

Learning by Accident

««« Submitted by a STAO Member, Region 4

Learning by Accident is an ongoing *Crucible* feature, in which real-life lab accidents or incidents are recounted and explained. The goal is to highlight the consequence of ignoring safety rules so that science educators will be further encouraged to become knowledgeable, and to take appropriate action, in areas of safety that affect their daily activities in the science classroom. Submissions are encouraged. Anonymity will be guaranteed. Please send written descriptions to Ian Mackellar, STAO Safety Committee Past-Chair, Box 191, MAITLAND, ON K0E 1P0.

Don't eat the chemicals

A substitute science teacher was conducting a common introductory lab to the grade nine applied chemistry strand, identifying unknown chemicals (salt, baking soda, chalk, sodium nitrate, and sodium thiosulphate) in numbered containers using physical properties. Prior to the activity the teacher was very careful to go over all the safe ways to observe a chemical such as, don't touch with your hands, don't smell, don't taste, etc. She even commented that two of the chemicals were toxic and what that designation meant. Once the pre-lab talk was completed, the chemicals and safety equipment were distributed and the students began the experiment. After a period of time one of the students approached the teacher and asked if the chemical in jar three (the sodium thiosulphate) was sea salt because it looked like it, but didn't taste salty.

Comments from the STAO Safety Committee

This example shows the necessity for constant observation of students even during minor lab activities that do not present an immediate risk. Even with correct instruction, student behavior must be monitored consistently during any activity where chemicals are involved. It is usually not a good idea to leave any lab activity involving chemicals as part of a coverage since the substitute teacher may not know of proper handling or know how to utilize Material Safety Data Sheet (MSDS) information in the event of an accident. If such a situation is unavoidable, it is important to ensure that the person teaching the lesson has knowledge of proper handling of chemicals and knows the location of the MSDS binder and all relevant safety equipment.

