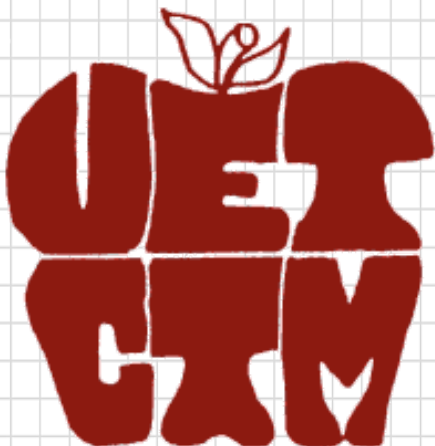


# UETCTM

Upper East Tennessee Council of Teachers of Mathematics



**Robots,  
Math Weddings,  
Anxiety, and more!**



**Featuring Teachers  
from:**

**Kindergarten  
3rd Grade  
7th Grade  
8th Grade**

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## Meetings

**December 6**

[Mathical Book Prize](#)

[Webinar](#)

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# Professional Development

## Mathical Book Prize Webinar

Ignite Beauty, Wonder, and Joy in Our Students

Register for "Using Mathical Book Prize Winners to Ignite Beauty, Wonder, and Joy in Our Students," a new webinar from the National Council of Teachers of Mathematics (NCTM).

Mathematical literature is a wonderful source of material to ignite beauty, wonder, and joy in all of our students. Each year, the Mathical Book Prize aims to inspire a love of mathematics for children of all ages. Join us as we explore classroom connections to mathematics from two recent Mathical Honor Book selections: "It's a Numberful World" by Eddie Woo, and "All of the Above" by Shelley Pearsall.

Presented by: Sunil Singh, Dave Ebert

When: December 6 at 7 p.m. ET

Where: [NCTM Online Webinars](#)



Professional Development

| WEBINARS

## Free Webinar



Using Mathical Book Prize Winners to Ignite Beauty, Wonder, and Joy in Our Students

Presented by: Sunil Singh, Dave Ebert



NATIONAL COUNCIL OF  
TEACHERS OF MATHEMATICS

# MATH ROBOTS

by **Katie Deakins**  
**3rd Grade**

What is the first thing you think of when you see a word problem? I think of students struggling with word problems because they focus on those numbers and key words. I want to make sure that my students see more than a bunch of numbers in a word problem. I want them to put those words into action.

CUBES is one of many methods to solve word problems. It stands for; Circle numbers, Underline the Question, Box in Key Words, Evaluate, and Solve. I thought this was the perfect start to solving word problems. I have now looked at it through the eyes of a third grader and have seen how you could get lost in those numbers and key words. I have decided to revamp the CUBES! Here is what I think will help students really begin to understand word problems.

Read & Restate, then Explore CUBES!

- C- Circle the Numbers & Units
- U- Underline the Question
- B- Build and Draw
- E- Explain your Explanation
- S- Solve and Check

In the eye opening *Mathematize It!* (Morrow, 2019), it explains how important it is for students to restate the word problem that they have in front of them. When students are able to restate something, it means that they have a deeper understanding of the problem. I think this is one of the missing links in helping students solve word problems, on any grade level.

The second missing link is allowing students to build and draw the problem out. If a word problem is asking students to “take away,” then let them use manipulatives and take those numbers away. Not only will they have a better number sense by seeing it physically but also not just knowing an algorithm but learning a process to solve it.

Let the students talk it out! I was so focused on making sure that each student could do every single problem on their own that I didn’t let them work through things together enough. When we let the students talk through their thinking with their peers, I think they can sometimes learn even more! When you have multiple brains working together then you have that much more opportunity to find new ways to solve problems. As teachers, we are always learning and working together. Why not let students go ahead and perfect that skill?

As I think about my teaching for the next year, I have a whole new outlook on teaching Math. I want to help students expand their thinking and understanding. I want students to feel comfortable sharing their thoughts and process to solving problems. I want the students to productively struggle and find new ways to solve a problem set in front of them.

I am not wanting to create robots in my classroom where they can just put numbers into an equation and get an answer without trying. I want to help foster their love of math and see the real world applications that are right in front of them. ■

# NCTM Student Affiliates The Time Is Now



The [Idaho Council of Teachers of Mathematics](#) (ICTM) is currently working closely with a university in Idaho to set up an NCTM student affiliate.

[Student affiliates get many benefits](#)—including free registration to NCTM regional conferences. It's a great door opener to our collective mathematics community.

Take the ICTM challenge to encourage new student affiliates in your state!

