Top Cooking Techniques Every Chef Should Know

Overview: Youth will review chopping techniques and be introduced to basic culinary terms and cooking techniques.

Subject area: Proper Culinary Preparation

Grade level: 6-8

Objectives:

- Participants will learn basic cooking techniques
- Participants will be able to define the culinary terms and techniques
- Participants will be able to demonstrate cooking techniques using today's recipes

Prep time: 30 minutes

Lesson time: 60 minutes (includes part of recipe preparation)

Materials needed:

- White or chalk board
- Cutting boards – one per group
- Knives – one per group
- Dry and wet measuring cups
- Pots and pans
- One egg per student
- One vegetable per group (same for each group)
- Basic Cooking Terms handout – one per student (see page 4)
- How to Measure handout – one per student (see pages 5-6)

Space needed: Functional kitchen space

Staff needed:

- 1 Instructor
- 1 Volunteer per group of 2-4 students (optional)

Preparation steps:

1. Print the Basic Cooking Terms handout – one per student (see page 4)
2. Print the How to Measure handout – one per student (see pages 5-6)
3. Obtain the following:
    a. One dry ingredient for each group
    b. One wet ingredient for each group
    c. One egg per student
    d. One vegetable per group (same for each group)

Pre-test of knowledge:

- Ask youth what they know about measuring ingredients
- Ask youth what they know about proportions and techniques for cooking grains in liquids
- Ask youth what they know about egg cooking techniques
- Ask youth what they know about different cooking techniques in general
- Write relevant responses on the white board

Presentation Steps:

1. Have youth wash their hands and their knives.
2. Divide youth into small groups of 2-4 students.
3. Youth should prepare their cutting board and place a damp washcloth underneath. Review proper knife skills from the first class.
4. Explain and demonstrate:
    a. Measuring wet versus dry ingredients (see page 5-6)
    b. Grain to water cooking proportions: http://wholegrainscouncil.org/files/CookingWholeGrains.pdf
    c. Eggs:
        i. Various cooking techniques
        ii. Separating eggs
            1. After the demonstration, students can practice with the eggs provided at their work station
        iii. Whipping egg whites
    d. Different ways to cook almost everything
        i. Roasting
        ii. Boiling & Par-Boiling
        iii. Steaming
        iv. Sautéing
        v. Stir-Frying
        vi. Grilling
5. Vegetable cooking techniques – After washing and preparing their vegetables (for example, chopping or slicing), each group will practice a different technique from section 4d above. Have all youth taste and discuss the different texture and flavor.

Notes:

You may choose to assign a theme to this lesson (we have used a *local foods* theme in the past and featured a "Pacific Northwest" day). More importantly, follow up with a recipe that requires a lot of chopping, and a variety of cooking techniques to ensure that all students have a chance to practice. It's a good idea to include a baking recipe so students can practice measuring wet and dry ingredients. If you use the Sponge Cake recipe below, you can incorporate the eggs you used during the lesson above.

- Super Kale Salad http://lpi.oregonstate.edu/sites/lpi.oregonstate.edu/files/pdf/hyp/super-kale-salad.pdf
- Italian Sponge Cake with Yogurt and Berry Topping (see next page)

Italian Sponge Cake with Yogurt and Berry Topping

Equipment:

- Stand mixer with whisk attachment
- Mixing bowl
- Whisk
- 2 9-inch cake pans lined with wax or parchment paper

Ingredients:

- For Cake:
  - 6 eggs, yolks and whites separated
  - 1 cup sugar, divided
  - 1 cup cake flour, sifted
- For Topping:
  - 2 cups non-fat Greek Yogurt
  - 3-5 tablespoons sugar or honey
  - 1 teaspoon vanilla
  - 2 cups fresh or frozen berries

Directions for Cake:

1. Preheat oven to 350 degrees.
2. Cut wax or parchment paper to fit in the bottom of 2 9-inch round cake pans.
3. In a large bowl, mix egg whites and ½ cup of the sugar. Use an electric mixer to beat until stiff peaks form.
4. In a separate bowl, whisk together egg yolks and other ½ cup sugar until light yellow and creamy.
5. Fold yolk mixture gently into egg white mixture.
6. Fold sifted cake flour into the egg mixture a little at a time.
7. Once mixed, divide between your 2 cake pans with greased sides and wax/parchment paper on bottom.
8. Bake for 25-30 minutes at 350 degrees, until springy in the middle.

