

# CUPCAKES GALORE

## Math Project Based Learning

3<sup>rd</sup> Grade Print & Google Slides

**CUPCAKES GALORE BAKE SALE** Baker: \_\_\_\_\_

Your teacher records the number of cupcakes your class is baking to help her prepare for the bake sale. Use the data to answer the questions below by dragging the names and numbers.

**Cupcake List**

- Berry Bonanza
- Vanilla Dream
- Chocolate Walnut Delight
- Cinnamon

1. How many batches of cupcakes will be made by your class?

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

2. Determine how many cupcakes each recipe will make in on \_\_\_\_\_

**Vanilla Dream** \_\_\_\_\_ **Chocolate Walnut Delight** \_\_\_\_\_

3. Using the recipe cards and the data above, calculate \_\_\_\_\_

**Berry Bonanza** \_\_\_\_\_ **Chocolate Walnut Delight** \_\_\_\_\_

4. Two cupcakes will have the same number \_\_\_\_\_

5. Using the recipe cards and the \_\_\_\_\_

© Julie Barber

**CUPCAKES GALORE BAKE SALE** Baker: \_\_\_\_\_

Page 2, Version 1

You and one of your classmates picked the same two types of cupcakes to bake so you decide to bake together. You create a table to help you double the ingredients. Fill in the table with the amounts of your ingredients for one of the recipes you will bake. Write the name of the recipe on the line below.

Our recipe I \_\_\_\_\_

Ingredients	Amount in 1 recipe	Amount for both recipes
flour		
white sugar		
brown sugar		
baking powder		
baking soda		
butter		
egg		
confectioners' sugar		
milk		
vanilla		

© Julie Barber

Page 5, Version 1

She made one batch of Berry Bonanza and \_\_\_\_\_  
 how many cupcakes were made with \_\_\_\_\_  
 of the cupcakes were decorated with \_\_\_\_\_  
 from the table to the fraction.

Chocolate Sprinkles	Fraction
16	$\frac{16}{24}$
9	$\frac{9}{36}$

© Julie Barber





# Print & Digital Versions

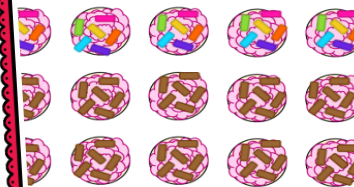
## CUPCAKES GALORE BAKE SALE Baker: Julie

Page 5, Version 1

One of your classmates decorated her cupcakes with sprinkles. She made one batch of Berry Bonanza and one batch of Cinnamon Sensation cupcakes. The first column shows how many cupcakes were made with each recipe. Complete the table to determine what fractional part of the cupcakes were decorated with rainbow sprinkles and chocolate sprinkles by dragging the numbers from the table to the fraction.

Cupcake	Rainbow Sprinkles	Fraction	Chocolate Sprinkles	Fraction
	8	$\frac{8}{24}$	16	$\frac{16}{24}$
	27	$\frac{27}{36}$	9	$\frac{9}{36}$

aniza cupcakes.



## CUPCAKES GALORE BAKE SALE Baker: \_\_\_\_\_ Page 2, Version 1

You and one of your classmates picked the same two types of cupcakes to bake so you decide to bake together. You create a table to help you double the ingredients. Fill in the table with the amounts of your ingredients for one of the recipes you will bake. Write the name of the recipe on the line below.

Our recipe is \_\_\_\_\_

Ingredients	Amount in 1 recipe	Amount for both recipes
flour		
white sugar		
brown sugar		
baking powder		
baking soda		
butter		
egg		
confectioners' sugar		
milk		
vanilla		

© 2018 Edmentum

# Realistic Recipes

## CUPCAKES GALORE-RECIPE CARDS

Version 1

### Berry Bonanza

#### Cupcake Ingredients

- 3 ½ cups of flour
- 1 ½ teaspoons of baking powder
- 1 teaspoon of baking soda
- ⅓ cup of brown sugar
- 8 tablespoons of butter
- 1 teaspoon of vanilla
- 3 eggs
- ¼ cup of cooking oil.
- ½ cup of your favorite jam

#### Buttercream Icing Ingredients

- 1 cup of confectioners' sugar
- 4 tablespoons of butter
- 1 teaspoon of vanilla
- ¼ cup of milk

Bake at 350°F for 30 minutes.

