

UPPER EAST TENNESSEE COUNCIL OF TEACHERS OF MATHEMATICS



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MEETINGS FOR 2020-2021:

Please check the UETCTM website over the summer for updates on the schedule for the 2020-2021 school year. Have a great summer!

OFFICERS FOR 2019-2020:

New officers for the 2020-2021 year were elected at the last UETCTM meeting. They will be announced in the next newsletter, and their term will begin July 1st. The officers listed below are in their position until June 30th.

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Repetition is Important in a Kindergarten Classroom

by
Melissa Boyd

Repetition is Important in a Kindergarten Classroom. Repetition is Important in a Kindergarten Classroom.

Repetition is Important in a Kindergarten Classroom. Repetition is Important in a Kindergarten Classroom for many reasons. If you think back to when you learned to do simple tasks as a young child like swimming or writing your name, it probably took some practice to successfully do these things correctly. In the classroom, there is no difference. In order for a child, or even sometimes an adult, to remember how to successfully complete some things they must practice that task.

Repetition in Math

When a child learns how to count, add, or subtract, they must practice this over and over and sometimes over and over again. In the classroom counting must be done numerous times a day and in different ways.

One great way to help a child to learn to count is to let them get up and move. There are many great videos on the internet that you can watch to do this. A common element in many of these is that the child must do movement while they count and they do it repetitively. In my classroom we practice counting to 100 by 1's, 10's, and 5's each and every day. Some children are able to pick up on this concept a lot quicker than others. The most successful way that I have found for all students to learn how to count is for them to be given the opportunity to recite those

numbers to me continuously throughout our day.

Repetition in Reading

In order for a child to learn to read, a few things must happen. First, they must learn that the letters in the words stand for sounds. Next, they should learn what those sounds stand for in the word. And last, they need to be able to put those sounds together to make a word that they can read. All of these steps must be done numerous times for a child to begin to even recognize sounds or even words. A lot of time in a Kindergarten classroom is devoted to making sure that all students can tell their teacher the sounds that each letter makes. This is done over and over each day until it is embedded in the child's memory bank.

Repetition in Play

It is very important for little children to learn how to play some games at a young age. This is helpful for learning the simple steps in order to complete a task. Playing games also helps to foster an understanding of following directions. When a child is taught how to play a game, they are often shown the steps of the game many times. This gives them an opportunity to correctly learn how to play the game and gives time for reinforcement of how the game should be played. Children who are regularly exposed to the repetition of playing a game are more likely to successfully be able to play that game with their peers.

By teaching a child how to do something and having a child do this over and over, they are able to build confidence in the task that they are completing. Children need this confidence in order to succeed in learning in school and in life. Repetition not only teaches each child individually but gives them an

opportunity to practice a skill on their own ability.

“Repetition is the mother of learning, the father of action, which makes it the architect of accomplishment.” (Zig Ziglar) ■

Mathercise by Haley White

“Alright friends, let’s do jumping jacks as we skip count by 10s to 100! Here we go, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.” This is one of the many activities you might see and hear if you were to walk into my classroom at any given time! I am passionate about teaching, but I am also passionate about health and fitness and frequently incorporate it into my lessons each day. Not only do my students love it because they get to get up and move, but it also helps them better understand the concept. One of the neat things about adding movement/exercises into your classroom is that it can easily be incorporated with any subject or content. Starting out as a first-year teacher three ago, I quickly realized that the attention span of my Kindergarteners was very short, and something had to be done to make my lessons more engaging for them. Since my first year, I have tried to incorporate more and more brain/movement breaks and exercises into my lessons, and I have seen a difference in student engagement.

The example mentioned above is one way to use exercise with skip counting, but the options are truly endless! Students can

pretend like they are jumping rope as they count by ones to 100. Students could also take turns hoping as they work together to skip count by fives. Using movement with counting is probably the simplest way to incorporate exercise into mathematics, but there are plenty of other standards that work with it as well. For example, students can work in pairs to solve simple addition problems, and the first student in each pair to solve the addition problem gets to get up and run in place for 10 seconds. This would also be incorporating counting, as they would have to count the seconds out loud as they run in place.

Whatever the standard and whatever the activity, adding movement and exercise into the classroom makes learning fun and engaging while also supporting students’ health and well being. I have experienced the difference exercising makes in my own life, and I have witnessed the difference it makes in my classroom as well. I hope you too consider adding exercise into your daily lessons! Even if you start small with simple movements and build on from there, I promise you will see a difference. ■

NCTM Trial Memberships

NCTM understands that these are difficult times and that teachers are looking for support and resources they can trust. Pass along this link to them and they will receive free trial access, including the publications and resources that come with an Essential Membership.