## Upcoming NCTM Events and Professional Development Opportunities

December 6: [Mathical Book Prize Winners Webinar](#)

December 10: [NCTM 2021 Virtual Research Conference](#)

February 2–4: [New Orleans, Louisiana Regional Conference](#)

March 16–18: [Indianapolis, Indiana Regional Conference](#)

September 26–October 1: [2022 NCTM Annual Meeting & Exposition](#)



NATIONAL COUNCIL OF  
TEACHERS OF MATHEMATICS

# (MT)<sup>2</sup> Annual Conference "Starting New in 2022"

When?

January 29, 2022

Where?

East Robertson High School  
158 Kilgore Trace  
Cross Plains, TN 37049

Register and/or  
sign up to speak  
here!



Find us at <https://mt-squared.wildooricat.org/>  
Follow us on Facebook at Middle Tennessee Math Teachers and  
on Twitter @MidTNMath

**Hello math teachers!**

**We are so excited that registration for our annual conference on January 29th, 2022 is now open. This year's conference theme is:**

**"Starting New in 2022"**

***We need speakers, and we know you have great ideas to share!***

**Use the QR code on the [flyer](#) to register or submit a speaker proposal. You can also visit the event page [here](#).**

**We can't wait to see you all again and learn together!**

# GET READY TO CO-TEACH!

by Matthew Reed

## 7th & 8th Grade Inclusion

Co-teaching an inclusion class, of any subject, can be a daunting task for general and special education teachers alike. There are often mixed emotions in regards to co-teaching in the inclusion setting, but it can be a very rewarding process for both the teachers and students involved. Co-teaching incorporates many moving parts when compared to a 'typical' general education environment, so communication is extremely important in the process. Whether you are a general education teacher or a special education teacher, here are a few things to consider for your upcoming co-teaching adventure.

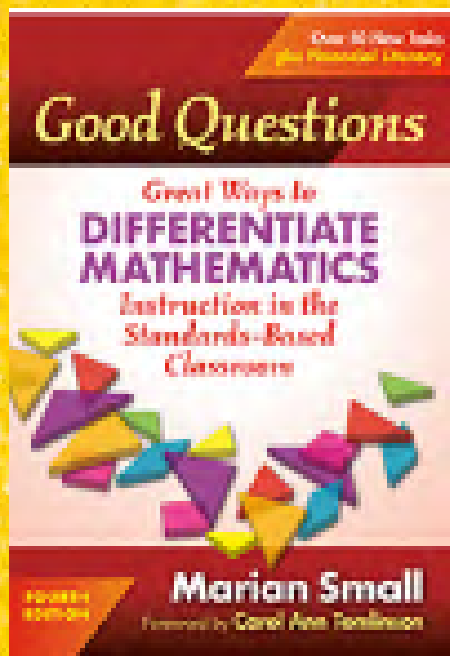
First and foremost, am I being an effective communicator? This is a HUGE question to ask yourself when co-teaching an inclusion class. Communication between both teachers and their students is vital in a successful inclusion setting. Both teachers should agree on meeting times to discuss their expectations and roles for the class. Regular meetings will help keep both parties on the same track when considering lesson plans, student involvement, and scheduling for the week. Make time throughout the school week to plan with your co-teacher, and your students will benefit greatly.

Do not allow yourself to get comfortable using only one co-teaching model. While co-teaching inclusion classes, you will find yourself teaching students with vastly different ability and functional levels. Do not be afraid to step out of your comfort zone when determining which model works best in your classroom. No two classes will ever be the same, so you should always approach your strategy with an open mind and be willing to adapt. Be sure to brush up on the different co-teaching models so that you have the confidence to implement a new strategy when needed.

Establish a healthy, working relationship with your co-teacher. It is often a concern of new co-teachers that having another adult in their classroom will be an awkward, unpleasant experience. Make an effort to get to know your new work partner! Speak to them in the halls between classes or break. Sit down and eat lunch with them one day. Ask about their interests and hobbies. Don't forget to smile! I can promise you that your co-teacher is probably feeling anxious about the endeavor as well. Settle your nerves by establishing a good rapport with your co-teacher.

