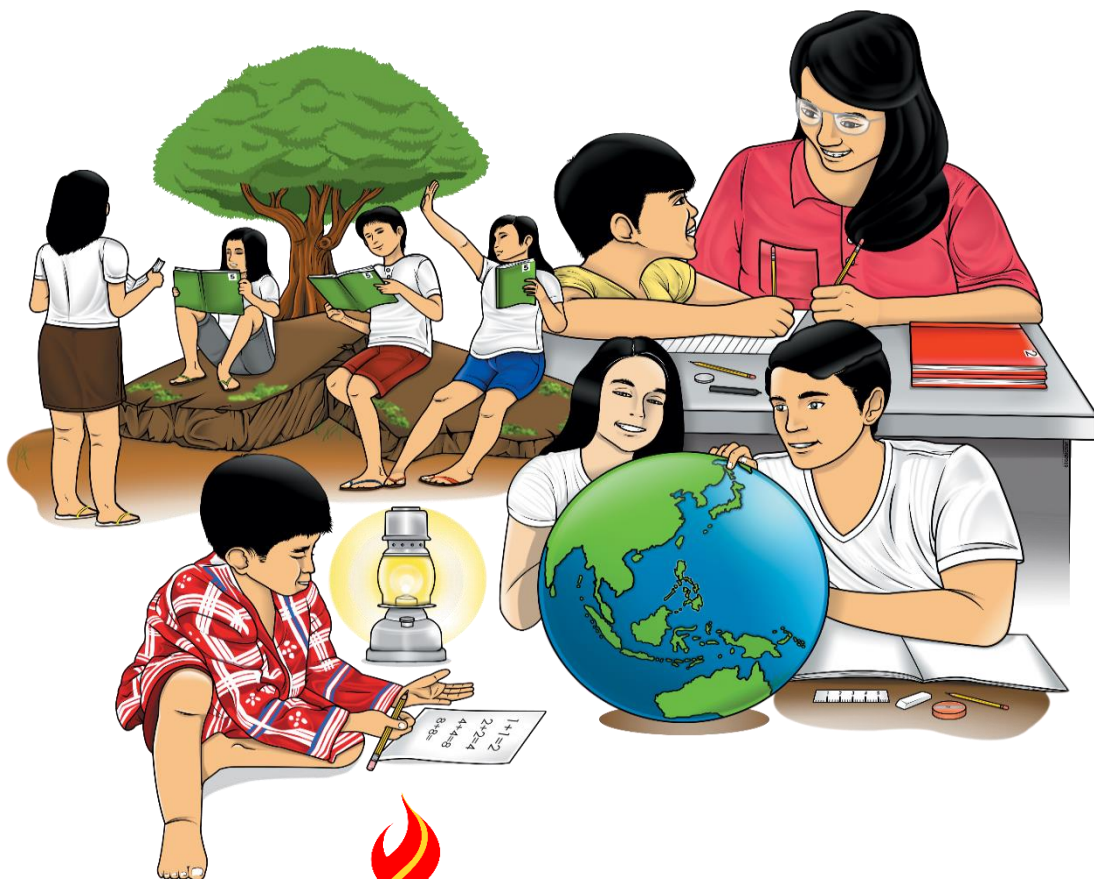


# Technology and Livelihood Education

## Home Economics - Cookery

### Quarter 0-Module 3.3

#### System of Measurements Based on Recipe Requirements



**T.L.E. – Grade 8**  
**Alternative Delivery Mode**  
**Quarter 0 – Module 3.3: System of Measurements Based on Recipe Requirements**  
**First Edition, 2020**

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Published by the Department of Education  
Secretary: Leonor Magtolis Briones  
Undersecretary: Diosdado M. San Antonio

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Printed in the Philippines by \_\_\_\_\_

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**Technology and  
Livelihood Education  
Home Economics - Cookery  
Quarter 0 -Module 3.3  
System of Measurements Based  
on Recipe Requirements**

## **Introductory Message**

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



## ***What I Need to Know***

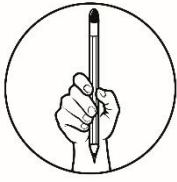
This module was designed and written to better perform mensuration and calculations. It will help the learner master the nature of mensuration and calculation. The scope of this module will be used in many different learning situations. The language used recognizes the diverse vocabulary level of learners. The lessons are arranged to follow the standard sequence of the module. But the order of teaching or using can be changed to correspond with the textbook and references you will be using.

