

FREE
Classroom Materials, too!

FREE! FREE! FREE!

2011-2012 SCHOOL WATER EDUCATION PROGRAM

for Elementary Grades
(SWEPE)
Aligned with CA State Content Standards



Grand Prize
2011 Bookmark
Art Contest Winner
Mary Kate Domingo
3rd grader
Suisun Elementary
Ms. Young's Class

IN YOUR CLASSROOM & IN OUR WATERSHED

Funded by:
City of Fairfield
City of Vacaville
Dixon Solano Municipal Water Service
Fairfield-Suisun Sewer District
Solano County Water Agency
Solano Irrigation District
Suisun City
Suisun-Solano Water Authority

School Water Education Program Introduction & Contact Info	PAGE 2
Resources for Loan	PAGE 2
Teacher Curriculum Packets	PAGE 3
Teacher Workshops & Other Opportunities	PAGE 3
Student Workbooks	PAGE 4
Maps, Posters, and Other Items	PAGE 4
Water Education Programs	PAGE 5-6
Links to More Resources	PAGE 6
How to Order Information & Order Form	PAGE 7

WATER IS ESSENTIAL FOR LIFE

PAGE 2

The SCHOOL WATER EDUCATION PROGRAM (SWEP)

provides **FREE** water education resources to teach water awareness and conservation to students, teachers and parents in our service areas – Dixon, Vacaville, Fairfield, Suisun, and Travis AFB. The in-class education programs as well as the resource materials and assembly programs are innovative, fun, multi-disciplinary

and aligned to the content standards for California public schools for grades K-6.

SWEP's offerings encourage students and adults to develop a healthy attitude of personal responsibility toward our environment and to develop skills needed to contribute meaningfully to the decision-making process on issues involving our resources, in particular, conserving our most precious natural resource, **WATER**.

STUDENTS WITH A BETTER UNDERSTANDING OF THE VALUE OF WATER WILL:

- Personally use water more wisely
- Positively influence home & school water use
- Become more knowledgeable citizens

BENEFITS TO TEACHERS:

- Quality materials, evaluated by educators across the state
- State content standards alignment
- In-service workshops with possible professional development credits
- Challenging and fun cross-curricular activities enriching student learning while promoting student appreciation and awareness of water conservation

CLASSROOM PRESENTATIONS WITH ACTIVITIES FOR GRADES K-6 EMPHASIZING:

- The science of water
- Where our local water comes from
- Water pollution prevention
- Water conservation tips
- Water and wastewater treatment
- The water cycle
- Water and its uses
- Our local watershed, irrigation systems and canal safety
- And so much more

HOW TO GET INVOLVED:

Simply choose the resources you need by using the order form at the back of this brochure. For further information or additional brochures please contact:

Ursula Heffernon, School Water Education Program Consultant
Tele/Fax: 530.661.7149 uheffernon@pacbell.net or lump@sidwater.org
or go online to www.sidwater.org or www.solanosaveswater.org

*Orders will be delivered to and picked up from your classroom
FREE of charge on a first-come, first-served basis.*



Julienne Davidson, 6th grade
Grange Middle School, Ms. Rough

RESOURCES FOR LOAN

Up to 2 weeks loan time.

ENVIROSCAPE MODEL *Grades 5-6*

A table top model of a community that may be used for hands-on activities to teach about point and nonpoint source pollution.

WATERSHED & CALIFORNIA MAPS *Grades 4-6*

Excellent 2' x 3.5' relief map of California for students and teachers alike. A dynamic watershed relief map to teach students about our local watershed.

THE WATER CYCLE/WATER CONSERVATION VIDEO OR DVD

Grades K-6

The **video** is several minutes long describing the water cycle and conservation methods.



FREE TEACHER CURRICULUM PACKETS

ALIGNED TO CALIFORNIA STATE STANDARDS

ALL ABOUT WATER *Grades K-2*

Teacher's guide containing 26 water related activities that integrate science, math, language arts, geography, art, music and drama. Activities include the water cycle, landforms, and conservation practices. These hands-on activities include reproducible student worksheets, allowing for investigative experiments.

WAVES, WETLANDS AND WATERSHEDS

Grades 3-6

A classroom and community activity guide that addresses issues such as endangered species, marine debris, coastal geology, water use and much more. It is carefully aligned to the California State Science Content Standards.

