ACS Chemistry for Life®

Free Resources for Elementary, Middle and High School Teachers from the American Chemical Society

ELEMENTARY AND MIDDLE SCHOOL

- **Hands-on Science Activities for Students, Gr. 2-5**
  www.acs.org/kids
  Turn classrooms (or kitchens) into science labs with more than 140 hands-on activities that use household materials. Activities, puzzles, interactive articles, and chemist interviews help young scientists get an early start.
- **Inquiry in Action—Science Teaching Guide, Gr. 3-6**
  www.inquiryinaction.org
  Download the entire book for free or purchase a hard copy. Written for teachers and aligned with state standards, lessons cover chemistry-related physical science concepts commonly taught in grades 3-6. Hands-on activities use household materials to explore common phenomena so students realize that science is part of their lives.
- **Middle School Chemistry: Big Ideas about the Very Small, Gr. 6-8**
  www.middleschoolchemistry.com
  This free curriculum can be used in its entirety or as a supplement to teach middle schoolers about the world of atoms and molecules. Hands-on experiences, molecular animations, and lessons which build on one another help students develop a thorough understanding of basic chemistry concepts.

ALL AGES

- **Classroom Safety**
  www.acs.org/safety
  Recommendations by chemical safety experts help you identify hazards before they become accidents. Find out how to ensure that science activities and experiments are safe for everyone.
- **Podcasts and Videos Featuring Current Events in Chemistry**
  www.acs.org/bytesizescience
  An all-ages trip to the frontiers of knowledge, Bytesize Science translates scientific discoveries into intriguing stories about food, medicine, and much more.
- **Classroom Chemistry Celebrations**
  www.acs.org/ncw and www.acs.org/earthday
  Celebrate chemistry twice a year with free hands-on activities, articles, puzzles and more. National Chemistry Week 2012 is Oct. 21-27, which includes Mole Day on Oct. 23, and Earth Day is April 22.

American Chemical Society
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HIGH SCHOOL

- **ChemClub**
  www.acs.org/chemclub
  ACS chemistry clubs for high school students provide free resources for teachers who plan or advise the chemistry clubs in their schools.

- **ChemMatters**
  www.acs.org/chemmatters
  A magazine for first-year high school chemistry courses that helps students discover how chemistry works in their everyday lives, while boosting chemistry literacy.

- **Chemistry Landmark Lesson Plans**
  www.acs.org/landmarks/lessonplans
  Based on material from the ACS National Historic Chemical Landmarks program, these lessons, reading materials, videos and student activities are designed as ready-to-go, inquiry-based student activities, easily implemented by a high school chemistry teacher or his/her substitute. They also integrate science and history to provide a more holistic perspective of advances in both fields.

- **Global Challenges / Chemistry Solutions**
  www.acs.org/GlobalChallenges
  These ACS podcasts focus on some of the 21st Century's most daunting challenges—in areas such as clean water, adequate food supplies, national security, renewable energy sources, and climate change—and how cutting-edge chemistry matters in the quest for solutions. Subscribe at iTunes.

- **Science Elements**
  www.acs.org/pressroom
  A podcast series that makes cutting-edge scientific discoveries from ACS journals available to a broad public audience. Subscribe at iTunes.

- **Chemistry Olympiad**
  www.acs.org/olympiad
  A multi-tiered competition that brings together the world's most talented high school students to test their knowledge and skills in chemistry.

- **ACS Scholars Program**
  www.acs.org/scholars
  An undergraduate scholarship program for students from targeted minority groups majoring in and planning a career in the chemical sciences.
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- **Project SEED**
  www.acs.org/projectseed
  Open doors for economically disadvantaged students to experience what it's like to be a chemist. Students entering their junior or senior year in high school are given a rare chance to work alongside scientist-mentors on research projects in industrial, academic, and federal laboratories, discovering new career paths.

- **ACS-Hach Teaching Scholarships and Grants**
  www.acs.org/funding
  Available to teachers, institutions, and second career teachers, ACS-Hach awards support ideas to transform classroom learning and chemistry educators.

- **PBS' 'Hunting the Elements' Television show and educational materials**
  http://www.pbs.org/wgbh/nova/physics/hunting-elements.html

  NOVA's "Hunting the Elements" is an engaging look at how the elements shape our world. The related classroom resources allow educators to explore the periodic table in detail with their students—from its basic structure and properties to the sometimes volatile behavior of specific elements. Among the many resources are "name that element," a downloadable element iPad App and a classroom poster.