**Hopewell Furnace National Historic Site**

**Teacher’s Guide**

**Molding and Casting Tour**

**AUDIENCE** 5th through 12th Grade

**AVAILABILITY**

Wednesdays, Thursdays and Fridays in September, October, April, May and June.

**DESCRIPTION**

This tour runs a total of 2 ½ hours. A one-hour tour of the village emphasizes the work in gathering the iron-making materials and the work in the Cast House. The primary thrust of the program is the molding and casting process to be performed by the students. During the second half of the tour (the 1½ hour lab), each student will use a sand mold, a pattern and a safe iron substitute (hydrocal) in order to produce a cast product. The students will take a break to allow their castings to dry. Students are able to keep their castings as a memento of their tour. Morning start times are best due to the length of the program. The last tour will begin at 1:30 p.m.

**REQUIREMENTS**

Class size for this tour will be kept to a total of 30 students. The minimum number of students is 10. It is required to have one chaperone per 10 students. Students must be made aware of the positive behavior that is expected during the tour. Teachers and chaperones are required to maintain the attention of the students; the Ranger is not responsible for discipline.

**THEME**

Hopewell Furnace represents the entrance of America into the Industrial Age, leading to its emergence as the world’s greatest industrial power. The workers comprised the community at Hopewell Furnace, each performing a job critical to the operation of the furnace. The Moulders were considered highly skilled and very valuable employees to the ironworks.

**HOPEWELL FURNACE PROGRAM OBJECTIVES**

1. Students will understand the history of this 19th century iron plantation.

2. Students will understand many of the occupations important to the iron-making success of Hopewell.

3. Students will experience and learn the molding and casting process.

4. Students will be able to chart the flow of natural resources in the process of making iron.

5. Students will be able to relate Hopewell Furnace to technological developments in iron-making.

**RELATED OJECTIVES OF LOCAL SCHOOLS**

1. Students will learn about a community of long ago.

2. Students will be able to identify a local historic landmark in their immediate area.

4. Students will learn about industry after the American Revolution.

7. Students will learn about the iron-making process.

3. Students will learn about some of the skills needed by early Americans to do certain jobs.

11. Students will learn about occupations of the past.

13. Students will compare tools from different time periods.

9. Students will understand some of the occupational hardships of the 19th century.

10. Students will understand the importance of working together to achieve common goals.

12. Students will learn about the value and dignity in working.

14. Students will understand the need for both natural and human resources in a community.

15. Students will learn some basic history about an iron-making plantation.