

# Unit 5: Kitchen Math

Content Area: **Family and Consumer Science**  
Course(s): **Family & Consumer Sciences I**  
Time Period: **3 weeks**  
Length: **Weeks**  
Status: **Published**

## Unit Overview

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Students will be able to understand why their success in the kitchen depends on proper and accurate measurements.

## Transfer

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Students will be able to independently use their learning to:

- Accurately measure ingredients for recipes.

## Meaning

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## Understandings

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Students will understand:

- How to identify measuring tools.
- The process of accurately measuring liquid and dry ingredients.
- How to identify measuring abbreviations and equivalents.
- The process of altering recipes based on the number of people being served.
- How to time cooking based on serving time and foods being prepared.

## **Essential Questions**

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Students will keep considering...

- Why success in the kitchen depends on properly and accurately measuring ingredients.

## **Application of Knowledge and Skill**

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### **Students will know...**

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Students will know:

- How to identify various measuring tools
- The procedure to accurately measure liquid and dry ingredients
- Measuring abbreviations and equivalents
- How to alter recipes based on the number of people being served.
- How to time cooking based on serving time and foods being prepared

### **Students will be skilled at...**

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Students will be skilled at:

- Identifying measuring tools
- Accurately measuring liquid and dry ingredients
- Identifying measuring abbreviations and equivalents
- Altering recipes based on the number of people being served.

- Timing their cooking based on serving time and foods being prepared

## Academic Vocabulary

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### Learning Goal 1

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Students will demonstrate knowledge of proper measuring techniques.

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MA.8.4.2.8 D.1	Solve problems requiring calculations that involve different units of measurement within a measurement system (e.g., 4'3" plus 7'10" equals 12'1").
MA.8.4.2.8 D.2	Use approximate equivalents between standard and metric systems to estimate measurements (e.g., kilometers is about 3 miles).
MA.8.4.2.8 D.B	What we measure affects how we measure it.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
FCSE.9-12.2.1.1	Apply time management, organizational, and process skills to prioritize tasks and achieve goals.
FCSE.9-12.5.2.1	Apply environmental services standards and procedures in residential and commercial settings.
FCSE.9-12.5.2.2	Operate cleaning equipment and tools.
FCSE.9-12.5.2.3	Manage use of supplies.
FCSE.9-12.5.3	Demonstrate sanitation procedures for a clean and safe environment.
FCSE.9-12.5.4.3	Practice a recycling program for conservation of resources.
FCSE.9-12.5.5.3	Demonstrate safe procedures in the use, care, and storage of equipment.
FCSE.9-12.8.2	Demonstrate food safety and sanitation procedures.
FCSE.9-12.8.2.5	Practice standard personal hygiene and wellness procedures.
FCSE.9-12.8.2.6	Demonstrate proper purchasing, receiving, storage, and handling of both raw and prepared foods.
FCSE.9-12.8.2.7	Demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods and food groups.
FCSE.9-12.8.3.1	Operate tools and equipment following safety procedures and OSHA requirements.
FCSE.9-12.8.3.2	Maintain tools and equipment following safety procedures and OSHA requirements.
FCSE.9-12.8.3.5	Demonstrate procedures for safe and secure storage of equipment and tools.
FCSE.9-12.8.3.6	Identify a variety of types of equipment for food processing, cooking, holding, storing, and