Directions for Topping:

1. Mix yogurt, sugar/honey (to taste) and vanilla into a large metal bowl. Whisk well until blended and creamy.
2. Refrigerate this mixture while cake cooks and cools.
3. Meanwhile, if using fresh berries wash, dry and chop in halves or quarters.
4. Once cake is baked and cooled, spread yogurt mixture evenly across the top and decorate with berries on top of yogurt mix.
5. Serve immediately or refrigerate until ready.

Basic Cooking Terms

Bake: to cook in an oven

Beat: to mix ingredients together using a fast, circular motion with a spoon, fork, whisk or mixer

Blend: to mix ingredients together gently with a spoon or fork, or until combined

Boil: to heat a food item so that the liquid is hot enough for bubbles to rise and break the surface

Broil: to cook under direct heat

Brown: to cook over medium to high heat until surface of the food item browns or darkens

Chop: to cut into small pieces

Dice: to cut into small cubes

Drain: to remove all liquid using a colander or strainer

Grate or Shred: to scrape food against the holes of a grater to make thin pieces

Grease: to lightly coat with oil, butter, or non-stick spray so food does not stick when cooking or baking

Knead: to press, fold and stretch dough until it is smooth and uniform, usually done by pressing with the heels of hands

Marinate: to soak food in a liquid to tenderize or add flavor to it (liquid= the marinade)

Mash: to squash food with a fork, spoon or masher

Mince: to cut into very small pieces (note- smaller than chopped or diced pieces)

Mix: to stir ingredients together with a spoon, fork, or electric mixer until well combined

Preheat: to turn oven on ahead of time so that it is at the desired temperature when needed (this typically takes 5-10 minutes, but will vary from oven to oven)

Sauté: to cook quickly in a small amount of oil or butter

Simmer: to cook in liquid over low heat (low boil) so that small bubbles just begin to break the surface

Steam: to cook food over steam without putting the food directly in water (usually by using a steamer)

Stir fry: to quickly cook small pieces of food over high heat while constantly stirring until the food is crispy and tender (often done with a wok)

How to Measure

By Linda Larsen – Busy Cooks Expert

Measuring accurately is probably the most important cooking skill in the kitchen. Home Economists in test kitchens spend many hours testing recipes with varying measurements in a process called 'tolerance testing'. A recipe must perform well even though the ingredient amounts are changed; if the recipe fails tolerance testing, it is not published. Even though the recipes in cookbooks are quite 'tolerant', the cook still has to follow basic rules of measuring.

To begin, make sure that you have actual commercial measuring utensils. Nested (graduated) measuring cups are used for dry ingredients. Measuring spoons are needed - your stainless coffee spoon just isn't the correct tool! For liquid ingredients, you need a clear glass or plastic cup with a pouring spout.

Graduated measuring cups are made in 1/4 cup, 1/3 cup, 1/2 cup, 1 cup, and 2 cup sizes. Liquid measuring cups are usually either 2 cup or 4 cup. Measuring spoons usually range from 1/8 teaspoon, 1/4 teaspoon, 1/2 teaspoon, 1 teaspoon, and 1 tablespoon. It's possible to find other more utensils including 1/8 cup, 2/3 cup, and very small spoons. Some sets even include "a pinch", "a smidgen", and "a dash".