I hope these suggestions help you along the way. As always, keep the students your priority, and you cannot go wrong. Enjoy your venture into co-teaching! ■

# More from Math Educator Marian Small



## ***Good Questions: Great Ways to Differentiate Mathematics Instruction in the Standards-Based Classroom, 4th ed.***

[Buy the book.](#)

Members save up to 30%

**Marian Small** is a noted author and former professor of mathematics education. Her focus is on teacher questioning to get at the important math, to include all students, and to focus on critical thinking and creativity. Learn more about this workshop and [register today.](#)





# SUMMARY OF IMPORTANT DATES

**The table below contains a summary of upcoming and future NCTM conferences. We would appreciate your sharing this information with your membership.**

Name of Conference	Call for Proposals	Registration Information
2021 NCTM Research Conference Virtual December 10	Proposal Submission Closed	<a href="#">Registration open.</a>
2022 NCTM Regional Conference New Orleans, LA February 2-4	Proposal Submission Closed	<a href="#">Click here</a> to register.
2022 NCTM Regional Conference Indianapolis, IN March 16-18	Proposal Submission Closed	<a href="#">Click here</a> to register.
2022 NCTM Annual Meeting & Exposition Los Angeles, CA September 28-October 1	Proposal Submission Closed	Registration is not yet available.
2022 NCTM Regional Conference Baltimore, MD November 30-December 2	Proposal Submission Opening February 2022	Registration is not yet available.
2023 NCTM Virtual Conference Virtual March 29-April 1	Proposal Submission Opening April 2022	Registration is not yet available.
2023 NCTM Annual Meeting & Exposition Washington, DC October 25-28	Proposal Submission Opening July 2022	Registration is not yet available.
2024 NCTM Regional Conference Seattle, WA February 7-9	Proposal Submission Opening February 2023	Registration is not yet available.

# TEACHING PLACE VALUE IS A BIG DEAL! THE 100TH DAY DUCK WEDDING

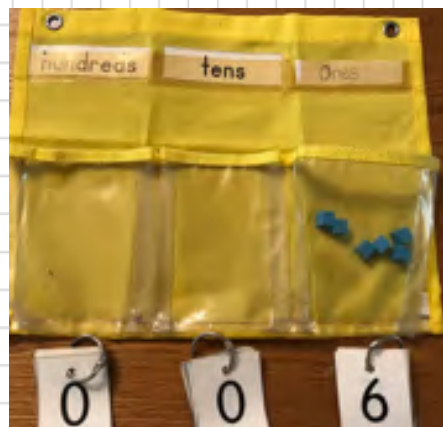
by Lynn Whitaker  
Kindergarten

Place value can be a challenging concept for young children to grasp. Why is it so hard? A child knows that his/her mom is mom whether she is outside, inside, or in the car. She is a mom no matter where she is. With place value, if the digit 3 is in different locations, then it means something different in each location. For example, in 23 the 3 is in the ones place, but in 3,487 the 3 is in the thousands place and is worth 3,000. We have to get the students to see why the 3 is a different value when it is in a different location. In our number system there are only 9 digits:

0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.

Students need to understand when we have a quantity larger than 9 we have to exchange or reset one column and start over in the next to create the number 10. Normally, children count one thing at a time and do not understand the connection between a number and the groups of tens and ones. In the lower elementary grades, teachers should do a lot of activities designed to increase a child's understanding of how context determines the meaning of a digit. We also should incorporate activities where the students can practice the exchange and students learn 15 is the same as one group of ten and 5 ones.

Students learn best when they are engaged. By celebrating every 10th day of school and exchanging ten ones for a group of 10, the students are engaged and learning place value in an exciting way. You can begin teaching place value on the first day of school. We count how many days we have been in kindergarten. We use a pocket chart, base ten blocks, and rings with the digits 0 through 9. We count the days by putting a cube each day in the ones place for days 1-9.



The figure to the right shows the sixth day of school and six cubes in the pocket chart. We use the ring of numbers so the students can see that only digits 0-9 are on each ring. On the 10th day of school, we make it a big deal. We take all ten cubes out of the ones place and lay them end to end. We take a ten rod and lay it beside the 10 ones and see they are the same. We talk about exchanging the ten ones for one group of ten. We flip the ring at the ones place and see 0 comes after 9.

We discuss how the number 10 can't fit on that one ring because it has two digits and only one digit can go on each ring. We discuss how we can put the ten stick in the tens place and have zero in the ones place to make the number ten.

Every 10th day of school when we have to exchange 10 ones for another group of 10, Mr. Zero comes to visit. He usually brings the students a zero snack (circle shaped food) for the students to use to practice grouping tens. The students sing the "Zero the Hero" song as he comes to take his place in the ones place. The song lyrics are as follows (Tune: This Old Man):

This old number  
It means none.  
It is even less than one.  
With a z-e-r-o  
Duh, duh, duh, duh, duh.  
That spells zero!



