From Magic Show to Crime Scene Analysis – Getting Kids Interested in Science with Hands-on Investigations

In the middle of the Chemistry Magic Show that you are presenting to an audience of fourth graders, your colleague bursts in with terrible news. The assistant you need for the next experiment, who happens to be a dog, has gone missing and the show cannot proceed! What can you do? Deputize the audience as Official Junior Scientists so that they can help you analyze the crime scene and track down the stolen dog, but only after they have cleared themselves as suspects. Their reward, if successful in capturing the thief, is liquid nitrogen ice cream. In this presentation, I will describe my involvement in the "CSI: Dognapping" workshop developed at Sandia National Laboratories. This hands-on science outreach program for elementary school students now serves nearly 500 children from primarily high-poverty (Title I) schools across New Mexico annually, but it began on a much smaller scale more than a decade ago, and can serve as a model for anyone looking to increase community engagement at their institution. The story, the experiments, and the data collected on the impact this program has had on the students will all be discussed.

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