



## CULINARY ARTS

**PATHWAY:** Culinary Arts

**COURSE:** Introduction to Culinary Arts (ICA)

**UNIT:** 8.1 Culinary Math Skills



## INTRODUCTION

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**Annotation:**

Students will discuss and practice culinary math skills through recipe conversion and measurements.

**Grade(s):**

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

**Time:** 5 hours

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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-ICA-5: Students will discuss and practice culinary math skills through recipe conversion and measurements.

**GPS Academic Standards:**

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



## UNDERSTANDINGS & GOALS

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**Enduring Understandings:** Enduring understandings are statements summarizing important ideas and have lasting value beyond the classroom. They synthesize what students should understand – not just know.

- This Lesson Plan will help students identify different types of standard measuring; both volume and liquid; and the proper use of each.

**Essential Questions:**

- Which professional culinary tools should be used while cooking?

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

- Students will be able to identify different types of measuring tools, and spring and balance scales.
- Students will know how to properly perform recipe conversions.

**Skills from this Unit:** Performance.

- Students will be able to properly use different types of measuring tools and spring and balance tools.





# 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.**

**2. Review Essential Questions.**

- Which professional culinary tools should be used while cooking?

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

**4. Assessment Activity.**

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

- PowerPoint Presentation
- Equipment Handout
- Recipe for Drop Biscuits

## **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 **Drop Biscuits** and then make that product. The following should be observed:
  - Proper Measurement Procedure
  - Proper Scaling Procedure
  - Proper Portioning

*Chef's Tip: Use a portion scoop to measure biscuit dough and drop on parchment lined sheet pans. This will show how portion scoops keep portions consistent in size and weight.*

**Closure:**

1. Summarize the rationale behind the use of correct measurement tools by evaluating the Drop Biscuit recipe 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.

**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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**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
- Handouts, Lesson Plan,
- Measurement Equipment (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 Maker
<input type="checkbox"/>	Email	<input type="checkbox"/>	Website		