

Channel Islands Live!

<http://chil.vcoe.org>

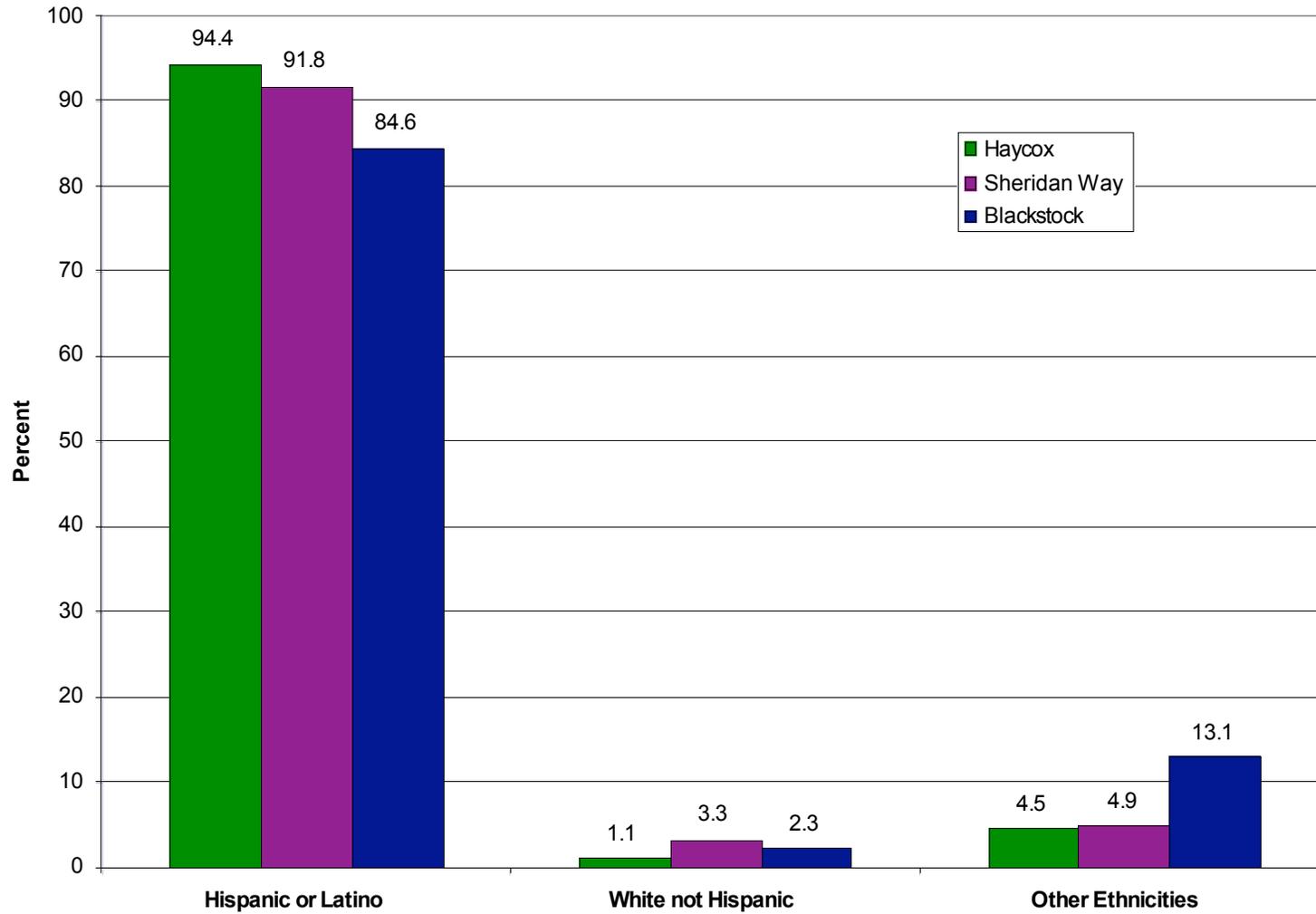
# Section A

- **Organization:** Ventura County Office of Education
- **Title:** Channel Islands Live!
- **Priority Area:** Meaningful Watershed Experiences for Students
- **Partners:** Channel Islands National Park, Channel Islands National Marine Sanctuary

