## **Education Programs** Point Cabrillo Light Station & Preserve

## **Program Summary**

Education programs at Point Cabrillo provide a dynamic and in-depth exploration of the interrelationship of human history and coast ecology. Our goal is to increase awareness and appreciation of marine life, coastal ecosystems, and maritime history, and provide the informational and experiential building blocks that enable students to explore and develop their environmental ethics. Conservation and accountability are introduced by looking at the role of individuals in making history and the preservation work underway at Point Cabrillo. Our field trip programs incorporate hands-on activities that allow students to explore the natural world while challenging their creativity and team working skills.

## The Tidepool Exhibits

Our indoor marine exhibits provide a safe, low-impact alternative to visiting the local tidepools. It's pointless teaching children to appreciate the extraordinary life in the intertidal zone, if the very activity of tidepool exploration is destroying fragile habitat. The indoor exhibits at Point Cabrillo lighten the load on the area's intertidal resources, and make it possible for youngsters, oldsters, and others with limited mobility, to visit and learn about this fascinating world.

## **Program Outlines**

Field trips are 3-4 hours in length including a lunch break. Curriculum packages for each topic include optional pre-trip classroom activities. We also provide a homework assignment for a no-trash lunch for the day of the field trip, an exercise that gives the classroom teacher an opportunity to introduce conservation and preservation issues, and the impact our individual actions have on the earth's resources. Post-trip activities are also provided. Individual programs can be combined and/or adapted for different age groups.

**"My Home, Your Habitat"** Students learn the difference between wild and domestic, and that all living things need a habitat to survive. Food, water, shelter and space are described for tiny barnacles and giant whales, allowing students to deduce the common concept from extreme examples. Facilitated interaction with the specimens in our observation tank and salt-water aquarium, along with puppetry and chalk drawing, help students to visualize life's many adaptations under the waves. Fits curriculum standards for 1st grade.

**"Whales, Whales, Whales"** Students review the concept of habitat while studying the natural history of the California gray whales during their annual migration. Observation skills are emphasized. Students learn classification of mammals, and how marine mammals exist in their habitat. Human influences and the history of whaling in North America are also illustrated. Our life-size gray whale jigsaw puzzle allows students to visualize the rudiments of whale anatomy along with the team challenge of assembling 80 odd pieces. During the annual Gray whale migration, we often combine activities from this program with "Exploring Marine Habitats".

**"Exploring Marine Habitats"** Students explore the concept of adaptation among the plants and animals living in Point Cabrillo's indoor tidepool observation tank and aquarium, and during a land based nature walk. Student directed learning activities engage children in discovering both the unique solutions, and the needs we have in common with the flora and fauna around us. Fits curriculum standards for 2nd grade. Fits curriculum standards for 2nd grade.

**"Living on the North Coast"** Students take a look at human history on the north coast from the Pomo Indians to the present. We look at the way all cultures interact with the land they live on - they change it, use it, and are changed by it. Activities include making iris twine and drilling shells with a pump drill. Students play detective with artifacts and photos from the days of the early European settlers, and make up their own stories about life on the coast. They also learn about the lightkeepers, why lighthouses were so important to economic growth, and they tour the Point Cabrillo Lighthouse. Fits curriculum standards for 3rd grade.

**"The Story of the "Frolic" the Shipwreck that Changed the North Coast Forever.** Students focus on the story of the "Frolic", a sailing clipper that foundered off Point Cabrillo carrying China trade goods for gold-rush San Francisco. This pivotal moment in California history illustrates how history is a series of events that are all dependent on each other, and how we make history every day through our choices and actions. Students use compasses to navigate, visit the wreck site and the Pomo Indian midden where artifacts from the wreck were identified, and reenact the *Frolic* story in costume. Fits curriculum standards for 4th grade. This lesson plan is also available as an in-class program.

**"Restoring Coastal Ecosystems"** Everything in nature exists in interdependent systems. This program looks at the impact that humans have had on the environment and the decisions we need to make about restoring or maintaining the balance of these systems. Students examine and discuss the ecology of the north coast on land and in the sea. Activities include a food web game; a scavenger hunt using a plant key and a restoration project where students can contribute to the ongoing care of the Preserve. Fits curriculum standards for 5th grade.