

A CAREER TASTING FOR

MIDDLE SCHOOLERS



Theme: Culinary Career Exploration Middle School			
Essential Questions: What does a chef do? Where does a chef work? How and why do chefs wash their hands?		What is included in a recipe? Is volume or weight more accurate when using dry measuring tools. How do you adjust the recipe yield? What is conduction heat transfer?	
Content (As a result of this learning segment students will know...) <ul style="list-style-type: none"> • Where chefs work. • How to avoid situations and behaviors that contribute to contaminating food. • Proper handwashing steps • How to measure with measuring cups and spoons. • How to use a conversion factor to adjust a recipe yield. • How to differentiate between weight and volume measures. • How to apply a conversion factor to adjust yield. • How to identify which type of heat transfer occurs when simmering foods. 	Skills (As a result of this learning segment, students will be able to...) <ul style="list-style-type: none"> • Match jobs in the community to the culinary pathway • Identify proper personal cleanliness practices and appropriate work attire. • Demonstrate proper handwashing steps • Identify and demonstrate the proper use of measuring devices • Select an appropriate unit and tool for the attribute being measured. • Differentiate between weight and volume measures. • Apply a conversion factor to adjust yield. • Identify which type of heat transfer occurs when simmering foods. 	Assessments (both formative and summative measures of authentic performance tasks and formal assessments) <ul style="list-style-type: none"> • Pair & Share • Demonstration • Stand up, Hand up, Pair up • Math Worksheet • Individual Exit Quiz 	Standards: Career Exploration Reading Measuring Yield Conversions Weight vs. Volume Using a Ruler Pacing Chart/Time Frame: 80 minutes Materials: <ul style="list-style-type: none"> • Chef's poster or google slide • Toolbox Resources: Chapter 7 – Handwashing Video Chapter 14- Recipe Video Chapter 14- How to measure dry ingredients & wet ingredients Video Mise en place Video

Lesson Plan Grade Middle School (55 minutes)

Essential Questions:

- 1) What is a chef and where do they work?
- 2) How and why do chefs wash their hands?
- 3) What is included in a recipe?
- 4) Is volume or weight more accurate when using dry measuring tools?
- 5) How do you adjust the recipe yield?
- 6) What is conduction heat transfer?

Objectives:

- Match jobs in the community to the culinary pathway
- Demonstrate proper hand washing steps
- Identify and demonstrate the proper use of measuring devices
- Differentiate between weight and volume measures.
- Apply a conversion factor to adjust yield.
- Identify which type of heat transfer occurs when simmering foods.

Classroom Setup & Lesson Sequencing:

- Slideshow with videos
 - Handwashing (Chapter 7)
 - Recipe Video (Chapter 14)
 - Measuring- dry & liquid (Chapter 14)
 - Mise en Place
- Gloves
- Measuring tools
- Spatulas (one per group)
- Mixing bowl/ mise containers
- Butane Burner
- Saucepan
- 8 x 8 inch pan
- Scale
- Ruler
- Pan spray
- Plastic knives for cutting
- Ingredients in bowls on common table

Activities:

Sequence One: Think, Pair, Share

Sequence Two: Stand up, Hand up, Pair Up

Sequence Three: Handwashing Video

Sequence Four: Recipes & Measuring Tools

Sequence Five: Prepare Recipe

Sequence Six: Weight vs. Volume, Conversions

Use ruler to cut treats

Check for Understanding- Quiz

Lesson Introduction: (Students should be paired up) (3 minutes)

In the front of the classroom there is a picture of a chef. Today, we are going to explore where chefs work, what tools they use in their jobs, what is required to prepare food for others, and then we are going to prepare a recipe.

Essential Questions:

- 1) What is a chef and where do they work?
- 2) How and why do chefs wash their hands?
- 3) What is included in a recipe?
- 4) Is volume or weight more accurate when using dry measuring tools.
- 5) How do you adjust the recipe yield?
- 6) What is conduction heat transfer?

