



# Culinary Institute of America

## HIGH SCHOOL LESSON PLAN FROM CIA

### **Subject**

Baking and Pastry Arts

### **Topic**

Chocolate

### **Lesson Title**

How to Temper Chocolate

### **Student Expectations**

The students will have an elementary understanding of the key fundamentals required to temper chocolate correctly.

### **Instructional Objectives**

Students will:

- Chop and melt chocolate properly
- Temper chocolate without a thermometer, using a block of chocolate
- Evaluate test of chocolate to determine if tempered correctly

### **Rationale**

Student must effectively temper chocolate to be able to produce chocolate truffles, molded chocolate bon-bons, décor for a multitude of pastries, in addition to numerous other applications applied within a pastry lab.

### **Duration of Lesson**

2 hours

### **Key Vocabulary**

- Cocoa butter
- Crystals
- Couverture
- Seeding

## Materials/Equipment Needed

### Equipment

- Range or induction burner
- Saucepot
- Bowl that fits atop saucepot
- Plastic spatula
- Small offset palette knife

### Supplies

- Dark couverture (minimum 32% cocoa butter), finely chopped for melting
- Additional couverture broken into small blocks for tempering

### Materials

- Side towels

## Direct Instruction

- Chop the chocolate to fine pieces using a chef's knife or serrated knife and cutting board secured to the workbench
- Melt the chocolate over a double-boiler stirring constantly while maintaining the heat on low, making sure the flames are contained beneath the surface of the saucepot to avoid scorching or burning the chocolate
- Use care avoiding any water from contacting the chocolate
- Once melted, add up to 25% of the weight of the melted chocolate for cooling the chocolate (a chocolate block will be used for this)
- Stir continuously until the bottom of the bowl feels cool when pressed against your wrist (about 90 degrees Fahrenheit or slightly lower)
- Dip a palette knife into the chocolate to test for temper, it should be shiny, streak-free, and set or harden within 5 minutes

## Practice/Activities

Students will apply the steps listed above individually. Once they feel that the base of the bowl is cool, they will apply the temper test using their palette knife for the instructor to review once the chocolate has set.

## Lesson Closure

Instructor will identify areas in which chocolate tempering would be applied within the pastry lab. Conduct a tasting of chocolates that include various cocoa percentages, in addition to straight cocoa butter, and products made with tempered chocolate will help to solidify their base understanding.

## End of Lesson Assessment

Students should be able to identify and define the key terms within this module. They will work with their instructor to review if they have met the three qualifications of tempered chocolate; shine, snap, and set.