Makes 2 dozen cupcakes.



### Vanilla Dream

#### Cupcake Ingredients

- 2 ½ cups of flour
- 1 teaspoon of baking powder
- ½ teaspoon of baking soda
- ½ cup of white sugar
- 6 tablespoons of butter
- 1 teaspoon of vanilla
- 2 eggs
- ¾ of vanilla yogurt

#### Vanilla Yogurt Icing Ingredients

- 1 cup of confectioners' sugar
- ½ cup of vanilla yogurt
- 1 teaspoon of vanilla
- 1 cup of milk

Bake at 325 °F for 25 minutes.

Makes 18 cupcakes.



Copy (Ctrl+C) and Past (Ctrl+v) Recipe Cards to Move to Other Slides!

© Julie Becker





# Applicable to Real Life & Fun!

## CUPCAKES GALORE BAKE SALE

Baker:

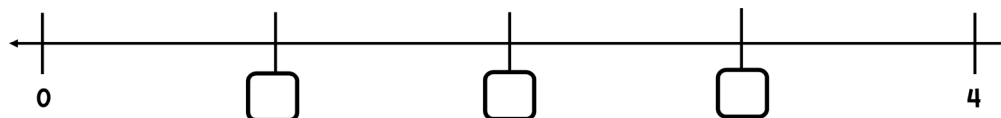
Page 8, Version 1

Your teacher records the different amounts used for flour and sugar in all four recipes. Mark the whole numbers where they will fall on the number line. Then place the amounts on the number line where they best fit.

### Ingredients

### amounts

Flour	$3\frac{1}{2}$ , $2\frac{1}{2}$
Brown sugar	$\frac{1}{3}$
White sugar	$\frac{1}{2}$ , $\frac{3}{4}$ , 1
Confectioners' Sugar	1, $1\frac{1}{2}$



© Julie Beebe



## Challenge 2 Version 1

Look at the cost of each  
cupcake on your scrap paper.

Cinnamon Sensation  
45 ¢

cupcakes =

cupcakes =

cupcake 1 =

cupcake 2 =

Total earned selling all of cupcake 2 =



© Julie Beebe

# Challenge Activities

## Challenge 2 Version 1

### CUPCAKES GALORE BAKE SALE Baker:

You are responsible for collecting money for your cupcakes at the bake sale. Look at the cost of each type of cupcake and use the cost to complete the table below. Show all calculations on your scrap paper.

Berry Bonanza 25 ¢	Vanilla Dream 30 ¢	Chocolate Walnut Delight 50 ¢	Cinnamon Sensation 45 ¢
Cupcake 1 -----		Cupcake 2 -----	
Total cupcakes made =		Total cupcakes made =	
Cost for 1 cupcake =		Cost for 1 cupcake =	
Money earned selling 10 cupcakes =		Money earned selling 10 cupcakes =	
Money earned selling 2 of my cupcakes =		Money earned selling 2 of my cupcakes =	
Money for selling $\frac{1}{2}$ of my cupcakes =		Money for selling $\frac{1}{2}$ of my cupcakes =	
Total earned selling all of cupcake 1 =		Total earned selling all of cupcake 2 =	