The objectives for today are:

- Matching jobs in the community to the culinary (cooking) pathway
- Demonstrating proper handwashing steps
- Identifying and demonstrating the proper use of measuring devices
- Differentiating between weight and volume measures.
- Using a conversion factor to adjust the yield of a recipe.
- Identifying which type of heat transfer occurs when simmering foods.

Activity: Think, Pair, Share

For our first activity please think about the following questions:

- 1) What is a chef?
- 2) Where do chefs and cooks work?

Whisper to your partner the answers to these questions? (30 seconds)

Share out (2 minutes)

Next Questions (30 seconds)

- 3) What other workers work in restaurants?
(Servers, Greeters/Hosts, Bakers, Bussers, Cashiers, Managers)
- 4) Think about all the places chefs, cooks, and bakers work. How many places can you name?
(Specific restaurants, school cafeterias, hotels, amusement parks,)

Share out (2 minutes)

For the next activity, I would like to you think about the following:

- 1) When cooking for others how important is it to have clean hands and clothing?

Stand Up, Hands Up, Pair Up (6 minutes)

Instructions:

- 1) Everyone stand up.
- 2) Is everyone standing, okay great, now put your hand up in the air, straight elbows so everyone can see your hand is up.
- 3) Now look around and find a partner with their hand up. Once you find a partner, give your partner a soft elbow bump and tell them why you think it is important to have clean hands and clothing when cooking for others.
- 4) Once you share with your partner, please say thank you, put your hand up and share your answers with another partner.

After two rounds have the students stop and then ask the following:

- 1) What is the proper way to wash your hands. Did you know that there are five steps in proper handwashing? For the next round of Stand up, hands up, pair up I want you to list as many of these steps as you can with your partner.

After two rounds ask the students to take their seats. While they are sharing and taking their seats, queue up the video: Handwashing

View Video (3 minutes)

Demonstrate and have each student wash their hands (before recipe preparation)

Segment 2: Measuring and Recipes-

For this activity, place students in groups of 4.

Instructions (distribute recipes)

Before we prepare the recipe today, let's discuss recipes and measuring.

Activity: Think, Pair, Share (5 minutes)

Question:

When you or your family members cook at home do they use a recipe? If so, what are your favorite recipes?

Whisper to your partner the answers to these questions? (30 seconds)

Share out (1 minutes)

Prepare the recipe (20 minutes)

In a restaurant kitchen it's important to know how to read a standardized recipe and how to measure correctly so that every time a chef or cook prepares a recipe it will turn out the same (be consistent). When we go to McDonald's and order a sandwich, we expect it to taste the same every time, no matter who cooks it. Well, that's why we use standardized recipes and accurate measurements in the professional kitchen.

Before we start cooking, we are going to view four short videos that will help you cook like a professional.

View Videos- Recipes, Measuring Dry, Measuring Liquid Ingredients, Mise en Place

Once the videos are viewed distribute recipe – one per group (8 treats per group)

Now let's look at the recipe. What is included in the recipe? There's a title that tells us what we are making, the yield tells us how much the recipe makes (*explain*), what ingredients are needed, how much of each ingredient, and how to prepare the recipe. Sometimes the recipe also tells us what other equipment is needed, such as an oven or grill, along with any nutritional information such as how many calories per serving.

Let's read the recipe together (age-appropriate reading)

- 1) What are you preparing today
- 2) What is the yield? How much does each recipe make?
- 3) What are the ingredients?
- 4) What measuring tools will you use to prepare the recipe?
- 5) What safety precautions should you take when using the burner?

Now let's look in the box. Remember that your hands are clean, so please only touch the handle of the measuring tool so you don't contaminate the part that will be in contact with the ingredient. (*Teacher demonstrates-students demonstrate for teacher*).

Teacher holds up each measuring tool as he or she explains the recipe.

Science moment:

Did you know that you are using conduction as the mode of heat transfer to melt the butter and marshmallow. (*Ask a student to read the definition from the recipe sheet*). This is one of three modes of heat transfer. The other two are convection and radiation. You will learn more about those modes in your science class.

Alright, let's get started.

