

# **5 WAYS TO MAKE MATH FUN**

**Activities to Help Your  
Child Love Math**

**Kathryn Gomes**



# **5 WAYS TO MAKE MATH FUN**

**Activities to Help Your  
Child Love Math**

Published by  
**Apologia Educational Ministries, Inc.**  
P.O. Box 896844  
Charlotte, NC 28289-6844  
[www.apologia.com](http://www.apologia.com)

Copyright © 2021 Apologia Educational Ministries, Inc. All rights reserved.

*Cover design and e-Book layout: Christi Gifford*

# INTRODUCTION

Homeschool parents have a lot to accomplish each day. With skills to master and so much content to cover, is making math fun really a priority? Yes, it is. Let me explain why.

Introducing an element of fun to our homeschool math programs is essential. It doesn't just bring joy to our kids, it leads to deeper learning. Fun counteracts the negative emotions of fear and frustration that many kids bring to the table when it is time to learn math. Fun replaces those negative feelings with excitement and joy.

When our kids see a fun project, a cool coloring page, or an exciting game, they can't wait to try it out. This feeling of excitement primes their brain for learning. Because of this, they learn math more effectively which leads to greater success in the subject. The overall effect is a snowball of positive feelings and mathematical confidence.

However, as a homeschool mom of three, I know it can be challenging to fit one more thing in. That's why I'm on a mission to bring you simple games and activities that use common household supplies. This e-book is one way Apologia is helping me do that.

This selection of games, activities, and projects were all selected from the *Exploring Creation with Mathematics* series. I pray it is a blessing and that it brings some fresh fun into your math program.

-Kathryn Gomes



# FISHING FOR TENS

## You Will Need:

- ❑ A deck of numbered cards such as Uno® cards
- ❑ At least 2 players

## You Will Do:








Have an adult help you the first time you learn to play this game. Once you learn the rules, you will be able to play without any help.

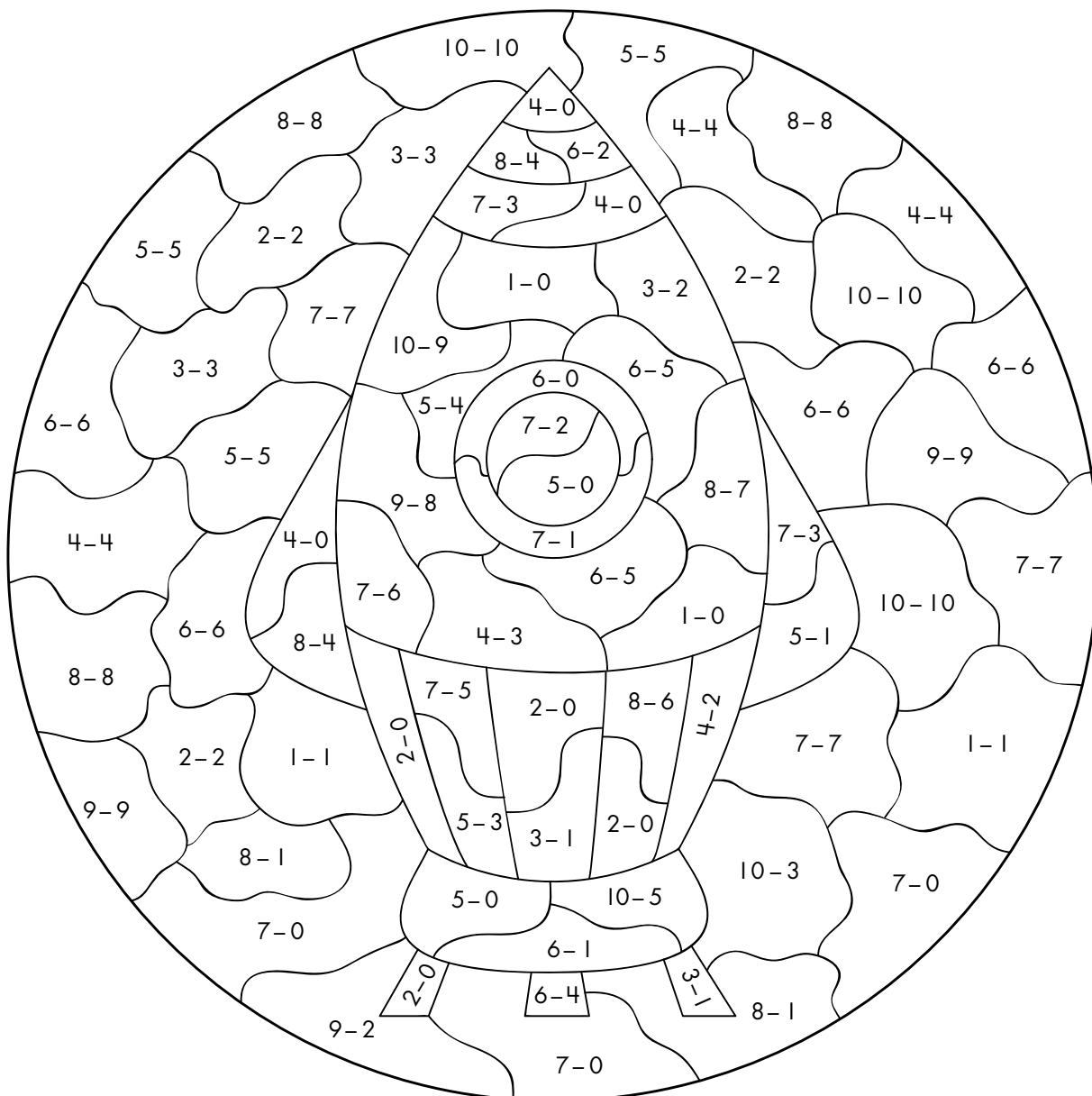
1. Remove all cards from the deck except the numbers one to nine. Shuffle.
2. Deal 7 cards to each player.
3. The first player begins by laying down any pairs of numbered cards that make a 10. For instance, a 7 and a 3 or a one and a 9. The colors do not need to match.
4. The first player then asks another player for a card needed to make a 10. For example, if you have a 6 in your hand, you would say, "Do you have any fours?" Every time you make a pair, you lay the pair down and go again.
5. If you ask someone for a card he or she does not have, that player will tell you to "go fish" and you will draw from the pile of remaining cards. If you draw the card you were looking for, you get to go again. If you do not draw the card you were looking for, your turn is over.
6. After the first player has gone, the second player lays down any pairs of 10 he or she was dealt and then asks other players for the cards needed to make 10.
7. If a player runs out of cards they draw 7 new cards. The game is over when there are no more cards or the student draws and neither player can make any more matches. The winner is the player with the most matches.