The students understand that every 10th day Mr. Zero will come because we can only have 9 cubes in the ones place. They look forward to seeing Mr. Zero and exchanging the ten ones for the ten rod. We also do a lot of activities every 10th day of school where students practice putting manipulatives (Fruit Loops, Cheerios, etc...) in groups of ten. On day 50 we celebrate by dressing in 50s attire and Mr. Zero gets engaged. I tell the students that on day 100 Mr. Zero will get married. We continue counting the days in school and exploring how to exchange a group of ten for a ten rod. On the 90th day of school we start to plan for The 100th Day of School Duck Wedding. We invite family members to come as guests to the wedding. The students dress up and learn their parts.

Every child gets a part in the wedding (bride carrier, groom carrier, father of the bride, bride ducks, groom ducks, ring duck, flower duck, program attendants, singers, ushers, and reception attendants. Not only do we practice our parts for the Duck Wedding but we also practice exchanging ten groups of 10 for a 100 block.



On the 100th day during the wedding, we place one cube in the ones place and see that we have 10 ones. We show that the 10 ones equal a ten rod and we put the ten rod in the tens place. Then we see that there are 10 tens in the tens and we need to exchange the 10 tens for a 100 block. The students see that this is why Mr. Zero needed to get married so Zerona (his bride) could hold the tens place 0 in the number 100. The picture shows Mr. & Mrs. Zero at the wedding showing the number 100. Students love the Duck Wedding. They make lasting memories and have practiced place value along the way. We continue doing place value activities after the 100th day. The students continue to ask when Mr. Zero will be back. Despite its simple definition, place value can be a challenging concept for young children to grasp. By making place value activities fun and meaningful, students will be engaged and grasp the concept. ■

# APPLY FOR: GRANTS, SCHOLARSHIPS, AND AWARDS

## **Mathematics Education Trust (MET)**

The Mathematics Education Trust (MET) was established in 1976 and provides NCTM members access to more than \$150,000 in grants, scholarships, and other awards. Learn more about the full range of opportunities and apply today for the fall cycle of MET Grants.



**New Grants For:  
Teachers, Educators, Students, Researchers,  
Leaders, & Coaches**

[Apply Today!](#)



NATIONAL COUNCIL OF  
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# WHO'S MORE NERVOUS, ME OR THE STUDENTS?

by **Clint Dowda**  
**7th Grade**

Anxiety. These are words that all teachers have drilled into their heads during PD sessions. We are told to watch for the signs: change in behavior, appetite and work habits. We are told to monitor the workload that we assign students and to be aware of their mental health. But what do you do when you are the one feeling overwhelmed? Very recently I found myself in that exact position when I chose to leave my position as an administrator after five years at an elementary school and take over a seventh grade math class at a middle school mid-year.

On the outside, I appeared fine. I went and shadowed the teacher I was replacing. I talked to colleagues about my plans and ideas. I gathered supplies and lessons in preparation for the change. No one, not even my wife, could see how I was feeling tortured inside. I couldn't sleep, lying in bed night after night worrying about how I was going to perform. I lost my appetite, skipping meals and leaving many half-eaten. Later, when I was seeing a doctor for the first time about what I was experiencing, my resting heart rate was 140 just sitting in the exam room. It's no wonder I had lost 8 pounds in 3 days.

If you are going through something like this, I am here to tell you that there is a light at the end of the tunnel. You can find your way back to the version of you that enjoys and even delights in working with students and being a positive influence on their lives. Looking back on my journey, here are four things that you can do to help you defeat your own anxiety and depression.

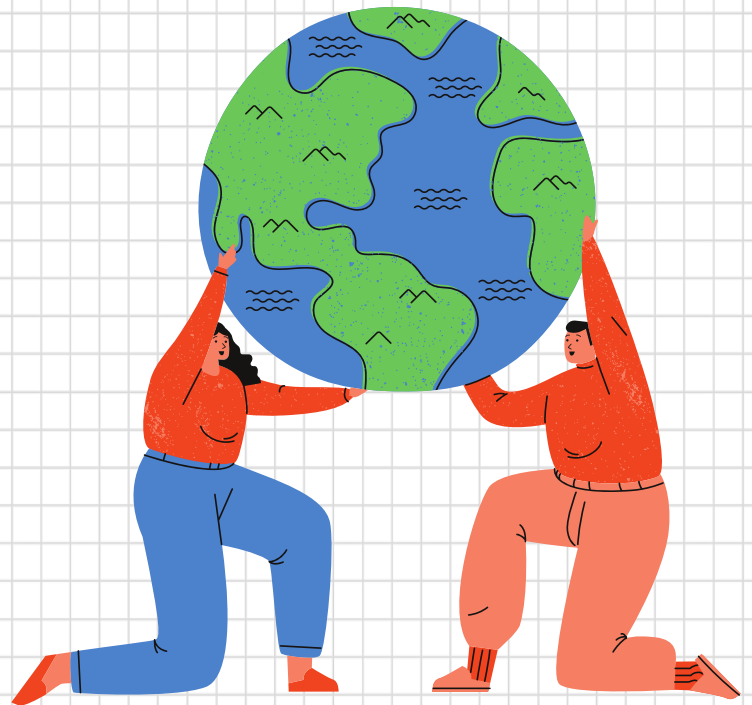
Find a Hobby - Make sure that you take time for yourself to do something you enjoy. This could be hiking, gardening, reading, or volunteering at the local animal shelter. Whatever you do, do it for you. Everyone thinks that teachers work from 8-3 and have all weekend free to lounge around and nap. We know that this is far from reality. The life of a teacher is hectic year-round and many of us neglect ourselves and our families and are busy instead preparing lessons, grading papers, emailing parents, AND generally worrying about our students. Taking time each day or week for yourself is one way that you can make sure to keep yourself grounded and remember what is really important.

