

BOY SCOUTS OF AMERICA WATER CONSERVATION PATCH PROGRAM

Sponsored by the San Diego County Water Authority



The following program is designed to give Scouts a better appreciation of one of the most valuable resources on our planet. With a better understanding of San Diego's water supply we hope that young people will be motivated to take care of their water resources and make conservation a way of life. This program is for San Diego County residents only.

THE REQUIREMENTS FOR THIS PATCH ARE DIVIDED INTO CUB SCOUT AND BOY SCOUT LEVELS.

CUB SCOUT PATCH REQUIREMENTS:

Complete the following four conditions and share the results with your troop leader:

1. Learn the basic facts about where San Diego's water comes from and how it gets here.
2. Describe what it means to conserve something.
3. Read a brochure on how to conserve water.
4. Be able to name at least five ways to save water in or around your home.

Choose two of the following four:

1. Draw a poster of yourself doing something to conserve water.
2. Write your own pledge to conserve water and say it before your group.
3. Draw a picture of the water cycle.
4. Look around your house and find an area where you think you might be able to do a better job of saving water. Take action to improve the situation.

BOY SCOUT PATCH REQUIREMENTS:

Complete the following five conditions:

1. Learn some basic facts about California's water supply systems. How does your water get to San Diego?
2. Identify your local water supplier. What agency serves water to your neighborhood?

3. Read a brochure or pamphlet on how to conserve water.
4. Name at least 5 ways to conserve water in and around the house.
5. Write a short description of the following terms: conservation, reclamation, desalination.

Choose two of the following conditions:

1. Discuss with your family what you have learned about water as you have worked on this patch. Ask them to keep an eye on their water use habits for a week and then decide together if there are any permanent steps they can take to help save water. Suggestions - if your toilets are not water conservation models (1.6 gallons per flush) find out if your local water agency offers assistance to help you purchase more efficient models. Measure the amount of water that collects in a bucket when you leave the showerhead running for one minute. Investigate replacing it with a low-flow model (possibly available for free from your local water agency) if you collect more than 4 gallons in one minute. Set automatic timers on sprinkler systems to water only during evening or early morning. Make sure the hose always has an automatic shut-off nozzle when you wash the car. Check for rebates on front-loading washing machines when its time to purchase a new one.
2. Learn about three types of plants that need very little water to grow. Know their names and where they come from (where they grow naturally).
3. Design an experiment that will demonstrate some part of the water cycle. Suggestions - Make a rain gauge to measure rainfall or invent some way to demonstrate one of the concepts that you have learned while working on this program. The Boy Scouts WEATHER merit badge book has several good examples.
4. Investigate how water is purified to make it safe to drink. Leaders may wish to contact their local water agencies to see if there is a water treatment plant nearby and if tours are available.

RESOURCES

The following is a list of resources that may help you complete the requirements for this program. It is helpful if the group works on the patch together and leaders request information for the group rather than each individual.

BOOKS - Check your local library

Deserts *Posell, Elsa* (Children's Press, 1991) Describes the climatic conditions, flora, and fauna of the desert, and explains that some people find it habitable and others profitable for its mineral riches.

The Magic School Bus At The Waterworks. *Cole, Joanna.* (New York, Scholastic Inc. 1986). Good resource for water treatment information.

Sunset Garden Book (California, Sunset Publishing Corporation, 1992) Good resource for information on water efficient plants.

Water For All *Morgan, Sally* (Franklin Watts, 2000) Examines the different water sources in the world, how water is treated, and the problem of supplying clean water to the world's increasing population.

WATER What it is, What it does *Seixas, Judith S.* (New York, Greenwillow Books. 1987). An introduction to simple water concepts.

The Young Scientist Investigates Water *Jennings, Terry* (Chicago, Children's Press. 1982) Information on the properties of water. Includes many good experiments.

