

Irvine Ranch Outdoor Education Center

Mission

The Irvine Ranch Outdoor Education Center (IROEC) serves all youth of Orange County by providing quality outdoor educational programs that instill in them an appreciation of the outdoors and the environment, teach effective teamwork, instruct about the cultural history of Orange County and provide access to the area's natural resources. In 2005, The Irvine Company donated 210 acres of undeveloped land to the Orange County Council, Boy Scouts of America for the development and management of a comprehensive outdoor education facility benefiting all Orange County schools and youth organizations. The programs add to the limited availability of cost effective and local outdoor science education programs that advance student capacity for lifelong learning and overall educational outcomes.



Participants

In 2013, we surpassed over 40,000 participants from 764 groups and organizations utilizing the facility. The majority of program participants are youth (30,569) from local schools and youth organizations, such as YMCA, foster care agencies, special needs serving organizations and youth from underserved areas, with less than 22% of participants being Boy Scouts. We had a 98% return rate with school groups that returned in 2013 from the previous year. Since opening of the IROEC in 2009 to 2013, over 100 schools and youth organizations received assistance for overnight residential science camp.

2013 Activities and Program Highlights

- Of the 40,330 participants who utilized the IROEC in 2013, 76% were youth (30,569)
- Boy Scout participants at the IROEC accounted for 22% of all users
- Over 97% of youth and user groups were from Orange County
- Scholarships and financial assistance provided to 23 schools /youth groups that assisted 1,584 youth
- 6,646 youth from 106 schools and youth groups attended residential science camp (4th – 6th grade)
 - 70% of residential science camp youth attended the 5 day/4 night program
- Science program curricula aligned with new Common Core and Next Generation Standards

Awards and Accreditations at IROEC

- American Society of Civil Engineers, Orange County Branch, Project of the Year Award - February 2010
- Orange County Engineering Council, Engineering Project Achievement Award - February 20, 2010
- ASCE Los Angeles Section, Outstanding Private Sector Civil Engineering Project - October 16, 2010
- ASCE Region 9, 2010 Outstanding Community Improvement Project in the State of California
- Urban Land Institute, Orange County / Inland Empire Branch Winner 2010 Award for Achievement in Community Development Projects – April 2011
- The IROEC is a fully accredited member of the American Camp Association
- American Camp Association of Southern California/Hawaii's Program Excellence Award - January 2013



The Irvine Ranch Outdoor Education Center

Many studies have shown that children learn and retain more when they have the opportunity for hands-on and interactive learning experiences, like those made available through outdoor education programs.

The Irvine Ranch Outdoor Education Center (IROEC), one of four facilities owned and operated by the OCBSA, provides programming that meets California state standards for outdoor science curriculum and supports a range of subject areas, including science. The following are two types of programs that integrate Science, Technology, Engineering, and Math (STEM) content:



- “Adventures in the Foothills” program offers experiences, interactive games and curriculum rich in California content standards in science, history, language arts, math, arts and music. The program can address over 100 standards across the 4th-8th grade continuum if taken over the full 5 days.
- Science and Social Science Immersion programs are provided to schools, youth organizations and groups to experience half day or full day activities. The program aims to increase youth participants’ knowledge and awareness about science, including earth, life and physical science, by participating in hands-on educational activities at three immersion camps. The program offers curriculum rich in 15-25 California content standards across the 4th-8th grade continuum.

Facilities and Programs: The physical structures of the IROEC provide a comprehensive environmental experience. Three activity areas, or “camps”, provide unique yet interrelated experiences – “Above the Earth,” “At Ground Level” and “Below the Earth’s Surface.” Activities that provide youth opportunities to be creative, innovative and interested in pursuing their interests in careers are as follows:

- **The Pankey Family Ranch Camp** features **Life Science** and **California Social Studies** with programs that capture the imagination of students through inquiry into the world of living things and an opportunity to walk through the past and participate in activities that Native Americans, Spanish Settlers and Western Ranchers would have participated in the 1700’s and 1800’s. The Living Classroom offers programs in the Flanigan Farms Garden and the Griffith Heritage Citrus Grove that feature the agricultural beginnings of Orange County and the importance of stewardship of the land. Areas of study include: Botany, Biology, Zoology, Agriculture, Permaculture, sustainability, land management, water quality and conservation and food and nutrition. The Adams Windmill, a solar pumped and a hand pumped well provides examples of technologies of drawing water from underground aquifers.
- **The Reuben and Mary Lou Casey Mining Camp** explores **Earth Science** and offers youth a hands-on experience in excavating coal and minerals from the Lucy-Lou Mine, pan for gold as they did during the Gold Rush of 1849, identify their treasures in the Assay Office, learn of Alfred Weggener and the theory of Plate Tectonics and uncover the mysteries of the past located just below the surface of our geologically active planet. Students gain knowledge of concepts and principles in geology, engineering, and the mining industry and how it changed the face of California, the value of sustainable resources and how to protect the land from contamination and miss use.
- **The Aerospace and Astronomy Camp** examines **Physical Science** and the role of forces, motion and reactions. Activities in Robotics, Engineering, Rocketry, Aviation, Aerospace, Chemistry and Astronomy stimulate interest in the world beyond our own and the possibilities of tomorrow’s discoveries. Activities are focused on problem solving, inquiry, promoting awareness of future space exploration, as well as discovery and accomplishments in STEM.

In addition to the three principal camps, other activity areas and facilities are available.

- **Solar Photovoltaic Demonstration Project** provides a platform for research into grid-connected renewable resource generation that saves costs at the IROEC and serves as an educational learning opportunity. The system features two display screens, two weather stations that provide information on solar radiation, wind, temperature and humidity. The displays show what the solar system is generating and other weather data.
- **Anaheim Ducks C.O.P.E. Course** builds confidence by pushing limits. C.O.P.E. is an acronym for Challenging Outdoor Personal Experience. The COPE course teaches youth to work in teams, develop trust and self-esteem to set challenging yet attainable goals as well as develop decision making and problem solving skills. The **Anaheim Ducks Zip Line** provides an exhilarating recreational adventure which also offers opportunities to discuss the physics of what is happening as riders run the course. The high and low C.O.P.E. courses are designed to be safe, Report ending in December 2013)