



MAKER ED

LEARNING IN THE MAKING:

Math and Pancakes!

INTRODUCTION

Do you love a stack of steaming hot pancakes topped with butter and syrup? Does your family have a secret recipe? Do you want to learn about measuring, mixing, and flipping? Do you already know how to read a recipe or want to learn? Pancakes have been around for centuries as a favorite staple in many cultures' diets. They began over 30,000 years ago during the Stone Age. Ancient Greek poets, Cratinus and Magnes wrote about pancakes in their poetry. Shakespeare even mentions them in his famous plays. During the English Renaissance pancakes were flavored with spices, rosewater, sherry, and apples. Pancakes are served for breakfast, lunch, and dinner all over the globe! Pancakes come in many different shapes, sizes and flavors. They can be sweet, savory, thick, thin, small or large, but they are all delicious!



COOKING IS FULL OF MATH!

Study the ingredients list below and the cooking instructions on the next page! This recipe makes 4-6 servings. The number of pancakes depends on how big or small you make them, but should be approximately 12 pancakes. Your task is to:



- Rewrite the recipe for half as many pancakes.
- Rewrite the recipe for twice as many pancakes.
- Make some pancakes by testing out one of the recipes!

Tools & Equipment

- 1 large bowl
- Skillet or griddle
- Measuring Cups
- Measuring Spoons
- Whisk
- Large Wet Measuring Cup
- Spatula
- Stove or Hot Plate

Ingredients

- 6 Tbsp Butter ($\frac{3}{4}$ stick)
- 1 $\frac{1}{2}$ cups Flour
- 2 tsp Baking Powder
- 1 tsp Salt
- 1 Tbsp Sugar
- 2 Eggs
- 1 $\frac{1}{2}$ cup Milk

Subject

Math, Cooking



Standards

CCSS.MATH.

CONTENT.4.NF.B.3.D

Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.



Grades

3-5th

6-8th

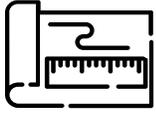
9-12th



Key Terms

- Measure
- Whisk
- Griddle





COOKING INSTRUCTIONS



STEP 1

Gather all the tools and materials to prepare the recipe! If you are too little to use the stove alone, enlist a trusted adult to help you.

- Think about what “flair” you want to add into your recipe (fruit, spices, chocolate) and make sure to get that out too!

STEP 2

Melt 6 tablespoons of butter ($\frac{3}{4}$ stick) in a pan or microwave and set aside to cool.

STEP 3

In a large bowl, measure and whisk together:

- 1 $\frac{1}{2}$ cups flour
- 2 teaspoons baking powder
- 1 tablespoon sugar (optional)
- 1 teaspoon salt

STEP 4

In a large measuring cup, measure 1 $\frac{1}{2}$ cups milk. Crack two eggs into the milk and whisk them together.

STEP 5

Pour the milk and eggs into the dry ingredients and whisk until mixed together. Add the melted butter and stir well. If the batter is too thick, add more milk.

STEP 6

Spoon the batter onto a pre-heated griddle. Cook until the underside of the pancake is light brown and the top is bubbling. Flip the pancakes and cook until done.

ADD FLAIR!

There is no wrong way to make a pancake! Here are a few things you can do to make it your best pancake ever!

- Add fruit! Bananas, blueberries, raspberries, strawberries.
- Add nuts! Walnuts, almonds, and pecans add a crunchy texture.
- Spice it up! Add cinnamon, ginger, nutmeg, allspice, or any spice you love.
- Go wild, add chocolate!



Did you know?
Researchers have found pancakes in the stomach of Otzi the Iceman, human remains dating back 5,300 years.



Caution!
Be careful when you crack the eggs, look for shells before you mix!



Helpful Tip:
You can mix your fruit into the batter or place it on the pancakes after you have put the batter on **the griddle!**



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#Pancakes





MATH CONNECTIONS

MEASUREMENTS

When cooking, measuring cups and spoons use fractions to measure the amount of ingredients you need for your recipe! It's important to know that ingredients have relationships with each other. If we change the amount of one ingredient, we have to change the amount of all the ingredients by the same rate - otherwise our pancakes will turn out too thick or too runny!



Helpful Tip: Look closely at the measuring spoons and cups you have. What do you notice? What fractions are used?



Notice: Some ingredients are measured in fractions and some are measured in whole numbers.



Helpful Tip: Write the quantity for each ingredient in the recipe down carefully and compare them. Do they make sense?

SERVING SIZE

Aside from measuring in fractions, another important consideration is serving size. For example, the serving size for this pancake recipe is about 12 pancakes! If you want to make 6 pancakes, you must be able to divide the entire recipe in half. If you want to make 24 pancakes, you must double the entire recipe! It is important to understand how to adjust your recipe if you want to change the amount of servings you make.

REPRESENTING FRACTIONS

You can represent fractions in different ways, such as:

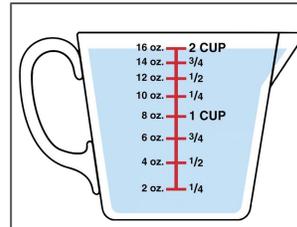
- A visual fraction model
- Using numbers and equations
- Or even using your measuring spoon or cup!

1			
1/2		1/2	
1/3	1/3	1/3	
1/4	1/4	1/4	1/4

$$\frac{1}{2} + \frac{1}{2} = 1$$

$$\frac{1}{4} + \frac{1}{4} = \frac{1}{2}$$

...



Using the original recipe, complete the tasks below and then go make some delicious pancakes!

REWRITE THE RECIPE FOR HALF AS MANY PANCAKES

Divide each ingredient in half and write the quantities down.

REWRITE THE RECIPE FOR TWICE AS MANY PANCAKES

Double each ingredient and write the quantities down.

Reflect After you complete the activity, reflect on your experience:



- What did you learn during this process?
- What is another recipe you can rewrite? What is the serving size and how would you increase or decrease it?



Watch this activity video here: bit.ly/MakerEdPancakes



For more resources, visit us: makered.org



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