

Boy Scouts Practice Chemistry

On Saturday March 22, in conjunction with a multi-council merit badge workshop, Analytical Answers, Inc. hosted a visit from a group of Boy Scouts representing both the Daniel Webster and Yankee Clipper councils. These boys, ranging from Tenderfoot to Eagle scouts, were completing the requirements of their Chemistry merit badge. One of the requirements was to visit with a practicing chemist.

Analytical Answers, Inc provided the boys with the opportunity to meet a variety of practicing chemists and see some of the tools that an analytical chemist would use. They saw the analysis of US coins using Scanning Electron Microscopy with Energy Dispersive Spectroscopy. This showed the microstructure as well as the elemental composition of the metals in the coins. That was followed by seeing an Ultra High Field Emission Scanning Electron Microscope where they examined metal sponge materials as well as diatoms to see the microstructure of these materials.

They then moved on to organic chemistry analysis area where they used Fourier Transform Infrared Spectroscopy to identify a variety of food packaging materials such



as polyethylene found in milk jugs, soda bottles made of polyethylene terphthalate and polypropylene plastic wrap.

We rounded out their visit with a demonstration of a cross-linking reaction in polyvinyl alcohol. The boys cross-linked the polymer and made a putty like material that was interesting to play with as shown in the photo.

The boys received a very good introduction to the world of a practicing chemist and also had the opportunity to discuss what practicing chemists do in industry.

