



Parks Online Resources for Teachers and Students (PORTS)

Distance Learning with California State Parks

www.ports.parks.ca.gov



The Parks Online Resources for Teachers and Students (PORTS) program is a distance learning program that uses the power of California's K-20 High-Speed Network (HSN) and the educational potential of videoconferencing to help schools teach academic content standards in the context of California State Parks.

Using the high bandwidth of the HSN and multiple technological approaches, PORTS delivers units of study to classrooms statewide. Each unit of study is developed collaboratively by teachers and park specialists, and are aligned with the state's academic content standards. Designed to augment classroom curriculum, the units of study are comprised of two integrated elements:

- The **"On-Line, On-Demand"** element provides lesson plans, digital video, digital images, and other multimedia materials to teachers and students on the PORTS website (www.ports.parks.ca.gov). These materials prepare the students for the second element.
- **"Videoconferences"** between the classroom and parks provide real-time, two-way, audio and video communication. Videoconferencing allows park interpreters to look directly at students sitting miles away in a classroom and engage them in conversation.



Among the units of study available are tide pool ecology from Crystal Cove State Park, redwood ecology from North Coast Redwoods, a study of elephant seals at Año Nuevo State Reserve, a government unit which includes the possibility of videoconferencing with a state legislator, a gold rush unit at Columbia State Historic Park and an earth science unit from Anza-Borrego Desert State Park. New PORTS programs are being developed at Hearst Castle State Historic Monument and Baldwin Hills Scenic Overlook.



"Today was splendid and all the students thoroughly enjoyed the VC interactive experience... Students were initiated into the world of distance learning today and they were definitely impressed not only with the content but also with the possibilities of technology. Truly the future of our students is only a fingertip away! Your lesson is superb and your delivery is completely student-centered and thought provoking."

Vivienne Ortega, TL, Marina del Rey Middle School
Los Angeles Unified School District



Parks Online Resources for Teachers and Students (PORTS) Distance Learning Sites

The Anza-Borrego Desert State Park PORTS program connects the geologic and ecological stories of a changing land by focusing on the landscape and paleontology of Anza-Borrego. The unit of study addresses Earth Science content standards.



The program is often delivered using a chroma-key studio and “green screen” technology in the park’s paleontology laboratory building. This technology is similar to that used by TV weather anchors, and allows PORTS to show features of state parks that students might otherwise not be able to see even on a field trip. This program also has the ability to videoconference from a four-wheel drive vehicle using satellite technology. The connectivity from the studio to the HSN is provided through the Borrego Springs Unified School District.

★**New**★ **The Baldwin Hills Scenic Overlook** PORTS program examines weather and climate change in the context of the Los Angeles Basin. The unit of study addresses science content standards.

The program is delivered using a chroma-key studio in the park’s visitor center. In the future, this program will also have the ability to videoconference from a mobile videoconference unit. Using a wireless network and videoconference equipment, this vehicle can communicate with classrooms from anywhere on the scenic overlook to share the panoramic view of the Los Angeles Basin and observe real-time weather systems.

The Crystal Cove State Park PORTS program focuses on tidepool ecology and is offered three days a week during the school year. The unit of study addresses Life Science content standards. The videoconference is delivered from the beach using a wireless network and a John Deere Gator.



The Orange County Department of Education helped develop the “EduGator” at Crystal Cove State Park. This John Deere Gator has been modified to carry videoconferencing equipment, a document camera, underwater cameras that are placed in the tide pools, a laptop computer and an iPod. All of these tools are used with a wireless network to help communicate with classrooms from anywhere along three miles of Crystal Cove’s beach or historic district.

The Columbia State Historic Park PORTS program focuses on California’s Gold Rush and Columbia as a historic mining community. The unit of study addresses History/Social Science content standards. The videoconference is delivered using a chroma-key studio located at Cassina Continuation High School in Sonora. The internet connectivity is provided through the Tuolumne County Office of Education.



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★**New**★ **The Hearst Castle** PORTS program focuses on ancient civilizations through the Greek and Roman artifact collection. The unit of study addresses History-Social Science content standards. The videoconference is delivered using a chroma-key studio. The connectivity to the HSN is provided through the San Luis Obispo County Office of Education.

The Seacliff State Beach PORTS program focuses on the elephant seals of Año Nuevo State Reserve. The unit of study addresses Life Science content standards. The videoconference is delivered using a chroma-key studio. The connectivity to the HSN is provided through the Santa Cruz County Office of Education.



The North Coast Redwoods PORTS program focuses on the unique redwood ecosystems of Humboldt Redwoods and Prairie Creek Redwoods State Parks. The unit of study addresses Life Science content standards.

A new unit of study explores the migratory life cycle of pacific salmon and steelhead in the Mill Creek watershed of Del Norte Redwoods State Park. The unit of study addresses Life Science content standards.

Both videoconferences are delivered using a chroma-key studio at Fort Humboldt State Historic Park with connectivity provided by the Humboldt County Office of Education.

The State Capitol Museum PORTS program focuses on state government. The unit of study addresses History/Social Science content standards. The videoconference is delivered from the Historic Governor's Office in the State Capitol using relatively simple videoconferencing technology. Elected officials come to this location to participate in an 8th grade unit of study where they videoconference with students in their districts. The connectivity to the HSN is provided through the Sacramento County Office of Education.



"We had a GREAT time! The students were very excited about the information. You did a great job teaching at their level. We teachers all talked about how much we learn every time you visit with us. Your program followed our curriculum perfectly. You have helped us to teach our children better. We really love this program and believe it is very valuable."

Kelli Lindholm, Oak Meadows Elementary, Menifee Unified School District



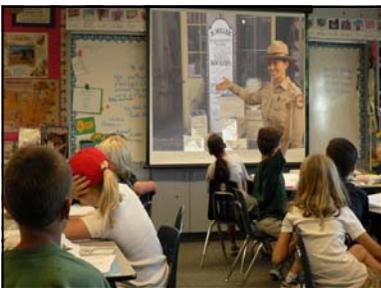
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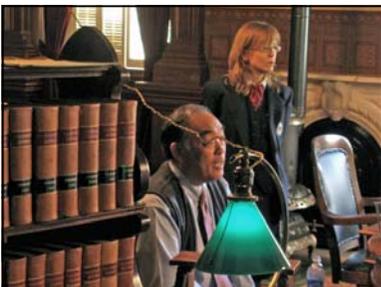
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