## Lesson - How is Chocolate Manufactured?

### Objectives

- Explore the process through which chocolate is manufactured
- Identify the stages of the chocolate manufacturing process

### Materials

- 4-5 cacao seeds
- A class set of the Chocolate Manufacturing sheet (P. 93)
- Posterboard
- Drawing supplies (markers, crayons, etc.)

### Lesson Plans

#### Background Activities:

1. Ask students to think about how a cacao seed might turn into a chocolate bar.
   - How does the bean turn from a solid into a liquid so that it can be molded into the bar shape?
   - What has to be added to the chocolate?
2. Divide students into groups of 4-5. Give each group a cacao seed. Ask students to examine the seed and come up with a process for turning it into a chocolate bar.
3. Have students record their hypotheses and share them with the class.

#### Instructional Activities:

1. Have students take a virtual tour of a chocolate factory. (We recommend The Field Museum’s web site at www.fieldmuseum.org or www.hersheys.com.)

2. Give each student a copy of the Chocolate Manufacturing sheet.

3. As they go through their virtual tour, have students describe each step of the chocolate manufacturing process on their sheet.

4. Have students compare their chocolate manufacturing hypothesis to the actual process. Discuss the following questions:
   - How was your hypothesis similar to or different from the actual process?
   - Did anything surprise you about the way chocolate is processed?
   - How is the way large manufacturers process chocolate similar to and/or different from the way individuals process it?
   - Do you think you would like to work in a chocolate manufacturing plant?

5. Ask students to imagine that they are the brand new owners of a chocolate factory. They can make any changes or improvements to the factory that they want. Have students create a poster of their utopian chocolate factory and present it to their class.

#### Things to consider:

*As a class, you might want to read Charlie and the Chocolate Factory by Roald Dahl. Encourage students to compare their utopian factory to an actual chocolate factory and to Willy Wonka’s factory.*
Activity

Draw and describe each of the steps of manufacturing chocolate.

Roast

Winnow

Grind

Mill

Conch

Temper
Dibuja y describe cada uno de los pasos para la fabricación del chocolate.

- Tostar
- Batir
- Moler
- Mezclar
- Conchar
- Templar