



## CULINARY ARTS

**PATHWAY:** Culinary Arts

**COURSE:** Culinary Arts I (CAI)

**UNIT:** 7.1 Business and Culinary Math Skills



## INTRODUCTION

### **Annotation:**

This Lesson Plan will help students identify different types of weights and measures, apply standard recipe conversions, and understand basic menu costing. Students will convert a standard recipe, prepare the dish, and calculate the menu price of that item.

### **Grade(s):**

X	9 <sup>th</sup>
X	10 <sup>th</sup>
X	11 <sup>th</sup>
X	12 <sup>th</sup>

### **Time:**

5 90-minute class periods

### **Author:**

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### **Students with Disabilities:**

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



## FOCUS STANDARDS

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**GPS Focus Standards:** Please list the standard and elements covered.

CA-CAI-4: Students will acquire basic knowledge in business and culinary math skills.

**GPS Academic Standards:**

*MC1-P1. Students will solve problems (using appropriate technology).*

*MC4P3. Students will communicate mathematically.*

*MC4P4. Students will make connections among mathematical ideas and to other disciplines.*

*NFCS-8.5.3. Utilize weights and measures to demonstrate proper scaling and measurement techniques.*

**National / Local Standards / Industry / ISTE:**



## UNDERSTANDINGS & GOALS

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**Enduring Understandings:**

Identify and master the use of different types of measuring tools, understand and apply standard recipe conversions and examine basic accounting skills used in the evaluation of menu costing, pricing and cost control.

**Essential Questions:**

**Knowledge from this Unit:** Factual information.

**Skills from this Unit:** Performance.



# ASSESSMENT(S)

**Assessment Method Type:** Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

- ☐ Pre-test
- ☐ Objective assessment - multiple-choice, true- false, etc.
  - ☐ Quizzes/Tests
  - ☐ Unit test
- ☐ Group project
- ☐ Individual project
- ☐ Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
  - ☐ Self-check rubrics
  - ☐ Self-check during writing/planning process
  - ☐ Journal reflections on concepts, personal experiences and impact on one's life
  - ☐ Reflect on evaluations of work from teachers, business partners, and competition judges
  - ☐ Academic prompts
  - ☐ Practice quizzes/tests
- ☐ Subjective assessment/Informal observations
  - ☐ Essay tests
  - ☐ Observe students working with partners
  - ☐ Observe students role playing
- ☐ Peer-assessment
  - ☐ Peer editing & commentary of products/projects/presentations using rubrics
  - ☐ Peer editing and/or critiquing
- ☐ Dialogue and Discussion
  - ☐ Student/teacher conferences
  - ☐ Partner and small group discussions
  - ☐ Whole group discussions
  - ☐ Interaction with/feedback from community members/speakers and business partners
- ☐ Constructed Responses
  - ☐ Chart good reading/writing/listening/speaking habits
  - ☐ Application of skills to real-life situations/scenarios
- ☐ Post-test

**Assessment(s) Title:**

**Assessment(s) Description/Directions:**

Review of Lesson: Students will discuss and practice culinary math skills through recipe conversion and measurements.

Evaluation of Drop Biscuit Measurement and Portions

**Attachments for Assessment(s):** Please list.



# LEARNING EXPERIENCES

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**Instructional planning:** Include lessons, activities and other learning experiences in this section with a brief description of the activities to ensure student acquisition of the knowledge and skills addressed in the standards. Complete the sequence of instruction for each lesson/task in the unit.

## **Sequence of Instruction**

### **1. Identify the Standards. Standards should be posted in the classroom for each lesson.**

CA-CAI-4: Students will acquire basic knowledge in business and culinary math skills.

### **2. Review Essential Questions.**

### **3. Identify and review the unit vocabulary.**

### **4. Assessment Activity.**

Students should have access to a kitchen lab and be given the following information:

- PowerPoint Presentation
- Equipment Handout
- Recipe for Salsa
- Price of Salsa Ingredients
- Ingredient Yield

Learning Activities:

Students will identify standard measurement equipment and measure both liquid and dry ingredients. Students will demonstrate the difference in measuring weight versus volume, and the use of spring versus balance scales.

1. The Instructor will show a PowerPoint presentation showing pictures of standard measuring equipment. Using their handout, students will then list the names of the equipment being shown on the presentation, to include:
  - Measurement Pitchers
  - Measurement Cups
  - Measurement Spoons
  - Ladles
  - Portion Scoops
  - Spring Scale

- Balance Scale
2. The Instructor will demonstrate the correct tool and the correct method used to measuring the following:
    - Cups
    - Spoons
    - Ounces
    - Pounds
    - Portions
  3. The students will measure out the dry and liquid ingredients for Salsa and then make that product. The following should be observed:
    - Proper Measurement Procedure
    - Proper Scaling Procedure
    - Proper Portioning
  4. The students will be given a list of product prices and figure the actual cost of the Salsa as well as observing product yield and cost control.

Closure:

1. Summarize the rationale behind the use of correct measurement tools by evaluating the Salsa recipe, the product yield, cost of making the Salsa and the finished product.

Transfer Out: Review any outstanding questions about why specific measurement tools are used for the measurement of dry and liquid ingredient, how the yield of a product influences the cost to make the product versus the menu price.

**Attachments for Learning Experiences:** Please list.

**Notes & Reflections:** May include notes to the teacher, pre-requisite knowledge & skills, suggestions, etc.



## CULMINATING PERFORMANCE TASK

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(Optional)

**Culminating Unit Performance Task Title:**

**Culminating Unit Performance Task Description/Directions/Differentiated Instruction:**

**Attachments for Culminating Performance Task:** Please list.



## UNIT RESOURCES

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**Web Resources:**

**Attachment(s):** Supplemental files not listed in assessment, learning experiences, and performance task.

**Materials & Equipment:**

- Projector with PowerPoint display
- Hand outs
- Measurement Equipment (including balance and spring scale)
- Recipe

**What 21st Century Technology was used in this unit:**

<input checked="" type="checkbox"/>	Slide Show Software	<input type="checkbox"/>	Graphing Software	<input type="checkbox"/>	Audio File(s)
<input type="checkbox"/>	Interactive Whiteboard	<input type="checkbox"/>	Calculator	<input type="checkbox"/>	Graphic Organizer
<input type="checkbox"/>	Student Response System	<input type="checkbox"/>	Desktop Publishing	<input type="checkbox"/>	Image File(s)
<input type="checkbox"/>	Web Design Software	<input type="checkbox"/>	Blog	<input type="checkbox"/>	Video
<input type="checkbox"/>	Animation Software	<input type="checkbox"/>	Wiki	<input type="checkbox"/>	Electronic Game or Puzzle
<input type="checkbox"/>	Email	<input type="checkbox"/>	Website		Maker