CALIFORNIA WATER STORY *Grade 4*

Six lessons teaching about water as one of California's most important resources. The material integrates geography, history, science, math, and art to help develop specific skills (critical thinking, organizing data, predicting, graphing, etc.). It includes reproducible student sheets, a video, an EXCELLENT California water map, poster, and stickers.

FOUNTAINS OF COLUMBIA *Grades 4-6*

This 11 minute video is based on the actual diary of 11 year old Mary Leary who lived during the California Gold Rush Days. It was shot on location at Columbia State Historic Park, California, telling the story of a mining town struggling to manage resources and wrangling over water issues. The interdisciplinary lesson plans correlate with the California Content Standards for science, history/social science, and language arts. Hands-on ACTIVITIES included.

WATER PRECIOUS WATER *Grades 4-6*

Cooperative learning lessons about water and four activities that deal with the properties of water.

HANDS-ON WATER ACTIVITIES *Grades 1-6*

Several water science experiments promoting student math, graphing, manual dexterity, and interpretive skills.

CONSERVE WATER EDUCATOR'S GUIDE *Grades 6-12*

A 300 page guide designed to teach students how to conserve water with innovative activities and case studies. Other activities move students beyond the classroom to the community.

PAGE 3

FREE TEACHER WORKSHOPS & OTHER OPPORTUNITIES

PROJECT W.E.T. TEACHER WORKSHOP

This **FREE** hands-on workshop will allow participants to receive and explore a 516 page curriculum guide. This guide, highly rated in the Environmental Compendium for Water Resources from the State Department of Education, has activities for grades K-12. The teacher friendly guide includes indexes by topics, subject areas, concepts, time requirements, and much more. Each activity includes background material, supply lists, prep time, and reproducible student worksheets. It is aligned with the California State Content Standards.

The Project WET workshop is scheduled in Solano County on Saturday, November 12, 2011 and February 11, 2012. Breakfast and lunch provided on site (TBA) along with all educational materials and prizes! Mark your calendar and request registration forms for this upcoming FREE workshop. Workshops fill up quickly. A great way to earn professional development credits or college units!

Contact Ursula at 530.661.7149 or uheffernon@pacbell.net

COASTWEEKS: September 17 – October 9, 2011

A 3-week long celebration encourages appreciation and preservation of our coast and inland waterways. A calendar of events for you and your students to participate in is posted at www.coastforyou.org. International Coastal Cleanup Day kicks off September 17, 2011. Marianne Butler is our Solano County Coordinator for this year's event. Contact her at 707.301.5778 or Marianne.Butler@solanorcd.org for further information. Plan ahead for next year if you missed the fun this year.

EI – CALIFORNIA EDUCATION AND THE ENVIRONMENT INITIATIVE

expands environmental literacy for K-12 students. The newly developed and CA State Board of Education approved EI curriculum of 85 units is available teaching selected science and history-social science standards to mastery while not placing an extra burden on teachers. It will help students better understand how they influence the environment and how it influences them. It engages students making learning both relevant and fun resulting in students who are better informed decision makers. Online at: www.calepa.ca.gov/education/ei/Curriculum/

SEE-SOLANO ENVIRONMENTAL EDUCATORS meet 3 times a year. Funding is provided by Potrero Hills Landfill. SEE has produced a web-based information resource that provides information about environmental education programs including outdoor field trips and community education opportunities within Solano County. Visit www.OutdoorSolano.info or for more information contact Marianne Butler at 707.301.5778.



Lope Paragas, 1st grade
Suisun Elementary School, Ms. Smith

FREE STUDENT WORKBOOKS

Available while supplies last.
Substitution may be made
pending availability of materials.

WATER AND ME *Grades K-1*

"Water and Me" is an activity and coloring book that includes various puzzles teaching children about water use, the importance of clean water, the forms water takes, and includes a two page illustration of the water cycle. (16 pages)

SAVE WATER *Grades 1-2*

An 8 page coloring booklet of puzzles and activities to inspire students to save water and money while sharpening their reading skills.



PAGE 4

WATER PLAY *Grades 2-3*

Fun-filled fourteen pages of guided activities promoting math and reading skills while encouraging students to save water. Includes

teacher guide, too.

SALMONID SAVERS *Grades 2-6*

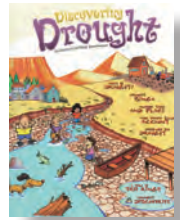
Capture the imagination of your students as they learn about the anadromous species native to their local waters in this beautifully illustrated activity book. Tiny and Flo, a Chinook salmon and a steelhead trout, share their experiences as they travel from the ocean back to their spawning grounds in seven engaging, cross-curricular activities.

