



## 2007 AAAS/Subaru Essay Writing Competition for K-12 Educators, Finalist Essay

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### Boston Harbor Islands

Learning, for me, has always been much more pleasurable when it occurs outside. As a child, I was always fascinated with the intertidal zone. During the time I spent sailing in Wellfleet Harbor and in Chatham's Pleasant Bay, I easily picked up marine knowledge and navigation methods. As a teacher, I have taken advantage of every professional development opportunity that enhances my content knowledge while allowing me to spend time outdoors, including the Boston Waterfront Learning program and the ARMADA project, where I participated in ocean, polar, and environmental science research in the subarctic tundra of northern Sweden. It is no surprise then that I have jumped at the chance to work closely with Captain David Weinstein's Harbor Connections

([http://www.mass.gov/czm/oceanmanagement/education/guide/program/harbor\\_connections.htm](http://www.mass.gov/czm/oceanmanagement/education/guide/program/harbor_connections.htm)) to arrange transport and activities out to the Boston Harbor Islands for my Boston Public School students.

As a teacher of special education students, I am responsible for providing my sixth, seventh, and eighth grade students with their individual curriculum. Because I combine the curriculum to facilitate preparation, I strive to find outside activities that incorporate the state standards and the Boston curriculum. Harbor Connections does this.

The program begins with two separate pre-visit lessons. The first is a slide show, which the director David Weinstein and I have tailored to specifically target the actual activities that the students would do. The slide show identifies the invasive crabs and focuses on why and how to take care of the islands. This show also introduces them to the Boston Harbor Islands and provides them with a history and factual information about the islands.

The second pre-visit is a navigation lesson where the students complete individual charts of the Boston Harbor. This helps them to identify how to reach the islands by boat as well as identify landmarks in the harbor. Finally, on the trip itself, the students engage in a science experiment such as finding and quantifying invasive crabs, and setting and collecting insects using a simple pitfall trap. We also take advantage of the historical significance of the islands to help teach the students through show and tell about Boston history. This all serves to hook the students into science and allows me to help bring Boston connections into the science curriculum and the classroom.

For students studying weather and water, I see this trip as a chance for the students to take their meteorology equipment and measure the weather factors including humidity, temperature, dew point, etc., allowing the students to connect these definitions with their own environment. For those studying life science, it is an opportunity for students to get "their hands wet" and make comparisons among different specimens on the island and to simply realize that life exists in many different forms. I also have seen this program as a way of encouraging interdisciplinary learning. I have had the students study the different types of



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boats and cargos that are used in a port (both historically and presently) and have had the students recognize the different ones on their cruise to the island.

I have found that this program has repeatedly helped to enhance students' conceptual

understanding, skills, and attitudes towards science and to being a Boston citizen. This year I plan on having the students further connect this program to another field trip they took by having them test the water quality of the Harbor Islands as well as other watershed locations and draw comparisons therein.