## FOR THE TEACHER

**Cupcakes Galore** is a project-based learning task that involves using the following CCSS standards:

- 3.OA.A.3 Use mult/div within 100 to solve word problems in situations involving equal groups, arrays and measurement quantities.
- 3.OA.D.8 Solve 2-step word problems using all 4 operations.
- 3.NBT.A.2 Fluently add/sub within 1000 using strategies and algorithms based on place value, properties and relationships.
- 3.NBT.A.3 Multiply 1-digit whole numbers by multiples of 10.
- 3.NF.A.1 Understand a fraction  $\frac{1}{b}$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts, understand a fraction  $\frac{a}{b}$  as the quantity formed by  $a$  parts of size  $\frac{1}{b}$ .
- 3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- 3.NF.A.3 Explain equivalence of fractions in special cases; and compare fractions by reasoning about their size.
- 3.MD.A.1 Tell and write time to the nearest minutes and measure time intervals in minutes. Solve word problems involving add/sub of time intervals in minutes.
- 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of measurement. Add/sub/multiply or divide to solve one step word problems.

### Directions:

1. Assign students to work alone or in small groups.
2. Preview the activity with your students.
3. Allow students class time to complete the activity. This can span over several days.
4. Students will prepare to bake cupcakes for a school bake sale. They will read and interpret recipes for cupcakes and icing.
5. Students will solve fraction or decimal problems aligned to the CCSS MD standards.
6. Students should be given the opportunity to complete the extra challenge activity.
7. Students will complete the self-evaluation reflection and evaluation rubric.
8. Allow students an opportunity to share their completed projects.



# CUPCAKES GALORE

Your grade is having a bake sale to raise money for a new piece of playground equipment. Two classes have been assigned a baked good to prepare for the sale. Your class is responsible for making cupcakes. The other class will make brownies.

Here are your tasks:

- Read through the entire packet before starting.
- Read all the recipe cards. Review all ingredients and measurements.
- Choose two recipes that you will make for the bake sale.
- Read each page carefully and follow the directions for each step of the task.
- Use scrap paper for all calculations. Label each calculation with the page number.
- Attach your scrap paper to your final project.
- Use models and drawings that illustrate the math when directed.
- Complete the self-reflection and evaluation rubric.



# CUPCAKES GALORE-RECIPE CARDS

Version 1

## Berry Bonanza

### Cupcake Ingredients

- 3 ½ cups of flour
- 1 ½ teaspoons of baking powder
- 1 teaspoon of baking soda
- 1/3 cup of brown sugar
- 8 tablespoons of butter
- 1 teaspoon of vanilla
- 3 eggs
- ¼ cup of cooking oil.
- ½ cup of your favorite jam

### Buttercream Icing Ingredients

- 1 cup of confectioners' sugar
- 4 tablespoons of butter
- 1 teaspoon of vanilla
- ¼ cup of milk

Bake at 350°F for 30 minutes.

Makes 2 dozen cupcakes.

## Vanilla Dream

### Cupcake Ingredients

- 2 ½ cups of flour
- 1 teaspoon of baking powder
- ½ teaspoon of baking soda
- ½ cup of white sugar
- 6 tablespoons of butter
- 1 teaspoon of vanilla
- 2 eggs
- ¾ of vanilla yogurt

### Vanilla Yogurt Icing Ingredients

- 1 cup of confectioners' sugar
- ½ cup of vanilla yogurt
- 1 teaspoon of vanilla
- 1 cup of milk

Bake at 325 °F for 25 minutes.

Makes 18 cupcakes.



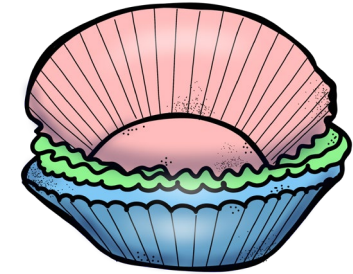


# CUPCAKES GALORE BAKE SALE

Baker: \_\_\_\_\_

Page 1, Version 1

1. Read all four recipe cards and decide which two recipes you will make.
2. Write your choices on the lines.
3. Write the amounts of each ingredient listed in the table for both of your recipes.
4. Add the two amounts together to find the total amount needed for each recipe..



