**MEASURING DEMONSTRATION USING A BISCUIT RECIPE**

(WHY IT IS IMPORTANT TO MEASURE AND NOT GUESS)

**Instructional Objectives:**

The student will be able to:

 1. measure common ingredients correctly.

 2. predict the results and compare the food product when ingredients have been measured correctly and incorrectly.

**Teacher Preparation:**

Set up the room with the demonstration table and student chairs for viewing. Designate one end of the table to be the “blue-measure correctly” area and the other end to be the “red-guess” area. Set out the equipment and ingredients from the supply list.

**Time:** One 50 minute class period but you must keep the lesson moving!

**Supply list:**

BLUE

* Mixing bowl
* Cutting board
* (non-slip mat to go

under board)

* Baking sheet
* 1 c. dry meas. cup
* ½ c. dry meas. cup
* ¼ c. dry meas. cup
* Large spoon
* Measuring spoon set
* Wooden spoon
* Pastry blender
* Fork
* Biscuit cutter
* 1 c. liquid meas. cup
* Rubber spatula
* Straight edge spatula

BOTH BLUE AND RED

* Flour
* Salt
* Baking powder
* Shortening
* Milk

RED

* Mixing bowl
* Cutting board
* (non-slip mat to go

under board)

* baking sheet
* biscuit cutter
* wooden spoon
* rubber spatula
* (have 13x9” pan

and baking spray

available in case

dough is too runny to

be handled and needs

to be baked in a pan)

TEACHER NEEDS:

* Copies of recipe to pass out
* Paring knife to cut product for tasting
* 2 Serving dishes

For flour measuring demo:

* Large spoon
* Waxed paper
* 3 – 1 c. dry meas. cups
* ¼ c. dry meas. cup
* Flour sifter
* Flour

Look at “teacher recipe key” below to see how recipe is broken down into steps. Make sets of index cards, one blue stack and one red stack. Using the blue cards, write each step of the recipe on separate index cards. (Or cut and tape card directions listed below on two stacks of cards.) Number the cards in each stack in the proper sequence. Shuffle all of the cards together.

**Anticipatory Set:**

When students enter the room, tell them to wash their hands since they will be helping with the demonstration. Have students sit down. Explain they will be receiving index cards and to please not destroy them since they will be returning them. Pass out the cards so all students get one or more. Students will be curious why some are blue and some are red. Explain that the class will be making two batches of biscuits. When it is their turn, they will come up front to demonstrate the directions listed on the card. If they have a red card they will have to guess to measure. If they have a blue card, they will measure correctly using correct utensils. The class will make comparisons as we proceed and will predict the results. When the person with the red card is guessing to measure ingredients, the “audience” may give advice but the person at the demonstration table makes the final decision as to how much of the ingredient to add.

**Objective Statement:**

Explain that the lesson will allow students to review correct measuring techniques. The lesson will also illustrate the importance of measuring correctly and that the students will gain practice predicting and comparing the results.

**Activity:**

Ask the two students with the step number one to come up to the demonstration table. Have them go to the correct end of the table. ALWAYS HAVE THE STUDENT WITH THE RED CARD COMPLETE THEIR STEP FIRST. That forces people on the red side to do more blind guessing since they won’t have a chance to watch and compare to the amounts the blue side measures. You can even tell the student on the blue side to hide the appropriate measuring cup or spoon to prevent cheating! This makes for a greater contrast in the results.

Proceed through the recipe steps with the red side completing each step first. Help the “blue” person with each step, especially the measuring, cutting-in and kneading steps to be sure to model proper measuring methods. Students should notice a difference in the consistency of the two batches of food as it is being mixed.

**Teacher Demo:**

While the food is baking, the teacher can do the following flour measuring demonstration. Use 3-1cup dry measuring cups. For the first cup, dip and scoop the cup into the flour canister, level with straight edge and set on table. Take the second cup, stir flour in canister with large spoon, gently spoon flour into measuring cup being sure not to pack flour, level with straight edge, and set cup on table. For third cup, sift flour on waxed paper, gently spoon flour into cup being sure not to pack, level with straight edge and set cup on table.

Ask students if all of the cups contain the same amount of flour…after all, they are all one cup measuring cups! Talk about which has more and which has less. Talk about when each type of measuring is appropriate and how measuring flour incorrectly affects the product. Take the cup with the scooped flour, sift and spoon it into the measuring cups. (You will get about 1 ¼ c.) Explain if the recipe calls for sifted flour and the flour is scooped, you will get so much more flour that the product will be dry and tasteless.

**Check for Understanding:**

Ask students to restate measuring techniques. Provide verbal drill questions on the use of measuring tools.