Here's a basic guide to measuring common ingredients:

Flour: Stir flour in the storage container or bag. Using a large spoon, lightly spoon flour from the container into the measuring cup. Do not shake the cup and do not pack the flour. Using the back of a knife or flat blade spatula, level off the flour even with the top edge of the measuring cup. Don't use the measuring cup to scoop the flour out of the container. You can end up with 150% of the correct measurement if you do this! One cup of correctly measured flour should weigh about 120 to 125 grams.

Baking powder and Baking Soda: Stir in the container. Using the measuring spoon, lightly scoop out of the container. Use that knife to level off even with the top edge of the measuring spoon.

Sugar: Sugar is measured by scooping the cup or measuring spoon into the container or bag until it is overflowing, then leveling off with the back of a knife.

Brown Sugar: This needs to be packed into the measuring cup. The sugar should retain the shape of the cup when it is dropped into the other ingredients.

Powdered Sugar: Powdered sugar usually needs to be sifted to remove small lumps. It is measured by spooning the sugar into the measuring cup from the container, then leveling off with the back of a knife.

Liquid Ingredients: Liquids need to be measured at eye level. Using the liquid measuring cup, pour the liquid into the cup. Then bend over so you are on the same level with the measuring marks. The liquid should be right at the mark, not above or below.

Semi-Liquid Ingredients: Ingredients like sour cream, peanut butter, and yogurt are measured using dry measuring cups because they are too thick to be accurately measured in the liquid cups. Level off sour cream and peanut butter with the back of a knife.

Shortening and Solid Fats: Butter and margarine have measuring amounts marked on the sides of the paper wrapping. One quarter pound stick of butter or margarine equals 1/2 cup. Solid shortening is measured by packing it into a cup so there are no air spaces, then leveling off with the knife. To easily remove fats from baking cups, spray them with a nonstick cooking spray before measuring. You can also use the *liquid displacement method* for measuring solid fats. For instance, if you want 1/2 cup of shortening, fill a liquid measuring cup with 1/2 cup of cold water. Then add shortening until the water level reaches 1 cup when you look at it at eye level. Pour out the water and use the shortening. Oil is measured as a liquid.

Liquid Ingredients in Spoons: Make sure that you don't measure small amounts of liquid ingredients over the mixing bowl. It's just too easy to spill, and you don't want 2 teaspoons of almond extract when the recipe only calls for 1 teaspoon!

Dry Ingredients in Spoons: Ingredients measured in these small amounts still have to be measured carefully. Overfill the measuring spoons and level off using the back of a knife for the most accurate amounts. Accurate amounts of ingredients like baking soda and powder are critical to the success of any baked product.

Chopped Ingredients: Pay close attention to whether or not an ingredient is to be chopped, diced or minced, and whether they are measured before chopping or after. Then the foods are placed in the measuring cup so the top is level with the surface.

When you bake cookies, cakes, breads, pie crusts, and candies, measuring accurately is critical to the success of the recipe. When you are cooking casseroles, soups, stir fries, and meats, you can vary amounts more and the end result will still be good.

I remember liquid measurements this way: 2 cups in a pint, 2 pints in a quart, 4 quarts in a gallon. Memorize that! Using these rules and tips, you can be confident that any recipe you tackle will be a success.

Basic Equivalents in Cooking:

Wet Ingredient Equivalents		
1 cup	8 fluid ounces	1/2 pint
2 cups	16 fluid ounces	1 pint
4 cups	32 fluid ounces	2 pints
8 cups	64 fluid ounces	4 pints
2 pints	32 fluid ounces	1 quart
4 quarts	128 fluid ounces	1 gallon

Dry Ingredient Equivalents		
1 tablespoon	3 teaspoons	15 ml
1/8 cup	2 tablespoons	30 ml
1/4 cup	4 tablespoons	50 ml
1/3 cup	5-1/3 tablespoons	75 ml
1/2 cup	8 tablespoons	125 ml
2/3 cup	10-2/3 tablespoons	150 ml
3/4 cup	12 tablespoons	175 ml
1 cup	16 tablespoons	250 ml

Article and tables from: http://busycooks.about.com/od/howtocook/a/howtomeasure.htm