The module has one lesson;

LO. 3.3 Basic Ingredients Substitution (TLE\_HECK7/8PM-Od-4)

After going through this module, you are expected to:

- 3.3.1 convert system of measurement according to recipe requirements.
- 3.3.2 substitute with other ingredients found in your kitchen.



## ***What I Know***

Direction: Choose the letter of the best answer. Write the letter of the correct answer on a separate sheet of paper.

1. How many tsp. of vinegar to substitute 1 tsp. of lemon juice?
  - A. 1/2
  - B. 1
  - C. 2
  - D. 3
2. How many cups of melted margarine to substitute 2 cups of butter?
  - A. 2
  - B. 3
  - C. 4
  - D. 5
3. What ingredient will you use if chocolate powder is not available?
  - A. cocoa powder
  - B. melted butter
  - C. powdered sugar
  - D. chocolate candy
4. What will you use if corn starch is not available?
  - A. flour
  - B. powdered sugar
  - C. chocolate powder
  - D. all of the above
5. If butter is not available, what will you use instead?
  - A. lard
  - B. margarine
  - C. syrup
  - D. none of the above
6. A change in the units or form of number or expression.
  - A. symbols
  - B. quantity
  - C. conversion
  - D. metric system
7. How many tablespoons in 1 cup of dry ingredients?
  - A. 16 tbsp.
  - B. 17 tbsp.
  - C. 18 tbsp.
  - D. 19 tbsp.

8. How many cups is the 500 ml water?
  - A. 2 cups
  - B. 3 cups
  - C. 4 cups
  - D. 5 cups
  
9. How ounces in 1 gram of nutmeg?
  - A. 0.035 oz
  - B. 0.045 oz
  - C. 0.055 oz
  - D. 0.065 oz
  
10. One tablespoon of ingredients is equal to?
  - A. 2 teaspoons
  - B. 3 teaspoons
  - C. 4 teaspoons
  - D. 5 teaspoons
  
11. One pint of flour is equal to many cups?
  - A. 2 cups
  - B. 3 cups
  - C. 4 cups
  - D. 5 cups
  
12. One galloon of vinegar is equal to?
  - A. 2 quarts
  - B. 3 quarts
  - C. 6 quarts
  - D. 8 quarts
  
13. How many tsp. of cream of tartar to substitute  $1/2$  tsp. of vinegar?
  - A.  $1/2$
  - B.  $1/4$
  - C.  $3/4$
  - D. 1
  
14. What ingredient you will use if honey is not available?
  - A. syrup
  - B. candy
  - C. chocolate
  - D. evaporated milk
  
15. How many cloves of garlic to substitute  $1/8$  cup of garlic powder?
  - A. 1
  - B. 2
  - C. 3
  - D. 4

## Lesson

# 1

# Cookery: Substitution of Ingredients



## *What's In*

The module 3.2 was designed and written to better perform abbreviations, equivalents, and conversions. Let us determine how much you already know about abbreviations, equivalents, and conversions. Take this test.

### Activity 1

Directions: Convert the following metric system of measurement and write the abbreviations of its measurement. Write your answers on your TLE notebook.

1. 10 ml = \_\_\_\_\_ teaspoon
2. 1.5 L = \_\_\_\_\_ cups
3. 30 ml = \_\_\_\_\_ tablespoon
4. 60 grams = \_\_\_\_\_ ounce
5. 2 kg = \_\_\_\_\_ pound



## *What's New*

Each ingredient in a recipe has a specific function. Substitution of one ingredient for another may alter the taste, color, moisture content or texture of the product. This module discussed the common ingredients and its specific substitution, to know your stock knowledge on the topic, please answer the table below.