WATER FUN *Grades 3-4*

A colorfully illustrated 16-page comic book with stories, games, and puzzles designed to teach about the water cycle and water conservation. Includes teacher guide, too.

DISCOVERING DROUGHT *Grades 3-6*

Teaching about DROUGHT cannot come at a better time for Californians! Reading and math skills are promoted in this fun-filled activity booklet developed by Project WET and other water agencies. (14 pages)



CALIFORNIA WATER WORKS AND WHY IT DOES

Grades 4-6

This colorful student workbook helps students understand the water cycle and how water is delivered by natural and man-made systems in California. Conservation is also discussed. Available in English and Spanish. (16 pages)



CONSERVE WATER STUDENT'S

BOOKLET *Grades 4-6*

A 16 page booklet of games, puzzles, and activities designed to teach students about water conservation. To be used with CONSERVE WATER EDUCATOR'S GUIDE. (See page 1)



DISCOVER STORM WATER *Grades 5-6*

This lively booklet explains the importance of storm water management and is filled with interesting facts, engineering and mathematical exercises, vocabulary, puzzles and ways in which we all can prevent storm water pollution.

FREE MAPS, POSTERS AND OTHER ITEMS

Available while supplies last. Substitution may be made pending availability of materials

FREE STUDENT INCENTIVE ITEMS

LIST A—Teach a unit on water and request a classroom set of **THREE ITEMS** from the following list to distribute to participating students. Colorful items below boast a variety of water messages; great for extending students' awareness.

- Erasers • Pencils • Rulers • Stickers

LIST B—The following items are also available for teachers to order. Please check 1 to 5 of these items on the order form for students to receive.

California's Amazing Delta Book Covers: graphics and activities students complete illustrating the routing of water through our Sacramento-San Joaquin Delta—our vital source of drinking water for California!

Bookmarks: student designed providing water conservation tips.

California Water Facts Booklet: provides important facts about California water. **Grade 6**

"F.O.G. - No Fats, Oil or Greasy Scraps Down the Drain!": plastic scrapers to remind families of disposing "F.O.G." in the garbage rather than drains to prevent clogs.

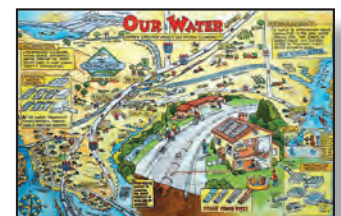
Water Conservation Pledge Sheets: Students and teachers read and sign the pledge acknowledging their efforts to conserve California water.

Parent/Student Water Conservation Survey Checklist Sheets: Students and families complete their household survey checklists and return them to class for further discussion and ways of taking action. Prizes for students included.

"Kids Save Water" Coloring Pamphlet: for Kindergarten only

MAPS & POSTERS! TWO PER TEACHER:

- The Water Cycle Map *Grades K-6*
- California Water Ways Poster Map *Grades 3-6*
- The Delta Map *Grades 4-6*
- Watershed Water Supply and Uses Poster *Grades 1-6*
- How We Can Save Water At Home Poster *Grades 1-6*
- Our Water for Solano County Poster *Grades K-6*



FREE WATER EDUCATION PROGRAMS & MORE

Watershed Explorers Program

Solano County **3rd** graders are invited to participate in the Watershed Explorers Program held at Hanns Park, Rockville Park, and possibly Lagoon Lake. This community-funded elementary school program utilizes science and place-based learning to build awareness and understanding of local watersheds and how peoples' behavior plays an important role in watershed health. Students are divided into research groups and equipped with journals, clipboards, magnifying lens, and binoculars, and with an environmental educator from Solano or Suisun RCD, head out into the field to learn about native and non-native plants; how seeds are dispersed and the role pollinators play in the wild. Students identify native plants, collect specimens and draw seeds in their journal. On the hike, they learn about storm water runoff and its impacts as students study natural drainages. Pre-field trip, in-class lessons are available for teachers to prepare students for their experience during the field trip.

Suisun Marsh Watershed Education Program

6th grade students in Solano County have the opportunity to take part in the Suisun Marsh Education Program funded by Solano County Water Agency. The program is built around a full-day field trip to Rush Ranch Nature Center, where students rotate through three hands-on learning stations covering the marsh's soil, water, and plants. After lunch, students take a nature hike, finding a perfect spot to write poetry about their experiences in marsh. Environmental educators from Solano and Suisun RCD lead three pre-field trip classroom lessons to help students prepare for the field trip, guide the experience at the marsh, and then lead the post-field trip recap and marine debris lesson. The concepts in all programs are directly linked to the California State Science Content Standards and offer local children a concrete, experiential introduction to their watershed and the creatures that inhabit it.