INTERNET LINKS

For information about San Diego County's water supply visit the San Diego County Water Authority's site. <http://www.sdcwa.org/>

For information about the Water Cycle visit the USGS "water science for schools" site.
<http://www.gsa.usgs.gov/edu/index.html>

There are many sources of information on drought tolerant plants and low water use gardens available on the internet. Xeriscape is the term used for water efficient landscaping.

Information on the water cycle, experiments with water, conservation and weather information available from the Boy Scouts of America:

Weather
Soil and Water Conservation
Environmental Science
Boy Scouts Of America Merit Badge Series

The Conservation Handbook
Boy Scouts of America

Conservation Pocket Guide
Boy Scouts of America

Cub Scout Fun Book
Boy Scouts of America

Requests for tours and information regarding water treatment should be directed to your local water provider.

SAN DIEGO COUNTY WATER AUTHORITY MEMBER AGENCY PHONE NUMBERS

CARLSBAD MUNICIPAL WATER DISTRICT	760-438-2722	RAINBOW MUN.WATER DISTRICT	760-728-1178
CITY OF DEL MAR - Water Utilities Department	858-755-9313	RAMONA MUNICIPAL WATER DISTRICT	760-789-1330
CITY OF ESCONDIDO- Water Utilities Dept.	760-839-4657	RINCON DEL DIABLO MUNICIPAL WATER DISTRICT	760-745-5522
FALLBROOK PUBLIC UTILITY DISTRICT	760-728-1125	CITY OF SAN DIEGO - Water Utilities Department	619-533-7555
HELIX WATER DISTRICT	619-466-0585	SAN DIEGUITO WATER DISTRICT	760-633-2650
CITY OF OCEANSIDE	760-435-5800	SANTA FE IRRIGATION DISTRICT	858--756-2424
OLIVENHAIN MUNICIPAL WATER DISTRICT	760-753-6466	SWEETWATER AUTHORITY (NATIONAL CITY, SO. BAY ID)	619-420-1413
OTAY WATER DISTRICT	619-670-2222	VALLECITOS WATER DISTRICT	760-744-0460
PADRE DAM MUNICIPAL WATER DISTRICT	619-448-3111	VALLEY CENTER MUNICIPAL WATER DISTRICT	760-749-1600
PENDLETON MILITARY RESERVATION	760-725-1059	VISTA IRRIGATION DISTRICT	760-597-3100
CITY OF POWAY	858-748-6600	YUIMA MUNICIPAL WATER DISTRICT	760-742-3704

Send in the form below, or call and leave a message **including the information below**, to request a packet of brochures to assist you with this project. As members complete the requirements for the patch please fill out the record sheet on the following page. When it is complete, return it to the address below. Please allow two weeks between the time you send in your request for patches and the date you wish to distribute them. Certificates will be printed so please take care to write names legibly.

Send all requests for information or patches to:

Education Department
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
(858) 522-6720

Return the section below to request information

Please send an information packet that will assist my Boy Scout/Cub Scout group in completing the water conservation patch program.

Name: _____

Number of members in group _____

Address: _____

Phone Number of Leader
(in case of questions) _____

Age range of group members _____

PATCH PROGRAM LOG SHEET

Please use this log sheet to keep track of the completion of requirements and to provide the Water Authority with a record of recipients. There are **six requirements for cub scouts and seven for boy scouts**. The log sheet must be returned to the Water Authority in order to receive your patches. They are not available from the Boy Scout store. Staff needs time to prepare certificates to go with the patches so please plan accordingly.

NAME - Please Print!!!!	Patch Requirements (√)							Date Completed
	1	2	3	4	5	6	7	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

PLEASE INCLUDE THE FOLLOWING INFORMATION WHEN RETURNING THIS SHEET

Group Leader's Name: _____

Mailing Address: _____

Phone Number In Case of Questions: _____

Mail to:
 Education Department
 San Diego County Water Authority
 4677 Overland Avenue
 San Diego, CA 92123