

**Materials:**

The lesson plan, Tension concerning the use of Armory production from this web site

Ball point pens

Handout questions for activity # 2

Empty soda bottles with one cap that fits all bottles

A micrometer is optional to measure the inside diameter of the cap and the outside diameter of the bottle.

Graphics related to Springfield Armory technology are optional

**Activities # 1:** Place several soda bottles so they can be readily seen by the students and ask a brainstorming question: How is it that one cap is interchangeable – that it can be used on all these different bottles? A discussion and answers should form the pretext for a discussion of how gauges and machines were used to manufacture these bottles and caps precisely the same. A micrometer could be used to measure the inside and outside diameters of the cap and bottles. The next class question: where did this technology come from?

**Activity # 2:** Pass out the handout and questionnaire about the Development and Effects of Industrial Technology and have students answer the questions.

**Activity #3:** After the handouts are finished, divide the class into four or five groups to answer and discuss the following questions: 1. for the techies, why were machines and gauges so necessary for interchangeable production? Also, why was individual specialization of labor needed and not the skilled gunsmith making all the parts? 2. Why were the government and especially the military the ones to develop interchangeable parts? [Possible answers: the government had more money for the research than any manufacturer. Also, there is a critical need for more efficient production of weapons and replacement parts especially in time of war]. 3 Is the situation in Springfield concerning economics, immigration and prejudice similar today? [Yes] Ask for current examples. 4. Are weapons and war necessary and should they be necessary? 5. A class question: Were you aware of these contributions of the Springfield Armory? What about their lasting legacy?

**Activity # 4:** Independent study for extra credit or for Honor and AP students using primary sources. Students could do research at the Connecticut Valley Historical Museum for information relating to tensions between Yankee employees at the Armory and Irish Catholic immigrants. Additional primary sources are available at the Armory and opportunities abound for community service assignments.

**Activity # 5:** Refer to the Middle School through Secondary lesson plan Tensions concerning the use of Armor production just prior to the Civil War. This plan is based on the popular poem, *The Arsenal at Springfield* by Henry Wadsworth Longfellow and can be readily adapted for your students.

**Activity # 6. A field trip to the Springfield Armory would be a culminating activity. This would integrate all lesson plans and activities. A member of the staff will make an informal presentation allowing opportunities to answer question. Demonstrations of model weapons are offered for hands on student inspection. A fine historic video of the Armory is also available as well as a live fire-arm demonstration. The Springfield Armory is an important National historic site. Our students should see it and know about it.**