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

Centers in Math by Devon Justice

Teaching, math, and children are three of my greatest passions in life. This coming school year of 2019-2020 I will begin teaching 4th and 5th grade math. It's important for me to build relationships with my students so that what I say and teach has the greatest impact it could possibly have. How do I plan on doing that? Math centers!

So, what do math centers look like in my classroom? Every day in my classroom we begin with whole group teaching, modeling, and group practice. Then we break off into our center groups. In one of my classes I have 16 students. Those 16 students will be divided into 4 groups with 4 students in each group. Center 1 is the teacher table, and is the teacher led center. Center 2 is group game/practice on math standard or skill taught that day. Center 3 is the technology center. Lastly, center 4 is individual practice on the standard or skill taught in whole group lesson.

A list of reasons why I will always teach with centers in my classroom:

- Students are grouped by ability. At the teacher table center I am able to focus on skills and standards that students need in groups. Each group will need help on different skills and standards.
- Center work teaches students to work independently. During centers I stay at the teacher table center throughout the rotations. Students are trained to work in their groups or independently. This allows for productive struggle without me.
- Students learn to work together. In the group game/practice center students are allowed to work together on the task(s) at hand. Students learn how to compare and contrast their ideas with one another. Students are able to both share their ideas, and also grow from ideas from others.

During centers I am able to build relationships in a smaller group setting. I get more one on one time with each of my students. I learn what strategies work for them, and also learn more about them as a person. In centers students also build relationships with each other. Math centers will continue to be daily within room 208! ■



Taking Action: Bringing the Effective Teaching Practices to Life in your Classroom
May 2, 2020 • 2:00 - 5:00 p.m. EDT
Participants in the virtual workshop will explore the Effective Teaching Practices highlighted in the NCTM publication Principles to Actions.

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

Why Number Talks Happen Daily in my Classroom by Makenzie Reeves

A number talk can be defined as a five to fifteen minute classroom discussion around a purposefully posed math problem or a series of math problems that are solved mentally. During a number talk, the teacher will give students a math problem to solve mentally without pencil or paper. The focus of a number talk is for students to share their strategies for solving the problem mentally and being able to defend their strategy. Students use accountable talk and have discussions around reasonableness of answers and strategies relating to the posed math problem. Sherry Parrish's books, Number Talks: Helping Children Build Mental Math and Computation Strategies and Number Talks: Fractions, Decimals, and Percentages, have been my lifeline when it comes to implementing number talks into my classroom.

Through my district, I have felt that I have gotten quality training and excellent exposure to what a number talk is supposed to look like, sound like, and feel like. I have several reasons as to why I have a daily number talk in my classroom. One reason I do number talks is because of the respective culture it develops among the students in my classroom. The procedures for a number talk are something that I put into place at the very beginning of the year. During a number talk, students are sharing out their strategies to defend their answers to the math problem. Students learn to listen and respond to how other students are doing a math problem. Students gain new insight on other strategies that they haven't thought about before. For some students, it

takes a lot of courage to share out and through number talks students are able to come out of their shell a little more as the year goes on. With number talks, students in the class build that culture that allows for students to feel comfortable to share their math thinking.

Another reason number talks are a part of my daily math block is the flexibility factor. Number talks can be used to introduce a concept/introduce the lesson for that day, formatively assess a concept, or extend student thinking for a concept. I enjoy using a number talk to introduce a concept because it acts like a pre-assessment. It gives me an idea where students are and possibly any misconceptions they have. A number talk is a great way to formatively assess strategies that you have taught your students, and see how they can apply them doing mental math. Number talks can also extend student thinking on a concept to see if they can take a math problem a step further. Number talks are so useful in my classroom for these reasons.

The best reason for a daily number talk, is it only takes a maximum of fifteen minutes. Number talks are so valuable for the short amount of time that they take. It's jam packed full of great discussion among students. It can easily go longer than fifteen minutes which is something I struggle with because I want all students to be able to share their strategies for the mental math they just did. Since it is a part of my daily math block, I find that I am able to reach all students throughout the week to share their ideas.