Please put your gloves on. Remember to avoid touching your face or clothes or you will need to rewash your hands and be sure to scrub again for 10 to 15 seconds and use a single use towel to dry your hands?

When measuring, make sure to level off the ingredients (*teacher demonstrates*). Also, measure all ingredients and grease the square baking pan before you start- (*Mise en Place*)

I also want to remind you that you are a professional chef today. That means you are preparing food for your classmates and not just for yourself. Remember, it's very important that you don't eat any of the ingredients while you are preparing the recipe. If you must sneeze or touch your face, please rewash your hands following the five steps, and put on new gloves- (*teacher reinforces the steps*) Please help each other and gently remind your classmates how to handle the food properly.

Does anyone have any questions?

Groups prepare the treats and leave them to rest until they can be cut (today or tomorrow)

Once all the groups have finished the recipes and are cleaned up. Hand out the math worksheet. Complete the sheet as a group

Math Worksheet (15 minutes)

Check for Understanding (Exit ticket or tomorrow before eating a treat).

Rice Krispie Treat Math Worksheet (Volume vs. Weight) (Conversion Factor)

Yield: 8 servings

Menu Item:	Rice Krispie Treats		
Number of Portions	8	Portion Size	1 square
Cooking Method	Simmer		
Recipe Source	RiceKrispies.com		

Weight vs. Volume

- 1) Weigh the following ingredients, write the weight in the "weight" column.
(teacher will ask each group to share their amounts and discuss why there are differences when using volume vs weight to measure)

Ingredient	Amount (Volume)	Amount (Weight)
Butter, Salted	¼ Cup (4 T.)	
Mini Marshmallows	1 package	
Rice Krispies	5 cups	

Conversion Factor

- 2) Convert the original recipe from 8 servings to 16 servings.

Formula: $\text{Desired Yield} / \text{Original Yield} = \text{Conversion Factor}$

Formula: $16 / 8 = \underline{\hspace{2cm}}$ (Conversion Factor)

Multiply all ingredients by the conversion factor to calculate the amount needed for the new yield.

Ingredient	Original Amount	Conversion Factor	Decimal Conversion (if needed)	Updated Recipe Amount
Butter	¼ cup (4 T.)			
Mini Marshmallows	1 package			
Kosher Salt	⅛ teaspoon			
Rice Krispies	5 cups			

Using a ruler

- 3) Once the Rice Krispie Treats recipe is prepared, it's time to cut the correct serving size. Using your ruler measure 8 x 8 one-inch pieces. How many inches would you measure per side if you wanted 16 pieces instead of 8?

Recipe Title: Rice Krispie Treats

Yield: One 8 x 8 pan

Portions: 8 (one-inch squares)

Ingredients:

Amount

- Rice Krispies 5 cups
- Vanilla Extract 1/4 tsp*
- Mini Marshmallows 10.5 oz**
- Butter, Salted 1/4 cup

*tsp= teaspoon

**oz = ounces

Kitchen Equipment/Tools :

8 x 8 square pan
Measuring Cups
Measuring Spoons
Mixing Bowl
Sauce Pan
Spatula
Scale
Burner

Cooking Science – Conduction



Conduction is the process of heat being transferred between objects through direct contact, and it's the most common type of heat transfer.

Instructions:



1. Wash your hands and put on gloves.
2. Measure all ingredients before you start to cook. (Mise en place). Remember when measuring to make sure to use the leveling tool so there is enough for everyone.
3. Spray the 8 x 8 square pan with cooking spray over the trash can or table.
4. Measure the rice cereal in a large mixing bowl.
5. Add one cup of the mini marshmallows into the mixing bowl. Set aside.
6. Spray a sauce pan with cooking spray and add the butter to the pan.
7. Cook on low until the butter is melted. If the butter is starting to brown, remove the pan and turn off the heat.
8. Add the remaining marshmallows to the pan over low heat. Stir until they are dissolved in the butter.
9. Once the marshmallows are melted, add the vanilla. Stir well.
10. Pour over the rice cereal, gently mixing.
11. Let the treats rest for one hour or overnight before cutting into 8 squares.