

Especially for High School Teachers

by Laura E. Slocum



Small Adjustments, Big Improvements

My summer break is half over, though I am not ready for it to be. Why does summer break seem to come so slowly, but pass so quickly? Some of you may have just started your break and others of us are approaching the end sooner than we want to admit. Fall semester begins August 13 for me.

Fall semester once again brings National Chemistry Week, and Montes and Jankowski's article (p 1092) contains numerous reminders of how NCW has impacted students of all ages as well as the general public over the past 20 years. In particular, this article reminded me of the first National Chemistry Day in 1987. That year, our local ACS section held a mall demonstration event and my student affiliate chapter helped make slime with young children.



Seeing various NCW events always reminds me of how much high school chemistry meant to me. As a reminder, *lots* of great ideas for NCW this year will appear in the October issue of this *Journal* (see p 1105 for further details).

Kirchhoff's report (p 1090) discusses a number of items that the ACS Education Division will be focusing on, but two new endeavors that the ACS High School Office is engaged in will further support the needs of high school teachers. I find these two endeavors encouraging and especially look forward to seeing the second edition of *Chemistry in the National Science Education Standards*.

There are also quite a few ideas throughout this issue that will add new twists to some labs and projects that I would not drop from my curriculum, even though my students note on the end-of-year evaluation that they are "not their favorites". King's review about Vegetable Soup Chemical Reactions (p 1086) has prompted me to look for ways to substitute a vegetable extract into the alcohol oxidation and ester hydrolysis labs of my Introduction to Organic Chemistry course this fall. I know that students find the incorporation of substances they encounter in their everyday lives quite interesting too.

The report on High School Day at the Chicago ACS meeting this past spring (p 1094) by Bennett, LeFevre, and Marek gave me another new idea for this coming year. LeFevre's idea will change a project Jeff Hepburn introduced to me at my first BCCE in 1994. Rather than writing a paper, Jeff had his students research an element and build an Element Icosahedron (20 equilateral triangular faces) that included the information he requested about that element. That fall, I added this project to my curriculum and have included it ever since (1). The icosahedra hang from my ceiling according to the element's location on the periodic table. LeFevre's project will replace this project next spring. I am anxious to see what my students do with this project and how their arrangements might be incorporated into centerpieces for some of my school's spring receptions.

Secondary School Featured Articles

- ▲ Mentos and the Scientific Method: A Sweet Combination by Jack F. Eichler, Heather Patrick, Brenda Harmon, and Janet Coonce, p 1120.
- ▲ Effective Use of Demonstration Assessments in the Classroom Relative to Laboratory Techniques by David T. Pierce and Thomas W. Pierce, p 1150.

The final change for this coming year is a result of de Gry's article (p 1117). The manner in which he shares some of the strategies that his students have developed to determine the pressure inside a carbonated beverage can is interesting. The time allotment he gives to his students for each task seems reasonable too. Though I want to allow my students to develop more strategies

on their own, it is hard for me to give up class time to allow them to do this for every experiment. Thus, I often use guided-inquiry labs, rather than true inquiry labs. I plan to use this lab exactly as de Gry suggests.

Regardless of when school starts for you, I hope you will not miss ChemEd 2007. If you have never attended a ChemEd conference, I encourage you to do so; it is not too late to register; <http://www.chem.unt.edu/chemed07/> (accessed May 2007). Though I have been teaching 16 years, I still learn so many new things at both ChemEd and the Biennial Conference on Chemical Education (BCCE).

Erica's Take on the Issue

Congratulations to the *JCE Software* team and everyone who contributed to the Chemistry Comes Alive! series on their recent Pirelli *International* Award. If you haven't yet sampled this excellent educational resource, visit the Web page that showcases the winning entry (2). The "Ice Bomb" video is a personal favorite and brings back fond memories of seeing this demonstration done live during my undergraduate days. Our class loved any demonstration that required the operator to hurriedly exit the area. CCA! allows one to safely show these demonstrations again and again and also provides questions that prompt students to explain what they see. Pierce and Pierce's article (p 1150) also emphasizes the fact that demonstrations are not merely entertainment, but that students should be actively engaged in both observation and explanation. These demonstrations truly fit the CCA! slogan "Bring chemistry to life—spark an interest".

Literature Cited

1. Slocum, Laura. Element Icosahedron Webquest. <http://www.universityhighschool.org/webquest/chemhmrkwebquest.html> (accessed May 2007).
2. Chemistry Comes Alive! <http://www.jce.divched.org/JCESoft/CCA/pirelli/> (accessed May 2007)