Directions: What ingredients will you use if the following ingredients are not found in your kitchen? Write your answers in your TLE notebook.

Main Ingredients	Substitute
1. syrup	
2. iodized salt	
3. chicken meat for <b>bihon</b>	
4. butter	
5. potato	



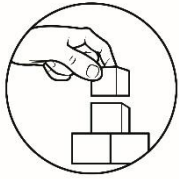


## ***What is It***

These are the basic ingredient substitutions to see if you can substitute them with other ingredients found in your kitchen. Your final product using the substituted ingredient may differ slightly from the original food, but it will still be acceptable in flavor, texture and appearance.

Ingredients	Measurement	Substitute
Allspice	1 teaspoon	1/2 teaspoon cinnamon plus 1/2 teaspoon ground cloves
Barbeque Sauce	1 cup	3/4 cup ketchup, 2 tablespoons mustard and 2 tablespoons brown sugar
Buttermilk	1 cup	tablespoon lemon juice or vinegar plus enough regular milk to make 1 cup (allow to stand 5 minutes)
Chili Sauce	1 cup	1 cup tomato sauce, 1/4 cup brown sugar, 2 tablespoons vinegar, 1/4 teaspoon cinnamon, dash of ground cloves and dash of allspice
Chocolate, unsweetened	1 ounce	3 tablespoons cocoa plus 1 tablespoon butter or regular margarine or vegetable oil
Cornstarch (for thickening)	1 tablespoon	2 tablespoons flour
Cream, whipping	1 cup unwhipped	2 cups whipped cream
Egg	1 whole egg	1/4 cup egg substitute; check label for specific directions Reconstituted powdered eggs; follow package directions 2 tablespoons mayonnaise (suitable for use in cake batter) 1/2 teaspoon baking powder plus 1 tablespoon vinegar plus 1 tablespoon liquid (for baking use only)
Flour, all-purpose white flour	1 cup	1/2 cup whole wheat flour plus 1/2 cup all-purpose
Garlic	1 small clove	1/8 teaspoon garlic powder
Herbs, fresh	1 tablespoon, finely cut	1 teaspoon dried leaf herbs 1/2 teaspoon ground dried herbs

Ketchup (for use in cooking)	1 cup	1 cup tomato sauce, 1/2 cup sugar, and 2 tablespoons vinegar
Lemon Zest (fresh grated lemon peel)	1 teaspoon	1/2 teaspoon lemon extract
Marshmallows, miniature	1 cup	1 cup tomato sauce, 1/2 cup sugar, and 2 tablespoons vinegar
Mayonnaise (for use in salads and salad dressings)	1 cup	1 cup sour cream 1 cup yogurt 1 cup cottage cheese pureed in a blender Use any of the above for part of the mayonnaise
Mustard, dry (in cooked mixtures)	1 teaspoon	1 tablespoon prepared mustard
Onion	1 small or 1/4 cup chopped, fresh onion	1 tablespoon instant minced onion; check label for specific directions
Rum	Any amount	1-part rum extract plus 3 parts water. For example: for 1/4 cup rum, substitute 1 tablespoon rum extract plus 3 tablespoons water
Sugar, Confectioners' or Powdered	1 cup	1 cup granulated sugar plus 1 tablespoon corn starch; process in a food processor using the metal blade attachment until it's well blended and powdery
Tomato Juice	1 cup	1 1/2 cup tomato sauce plus 1/2 cup water
Tomato Soup	3/4 ounce can	1 cup tomato sauce plus 1/4 cup water
Wine, white	Any amount	The same amount of grape juice or cranberry juice
Lemon juice	1 tsp	1/2 tsp vinegar
Honey	1 cup	1 1/4 c sugar plus 1/4 c liquid
oil	1/4 cup	1/4 c melted margarine, butter or lard
nuts	1 cup	1 c rolled oats, browned
Brown sugar	1 cup	1 cup white sugar 1/4 liquid brown sugar
Cream of tartar	1/2 tsp	1 1/2 tsp lemon Juice or Vinegar



