



METRIC RECIPES

Cooking and baking using a kitchen scale is a fun way to build metric system abilities and apply measurement techniques. This recipe series is ideal for both new and experienced chefs.

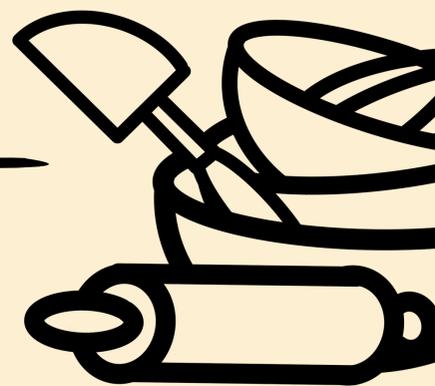
Completing a NIST metric recipe is an opportunity to apply culinary math, expand measurement skills, interpret instructions, complete steps in a necessary sequence, troubleshoot, build self-confidence, and enjoy the delicious results. Cooking and baking activities develop fine motor skills and coordination, practice selecting appropriate cooking tools, opening containers, mixing, pouring without spilling, counting, weighing, as well as reading and interpreting a digital scale readout or oven thermometer.

Gather all ingredients, tools and equipment before beginning a recipe. Adults will closely supervise, observe, and evaluate skills before permitting independent kitchen work. Prior to undertaking a recipe, collaborate to identify, discuss and avoid kitchen hazards, such as safely applying heat using an oven and adopting food hygiene best practices.

This printable recipe card series is best when printed on cardstock. Cooks and bakers are encouraged to keep this recipe collection close at hand in their kitchen. Companion resources are available on the NIST Metric Cooking website. Please share these delicious recipes with friends and family. Enjoy!



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APPLE CRISP

YIELD: 6 SERVINGS

PREP TIME: 30 MINUTES TIME: 60 MIN

INGREDIENTS

- 6 Apples
- 25 g Granulated Sugar
- 5 g Cinnamon Powder
- 5 g Vanilla Extract
- 5 g Lemon Juice
- 100 g Old Fashioned Oats
- 210 g Light Brown Sugar
- 100 g All-purpose Flour
- 110 g Unsalted Butter (Cold)
- 5 g Salt

TOOLS

- Wisk, Spatula, Butter Knife, and Fork
- (2) Mixing Bowls
- Kitchen Scale
- Baking Dish



20 cm x 20 cm

DIRECTIONS

1. Preheat oven to 180 °C
2. Prepare lightly buttered baking dish
3. Combine chopped apples, sugar, half of the cinnamon, vanilla, and lemon juice in a mixing bowl
4. Transfer the apple mixture to the baking dish
5. Use a fork to combine oats, sugar, flour, salt, remaining cinnamon powder, and diced cold butter in a separate bowl to form the topping mixture
6. Spread the topping mixture evenly upon the apple mixture
7. Place the baking dish into preheated oven on the middle rack and bake for about 60 minutes or until a toothpick comes out clean
8. Serve warm or cool. Enjoy!



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BANANA BREAD



YIELD: 1 LOAF

PREPPING TIME: 15 MINUTES

BAKING TIME: 60 MINUTES

INGREDIENTS

Dry Ingredients:

- 260 g All-purpose Flour
- 200 g Sugar
- 6 g Baking Soda
- 3 g Salt

Wet Ingredients:

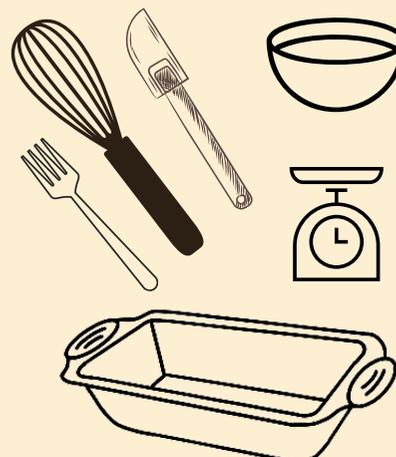
- 225 g Banana
- 2 Large Eggs
- 100 g Vegetable Oil
- 55 g Whole Milk
- 5 g Vanilla Extract

Toppings:

- 100 g Chocolate Chips
- 100 g Walnuts (Optional)

TOOLS

- Whisk
- (2) Mixing Bowls
- Kitchen Scale
- Loaf Pan
- Fork
- Spatula



23 cm x 13 cm (2 L)

DIRECTIONS

1. Preheat oven to 180 °C
2. Mash banana in a bowl
3. Combine banana and other wet ingredients together in the same bowl
4. Mix all dry ingredients together in a separate bowl
5. Use a whisk to combine dry mixture into wet mixture until smooth
6. Pour mixture into a greased/buttered loaf pan
7. Place the pan into preheated oven on the middle rack and bake for about 60 minutes or until a toothpick comes out clean
8. Enjoy!