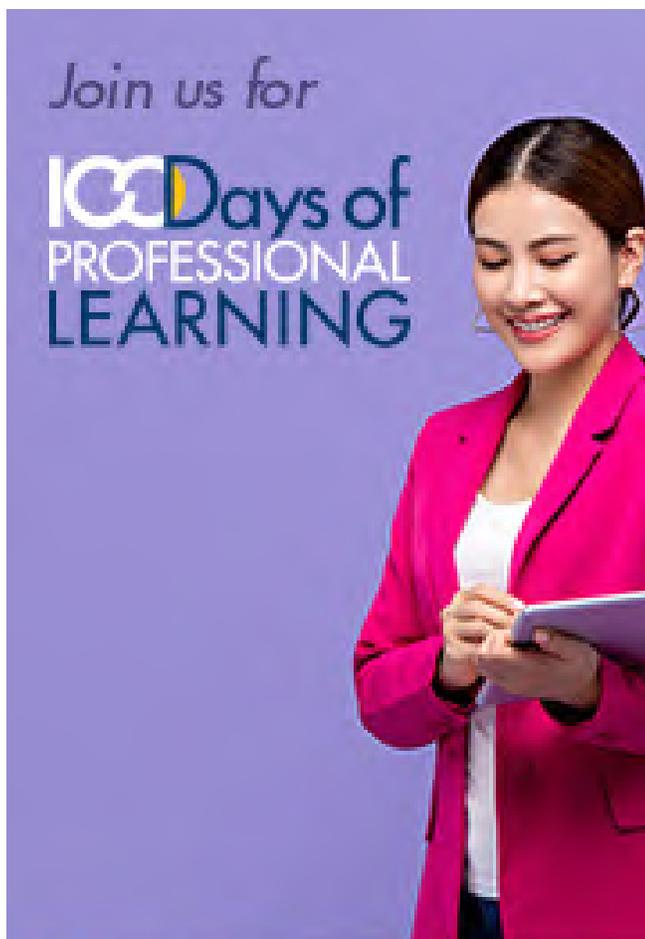
Students are always wanting to know why they are learning the math they learn. I like real world connections so students buy into what they are learning. Number talks are a great avenue for students to learn mental math which is a real world application.

I wholeheartedly believe that number talks have been very effective in my classroom. I really feel that students enjoy doing them because they are able to share their math thinking and through the respective culture students feel safe to do so. Number talks foster mental math and help build student fluency, and can build student confidence throughout the year. Number talks are a part of my math block and will more than likely always be in my math block in some fashion due to the number sense that students develop during number talks. ■

Mathematics Education Trust (MET) Grant Applications due May 1st

Looking for money for next school year? Apply now for the summer cycle of MET grants, scholarships, and awards. Funding ranges from \$1,500 to \$24,000 and is available to help math teachers, prospective teachers, schools, and other math educators improve the teaching and learning of mathematics. Applications are due May 1, with decision notifications sent in July.

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



Join NCTM to celebrate their Centennial with 100 Days of Professional Learning with live 60-minute webinars presented by selected speakers from the NCTM Centennial Annual Meeting & Exposition program that was to take place in Chicago.

Each webinar will be held at 7 p.m. Eastern time on 100 selected days from April 1 leading up to the October NCTM 2020 Annual Meeting & Exposition in St. Louis. A variety of speakers and topics are geared to meet all grade bands and interests. Webinars will be recorded and made available at www.nctm.org/100 up to the St. Louis Annual Meeting.

Common Student Mistakes in Solving Coin and Age Problems

by Sergio Merluzzi

“Abigail is 6 years older than Jonathan. Six years ago she was twice as old as he was. How old is each now”? This is a typical example of an age problem 8th and 9th graders are asked to solve. While there is more than one way to tackle it, in general, teachers push the writing of an equation or a set of equations. A table is also a valid and reliable option, just like a combination of the two.

Some ages are given in the past and some in the future. This alone is probably the biggest obstacle students encounter in obtaining the correct solution. It is imperative that teachers stress the importance of accurately reading each sentence. This process has to be absolutely practiced on a regular basis, with practice on simple and short sentences. Eventually, students must be able to correctly handle ages given in the past and in the future within the same sentence. Tables are great for setting up all expressions and can be used for writing the equations.

Time	Jonathan's Age	Abigail's Age
Now	J	J+6
6 years ago	J-6	(J+6)-6

$$2(J-6) = (J+6)-6$$

$$2J-12 = J \rightarrow J = 12$$

Jonathan is 12 years old.

Abigail is $12+6 = 18$ years old.

Another common mistake is students misplacing the equal sign when writing the equations. This needs to be addressed at an earlier stage, when students start learning to write equations. The verbs “is”, “was” and “will be” are present in just about every age problem. Students need to master using an equal sign whenever they see them. I always want my students to understand the whole problem and start making a mental picture of it. This, after all, is a good advice for any problem. A table can be considered a picture.