**Lesson Summary:**

After baking, teacher points out characteristics of the best biscuits (doubled in size, splits in half, tender, evenly browned). Teacher cuts biscuits into sample sizes.

Compare the two food products. Explain the function of ingredients and the effect of too much or too little. Have students taste both batches to compare. Clean up.

TEACHER RECIPE – KEY (corresponds to student cards):

**BASIC BISCUIT RECIPE**

2 cups flour

1 tablespoon baking powder

½ teaspoon salt

¼ cup shortening

2/3 cup milk

1. Preheat oven to 450º. Get out ungreased baking sheet.

2. Measure 2 c. flour. Put in mixing bowl.

3A. Measure 1 tbsp. baking powder. Put in mixing bowl.

3B. Measure ½ tsp. salt. Put in mixing bowl. Stir.

4A. Measure ¼ c. shortening. Put in mixing bowl.

4B. Cut in shortening with pastry blender until it looks crumbly.

5A. Measure 2/3 cup milk.

5B. Stir in milk using a fork.

6. Lightly flour cutting board and put on dough. Knead 6-8 times.

7A. Pat dough until ½” thick.

7B. Use biscuit cutters to cut. Place on ungreased baking sheet.

7C. Bake 12-15 minutes or until brown.

Source: Rebecca Snyder, Warsaw, IN and Edith Rohrer, Edgewood Middle School, Warsaw, IN

**BISCUITS**

One of the quickest and simplest of baked foods, the biscuit may be served for breakfast, lunch or dinner. Basic ingredients are: flour, leavening agents, salt, some type of fat and a liquid.

**BASIC BISCUIT RECIPE**

2 cups flour

1 tablespoon baking powder

½ teaspoon salt

¼ cup shortening

2/3 cup milk

1. Preheat oven to 450º. Use ungreased baking sheet.

2. Measure flour and put in mixing bowl.

3. Add baking powder and salt. Stir.

4. Cut in shortening with pastry blender or two knives until mixture looks crumbly.

5. Add milk, stirring with fork to make a soft dough.

6. Place dough on lightly floured cutting board. Knead 6-8 times, until it forms a nice ball.

7. Pat dough out until ½” thick. Cut in desired shapes and put on ungreased baking sheet. Bake 12-15 minutes or until brown.

**BISCUITS**

One of the quickest and simplest of baked foods, the biscuit may be served for breakfast, lunch or dinner. Basic ingredients are: flour, leavening agents, salt, some type of fat and a liquid.

**BASIC BISCUIT RECIPE**

2 cups flour

1 tablespoon baking powder

½ teaspoon salt

¼ cup shortening

2/3 cup milk

1. Preheat oven to 450º. Use ungreased baking sheet.

2. Measure flour and put in mixing bowl.

3. Add baking powder and salt. Stir.

4. Cut in shortening with pastry blender or two knives until mixture looks crumbly.

5. Add milk, stirring with fork to make a soft dough.

6. Place dough on lightly floured cutting board. Knead 6-8 times, until it forms a nice ball.

7. Pat dough out until ½” thick. Cut in desired shapes and put on ungreased baking sheet. Bake 12-15 minutes or until brown.

1. Preheat oven to 450º. Get out ungreased baking sheet.

2. Measure 2 c. flour. Put in mixing bowl.

3A. Measure 1 tbsp. baking powder. Put in mixing bowl.

3B. Measure ½ tsp. salt. Put in mixing bowl. Stir.

4A. Measure ¼ c. shortening. Put in mixing bowl.

4B. Cut in shortening with pastry blender until it looks crumbly

5A. Measure 2/3 cup milk.

5B. Stir in milk using a fork.

6. Lightly flour cutting board and put on dough. Knead 6-8 times.

7A. Pat dough until ½” thick.

7B. Use biscuit cutters to cut. Place on ungreased baking sheet.

7C. Bake 12-15 minutes or until brown.

1. Preheat oven to 450º. Get out ungreased baking sheet.

2. Measure 2 c. flour. Put in mixing bowl.

3A. Measure 1 tbsp. baking powder. Put in mixing bowl.

3B. Measure ½ tsp. salt. Put in mixing bowl. Stir.

4A. Measure ¼ c. shortening. Put in mixing bowl.

4B. Cut in shortening with pastry blender until it looks crumbly.

5A. Measure 2/3 cup milk.

5B. Stir in milk using a fork.

6. Lightly flour cutting board and put on dough. Knead 6-8 times.

7A. Pat dough until ½” thick.

7B. Use biscuit cutters to cut. Place on ungreased baking sheet.

7C. Bake 12-15 minutes or until brown.