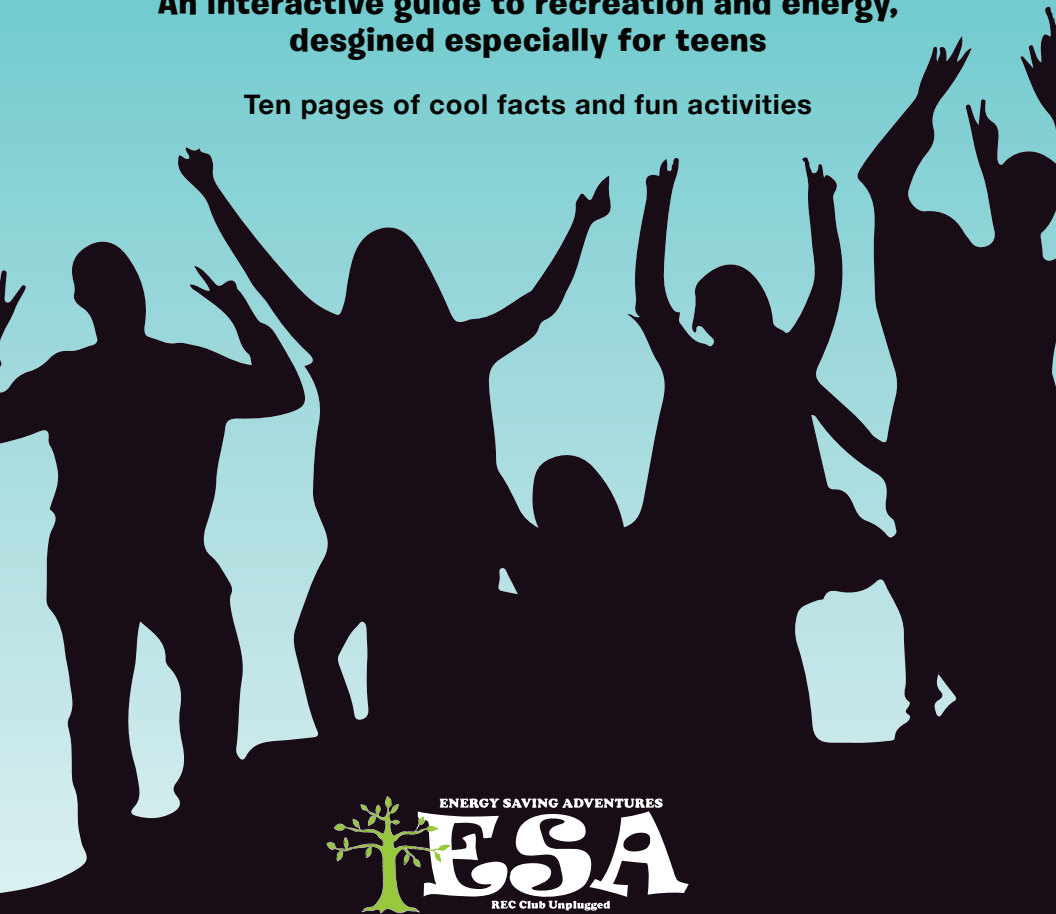


# THE SCENE WORKBOOK

**An interactive guide to recreation and energy,  
designed especially for teens**

**Ten pages of cool facts and fun activities**



**"UNLESS SOMEONE LIKE YOU CARES A WHOLE AWFUL LOT, NOTHING IS GOING TO GET BETTER. IT'S NOT."**

**- THEODOR SEUSS GEISEL**

# Welcome

## Promise to the community.

As we move forward with development and the technological advances begins to take over, some of us have lost sight of the simple things that bring us joy. As part of possibly the last generation of free range kids, a group that played outdoors until the street lights came on – I am committed to mentoring the next generation of eco-warriors and outdoor adventure enthusiasts.

I am driven by my affinity for sports, and it has created a passion that has fueled the Energy Saving Adventures program to grow in new directions, and well beyond anything I could have ever imagined.

My goal is to sustain the momentum this program has gained with new content focused on real-world challenges, and with games and activities that make learning fun.

Participation is helping to share a new generation of environmental ambassadors - aware of their surroundings and how their actions do impact their carbon footprint.

I present to you the first edition of the SCENE, a teen guide to recreation and energy.

**Please feel free to print this out and enjoy it on your own time.**

*Caroline Bartolome*

CAROLINE BARTOLOME  
Program and Education Manager  
Department of Parks and Recreation  
County of San Diego  
sdparks.org

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A  Sempra Energy utility®

This program is funded by California utility customers and administered by San Diego Gas & Electric® (SDG&E®) under the auspices of the California Public Utilities Commission.

Thank you San Diego Gas & Electric for your continued support, which makes the Energy Saving Adventures program possible.

[sdge.com/its-on](http://sdge.com/its-on)

# REC CLUB *UNPLUGGED*



The REC Club program was developed to make a positive difference in the lives of teens. The Club offers opportunities for middle and high school youth, ages 10 to 17, to grow through physical fitness, art, leadership development, community service, workforce development and educational activities while enhancing self-esteem, communication skills, problem solving and community involvement.