My two recipes: 1. \_\_\_\_\_ 2. \_\_\_\_\_

Ingredients	Amount in recipe 1	Amount in recipe 2	Total amount for both recipes
flour			
white sugar			
baking powder			
baking soda			
butter			
vanilla			
eggs			
milk			
confectioners' sugar			

As you begin following the recipe, you notice that you can only find the  $\frac{1}{4}$  cup measuring cup. You must use it for measuring the flour and sugars. Pick one recipe and write it on the line. Then, determine how many  $\frac{1}{4}$  cups you need of each of the ingredients in the table below for the recipe you selected.

Cupcake \_\_\_\_\_

Cupcake ingredients	Amount in my recipe	Number of $\frac{1}{4}$ cups
flour		
white sugar		
brown sugar		
confectioners' sugar		

Draw a fraction model to illustrate how many  $\frac{1}{4}$  cups of *confectioners' sugar* you used for the recipe.





You must pack all your cupcakes in boxes to deliver to the bake sale. There are two different size boxes you can use. They are shown below. In the box, draw one way you can pack all your cupcakes. Try to pack in an arrangement that leaves the fewest number of empty spaces.

Box A



Box B



Number of cupcakes in each recipe 1. \_\_\_\_\_ 2. \_\_\_\_\_ Total number of cupcakes to pack \_\_\_\_\_

Arrangement of cupcakes

Number of Box A = \_\_\_\_\_ Number of Box B = \_\_\_\_\_

# CUPCAKES GALORE BAKE SALE

Baker: \_\_\_\_\_

Page 9, Version 1

Your teacher made this table to help her plan for how many cupcakes may be sold at the bake sale. Complete the table to show how many cupcakes there will be for each recipe.

Type of Cupcake	1 batch	2 batches	3 batches	4 batches	5 batches
Berry Bonanza	24 cupcakes				
Vanilla Dream					90 cupcakes
Chocolate Walnut Delight			90 cupcakes		
Cinnamon Sensation	36 cupcakes				





# CUPCAKES GALORE BAKE SALE

Baker: \_\_\_\_\_

Challenge!  
Version 1

Your teacher asks you to write a description that will be displayed on the table next to your cupcakes. The purpose is to persuade a buyer to purchase your cupcakes. Be sure to include descriptive language and sensory details.

Cupcake 1 \_\_\_\_\_

Cupcake 2 \_\_\_\_\_



# CUPCAKES GALORE SELF EVALUATION

Baker: \_\_\_\_\_

**SELF-REFLECTION:** Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Rate this project



I am ready for something harder

It was just right

I found this very challenging






# CUPCAKES GALORE BAKE SALE

Baker: \_\_\_\_\_

**SELF-EVALUATION RUBRIC:** Highlight or shade the parts of the rubric that express how you rate yourself on this Project Based Learning Activity.



		
<p>I felt very confident about the math in this project.</p>	<p>I felt pretty good about my ability to complete the math in this project.</p>	<p>I felt a lot of the math in this project was too hard for me to do alone.</p>
<p>I understood all of the math and did not need help to complete the problems.</p>	<p>I understand most of the math but needed a little help to solve some of the problems.</p>	<p>I understood some of the math but needed help to complete most of the problems.</p>
<p>I easily used many strategies to solve the math problems efficiently.</p>	<p>I needed some help to determine the best strategies for solving the math problems.</p>	<p>I had trouble understanding the best way to solve many of the math problems.</p>
<p>I feel I am ready for a harder math project.</p>	<p>I feel I would like to spend more time practicing similar math problems.</p>	<p>I feel I need assistance to work on similar math problems</p>

# Terms of Use



## How Can I Use This Resource?

Thank you for trusting MagiCore. Our mission is to create resources that support teachers and promote student success. Please note that this resource is licensed for use by a single teacher in a classroom setting. If you need to use this resource with more than one teacher and/or across multiple classrooms, additional licenses are available at a discount. You can purchase additional licenses by visiting your TPT "Purchases" page and then selecting "Download Additional Licenses" or by contacting me at [julie@magicorelearning.com](mailto:julie@magicorelearning.com).



