weather notes, etc.

They used their journals to record observations and experiences on trips to their outdoor classroom such as results of a scavenger hunt, lists of things seen, drawings of things seen, and personal responses. They practiced drawing lessons in their journals and used them frequently outdoors. They used their drawings of dolomitic limestone to plan their karst sculptures.

3. Preparation for and construction of “Karst “Sculpture. First, students were introduced to ways to join and shape clay, then asked to make drawings of pieces of dolomitic limestone, and to take those drawings home over the weekend and design a sculpture at least 14” tall with plenty of openings to describe the action of our slightly acidic water on this type of stone.

Supplies: clay and work boards, turntables, pencil for a tool, plastic to cover work, cutting wire for clay. It took students 3 days to complete the making of the sculptures.

4. Field Trips were frequently made to their outdoor classroom. There was one school field trip to the Missouri Dept. of Conservation (MDC) Regional Headquarters in West Plains, MO. During the MDC field trip they drew from the mounts in the lobby, listened to a talk about the early days of Thomasville, studied benthic macroinvertebrate specimens, and walked the nature trail identifying plants and sketching and drawing.

At the end of the day the class divided into two halves and each half wrote and performed a skit set about resource use during the early days of Thomasville.

5. Attempted to do a simple survey of their Outdoor Classroom.
Supplies: compass, long tape measure.

Conclusion

These 8th grade students showed great improvement in their post tests, thus demonstrating understanding of the key concepts of point/non-point pollution, watersheds, and karst topography. The class also learned about their outdoor classroom, drawing, observation, how to use a nature journal, and how to use art to express understanding of the natural world. Their skits reflected an understanding of early history of the Ozarks.