REC Club membership is free, membership application required. All activities including field trips are free to REC Club members. Field trip space is limited and participants are chosen based on behavior and participation in organized classes and activities.

**Energy Saving Adventures (ESA)** encourage youth to take charge of their future through resource preservation. Teens take field trips, run experiments and produce films to create change in the world around them! Call 858-966-1328 to learn more.

**Nature Explorers** is an outdoor adventure program that teaches teens about sustainability and self-sufficiency. Environmental energy education programs engage teens at all levels, from junior to explorer to mentor! Call 619-667-6839 to learn more.

ESA and Nature Explorers are part of the County of San Diego Department of Parks and Recreation REC Club program, located at:

**Lakeside Teen Center**  
9911 Vine St.  
Lakeside  
619-443-4169



**Spring Valley Teen Center**  
838 Kempton St.  
Spring Valley  
619-667-6835



These definitions are provided by the U.S. Department of Energy and Environmental Protection Agency. Learn more at [energy.gov](http://energy.gov) and [epa.gov](http://epa.gov).

## ENERGY

power that comes from mass, position or motion

[A standard unit of electrical power equals 1,000 watts.](#)

## PRESERVATION

to keep alive or in existence; make lasting

## CONSERVATION

the act of conserving, prevention of injury, decay, waste or loss

## ENERGY EFFICIENCY

reducing energy or demand without reducing the end-use benefits

## PERFORMANCE EFFICIENCY

actual input of a person, compared with the desired or planned output – expressed usually as a percentage

## RENEWABLE ENERGY

energy generated from natural resources such as sunlight, wind, rain, tides and geothermal heat

[California leads the nation in producing 52.2% of the nation's solar energy.](#)

## SOLAR ENERGY

power generated from sunlight

[The average amount of solar radiation that reaches Earth is equal to 1,353 watts per square meter.](#)

## WIND ENERGY

power generated from wind-turning turbines

## GEOHERMAL ENERGY

power generated from heat from the Earth's core

[Geothermal water heaters can cut energy bills by up to 65%!](#)

## NATURAL RESOURCES

materials that come from the Earth, such as water and fuels

[The County's Multiple Species Conservation Program preserves San Diego's unique, native habits and wildlife.](#)

## RECYCLING

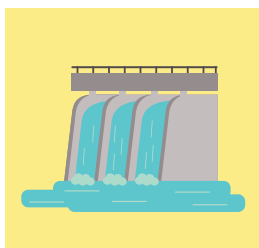
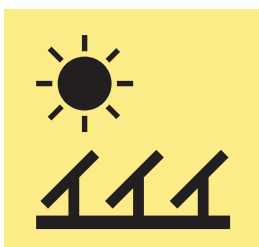
processing used materials into new products to prevent waste of useful materials.

[The annual recycling rate in the United States is 25.8%.](#)

Now that you have the basics, complete the following activities to test your energy knowledge.

# ENERGY MATCHING

Match the following icons with their energy source:



HYDRO  
power

SOLAR  
energy

WIND  
energy

RENEWABLE  
energy

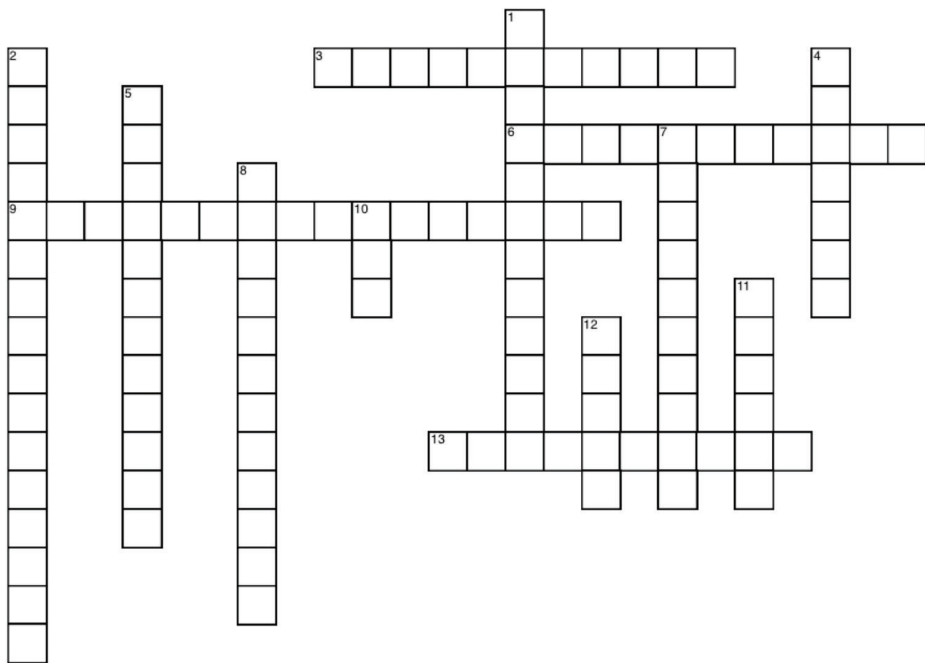
# ENERGY WORD SEARCH

Can you find all of the energy terms?

