

CALIFORNIA'S ENERGY

A PROJECT for the Independent Study Program
(9th -12th grade)

SANTA YNEZ VALLEY UNION HIGH SCHOOL FALL 2003

Time: September - November 2003

Number of students: 70

What: Voluntary re-cycling of plastic water bottles to support paving at Oil Museum and environs, Kern County/Bakersfield, to enable increased ease of access for visitors using wheeled transport

Learning components: Kick-off
Timed trials of petroleum products fill-in puzzle to pique interest and competition with teacher-initialed chart of entrants. Prizes to be drawn from "Derricks to Desks" supplies.

Assigned topics in Primary Energy Infobook. Oil (Shell), Coles Levee Ecosystem Preserve (Arco Western Energy), "What is a Refinery?" (<http://www.sjgs.com/refinery.html>), "Simple Distillation," Chevron's Let's Learn series (see <http://www.channing-bete.com>) "Energy and the Environment," "Science is Fun," "The ABC's of Oil," "Exploration and Production Primer" (Shell), "Santa Barbara has many natural attractions..." (Venoco), "The History of Oil & Gas Seeps in the Santa Barbara Channel" (WSPA) as appropriate.

8/3/03
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Students contracting for the ISP at Santa Ynez Valley Union High School are at every learning level and courses follow the high school's regular classroom curriculum in requirements and texts.

Applicable course inclusions may include (but are not limited to) history, economics, all sciences (ISP does not offer lab sciences), humanities, law studies, film, photography, health, English, human anatomy and physiology, art history (Meso American), and world culture. In addition to curricula coursework, students need practice in report writing, speech, and the various technologies to assist these tasks, such as word processing, PowerPoint®, and video production. Students accept course work in two classes concurrently, meet once per week at school, one-on-one with their instructor, are individually responsible for twenty hours' homework, and generally complete a semester's course work in one class in five-six weeks. *A challenging issue for the two instructors is enriching the experience to invest in the student's own increasing diligence in learning and desire for positive learning accomplishments.* The district allows field trips and the campus houses a special education component with many students in wheelchairs.

Access is a widely understood and attractive issue to our students. Recycling is done by a few local fund-raising efforts but is inconsistent. Our students could research prices paid and re-cycling location for plastic bottles, perform brief, highly targeted campus and community event pickups for spectacular and fairly easy results, gaining volunteer, organizational and responsibility skills. The "feel good" aspects cannot be quantified.

Project Goals: One hundred dollar plaque at the Donor Plaza (Additional plaques if possible and desired by the students.)

Possible field trip to the Kern County Museum.

Student produced media releases to publicize drive and outcomes.

Use of donated materials and information to enlarge subject resources for standard curricula and enhance student learning of contemporary topics in energy issues and conservation.

Community visibility of students learning and assisting others.

Introduction to the world of jobs available in the energy industry, California and beyond. Possibility of increasing student interest in pursuing more math and science courses as well as higher education to meet requirements for desirable employment.

Awareness of internships and scholarship assistance offered by the energy industry to qualified students.

*Note: during the 2002-2003 school year, **discussions were initiated by students** about certain television commercials, the plastics industry (historical vignettes) and gasoline. Topics ranged from the truth of statements to background and source of information presented. Students here are aware but not accurately informed.*

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