

A conceptual image of a lightbulb where the glass part is replaced by a globe of the Earth. The globe shows continents in green and oceans in blue. The lightbulb has a white base and a metal screw-in base. The text "Energy And You" is written across the globe in a bold, italicized black font, with a registered trademark symbol (®) at the end. The background is a light blue gradient with a white rectangular frame behind the globe.

***Energy And You***®

®

# Do you know.....

- What fracking is?
- The global CO<sub>2</sub> level, current and recommended?
- How much oil spilled in the gulf oil disaster?
- How long the supply of oil and natural gas will last?



# What is *Energy and You*?

- *Energy and You* is an Energy Efficiency Education program, aligned with the California Science Content Standards. Students and their families will learn the benefits of conserving energy, and how their actions can “Save Energy, Save Money, and Save the Planet”!
- *Energy and You* is supported by a grant from the Public Utilities Commission that requires all utility companies to provide energy conservation and education programs.
- <http://www.k12e3.org>



# Goals



## *Energy and You* Program Goals:

- Students will understand both the efficient use and conservation of energy and energy resources.
- Students will communicate and practice energy efficiency and conservation behaviors in the home and at school.
- Students will understand the underlying science concepts related to energy efficiency and conservation.
- Students will gather evidence, develop explanations, and communicate scientific ideas.



# Common Misconceptions

- Energy is a substance.
- We can “make” energy, or “use up” energy.
- Energy and energy resources are the same thing.



# Program Components

- Instructional Materials
- Professional Development
- Home-School Connections



# Instructional Materials

- *Energy and You* Units of Instruction
  - Primary (K-2)
  - Upper Elementary (3-5)
  - Middle School (6-8)
  - High School
- *Energy and You* lessons are correlated to the California Science Standards



# Experimental Set-up



# Upper Elementary Light Bulb Challenge





# On Line Professional Development



ENERGY EFFICIENCY  
EDUCATION PROGRAM  
SDCOE



[HOME](#) [LOGOUT](#)



[Click Here To Enter](#)

**PRIMARY (K-2)**



[Click Here To Enter](#)

**UPPER ELEMENTARY (3-5)**



[Click Here To Enter](#)

**MIDDLE SCHOOL (6-8)**



[Click Here To Enter](#)

**HIGH SCHOOL (9-12)**

Save Energy, Save Money, Save the Planet



Save Energy, Save Money, Save the Planet



SAN DIEGO COUNTY  
OFFICE OF EDUCATION



A Sempra Energy utility

The Energy Efficiency Education Program™ is funded by California utility customers and administered by San Diego Gas & Electric Company (SDG&E) under the auspices of the California Public Utilities Commission. Customers who choose to participate in this program are not obligated to purchase any additional services offered by the contractor. The trademarks used herein are the property of their respective owners.



Energy and You®

# 21<sup>st</sup> Century Learning using Technology Tools



### School Energy Audit

Team: Camp Mako room 24  
 Date: 6-17-11 Room/area audited:  
 Type: class room office common area teacher area

Check each item on the list for the area(s) you are assigned. If the area doesn't have some of the items, mark NA (for Not Applicable) in the first column for that item. If you don't know the answer (e.g., temperature setting), put a question mark (?). If you notice an energy issue not on the list, write it in under "other." When finished with the audit, make recommendations for saving more energy.

Heating/Cooling				Notes
Heater or A/C in use	heater	air conditioner	neither	
Thermostat setting if heater or A/C is on	73 °F			☹️
Doors/windows open with heater or A/C on	yes	no		☹️
Window coverings to block sun/heat	present	absent		☹️
Air leakage at doors or windows (Test with thread or wet hand)	yes	no		☺️
Lighting				Notes
Lights on when room unoccupied	yes	no		☹️
Daylight used in place of electric lighting?	yes	no		☹️
Vending Machine Lights	on	off		N/A
Corridor lights (daytime)	on	off	Emergency lights only on	☹️
Outside security/yard lights (daytime)	on	off	none	☹️
Other				
Electrical Devices				Notes
Television	on	off	*standby none	☺️
Overhead or Projector	on	off	*standby none	☹️
Computer(s)	on	off	*standby none	☹️
Copiers	on	off	*standby none	☹️
Other	Shredder on			☹️

\*standby means the device is plugged in and ready but not operating - usually a red or green light or a clock is visible

Turn page over to complete audit

Appliances				Notes
Coffee pot	on	off	*standby none	☹️
Microwave	on	off	*standby none	☹️
Refrigerator	present	none	doors closed	☺️
Extra heater	on	off	none	
Fan	on	off	none	
Other				
Water/Landscaping				Notes
Water leaks	no sinks	no drinking fountains	no sprinklers	☺️
Landscape watering	no run off	slight run off	A great deal run off	☺️
Plants on south/west for shade	present		absent	☹️
Miscellaneous	hot much shade			
Aquarium	lights always on		lights off when not being used	N/A
Other	4	5	10	☹️