## ***What's More***

### **Activity 3**

Directions: Write the substitution of the following ingredients. Write your answers on your TLE notebook:

Ingredients	Substitute
1. 1 cup confectioner sugar	
2. 1 cup tomato Juice	
3. 1 cup catsup	
4. 1 tsp lemon juice	
5. 1 small cloves garlic	

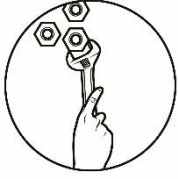


## ***What I Have Learned***

### **Activity 4**

Directions: Fill in the blanks. Write your answers on your TLE notebook.

1. 1 cup of brown sugar can be substituted by 1 cup of \_\_\_\_\_.
2. If 1 tsp. of \_\_\_\_\_ is not available, you can use 1/2 tsp. of vinegar.
3. 1 cup of white sugar is equal to 1 cup of \_\_\_\_\_.
4. 1/2 tbsp. of \_\_\_\_\_ can be substituted by 1 1/2 of lemon juice.
5. 1/4 cup of oil is equal to \_\_\_\_\_ of melted margarine.



## ***What I Can Do***

Directions: Give the substitution of the following ingredients. Write your answers on your TLE notebook.

1. Mary wants to cook dinner for her family, she needs 1 tablespoon of allspice, and it is not available. What ingredients would she use to substitute 1 tablespoon of allspice?
2. 1 c sour cream can be substituted with what ingredient/s?
3. How many teaspoons of lemon juice to substitute 1/2 t cream of tartar?
4. How many cups of melted margarine and butter to substitute 1/4 c of oil?
5. 1/4 c fresh chopped onions is equal to how many tablespoons of minced garlic?

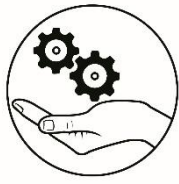


## Assessment

Direction: Choose the letter of the best answer. Write the letter of the correct answer on a separate sheet of paper.

1. How many tsp. of vinegar to substitute 1 tsp. of lemon juice?
  - A. 2
  - B. 1/2
  - C. 3
  - D. 1
  
2. How many cups of melted margarine to substitute 2 cups of butter?
  - A. 3
  - B. 4
  - C. 5
  - D. 2
  
3. What ingredient will you use if chocolate powder is not available?
  - A. powdered sugar
  - B. cocoa powder
  - C. melted butter
  - D. chocolate candy
  
4. What will you use if corn starch is not available?
  - A. flour
  - B. powdered sugar
  - C. chocolate powder
  - D. all of the above
  
5. If butter is not available, what will you use instead?
  - A. lard
  - B. margarine
  - C. syrup
  - D. none of the above
  
6. A change in the units or form of number or expression.
  - A. metric system
  - B. conversion
  - C. quantity
  - D. symbol
  
7. How many tablespoons in 1 cup of dry ingredients?
  - A. 19 tbsp.
  - B. 18 tbsp.
  - C. 17 tbsp.
  - D. 16 tbsp.

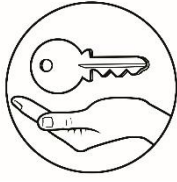
8. How many cups is the 500 ml water?
  - A. 2 cups
  - B. 3 cups
  - C. 4 cups
  - D. 5 cups
  
9. How ounces in 1 gram of nutmeg?
  - A. 0.035 oz
  - B. 0.045 oz
  - C. 0.055 Oz
  - D. 0.065 Oz
  
10. One tablespoon of ingredients is equal to?
  - A. 2 teaspoons
  - B. 3 teaspoons
  - C. 4 teaspoons
  - D. 5 teaspoons
  