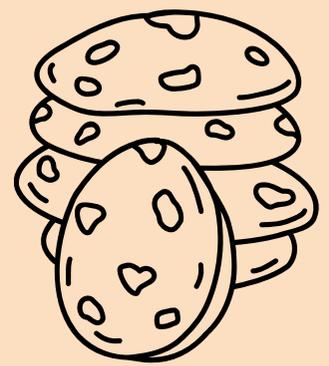
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CHOCOLATE CHIP COOKIES



YIELD: 24 COOKIES

PREP TIME: 20 MINUTES

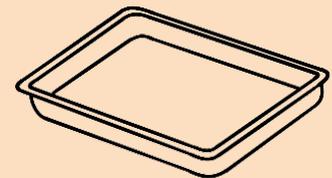
BAKE TIME: 10 MINUTES

INGREDIENTS

- 360 g All-purpose Flour
- 5 g Baking Soda
- 5 g Salt
- 230 g Unsalted Butter (Softened)
- 200 g Granulated Sugar
- 200 g Light Brown Sugar
- 10 g Vanilla Extract
- 2 Large Eggs
- 350 g Chocolate Chips/Chunks

TOOLS

- (2) Mixing Bowls
- Hand/Stand Mixer or Spoon
- Kitchen Scale
- (1) Full Size Sheet Pan
- Spatula
- Cookie Scoop



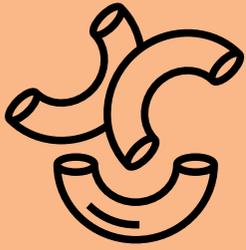
46 cm x 66 cm



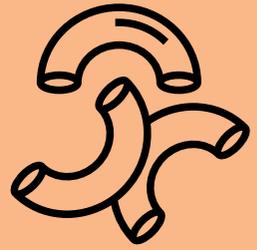
DIRECTIONS

1. Pre-heat oven to 180 °C
2. Combine the flour, baking soda, and salt into the butter mixture with a spatula to until they are combined, then set aside
3. In a mixing bowl, combine room-temperature butter, both types of sugar, and vanilla until smooth. Beat in the eggs
4. Gradually add flour mixture to the butter mixture and combine well
5. Stir in chocolate chips/chunks
6. Spoon dough from the mixing bowl onto a full size sheet pan using a cookie scoop (or spoon). Allow sufficient space between each cookie for spreading to occur during the baking process
7. Place the pan into preheated oven on the middle rack and bake for about 10 minutes. Cookies are done when the edges are lightly browned
8. Serve warm or cold. Enjoy!





MACARONI AND CHEESE



YIELD: 8 SERVINGS
PREP TIME: 30 MIN COOK TIME: 15 MIN

INGREDIENTS

- 450 g Elbow Pasta (Dry)
- 10 g Salt
- 110 g Unsalted Butter
- 60 g All-purpose Flour
- 1000 g Whole Milk
- 370 g Cheddar Cheese (Shredded)
- 110 g Parmesan Cheese (Shredded)
- 1 g Paprika
- 1 g Pepper
- 10 g Salt

TOOLS

- Spoon and Wisk
- (1) Mixing Bowl
- (1) Large Saucepan
- Colander
- (1) Medium Saucepan
- Baking Dish



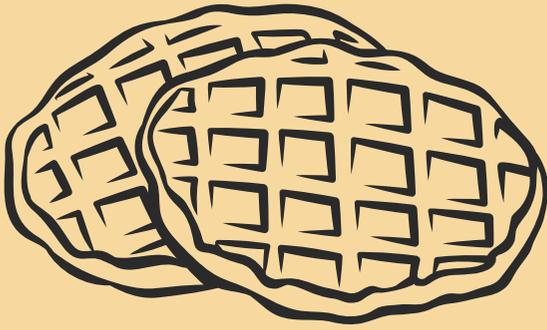
DIRECTIONS

1. Preheat the oven to 160 °C
2. Prepare greased baking dish
3. Add water and salt to a large saucepan and bring to a boil
4. Add pasta to saucepan and cook according to the manufacturer instructions. Drain drain pasta
5. While the pasta is cooking, combine cheddar and parmesan cheeses in a mixing bowl. Divide the cheese mixture into approximately 4 equal parts (120 g each)
6. Melt the butter in the medium saucepan on MEDIUM HEAT. Sprinkle in the flour and whisk until combined
7. Measure the milk in a small pitcher, then slowly pour half into the roux mixture and whisk until smooth. Repeat with the remaining milk
8. Constantly whisk sauce until thickened, then remove from heat.
9. Add 120 g of cheese mixture and whisk until smooth. Repeat with the second cheese mixture portion (120 g)
10. Add the cheese sauce into the drained pasta and stir until blended
11. Transfer half the cheesy pasta mixture into the baking dish and sprinkle with the 3rd portion of cheese mixture. Add the remaining cheesy pasta and top with the final cheese mixture (120 g)
12. Bake for 15 minutes until cheese is bubbling and light golden brown. Garnish with pepper and paprika.
13. Rest the hot dish before serving. Enjoy!

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WAFFLES

YIELD: 10 WAFFLES

PREP TIME: 20 MINUTES

COOKING TIME: 30 MINUTES

INGREDIENTS

- 250 g All-purpose Flour
- 15 g White Sugar
- 8 g Baking Powder
- 3 g Baking Soda
- 5 g Salt
- 4 Large Eggs
- 250 g Milk
- 250 g Plain Yogurt
- 80 g Unsalted Butter (melted)
- 5 g Vanilla Extract
- Vegetable Oil

TOOLS

- Whisk, Spatula, and Spoon
- (2) Mixing Bowls
- Kitchen Scale
- Waffle Iron



DIRECTIONS

1. Combine flour, sugar, baking powder, baking soda, and salt together in a bowl
2. Beat the eggs in a bowl. Add milk, yogurt, melted butter, and vanilla and combine
3. Combine the dry mixture into the wet mixture until the consistency is smooth
4. Preheat the waffle iron and test temperature (see appliance instructions)
5. To avoid sticking, prepare the waffle iron using oil, as needed before each waffle
6. Gently spoon the batter mixture at the center of the waffle iron and avoid overfilling the iron (batter rises and spreads during cooking)
7. Close the waffle iron lid and fully cook each waffle (see appliance instructions)
8. Serve hot with toppings, such as mixed fruit, butter, whipped cream, maple syrup, or powdered sugar
9. Enjoy!