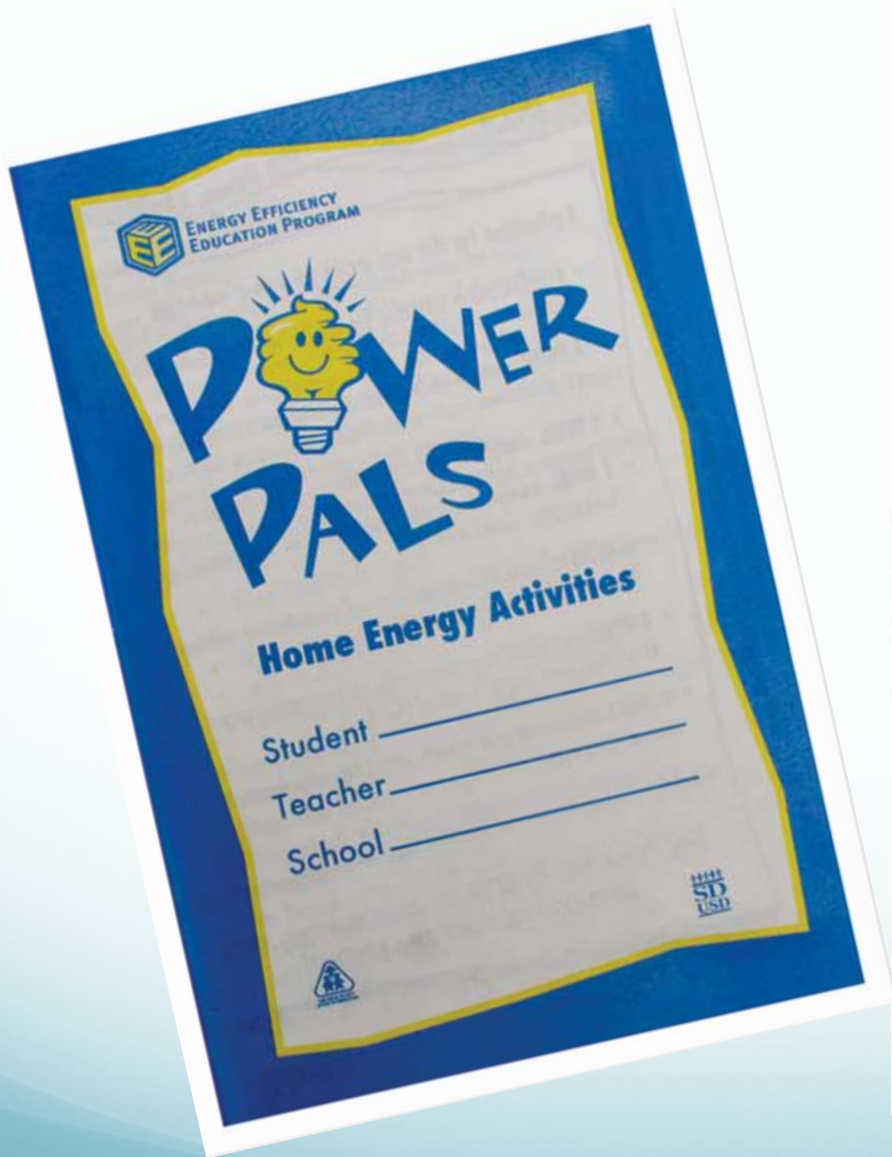
Overall, how would you rate the energy saving in this area? (circle one)

Excellent	Good	Fair	Needs Improvement
Almost all energy saving strategies are used	Many energy saving strategies are used	A few energy saving strategies are used	Almost no energy saving strategies are used

\* Recommendations for additional energy savings:

Teachers should close the office doors when using the Ac or open doors and window for fresh air. The Ac and doors should not be used at the same time. We suggest that lights are turned off when no one is in the room. Also please turn off machines like the shredder when you are not using it.





404  
Family Energy Conservation Plan



Our family will save energy by ...

1. Taking shorter  
Showers

2. NOT letting the  
water run

3. turning off  
lights

4. using CFL

5. using less  
water





**ENERGY EFFICIENCY  
EDUCATION PROGRAM**  
S D C O E + S D U S D

Save Energy! Save Money! Save the Planet!



[www.k12e3.org](http://www.k12e3.org)



Energy and You®

**When you return this card your student's name will be placed in a drawing for four tickets to Sea World!**

**DON'T WAIT!**

Your child recently participated in an Energy Efficiency Education program at school. There were opportunities for family participation. Would you please take a moment to answer the following questions.

Student Name : LUIS F ANZUETO

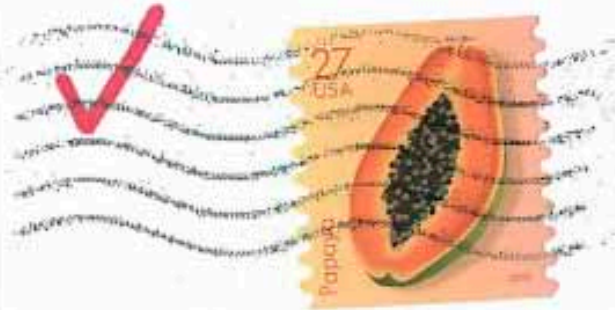
School : GAGE ELEMENTERY

Teacher: NANCY WEBER Grade: 1<sup>ST</sup>

**PLEASE CHECK ALL THE BOXES THAT REFLECT YOUR UNDERSTANDING OF THE ENERGY EFFICIENCY PROGRAM.**

- My child discussed the program with me.
- We reviewed the energy saving ideas from the program.
- We changed 12 # of light bulbs from incandescent to compact fluorescent light bulbs (CFLs).
- We are going to change our light bulbs from incandescent to compact fluorescent light bulbs (CFLs).
- We are turning off lights when we leave the room.
- We are reducing the use of our appliance(s). (refrigerator, air conditioner, dryer/water heater)
- Other steps we are taking to reduce energy use include:

LOW FLOW SHOWER HEADS



ATTN: Kim Bess, Room 321  
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# Energy Efficiency and Conservation



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