

Production Team

Patrice Pages, *Editor*
Cornithia Harris, *Art Director*
Therese Geraghty, *Copy Editor*

Administrative Team

Marta Gmurczyk, *Administrative Editor*
Peter Isikoff, *Administrative Associate*

Technical Review

Seth Brown, *University of Notre Dame*
David Voss, *Medina High School, Barker, NY*

Teacher's Guide

William Bleam, *Editor*
Donald McKinney, *Editor*
Erica K. Jacobsen, *Editor*
Ronald Tempest, *Editor*
Susan Cooper, *Content Reading Consultant*
David Olney, *Puzzle Contributor*

Education Division

Mary Kirchoff, *Director*
Terri Taylor, *Assistant Director, K-12 Science*

Policy Board

Ami LeFevre, *Chair, Skokie, IL*
Shelly Belleau, *Thornton, CO*
Steve Long, *Rogers, AR*
Mark Meszaros, *Rochester, NY*
Ingrid Montes, *San Juan, Puerto Rico*

ChemMatters (ISSN 0736-4687) is published four times a year (Oct., Dec., Feb., and April) by the American Chemical Society at 1155 16th St., NW, Washington, DC 20036-4800. Periodicals postage paid at Washington, DC, and additional mailing offices. POSTMASTER: Send address changes to *ChemMatters* Magazine, ACS Office of Society Services, 1155 16th Street, NW, Washington, DC 20036.

Subscriber Information

Prices to the United States, Canada, and Mexico: \$14.00 per subscription. Inquire about bulk, other foreign rates, and back issues at ACS Office of Society Services, 1155 16th Street, NW, Washington, DC 20036; 800-227-5558 or 202-872-6067 fax. Information is also available online at <http://chemistry.org/education/>

The American Chemical Society assumes no responsibility for the statements and opinions advanced by contributors. Views expressed are those of the authors and do not necessarily represent the official position of the American Chemical Society. The activities in *ChemMatters* are intended for high school students under the direct supervision of teachers. The American Chemical Society cannot be responsible for any accidents or injuries that may result from conducting the activities without proper supervision, from not specifically following directions, from ignoring the cautions contained in the text, or from not following standard safe laboratory practices.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, now known or later developed, including but not limited to electronic, mechanical, photocopying, recording, or otherwise, without prior permission from the copyright owner. Requests for permission should be directed in writing to *ChemMatters*, American Chemical Society, 1155 16th St., NW, Washington, DC 20036-4800; 202-833-7732 fax.



© Copyright 2011

American Chemical Society
Canadian GST Reg. No. 127571347
Printed in the USA



NEWS

Want to have a blast while exploring chemistry? Several thousand student members of more than 350 American Chemical Society (ACS) ChemClubs located throughout the United States and Puerto Rico do just that during the school year. Any high school can start an ACS ChemClub—all it takes is an advisor, a group of interested students, and the support of your school.

ACS offers tons of free resources to active, chartered Clubs, such as demonstrations, experiments, and other activities to try, along with bonus items such as T-shirts and copies of *ChemMatters*, the magazine you are reading now.

What do ChemClub students do? They participate in activities during and after school, get involved in community building, learn about chemistry careers, enjoy social events, and learn how chemistry plays a role in our everyday lives.

Last year, ChemClub students used liquid nitrogen to make their own Dippin' Dots ice cream at a holiday party, raised money to purchase water purification packets to send to third-world countries so children there can have safe drinking water, and created a Halloween Haunted Hall with a chemistry theme for the community.



COURTESY OF EVELYN LOPEZ

Students from Dr. Pedro Perea Fajardo School having fun with chemistry demonstrations.



COURTESY OF TERRI CAMPBELL

ChemClub students from Valley Central High School in Montgomery, N.Y., created a periodic table out of cupcakes, with atomic symbols made with either icing or candy.

This fall, ChemClub members will join thousands of students around the world as they participate in the

International Year of Chemistry (IYC) Global Water Experiment. They can try one or

more of four experiments, testing the acidity and salinity of water samples they collect, building a water filtration unit, and designing a solar still. Then, they will report their results

to the IYC Web site (<http://water.chemistry2011.org/web/iyc>).

Interested in helping to start a ChemClub at your school? Want to learn more? Find more information about ACS ChemClubs at: <http://www.acs.org/chemclub>.