Open-Up to Friends/Colleagues - The saying "we are all in this together" is cheesy, but true. Many people find it helpful just to share their struggles and fears with those people that know them best (friends) or that know the struggles you are going through (co-workers). Often times, just knowing that you have people that can help you out is enough to help you push through. But also, don't be afraid to ask for specific help on projects or topics. In my case, my wife was instrumental in helping me organize the work that I needed to do and break it up into small, do-able pieces so that I was not as overwhelmed.



“

**The field of education is always going to be stressful and full of anxiety. As teachers, we have the future of our country literally in our classrooms every day. It is a task that we should not take lightly...**



The field of education is always going to be stressful and full of anxiety. As teachers, we have the future of our country literally in our classrooms every day. It is a task that we should not take lightly, but it is not one that should overwhelm us and leave us broken. If you need help, please reach out and get the help you need. ■



Reach out to a Medical Professional - It is completely natural to feel some level of stress and worry. What is not normal is for it to completely overwhelm us. If you are feeling overwhelmed, I strongly recommend talking to your doctor about it. You also may reach out to a therapist to learn techniques for dealing with your stress in a healthy manner. Many people find relief from anxiety through therapy sessions, medication or some combination of the two. Most health insurance policies contain coverage for several free therapy sessions.

Take a Medical Leave - Sometimes anxiety or depression can get so bad that you need to completely take a break from your stressor, that is school. The Family Medical Leave Act (FMLA) allows you to take up to 12 weeks of leave from your job for any medical condition that prevents you from doing your job. This can give you time to get yourself healthy without fear of losing your health insurance or your job. This time away from teaching was key for me and my recovery.

## **NCTM — Now More Than Ever**

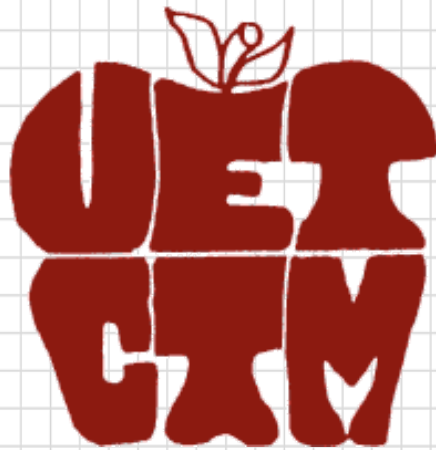
For the past 100 years, NCTM has supported the math education community, not just during unprecedented times like these but 365 days a year.

There has never been a more important time to renew your membership. You'll not only guarantee your continued access to NCTM's many resources, but you'll also remain a vital part of NCTM's vibrant worldwide community.

We are stronger together so we hope that you will renew today. If you know others that would benefit from membership, please urge them to join NCTM as well.

Thank you for your continued support!

<https://www.nctm.org/membership/>



## Upper East Tennessee Council of Teachers of Mathematics

Complete the application and return to the address below with a check for \$10.00 made payable to UETCTM.

Sevier Middle School  
C/O Julie Tester-UETCTM  
1200 Wateree Street Kingsport, TN 37660  
Kingsport, TN 37660

Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

\_\_\_\_\_

Home Phone: ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_

District: \_\_\_\_\_

School: \_\_\_\_\_

School Address: \_\_\_\_\_

\_\_\_\_\_

School Phone: ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_

Email Address: \_\_\_\_\_

UETCTM may be asked to share your information with other math organizations (NCTM, TMTA, etc.) that promote mathematics education.

Please check the following statements if applicable:

Please check if you do NOT want your information to be shared.

I am a current member of NCTM.

I am interested in leading/presenting a session at UETCTM.

I am interested in holding a leadership position with UETCTM