# CALCULATE AND COLOR

Subtract to find the differences and color the picture.

Color Key		
 blue = 0	 red = 2	 black = 6
 gray = 1	 orange = 4	 brown = 7
	 yellow = 5	







# MAKE 25¢ IN DIFFERENT WAYS

**You Will Need:**

- Pennies
- Nickels
- Dimes

**You Will Do:**

1. Look at the table below. It shows how much different coins are worth.

Coin Values			
Penny	Nickel	Dime	Quarter
			
1 cent	5 cents	10 cents	25 cents

2. A quarter is worth 25¢ but there are other ways to make 25¢ using pennies, nickels, and dimes. Find 4 different ways to make 25¢. Record your answers in the table below.

Coins Used		
Pennies	Nickels	Dimes

3. There are 12 different ways total that you can make 25¢ using just pennies, nickels, and dimes. Can you find all of them? The answer is one the last page of this e-book.

# COIN WAR

## You Will Need:

- ❑ Fifty coins (pennies, nickels, dimes, and quarters)
- ❑ Two or more players
- ❑ Brown paper bags (or something to keep the coins hidden) for each player

## You Will Do:

1. Divide the coins evenly between the players and place them in the brown bags.
2. At the same time, players reach into their brown paper bags and grab 2 coins. They should not feel around to find a certain coin—they should just reach in and grab quickly.
3. All players lay the coins in front of them and say out loud how much their coins are worth. The player with the highest amount wins all the coins and puts them aside.
4. Play continues until there are no more coins in the bag. Players count up their coins to see who has the highest total. The player with the highest total wins. Students can ask for help finding the total.



# FRACTION PIZZA BOX

## You Will Need:

- A pizza box (see note in the answer key)
- Construction paper
- String
- Scissors
- Glue
- Markers
- Extra art materials (optional)

## You Will Do:

**STEP ONE:** Cut a large circle out of a piece of construction paper to make the dough for your pizza. Use a ruler to divide it into 8 equal slices. First, use your ruler to draw a line across the middle that divides the pizza in half. Then draw another line that makes a t-shape with the first line. That will divide your pizza into fourths. Split each fourth into two equal slices and you will have 8 approximately equal pieces.

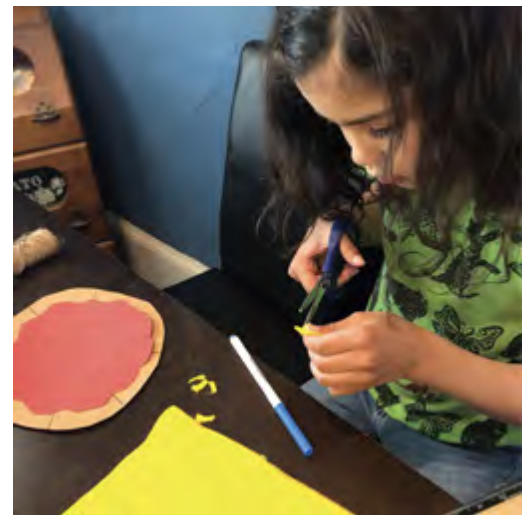
**STEP TWO:** Add sauce and cheese to your pizza using markers, paper, string, or any other type of art material you'd like. Be creative and make it your own.

**STEP THREE:** Now it is time to determine the toppings. The toppings should represent 4 different fractions and two of them should be equivalent (for instance,  $\frac{1}{4}$  and  $\frac{2}{8}$ ). List your toppings and the fractions they will represent below. Remember, a slice of pizza can have more than one topping.