	serving.
FCSE.9-12.8.4.2	Apply menu-planning principles to develop and modify menus.
FCSE.9-12.8.4.7	Apply principles of measurement, portion control, conversions, food cost analysis and control, menu terminology, and menu pricing to menu planning.
FCSE.9-12.8.5.1	Demonstrate professional skills in safe handling of knives, tools, and equipment.
FCSE.9-12.8.5.2	Demonstrate professional skill for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies.
FCSE.9-12.8.5.3	Demonstrate knowledge of portion control and proper scaling and measurement techniques.
FCSE.9-12.8.5.4	Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding of a variety of foods.
FCSE.9-12.8.5.14	Demonstrate cooking methods that increase nutritional value, lower calorie and fat content, and utilize herbs and spices to enhance flavor.
FCSE.9-12.9.3.5	Analyze recipe/formula proportions and modifications for food production.
FCSE.9-12.9.6.4	Create standardized recipes.
FCSE.9-12.10.4.5	Manage use, care, storage, maintenance, and safe operations of equipment, tools, and supplies.
FCSE.9-12.10.4.7	Apply time and work management skills to facility service tasks.

## **Target 1**

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### Identify measuring tools

- Identify measuring tools

## **Target 2**

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### Accurately measure liquid and dry ingredients

- Accurately measure liquid and dry ingredients

## **Target 3**

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### Identify measuring abbreviations and equivalents

- Identify measuring abbreviations and equivalents

## **Target 4**

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Alter recipes based on the number of people being served.

- Alter recipes based on the number of people being served.

## **Target 5**

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Time cooking based on serving time and foods being prepared

- Time cooking based on serving time and foods being prepared

## **Summative Assessment**

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Presentations

Portfolios

Production assignments

Projects

Unit Test

## **Formative Assessment and Performance Opportunities**

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Chapter review questions

Class Discussion

Class participation

Computer simulation activities

Exit Tickets

Homework

Internet activities

Section review questions

Self-Assessment

Teacher Directed Q&A

Teacher Observation of computer use

Workbook activities

### **Accommodations/Modifications**

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- provide additional labeling for kitchen tools
- color code measuring tools
- post charts of kitchen tools
- Pair struggling student with student experts for cooking activities

### **Unit Resources**

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#### **Textbooks and Workbooks**

*Food for Today* – textbook

*Food for Today* – student workbook

*Food for Today* – Re-teaching activities

*Adventures in Food and Nutrition* – textbook

*Adventures in Food and Nutrition* – student workbook

#### **CD/DVD/VHS/TV**

Exam view Pro CD-ROM

Food Network's Good Eats – Alton Brown

Food Network's Unwrapped – Marc Summers

Discovery Channel's The Colony: S2

Food Network's Ace of Cakes

Super-Size Me

Food Inc.

Ratatouille

## **Magazines/Periodicals/Newsletters**

*Food Network Magazine*

*HGTV Magazine*

*Taste of Home Magazine*

A Goldy Bear Culinary Mystery Series by Diane Mott Davidson

*Miserly Moms: Living on One Income in a Two Income Economy* - Jonni McCoy

*Deceptively Delicious* – Jessica Seinfeld

*Double Delicious* – Jessica Seinfeld

*Where's Mom Now That I Need Her: Surviving Away From Home* - Betty Rae Frandsen,

## **Internet**

[www.google.com](http://www.google.com)

[www.bankrate.com](http://www.bankrate.com)

[www.choosemyplate.gov](http://www.choosemyplate.gov)

[www.cdc.gov](http://www.cdc.gov)

[www.myfitnesspal.com](http://www.myfitnesspal.com)

[www.prezi.com](http://www.prezi.com)

[www.powtoons.com](http://www.powtoons.com)

[www.voki.com](http://www.voki.com)

<https://sites.google.com/a/monroetwp.k12.nj.us/mrs-lolli-facs/>

[www.googleclassroom.com](http://www.googleclassroom.com)

[www.Food.com](http://www.Food.com)

<http://topsecretrecipes.com>

<https://www.bettycrocker.com/>

[www.kidswithfoodallergies.org](http://www.kidswithfoodallergies.org)

<https://allergicliving.com/recipes>

[www.foodallergiesrecipebox.com](http://www.foodallergiesrecipebox.com)

[www.wholesomebabyfood.momtastic.com](http://www.wholesomebabyfood.momtastic.com)

<http://jessicaseinfeld.com/recipes>