## Target Audience 2006-2007

- Grades 4, 5, and 6 – 280 students, 6 teachers and numerous parents, volunteers and community members

### Channel Islands Live 2006-2007 Demographics



# Section B

## Goals and Objectives

- To provide students with authentic, place-based learning opportunities to support their understanding of environmental education
- To develop students understanding of the dynamic nature of ecosystems and the impact that change has on these systems.
- To increase students ability to use critical thinking, negotiating and communication skills to engage around environmental issues
- To teach students how to monitor, gather data, make observations and draw conclusions based on the data collected.
- To support teacher professional development in the area of Environmental Education and to provide resources to bring environmental education alive to all students in their classrooms.
- To leverage 21st century learning technologies to increase access and awareness of the local environment.
- To support educational outreach and environmental stewardship missions of partnership organizations

## **Project Overview:**

“Channel Islands Live” provides students with the opportunity to explore one of the most diverse marine environments in the world through an integrated learning experience that is supported by standards-based, interactive curriculum, active participation in monitoring and gathering data on the local environment and live interaction with researchers working in and around Channel Islands National Park and National Marine Sanctuary. In 2006-2007, students were connected to the Channel Island marine environment through:

- **The JASON XIV From Shore to Sea curriculum**, which provides standards-based, hands-on learning experiences along with interactive digital labs that allow students to become active participants in environmental stewardship.

## **Classroom – 2 Lessons**

1. **Kelp Forest Ecosystems: Monitoring and Management Research Focus**  
questions:
  - What is Kelp?
  - Why are kelp forest ecosystems important?
  - What natural and human activities affect kelp forests?
  - How and why are researchers monitoring kelp forests?
2. **Conserving Our Natural Resources: A Balancing Act Research Focus**  
questions:
  - Why is conservation and management of the Channel Islands region necessary?
  - How is the value of an ecosystem or species measured? Does it depend on who is being asked?
  - What management strategies are being used to protect native plants and animals on the land and in the sea?