Good to Go



Not O.K.

- Use this resource personally or with your own children
  - Use this resource in your own classroom with your students.
  - Provide this resource to your students to use at your instruction.
  - Print and/or copy for use in your own classroom.
  - Provide printed pages to a substitute teacher with the sole purpose of instructing your students.
  - Share with your students via a secure document portal or electronic learning platform that requires individual user verification and limits access to only the students in your own classroom (e.g. Google Classroom)
  - Review this resource with others with the sole purpose of recommending it to others for purchase, provided you share one of the links below:
- Share with others to use personally.
  - Share with others to use in another classroom.
  - Print or copy any page(s) and distribute them to other teachers or other classrooms.
  - Publish or host online in a manner where any of the material is accessible to anyone who is not a student in your own classroom, including but not limited to personal, classroom, or district websites that are accessible to the general public.
  - Use this resource commercially (e.g. Outschool).
  - Publish, sell, or otherwise distribute this product to anyone in manner inconsistent with these terms of use.

<https://magicorelearning.com/>

<https://www.teacherspayteachers.com/Store/Magicore>

© Copyright 2020, 2022. All rights reserved. The unlicensed reproduction or distribution of this product is strictly prohibited. Permission is granted to the original purchaser or licensee to make copies to use with students and/or to assign to students digitally providing it is only available to students assigned directly to the purchaser. Placing this product in any manner that makes it accessible to the general public is strictly forbidden. Commercial use, including but not limited to online or in person classes, is prohibited. Contact [julie@magicorelearning.com](mailto:julie@magicorelearning.com) for commercial licensing information. Sharing without permission or hosting online in a public manner is a violation of the Digital Millennium Copyright Act (DMCA). These terms may be updated at any time. You can see the most up to date Terms of Use at <https://magicorelearning.com/terms-of-use>.



# Let's Connect!

## [www.magicorelearning.com](http://www.magicorelearning.com)



<https://www.teacherspayteachers.com/Store/magicore>



<https://www.facebook.com/MagiCoreLearning>



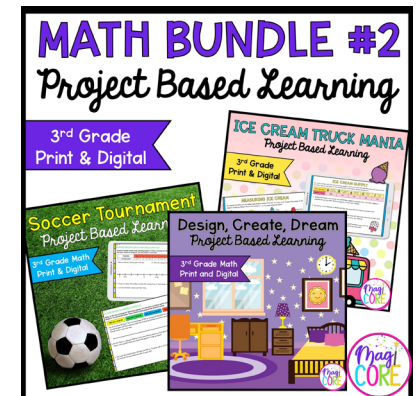
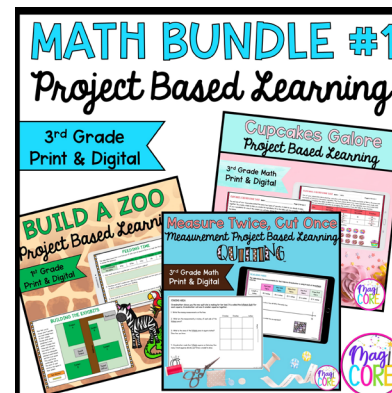
<https://www.instagram.com/magicorelearning>



[https://www.pinterest.com/magicorelearning/\\_shop/](https://www.pinterest.com/magicorelearning/_shop/)

[Julie@magicorelearning.com](mailto:Julie@magicorelearning.com)

## Looking for more?



# Membership Opportunity!



If you love these resources and want access to more, check out my membership opportunity with the MagiCore Club.

[Join my MagiCore Club waitlist!](https://magicorelearning.com/membership)

MagiCore Club opens its membership doors twice a year to offer teachers all of the resources you love, with a membership discount. You can also find support through my custom learning plan.

Find out more <https://magicorelearning.com/membership>



CREDITS