11. One pint of flour is equal to many cups?
  - A. 2 cups
  - B. 3 cups
  - C. 4 cups
  - D. 5 cups
  
12. One galloon of vinegar is equal to
  - A. 2 quarts
  - B. 4 quarts
  - C. 6 quarts
  - D. 8 quarts
  
13. How many tsp. of cream of tartar to substitute 1 1/2 tsp. of vinegar?
  - A. 1/2
  - B. 1/4
  - C. 1
  - D. 3/4
  
14. What ingredient will you use, if honey is not available?
  - A. syrup
  - B. candy
  - C. chocolate
  - D. milk
  
15. How many cloves of garlic to substitute 1/8 cup of garlic powder?
  - A. 1
  - B. 2
  - C. 3
  - D. 4



## ***Additional Activities***

Direction: Complete the table below. Uses a separate sheet of your answers.

Ingredients	Measurement	Substitute
Allspice	1.	1/2 teaspoon cinnamon plus 1/2 teaspoon ground cloves
Barbeque Sauce	2.	3/4 cup ketchup, 2 tablespoons mustard and 2 tablespoons brown sugar
Butter	1 cup	3.
4.	1 cup	tablespoon lemon juice or vinegar plus enough regular milk to make 1 cup (allow to stand 5 minutes)
Sugar, Confectioners' or Powdered	1 cup	5.



# Answer Key

<p>What I Know</p> <ol style="list-style-type: none"> <li>1. A</li> <li>2. A</li> <li>3. A</li> <li>4. A</li> <li>5. C</li> <li>6. D</li> <li>7. A</li> <li>8. C</li> <li>9. B</li> <li>10. A</li> <li>11. A</li> <li>12. A</li> <li>13. B</li> <li>14. A</li> <li>15. A</li> </ol> <p>What's In</p> <p>Activity 1</p> <ol style="list-style-type: none"> <li>1. 2</li> <li>2. 6</li> <li>3. 2</li> <li>4. 2</li> <li>5. 4</li> </ol> <p>What's New</p> <p>Activity 2</p> <ol style="list-style-type: none"> <li>1. Sugar+water</li> <li>2. Rocksalt</li> <li>3. Pork</li> <li>4. Margarine</li> <li>5. Sayote</li> </ol>	<p>What's More</p> <p>Activity 3</p> <ol style="list-style-type: none"> <li>1. 1 cup of granulated sugar plus 1 tablespoon of cornstarch</li> <li>2. 1 1/2 cup tomato sauce plus 1 cup water</li> <li>3. 1 cup tomato sauce , 1/2 cup sugar and 1 tbsp. vinegar</li> <li>4. 1/2 tsp. vinegar</li> <li>5. 1/8 tsp. garlic powder</li> </ol> <p>What I Have Learned</p> <p>Activity 4</p> <ol style="list-style-type: none"> <li>1. white sugar</li> <li>2. lemon juice</li> <li>3. brown sugar</li> <li>4. vinegar</li> <li>5. 1/4 cup</li> </ol>	<p>What I can do</p> <ol style="list-style-type: none"> <li>1. 1/2 tsp. cinnamon plus 1/2 tsp. ground garlic</li> <li>2. 1 cup yogurt</li> <li>3. 1 teaspoon</li> <li>4. 1/4 cup of melted butter</li> <li>5. 1 tablespoon of minced garlic</li> </ol> <p>Additional Activities</p> <p>Activity 5</p> <ol style="list-style-type: none"> <li>1. 1 teaspoon</li> <li>2. 1 cup</li> <li>3. 1 cup margarine (regular)</li> <li>4. Buttermilk</li> <li>5. 1 cup granulated sugar plus 1 tablespoon cornstarch</li> </ol>	<p>Assessment</p> <ol style="list-style-type: none"> <li>1. A</li> <li>2. A</li> <li>3. A</li> <li>4. A</li> <li>5. C</li> <li>6. D</li> <li>7. A</li> <li>8. C</li> <li>9. B</li> <li>10. A</li> <li>11. A</li> <li>12. A</li> <li>13. B</li> <li>14. A</li> <li>15. A</li> </ol>
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