

As Clear As Mud

For schools South of Boston, MA

As Clear as Mud, is an interdisciplinary curriculum that will help 7th and 8th grade students and their teachers in schools on or near Dorchester, Quincy and Hingham Bay (e.g. Malibu Beach, Wollaston Beach) explore the history, health and natural and biological uses and abuses of these waterways.

Through hands-on exploration and scientific study, students will begin to understand and appreciate these precious water resources. The students will also develop a network with other participating schools in order to share data and findings. As a result, information about the health and culture of these waterways will be shared with the whole community.

A pivotal part of this program will be to involve the students in the collection, exploration and study of animals through the processes of the scientific method including creating hypotheses, collecting and evaluating data and interpreting the results against the natural and cultural history of the selected waterways. Students will identify populations of the Soft-shelled Clam (*Mya arenaria*), the Blue Mussel (*Mytilus edulis*), and the Northern Sea Star (*Asterias vulgaris*), and the Atlantic Horseshoe Crab (*Limulus polyphemus*). In addition, students will examine individual animals and will draw a haemolymph sample to assess the immunological status of each. These data will be collected, shared and evaluated by all participating classrooms.

The Center's educators will visit 7th or 8th grade classrooms once a month. During the first year, students will concentrate on developing an understanding of the Neponset, Weymouth and Weymouth Back River Watersheds including their respective bays. During the second year, students will gather and evaluate data from their individual study areas in Hingham, Dorchester and Quincy Bays. Towards the end of the second year, conferences between the schools will be held in each of their respective schools and their communities. Much of the Center's education staff activity will be on empowering and training teachers to integrate these hands-on activities with the Massachusetts Science and Technology Frameworks, Massachusetts Environmental Education Plan and Benchmarks Toward Environmental Literacy.

The goal of this project is to get students out-of-doors observing, collecting and interpreting data that they have generated themselves. It is also the goal of this project to give students a firm background in the cultural and natural history, the commercial recreational, and the utilitarian uses of the local watersheds and their contiguous bays.

This is a very low impact study on the habitats and the test animals themselves. This is a humane project in that no animals will be sacrificed for the study. Quick, sometimes in situ Haemolymph samples can be drawn with little or no impact on the health of the animals.

For further information or to schedule As Clear as Mud for your classroom, please contact Casey at newchosp@aol.com or 781-749-5387.

Thank you.