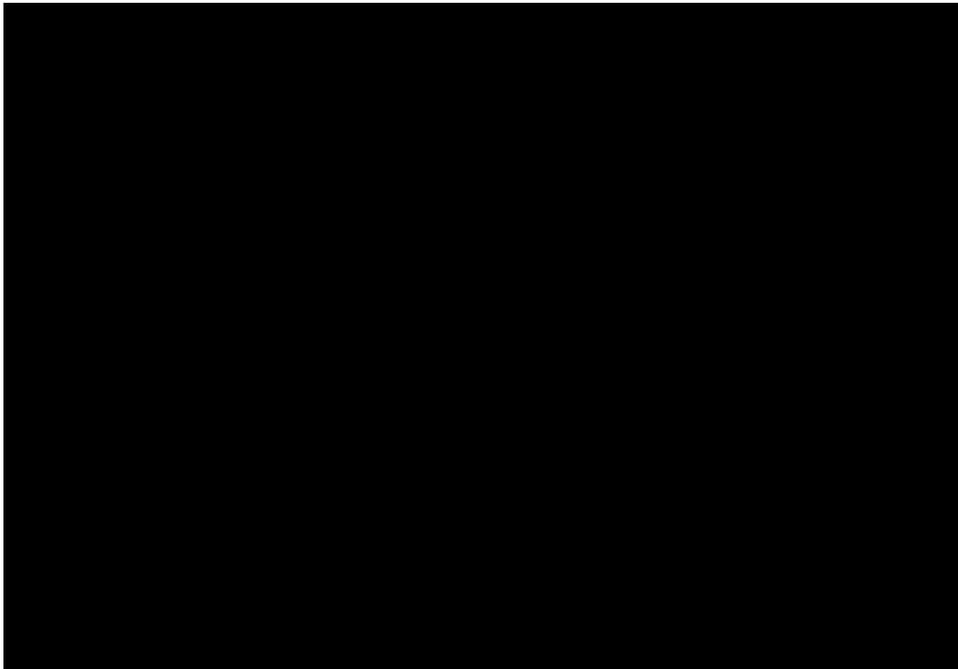
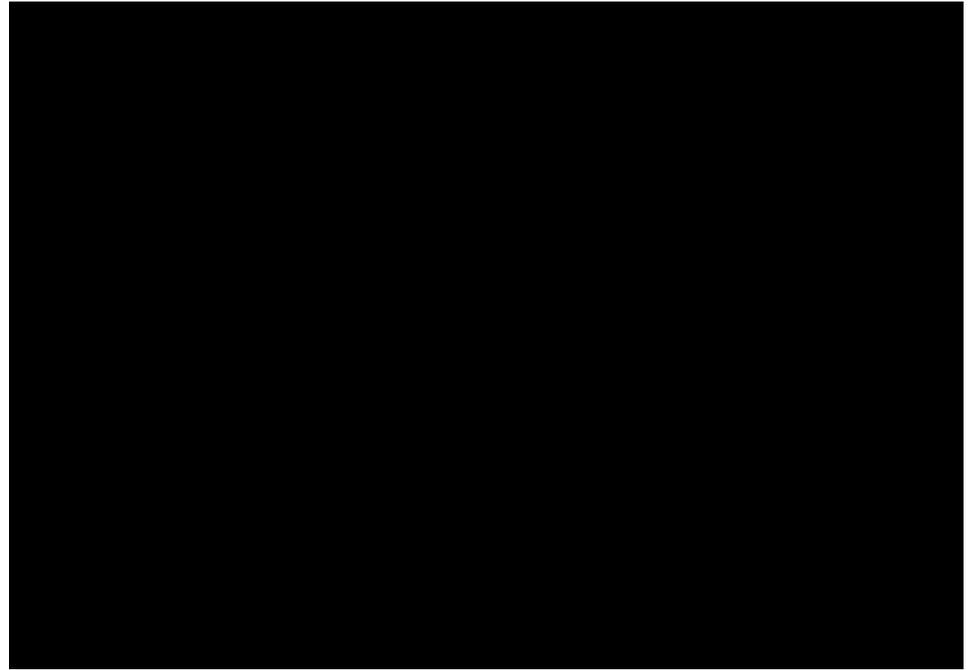
- **The Long-term Monitoring Program and Experiential Training for Students (LiMPETS)**, which teaches students about environmental monitoring through data collection and observation and provides authentic field-based experiences.

### **Classroom and Field Experience**

1. LiMPETS classroom activity: Rocky Intertidal
2. Frenchy's Cove Middle Anacapa Island
  - Scavenger Hunt
  - Rocky Intertidal data collection
  - Island Packers Boat Trip



# LiMPETS

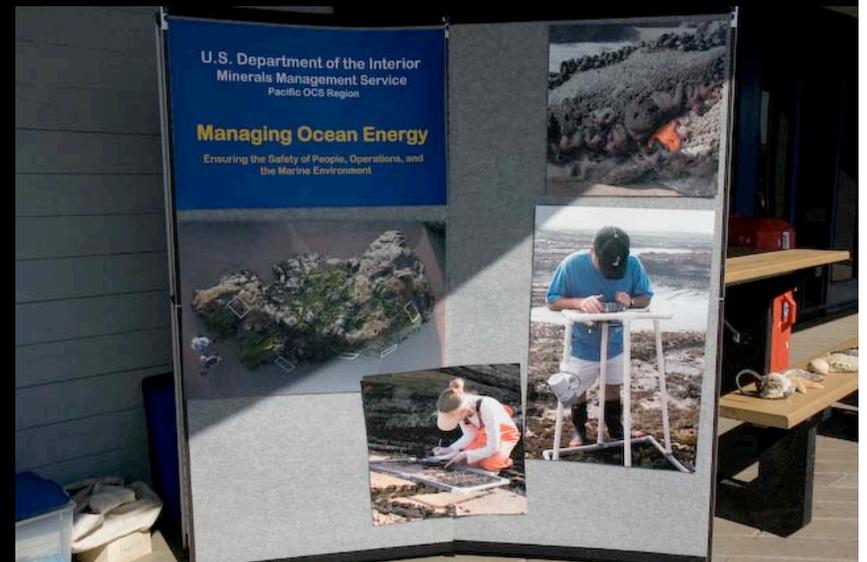


- The “**Underwater Live**” **dive program** where they will converse with divers as they explore the forests of giant kelp (*Macrocystis pyrifera*) that lie with the boundaries of the sanctuary and the park.