**STEP FOUR:** Using your art supplies, add the toppings to your pizza.

**STEP FIVE:** On the top of your pizza box write a key showing how much of the pizza has each kind of topping.

**STEP SIX:** Write at least one word problem about your pizza on a piece of construction paper. Have your parent check it and then paste it onto the top of the pizza box.





**STEP SEVEN:** Share your pizza box project with a friend and have them try to solve the math problem(s) you created.

Topping	Fraction

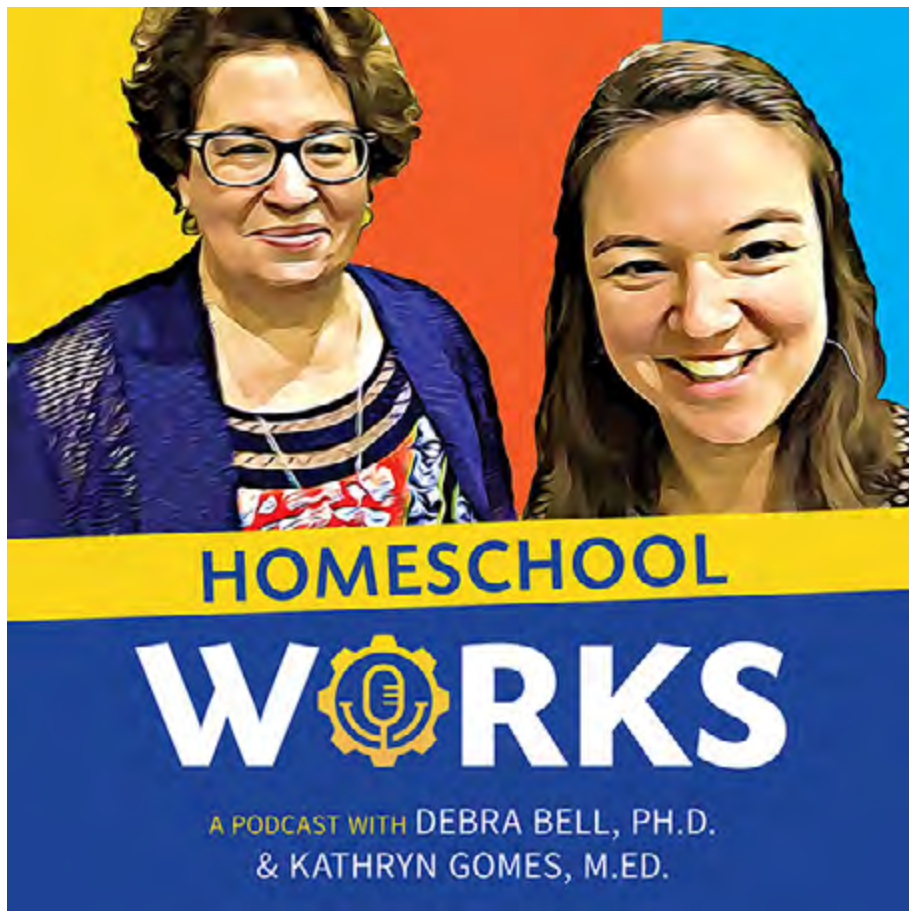


# MEET KATHRYN GOMES

Kathryn is the author of the *Exploring Creation with Mathematics* series from Apologia. She holds an M. Ed. in mathematics from the University of Pennsylvania and a B.S. in mathematics from the University of Pittsburgh. She has taught math to homeschooled students for eighteen years and is very familiar with the challenges of learning math at home; Kathryn is a homeschool graduate. As a homeschooling parent herself, Kathryn and her tester families have had their hands on this math curriculum long before they approved it for your family.

She spent three years teaching mathematics in inner-city Philadelphia through Teach for America. She then taught in the most ethnically diverse high school in Pennsylvania. During this time, Kathryn designed Algebra 1 and Algebra 2 curricula for English Language Learners. Now one of her great passions is improving mathematics education for homeschoolers by increasing rigor while still maintaining the creativity and free-thinking that she enjoyed in her schooling.

You can find Kathryn on Facebook @kathrynmgomes, on Instagram @homeschoolmathmom, or on the Homeschool Works podcast which she co-hosts with her mom.





# EXPLORING CREATION

with Mathematics,  
Levels 1-4



"This math  
has been a  
game-changer  
in our house!"

-Homeschool Mom



Apologia's *Exploring Creation with Mathematics* is designed to help young minds understand and unlock the power of numbers in Creation.

## Future Levels



### What You Will Love About Apologia:

- Hands-on activities and games to solidify concepts
- Short, 30 minute lessons
- A suggested 4-day week schedule
- Customizable options and teaching tips to adjust lessons if your child is struggling or if they are advancing quickly

Visit [apologia.com/math](http://apologia.com/math)  
to access curriculum samples.

# MAKE 25¢ IN DIFFERENT WAYS POSSIBLE SOLUTIONS

Pennies	Nickels	Dimes
25		
20	1	
15	2	
15		1
10	1	1
10	3	
5		2
5	2	1
5	4	
	5	
	1	2
	3	1