- VAMPIRE
- ENERGY
- EFFICIENCY
- PRESERVATION
- KILOWATT
- WASTE
- RENEWABLE
- CONSERVATION
- SOLAR
- WIND
- BIOFUEL
- GEOTHERMAL
- RECYCLE
- HYDROPOWER

D U U S Z G X E B F A S U P B  
E M E N O I T A V R E S E R P  
D R S H J O L N W F R G Q G R  
S O L A R Z N C F U V K R E O  
D W Y C N E I C I F F E E O E  
R N W A S T E R V H O I C T N  
K B I O F U E L V F Z Y Y H E  
W F Z W K I E M I F J X C E R  
N O I T A V R E S N O C L R G  
O X K N I T K E D Q P V E M Y  
Q P G D J Q J L W A L N V A V  
O N E L B A W E N E R N A L G  
H Y D R O P O W E R V W Y Y H  
O A I E R I P M A V E A Q X R  
M U I S K I L O W A T T O J Y

# RESOURCE ADVENTURES



Put your energy knowledge to the test using the following clues!

## ACROSS

3. All living and non-living things such as air, water, soil, plants and animals found on Earth
6. The generation of electricity from sunlight
9. Heat within the Earth's core is used to generate this type of energy
13. A useful form of energy generated from the use of turbines

## DOWN

1. Preventing waste
2. Strategies or technology that require less energy to perform the same function

4. A rotating device, like a windmill, that converts movement through air into electricity
5. Another device that converts movement through air into electricity
7. Energy generated from natural resources that will not run out
8. The effort of keeping from injury, loss, or decay
10. Technology that uses a fraction of the amount of energy to emit higher fluorescence than older lightbulbs
11. Power generated from mass, motion or position
12. By saving this resource, you are indirectly saving energy, too

# ENERGY SCRAMBLE

Can you guess what energy term relates to the scrambled words in the 12 instances below?



Performance  
Renewable  
Hydroelectric

Conservation  
Solar  
Efficiency

Preservation  
Energy  
Geothermal

Recycling  
Wind  
Resources

1. RYNEEG                                    E n \_ \_ \_ \_
2. IENPASRVETOR                        \_ \_ \_ \_ e \_ \_ \_ t \_ o \_
3. FFYEICNIEC                            E \_ \_ \_ \_ \_ e \_ c \_
4. OCSRIVEANONT                        \_ o \_ \_ \_ e \_ \_ \_ \_ \_ \_ n
5. EOFNMRAERPC                        P \_ \_ \_ \_ r \_ \_ n \_ \_
6. EERNALBWE                            R \_ \_ \_ \_ \_ \_ \_ e
7. ORLAS                                    \_ \_ \_ \_ a \_
8. NIWD                                     \_ \_ \_ \_ d
9. LEEGHROMAT                         \_ e o \_ h \_ \_ \_ \_ \_
10. OCDCRITYLREEH                     \_ \_ \_ \_ o e \_ \_ \_ \_ \_ \_ c
11. RUSOSEECR                          \_ e \_ \_ \_ r \_ \_ \_
12. ICLCRENYG                          \_ \_ \_ \_ \_ l i \_ \_



# DIY ENERGY ROBOT



Collect scrap materials at home and create your own energy robot! Draw your energy robot below. Consider these factors:

- "What type of energy does it use?"
- "How does it save energy?"
- "What is it made out of?"
- "What special powers does it have?"

**Energy Robot Name:** \_\_\_\_\_

# BIOMIMICRY WORD SCRAMBLE

Unscramble the following words:

- |                       |                       |
|-----------------------|-----------------------|
| 1. immcirobiy _____   | 13. esientil _____    |
| 2. atbhait _____      | 14. paetrnt _____     |
| 3. egyptn _____       | 15. lrmaduo _____     |
| 4. gndesi _____       | 16. rnpciilpe _____   |
| 5. tanoaapitd _____   | 17. rvesepre _____    |
| 6. reisdityiovb _____ | 18. ncesoevr _____    |
| 7. eynicfeif _____    | 19. ienutasalbs _____ |
| 8. otmsey _____       | 20. rseospc _____     |
| 9. ghecaelnl _____    | 21. siibyssmo _____   |
| 10. agtysetr _____    | 22. eanweebrl _____   |
| 11. tnfuoin _____     | 23. ngere _____       |
| 12. rctrsuute _____   | 24. ercycl _____      |

## Word Choices

ecosystem	symbiosis	adaptation	function
efficiency	strategy	resilient	structure
recycle	sustainable	renewable	design
preserve	modular	process	pattern
challenge	energy	conserve	green
biomimicry	habitat	principle	biodiversity



# EARTH DAY

**EVERYDAY!**

**WRITE WHAT YOU LOVE ABOUT OUR PLANET!**

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## **Take the pledge!**

**I pledge to save energy and care for our planet.**

**Name** \_\_\_\_\_

# You are now part of **THE SCENE**



ACTIVITY  
SOLUTIONS