### **Field Experience – Channel Islands National Park HQ**

1. Learning stations: Kelp, Mapping, Conservation...
2. Live Dive! Participation: Direct communication with diver, show focused on classroom curriculum and LiMPET’s protocols.

# Live Dive!



- The “**Channel Islands Live**” **Argonaut program**, which will provide a subset students with opportunities to delve deeper into areas of interest and provide avenues for communication and community outreach. (20 students)

### **Community Outreach and Field Experience**

1. Poster Presentation
2. Earth Day booth assignment
3. Beach Cleanup and Ecology Field Trip
4. Anacapa Island Trip and host for Live Dive!

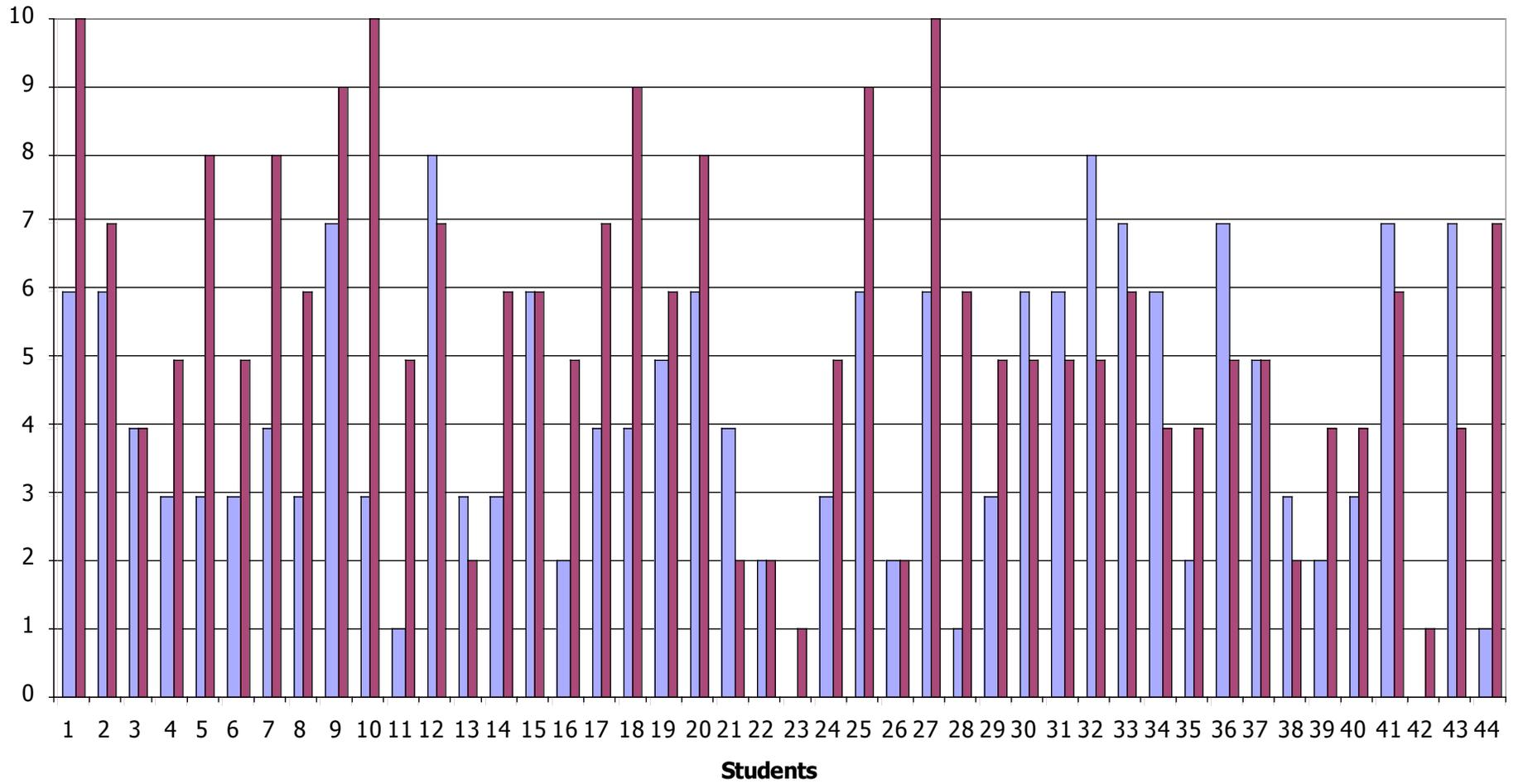
## Project Evaluation:

Multiple methods of evaluation were utilized in this project.

- Classroom evaluation included **pre and post assessments** to monitor student learning of concepts and skills. Students were also required to keep a project journal. **Journal entries** included reflections on curricular focus questions and a record of data collected during labs and field experiences.
- Field study evaluation **monitored students' ability to follow the LiMPETS protocol for data collection**, ability to submit data to the LiMPETS database and students' ability to evaluate results from the field.
- The “**Underwater Live**” **dive program** evaluation consisted of both implementation and learning goals evaluation. Access and ease of technology use was assessed as well as the scaffolding or learning support provided by pre and post dive activities.
- **Professional development evaluation** surveyed teachers for effectiveness of support, materials and training.

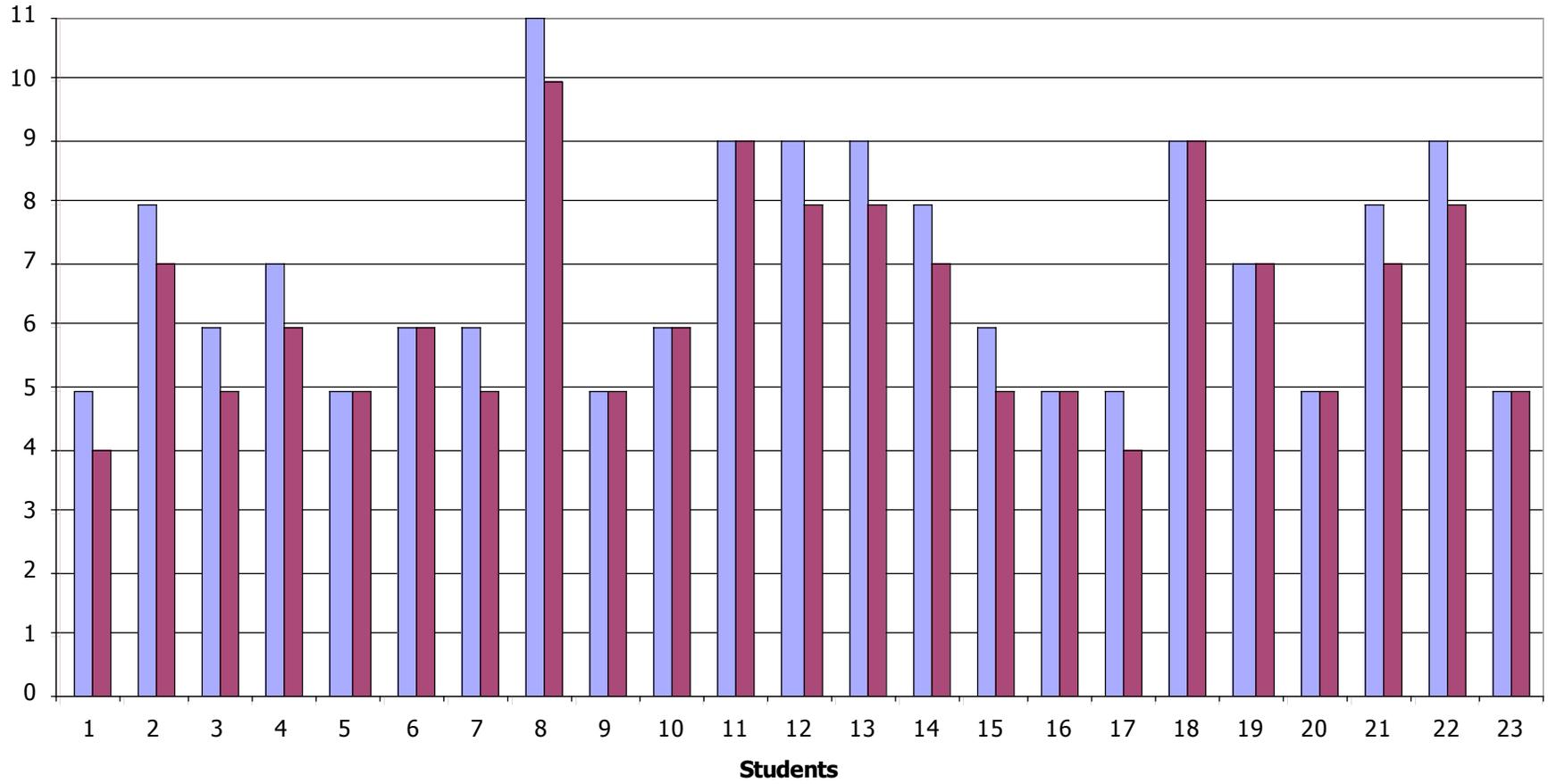
### 2006-07 4th Grade Overall Scores

Pre Test Scores Post Test Scores



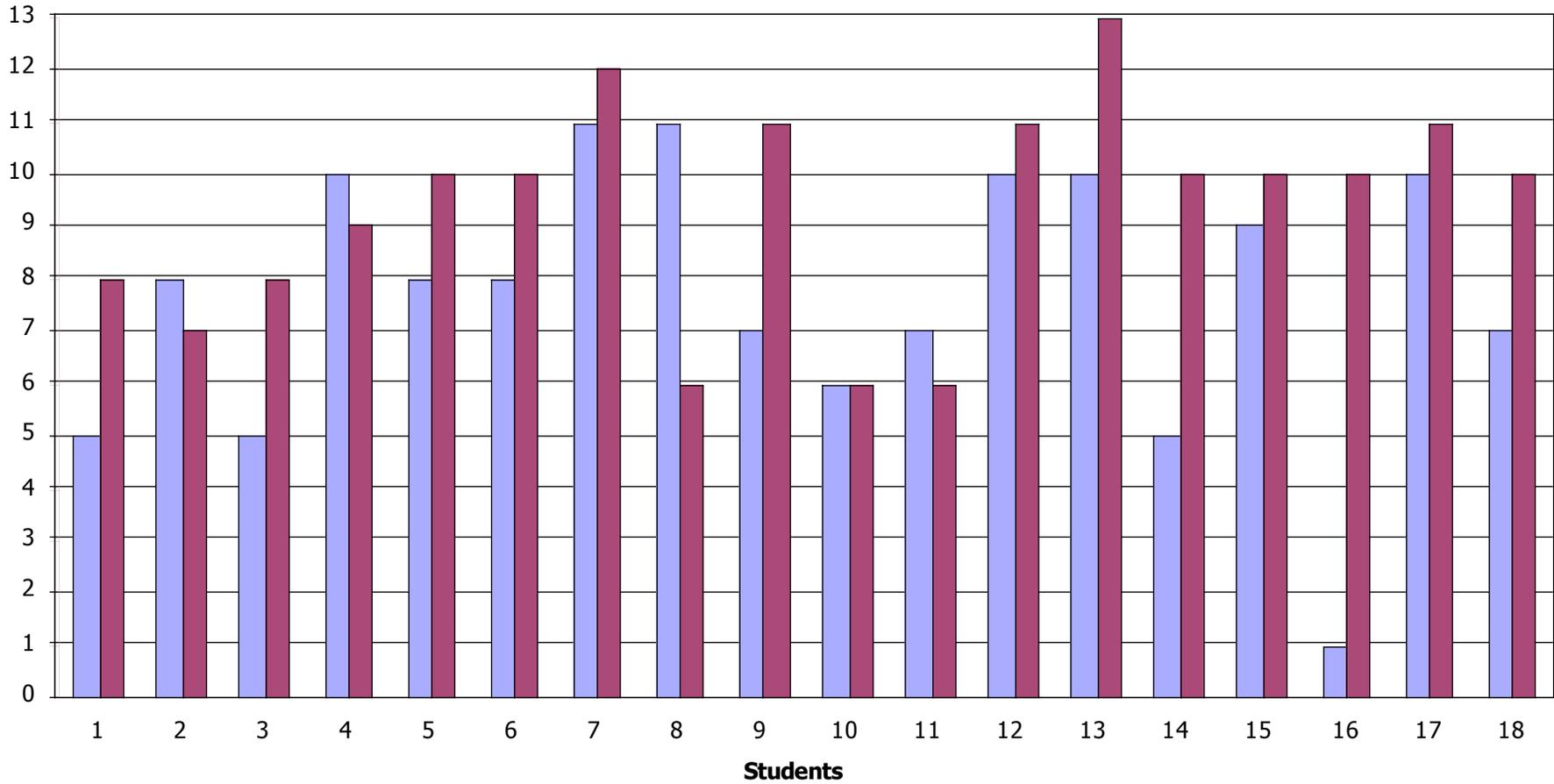
### 2006 - 07 5th Grade Overall Scores

Pre Test Scores Post Test Scores



### 2006-07 6th Grade Overall Scores

Pre Test Scores Post Test Scores



# Section C

## Channel Islands Live!

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### B-WET Project: Bay Watershed Education and Training Channel Islands Live: Ventura County, 2006-2008

