

Chemistry Merit Badge

Important information about how to prepare for a Merit Badge program at Huntley Meadows Park.

These programs are 3-5 hours long be sure your scout packs a snack/lunch and water. Merit Badges are not designed to be completed in one afternoon, therefore, in order to complete the badge there is some work the scouts need to do outside of the program. We strongly suggest this is done prior to the badge program date.

Please bring to class:

- Pre-Work
- Blue card
- Pen
- Snack/lunch and a drink

The following is what scouts should have completed before the program and bring with them day of class.

Requirement #1.a. Obtain an SDS for sucrose (sugar), isopropyl alcohol (rubbing alcohol), and a waterproofing spray

Requirement #3. Chemistry in the Kitchen. (a) Perform a Maillard, or browning, reaction.

SUGGESTED EXPERIMENT: Cut a round onion into small chunks. Separate the onion chunks into three equal portions. Leave the first portion raw. Cook the second portion of onion chunks until the pieces are translucent. Cook the third portion until the onions are caramelized, or brown in color. Taste each type of onion. Describe the taste of raw onion versus partially cooked onion versus caramelized onion.

Be prepared to explain what happens to molecules in the onion during the cooking process in class.

Requirement #8. Do ONE of the following:

(a) Visit a research laboratory, and discuss the research performed there with a chemist or chemical technician.

Learn what education and training they received.

(b) Visit a company or plant that makes chemical products or uses chemical processes. Learn about their products or processes, and talk with someone who works there. Learn what they do, and what education and training they received.

(c) Identify three career opportunities that would use skills and knowledge in chemistry. Pick one and research the training, education, certification requirements, experience, and expenses associated with entering the field.

Research the prospects for employment, starting salary, advancement opportunities and career goals associated with this career. Discuss what you learned with your counselor and whether you might be interested in this career.