



April 6, 2009

Eileen Maher
Unified Port of San Diego
3165 Pacific Highway
San Diego, CA 92101

Dear Ms. Maher:

We would like to thank you for your and the Unified Port of San Diego's support! The Port of San Diego's funding, \$30,000 awarded in October 2008 (Doc# 54116), supported science education for low-income youth in City Heights through the *SEA Series Initiative*. We provided you with a program update in January 2009. Since that time we have had many continued successes which are highlighted in the attached "Program Narrative."

If you have any questions or would like further information, please contact me at (858)488-3849. We are very appreciative of the Unified Port of San Diego's support of the *SEA Series Initiative* and commitment to expanding literacy and stewardship of San Diego Bay!

Sincerely,

A handwritten signature in black ink, appearing to read 'Sara', followed by a horizontal line.


Shara Fisler
Executive Director



Program Narrative

The *SEA Series Initiative* is a science education program that includes professional development for classroom teachers, hands-on activities, thematic curriculum, books and materials, a field experience to study conservation concepts and an environmental service project that students implement at the completion of the program. The *SEA Series Initiative* focuses on increasing knowledge of environmental issues affecting San Diego Bay and providing opportunities to take action to improve the health of the bay and its watersheds.

946 students and 30 teachers from 6 schools in City Heights participated in 8,514 total educational hours through the *SEA Series Initiative* during the months of January through April 2009. Third grade students were provided with the *“Invert Investigators” SEA Series* unit and sixth grade students were provided with in the *“Time Travelers” SEA Series* unit.

Each Unit Incorporates:

<p>In-Class Activities</p>	<p>All students participated in four to five hands-on, interactive, standards-based science lessons in their classrooms led by Aquatic Adventures staff. Interactive program content helped all students to retain information and second language learners to better comprehend subject matter. Curriculum is grade level specific, with different curriculum units and activities for each grade.</p> <ul style="list-style-type: none"> • 3rd Grade: 438 third grade students became <i>“Invert Investigators”</i> learning about invertebrate adaptations to the rocky seashore habitat and how coastal habitats are linked to inland neighborhoods. • 6th Grade: 508 sixth grade students became <i>“Time Travelers”</i> using geologic evidence to discover what the Earth was like in the past and the forces that are shaping its future.
<p>Field Exploration</p> 	<p>All students participated in one science focused field trip led by Aquatic Adventures staff, offering a venue for experiential learning of science content and an opportunity to explore local coastal resources. Field-based learning allowed students to apply their knowledge gained in the classroom and to understand the relevance of science.</p> <ul style="list-style-type: none"> • 3rd Grade: Students tide pooled to discover invertebrate behaviors and adaptations in the rocky seashore habitat and conducted quadrat analysis to assess biodiversity. • 6th Grade: Students visited the Birch Aquarium where they used visualization technology to “fly” over the Earth’s ocean and understand plate tectonics. They also simulated coring techniques to study microfossils.

<p style="text-align: center;">Environmental Service</p> 	<p>All students participated in a locally-based environmental service project related to the science curriculum and led by Aquatic Adventures staff. By participating in locally-based environmental projects, students gained the belief that they can make a difference, encouraged others to participate in stewardship and increased their connection to San Diego Bay.</p> <ul style="list-style-type: none"> • 3rd Grade: Students conducted a street cleanup in their neighborhood and painted storm drains with “No Dumping” signs emphasizing how local actions in urban communities affect their neighborhood environment and tidelands. • 6th Grade: Students designed and created posters to encourage others to conserve resources and to reduce, reuse, and recycle to benefit their local environment and watershed.
<p style="text-align: center;">Classroom Teacher Support</p> 	<p>In order to increase the number of teachers who provide quality hands-on, interdisciplinary science education to their students in the early grades, Aquatic Adventures provided activities to increase teachers’ comfort and facility in science. All teachers received supports and classroom materials to enrich and extend their students’ science and literacy learning.</p> <ul style="list-style-type: none"> • All teachers participated in a curriculum-based professional development workshop led by Aquatic Adventures. • All sixth grade teachers participated in a science-based professional development workshop led by a Scripps Institution of Oceanography scientist. • All classroom teachers received standards-based lessons linked to the hands-on science activities for use in their classrooms. • All classroom teachers received theme-related books for use with the curriculum units, enabling them to meet language arts requirements. In addition, all sixth grade teachers received a science kit for use with the curriculum units enabling them to provide hands-on scientific learning experiences.

Program Evaluation

Program evaluation has been conducted for the third, fourth, and sixth grade units. Evaluation included:

- Pre- and post-program student science content assessments
- Pre- and post-program student surveys to measure attitudinal and behavioral changes
- Post-program student interviews to measure student attitudes, behaviors, and experiences
- Post-program teacher surveys to measure teacher and student experiences

Data from program evaluation is currently being entered and the results will be included with our annual report in December 2009.