

"CHEM-KIDS": AN OAC CHEMISTRY INDEPENDENT STUDY PROJECT

by Dr. Bonnie Schmidt

Bonnie Schmidt is the Director of Let's Talk Science, at the University of Western Ontario.

"Before, I did not know about pH's, and about the colour of crystals, and that you needed so much safety equipment, but I think the thing I learned the most was that science can be fun!"

The above statement was written by a grade five student at Lord Roberts Public School in London, Ontario, following six weeks of chemistry classes designed and offered by OAC Chemistry students from Central Secondary School as part of their Independent Study Project (ISP). Calling themselves the "Chem-Kids", the OAC students, Kevin Haney, Sarah Anderson, Kristen Summerhurst, Emma Evans, Nancy Edgar, and Polly Mitchell, worked with their teacher, Roger Dusky, and myself, to create six hours of chemistry programming for the younger students during March and April, 1995.

From the beginning, the Chem-Kids wanted to stress laboratory safety. To help with the project, 3M Canada donated personalized lab coats for the Chem-Kids and a class set of safety glasses. The first lesson focused on safety procedures and showed students that, like many of their sports, science sometimes requires a few protectors.

During the six weeks, the grade five students also learned about atoms and molecules, states of matter, water and solubility, crystals, and acids and bases. The project culminated with a team competition to test the children's knowledge as well as a slide show of them doing the science activities. Pictures of "what science meant to them" changed dramatically during the course of the project. Not only was the stereotypical mad scientist absent after the Chem-Kids project, but accurate representations of science in our world, including molecular drawings, chemical formulas, and everyday acidic foods, were included in

nearly all pictures. On pictures of the pH scale, bases were coloured blue and acids red.

From a supervisory perspective, I must admit to being amazed at the dedication and imagination shown the Chem-Kids, as well as their ability to manage a classroom. After beginning with the safety session, they asked the grade five students to create scientific names for themselves and decorate name tags. Although most of the names were appropriate (such as Dr. I Love Science, Dr. Chemistry, Dr. Dolittle, etc.) a few were not. The Chem-Kids handled the situation appropriately and without teacher intervention.

As the project progressed, the Chem-Kids found themselves: learning about elementary school curriculum and classroom management; designing evaluation forms for the teacher to assess their performance; critiquing their own performance; fund-raising for supplies; and developing strategies to monitor attitude changes in the grade five students. This was in addition to designing the chemistry activities.

Great work, Chem-Kids! 

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