

### Introduction:

Provide the following background information about the apprenticeship program and the video's subject matter before viewing My Apprenticeship at Sloss:

The video follows Rachael, a sixteen year-old high school student who is passionate about the visual arts and the historic Birmingham, Alabama landmark, Sloss Furnaces. Rachael grew up visiting Sloss Furnaces with her family, and now, as a Summer Youth Apprentice, spends her entire summer at Sloss Furnaces learning how to create cast-iron art. During the apprentice program she learns the basics of cast-iron art and some advanced techniques involved in metal casting. Rachael will use her new skills to create a final cast-iron art project. She also earns a wage creating various utilitarian cast-iron sculptures, such as bookends and paperweights, for the Sloss Furnaces gift shop.

Sloss Furnaces is a former pig iron manufacturing factory that began production in the late 1800's and closed in 1970. It is now a National Historical Landmark, a Birmingham, Alabama tourist attraction, and home of a flourishing metal arts program. The Sloss Metal Arts Program brings artists to work at Sloss Furnaces, hosts the Summer Youth Apprentice Program, provides cast-iron sculptures for sale at the site, and offers courses in the metal arts.

### Steps in Creating Cast-Iron Art:

- 1) Sketch and label to scale
- 2) Use wax or plasticine to mold a sculpture from the sketch
- 3) Gate the wax or plasticine sculpture
- 4) Vent (create small holes to allow air to escape)
- 5) Pack wax or plasticine sculpture tightly in sand
- 6) Melt iron in the cupola
- 7) Cast the sculpture
- 8) Break the mold and revealing the sculpture
- 9) Polish the sculpture

### Vocabulary:

**Apprentice-** a person who works for an expert to learn a trade or skill.

**Artistic style-** the characteristics of a piece of art as well as the reflection of the artist in the art.

**Casting-** a manufacturing process by which a liquid material is poured into a mold containing a hollow cavity of the desired shape and allowed to solidify.

**Direct-carve sand-** a mixture of tightly compacted sand and resin into which an image or shape can be carved.

**Engrave-** to carve, cut, or etch into a material or surface .

**Gating-** refers to the passageways through which molten metal flows into the mold cavity; requires precise calculations and/or experience to design

**Mold-** a container that provides shape

**Plasticine-** a putty-like modeling material.

**Scale-** the ratio between the size of something and a representation of it

**Sketch-** a preliminary drawing for later elaboration

**Venting-** the creation of holes within the plasticine or wax sculpture to allow for the escape of gas or air during the casting process

**Wax-** a solid, yellowish, non-glycerin substance allied to fats and oils and secreted by bees. It is plastic when warm and melts at about 145 degrees Fahrenheit. Used in making candles, models, casts, ointments, etc., and used by bees in constructing their honeycomb

Images of "plasticine" and "octopi" courtesy of Google images.

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Last Updated:

September 12, 2010