



Ocean Beach Pier, photograph by Kelsey Murphy, HTHMA, 11<sup>th</sup> grade.

## Media Saves the Beach

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Is it safe to go in the water? This question began an exploration of San Diego's beaches and bays, and of the biological, ecological, political and cultural factors that affect the overall health of local coastal ecosystems.

In biology, students analyzed indicator bacteria levels at six popular coastal locations, as well as the health and diversity of microscopic life in local plankton populations. They used ordinary equipment such as microscopes and more sophisticated equipment on loan from a local non-profit group. Students then trained community members about how citizens could participate in water testing and help preserve coastal ecosystems.

In humanities, students generated original research questions and pursued these as journalists. Some produced short documentaries, editorials, or photo-essays based on their biology research. Others produced large-scale pieces of art with accompanying artist statements. One group published a professional quality 12-month tide calendar, which they sold locally to raise money for further projects. Student projects were critiqued by panels of peers, teachers and local experts before exhibition.

### Teacher Reflection

The critical factor was that we started with questions that truly made all of us curious. Scientific results and the ensuing humanities projects required rigorous testing methods and protocols—our research had to be done “right,” and each cycle of tests generated new questions. In this sense, original research involved a self-perpetuating cycle of inquiry and motivation.

—Randy Scherer

### Student Reflection

My video explained the dangers of surfing in polluted water. I did a lot of original research to find bacteria levels at different beaches and to learn what kinds of illnesses come from polluted ocean water. I also interviewed a doctor, a local surf shop owner and a member of Coastkeeper, an environmental nonprofit.

—Stephanie Luna, 11<sup>th</sup> grade

To learn more about this project and others visit the HTH Digital Commons and Brandon Davidson's & Randy Scherer's digital portfolios at

<http://www.hightechhigh.org/>

<http://staff.hthma.hightechhigh.org/~bdavidson/>

<http://staff.hthma.hightechhigh.org/~rscherer/>