For the past two years, Ventura County Office of Education (VCOE) has been one of a handful of agencies to receive funding from the National Oceanic and Atmospheric Administration (NOAA) under its **California Bay Watershed Education and Training (B-WET) Program**. This program provides funds to support environment-based education throughout the watersheds of San Francisco Bay, Monterey Bay, and Santa Barbara Channel.

[Learn more about BWET](#) | [KEY TV News: B-WET Event](#) (quicktime)

Along with the **Channel Islands National Park**, the **Channel Islands National Marine Sanctuary** and other regional agencies, VCOE is working with area teachers to provide students with the opportunity to explore one of the most diverse marine environments in the world through an integrated learning experience that is supported by standards-based, interactive curriculum, active participation in monitoring and gathering data on the local environment and live interaction with researchers working in and around Channel Islands National Park and National Marine Sanctuary.

#### 2007-2008: B-WET Project Participating Schools and Teachers

Teachers, Grade, School, District	Administrative Support
<b>Melssia Bennion &amp; Craig Michels</b> 5th Grade, & 3-4-5 GATE, <b>Sheridan Way Elementary</b> , Ventura Unified.	<i>Susan Eberhart, Principal</i>
<b>Jon Mortensen, Veronica Mojica, Stephanie Yates &amp; Stacy Krause</b> 6th Grade, <b>Charles Blackstock School</b> , Hueneme School District.	<i>Adrian Palazuelos, Principal</i> <i>David Ragsdale, Ed Tech Support</i>
<b>Theresa Clemen, Karin Aldrige, Albert Najjar &amp; Paul Owens</b> 4th Grade, <b>Art Haycox School</b> , Hueneme School District.	<i>Janet Lee, Principal,</i> <i>Steve DeCoste, Ed Tech Support</i>

#### From Shore to Sea: Keeping JASON XIV Alive

*From Shore to Sea:* <http://www.cinms.nos.noaa.gov/edu/shoretosea.html>

#### Teacher Resources

*Channel Islands National Park* <http://www.nps.gov/chis/>

*Channel Islands National Marine Sanctuary*  
<http://www.cinms.nos.noaa.gov/>

#### Student Resources

*Information coming soon*

## Results/Lessons Learned

Channel Islands Live serves a population of students who, traditionally, do not have outside opportunities to explore and engage with their environment or with the wider community. Reflections collected from both teachers and students indicate that one of the most successful components of this project is the boat trip to Anacapa Island. For most students (~90%) this represents their first opportunity to travel on the water and (believe it or not) for over half the students this represents the first chance they have ever had to be at the beach (although many live within 10 miles of the ocean).