Suisun Marsh Natural History Association Environmental Education Program (SMNHA)

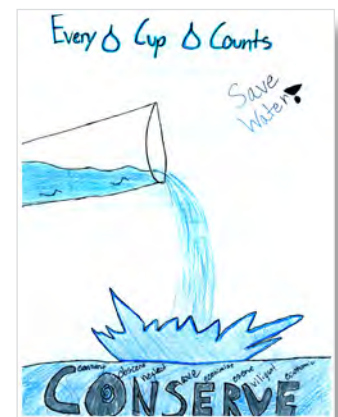
Visit the 55,000 acre Suisun Marsh, the largest brackish marsh in the United States and the largest remaining coastal wetland in California. Various exciting and fun presentations and field trip opportunities are available for you and your students for a nominal fee. Contact: Monique Liguori at 707.429.4295 or monique@suisunwildlife.org or www.suisunwildlife.org

Contact directly:
**Marianne Butler with
Solano Resource
Conservation District;**

**[Marianne.Butler@
solanorcd.org](mailto:Marianne.Butler@solanorcd.org)**

**707.301.5778
www.solanorcd.org**

PAGE 6



Ade Hutchinson, 6th grade
Grange Middle School, Ms. Bader

LINKS TO MORE RESOURCES

*Links to the electronic version of this
SWEP Brochure on these sites.

AN EYE ON CLIMATE CHANGE

www.usanpn.org

AQUAFORNIA - aquaforia.com

BEFORE YOU HARVEST- CONSERVE

www.harvesth2o.com/BeforeHarvest.shtml

CA Department Of Water Resources

www.dwr.water.ca.gov and www.water.ca.gov

CALIFORNIA COOPERATIVE SNOW SURVEYS

<http://cdec.water.ca.gov/snow>

CALIFORNIA DROUGHT WEBSITE

www.water.ca.gov/drought

CALIFORNIA Education and the Environmental Initiative (EEI)

www.calepa.ca.gov/education/eei/Curriculum/

CALIFORNIA WATER RESOURCES

<http://ca.water.usgs.gov>

City of Dixon -

www.ci.dixon.ca.us/publicworks/index.html

*City of Fairfield

www.fairfield.ca.gov

*City of Vacaville - www.ci.vacaville.ca.us/

departments/public_works/

CLIMATE CLUES IN SPRING WILDFLOWERS

www.budburst.org

*CREEC Network and Resource Directory

www.creec.org

Education and the Environment Initiative

www.calepa.ca.gov/education/eei/

*Fairfield Suisun Sewer District

www.fssd.com

H2O, WHERE DID YOU GO?

www.showsthatteach.com

Solano Environmental Educators (SEE)

www.OutdoorSolano.info

*Solano County Water Agency (SCWA)

www.solanosaveswater.org

*Solano Irrigation District (SID)

www.sidwater.org

Solano Natural Resource Conservation District (SNRCD)

www.solanorcd.org/educationnew.htm

*Suisun City www.suisun.com/PublicWorks.html

The California Regional Environmental Education Community (CREEC)

WATER & MYTHOLOGY

[webworld.unesco.org/water/wwd2006/
world_views/water_mythology.shtml](http://webworld.unesco.org/water/wwd2006/world_views/water_mythology.shtml)

WATER AND OUR HERITAGE

[webworld.unesco.org/water/wwd2006/
water_heritage/water_social_lives.shtml](http://webworld.unesco.org/water/wwd2006/water_heritage/water_social_lives.shtml)

WATER AND WORLD VIEWS

[webworld.unesco.org/water/wwd2006/
world_views/water_language.shtml](http://webworld.unesco.org/water/wwd2006/world_views/water_language.shtml)

Water Education Foundation

www.watereducation.org/

WATER USE CALCULATOR

[www.waterbudgets.com/ConserVision/
CUWCC/DataInput.htm](http://www.waterbudgets.com/ConserVision/ CUWCC/DataInput.htm)

TO ORDER, COMPLETELY fill out the information at the bottom of this page.

NOTE: one form for EACH teacher. Detach order page, fold, stamp and mail or FAX to 1.530.661.7149 immediately while materials and programs are still available.

To schedule in-class programs, assemblies, field trips and/or workshops, be sure to contact the person noted to make your request as early as possible in the school year for the best chance of participating. For additional information, contact: Ursula Heffernon, School Water Education Program (SWEP) Consultant; Tele/Fax: 530.661.7149 or uheffernon@pacbell.net

PLEASE INDICATE WHICH RESOURCE ITEMS YOU WOULD LIKE TO BORROW (page 2)

TEACHER CURRICULUM PACKETS (page 3) One per teacher for grade level taught:

- All About Water **K-2**
- Waves, Wetlands and Watersheds **3-6**
- California Water Story **4**
- Fountains of Columbia **4-6**
- Water Precious Water **4-6**
- Hands-On Water Activities **1-6**
- Conserve Water Educator's Guide **6**

TEACHER WORKSHOPS & OPPORTUNITIES (page 3)

- Project WET Teachers Workshops **All Grade Levels Nov 12, 2011 & Feb 11, 2012 in Solano County**
- COASTWEEKS Cleanup of local in-land water ways. Participation: **September 17–October 9, 2011**

STUDENT WORKBOOKS (page 4) Indicate number of students taught:

- Water and Me **K-1**
- Save Water **1-2**
- Water Play **2-3**
- Salmonid Savers **2-6**
- Water Fun **3-4**
- Discovering Drought **3-6**
- California Water Works **4-6** **English** **Spanish**
- Conserve Water Student's Booklet **4-6**
- Discover Storm Water **5-6**

FREE STUDENT INCENTIVE ITEMS (page 4) List A: Check only 3 items per classroom

Erasers Pencils Rulers Stickers


List B: Check 1 to 5 items per classroom

- California's Amazing Delta Book Covers
- Student art bookmarks
- California Water Facts Booklet (for 6th grade only)
- F.O.G. Scrapers
- Water Conservation Pledge Sheets
- Parent/Student Water Conservation Survey Checklists
- Kids Save Water Pamphlets (for Kindergarten only)

MAPS AND POSTERS (page 4) Maximum of two per teacher:

- The Water Cycle Map **K-6**
- California Water Ways Poster Map **3-6**
- The Delta Map **4-6**
- Watershed Water Supply & Uses Poster **K-6**
- How We Can Save Water At Home Poster **1-6**
- Our Water for Solano County Poster **K-6**

CHECK AS MANY 2011-2012 OPPORTUNITIES YOU WOULD LIKE TO PARTICIPATE IN (pages 5-6):

- In-Class Water Conservation Presentations **K-6**
- Faculty In-Service SWEP Presentations **FOR EDUCATORS**
- Conserve Water Bookmark Art Contest 2011-2012 April 1- May 15 (entry deadline), 2012 **K-6**
- ZunZun Musical Watershed Assembly **K-6**
- WaterWays Program **4-6**
- H2O Yeah! Water Education Program **K-6** 
- Watershed Explorers Program **3**
- Suisun Marsh Watershed Program **6**
- Suisun Marsh Field Trips **2-6: Nominal Fee**

PAGE 7

TEACHER'S FULL NAME: _____

Grade: _____ Number of Students: _____ School Name: _____

Email (*must provide*): _____

Telephone: _____

Best time to call: _____

POSTAGE

Ursula Heffernon, SWEP Consultant
School Water Education Program
1115 Silverado Drive
Woodland, CA 95695

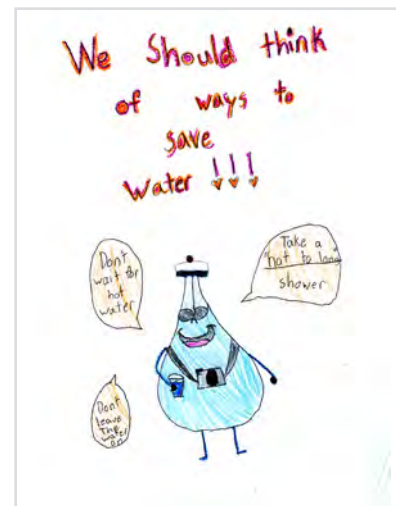
Fold, Seal & Mail



Justin Naidu, 5th grade
Crescent Elementary, Mrs. Gomez



Xu Vang, 2nd grade
Suisun Elementary, Ms. Garcia-Norris



Mikaylin Thomas, 3rd grade
Suisun Elementary, Mrs. Young

Printed on recycled paper