Teachers also described an increase in student motivation and engagement, an increase in cooperative learning and team work, and an increase in sharing with family about their adventures. Teachers also indicated that parents who participated as chaperones showed an increase in continued engagement with his/her student's learning following the field experience. (All teachers who participated in 06-07 choose to return for 07-08).

Both qualitative and quantitative data was collected. Pre and post test data was collected for each student using a grade level standards aligned assessment centrally created and distributed to each teacher. Analysis of this data varies although the over all trend indicates an increase in student learning. Both students and teachers provided reflections of their experiences – students were asked to keep a journal during the year. Informal evaluation of student journals reflects an increase in appreciation for the environment as a whole and for the marine environment specifically. Students contributed stories, drawings poems and other reflective narratives which showed increased awareness and understanding.

Based on feedback from the participating teachers, student test scores and journals the following changes have been made for the 2007 2008 implementation.

1. More time was provided for teachers to work on curriculum integration during our first PD session. Teachers also worked in grade level groups to design their own pre-post assessments. (Variation in pre-post gains per class during 06-07 was discussed—one possibility for the variation is the timing of the post assessment, some were administered in close proximity to the annual state assessments, which could have had a negative effect on scores).
2. It was determined that the Rocky Intertidal field monitoring was too much of a challenge for 4th grade students. They still participated in the classroom learning activity but their field experience was shifted to an exploration of Santa Cruz Island. More time was spent pre-planning (grouping, practice data collection, etc.) for 5th and 6th grade student who did participate in the Rocky Intertidal field monitoring.
3. Students, teachers and other adult participants will be more formally surveyed to evaluate behavioral/affective changes. Students from the previous year will also be surveyed to rate the level of interest and behavior change after one year.
4. Live Dive! learning station rotations will be refined this year and students will be required to come with a prepared question based on one or more of the curricular themes.

"The part of the trip that I enjoyed the most was when we saw 2 humpback whales." Omar grade 4

" I enjoyed the hiking. We learned a lot about the ocean and the beaches and then we saw it!" Paola grade 4

" Some of the interesting things I saw were the whales, dolphins, and lizards. I would like to go back to the island again and see more sea animals." Jakob grade 4

"I enjoyed watching the students be amazed by the boat ride, dolphins, and whales. They were thanking me all day because they had never been on such a great field trip. They really enjoyed visiting the island and doing the research out there and also they were amazed with the most incredible shells that they found. It was such a great learning experience, and what a great opportunity and enrichment by exposing them to the beauty of nature.

Thanks, thanks, thanks!!!!!!!!!!!!!!"

Albert Najar and Room 15

Frenchy's cove was more than I had imagined and was like a little private cove built for sea explorers. The students had been put in groups and had done the LiMPETS research in class so they were familiar with the tools which helped them when we did the research. The students were able to explore and really do what marine scientists do and finding the data needed. It will be interesting to see next year if the data has changed from the previous years? I do believe that this trip as well as the other trips BWET has provided will have a lasting affect on my students that they will carry with them. One philosophy I have tried to instill in my classroom is to "give back." I think the students have learned our resources are valuable and we need to protect them this year by being exposed to the environment and seeing what a beautiful environment they live in and how it needs to stay that way by protecting it.

Jon Mortensen – Blackstock Jr. High

I feel honored to participate in such a program as this one. My fourth graders were enriched with a wonderful experience of boating to Anacapa Island as well as participating in the live dive that they will never forget. Thank you for allowing us to be a part of this worthwhile venture.

Theresa Clemen