At times, students will mix up the ages of different people. It mostly happens when the problems are a little bit longer. Students may have three or even four people to deal with. The process of writing the ages in a table is a must. There must be rows for every time-frame mentioned in the problem and columns for each person involved. Students must understand they are looking for a relationship among the ages of the different people.

“Bob has three times as many pennies as nickels. The total face value of the coins is \$416. How many coins of each kind does he have?” Solving coin problems present some of the same type of difficulties. One common mistake is using the value of the coin instead of the number of them. This goes back to the careful reading of the text. Also, students must get in the habit of choosing a variable for the “number” of a type of coin, since the values are generally given. The writing of the equations is also problematic. Sometimes, the equal sign is misplaced. Students have to get used to breaking down the sentences and concentrate on writing each relationship. Coin problems have the hidden danger of mixing different units in the same equation. This happens when there are somewhat larger amounts of money, generally given in

dollars, and the coins only represent cents. Students tend to avoid converting everything to cents but, when presented with the alternative of using a lot of decimals, they generally see the light! This is one way to solve our example problem.

Set up our variables:

p = number of pennies, n = number of nickels.

Convert \$416 to 41,600 cents.

Write the equations: $p = 3n$ and $p+5n = 41,600$

$$3n+5n = 41,600$$

$$8n = 41,600 \rightarrow \# \text{ of nickels} = 5200$$

$$p = 3(5200) \rightarrow \# \text{ of pennies} = 15,600.$$

In conclusion, reading a problem carefully until well understood, breaking down sentences to rewrite them in math form and checking answers are crucial factors for students to correctly solve this kind of problems. ■

An Essay by Rebekah Bradley

I am what many would call socially awkward. I get nervous in social settings and tend to come across as stand-offish, quiet, and shy. Throughout childhood, those brutal teenage years, and now adulthood, I've dealt with struggles in my relationships with my peers. I struggle with the initiation of conversations without those painful silences and other social cues which come easily to many others. These difficulties are obvious to me and have led to an avoidance of settings which are new, unfamiliar, and made up of people I do not

know. While aware of my shortcomings in this area, I still crave those relationships and connections but feel at a loss for how to overcome them. I believe that my own issues have led me to create a classroom environment which is centered around building relationships with others and making connections. I want my students to feel connected to their peers and to know that they are important to not just their classmates but to me, as well.

My first few years in education were pure survival mode. Building relationships and making connections with my students was not even on my radar. Gradually I realized that I was not happy with how my classroom was operating. These feelings were not tied to my instruction or the curriculum, it was me. I was too busy surviving that I forgot what really mattered in those days - my students. I was going through the motions and presenting content, but I was forgetting WHO I was presenting content to. It was time for a change in how I viewed my classroom, my students, and my career. I know I couldn't teach for decades with how things were going. After some introspection, I realized I was not engaging at all with my students as individuals, but as names on a roster and that wasn't fair to them. They deserved more from me. It was then my survival mode ended and I decided to transform the priorities of my classroom.

Rules matter. Procedures and routines matter. A smooth running classroom with appropriate management strategies matters. Presenting content effectively matters. No teacher anywhere will refute these statements. However, none of the above statements include the most important aspect of education: THE STUDENTS. I believe we, as educators, get so wrapped up in the tedious and stressful aspects of education that we forget why we became teachers: to help kids achieve their dreams and to make a difference in their lives. One

day, a former student asked me why I became a teacher. I responded to them as honestly as I could, making sure I conveyed my true feelings. I responded, “because I crazily believe that I can change the world one day.” Some of the students laughed and I clarified my statement to them. I told them that I did NOT believe that I, myself, was going to be the singular change for this world, but my goal was to be a change IN this world through what I do in my classroom. I want to make the lives of my students better and then watch them change our world. While I do not think I will ever be a direct change for this world, I am confident many of my students could be and I will be proud to be just a small part of their story.

I know changing the world one teenager at a time will not be easy but I look forward to the challenge. The first step to changing this world was to change the environment where my students spend their days. By creating a classroom where relationships are paramount, my students know they matter to me. I try to do something everyday that shows them they are important and a valued part of my classroom. They never have to question their worth as individual in my eyes. They are more than a student ID number and more than a full name on a first day of school roster. Those students are MY KIDS and I love them - even when it's hard to do so.

My second step was to make talking a priority. This wasn't talking during class instead of teaching. It was actually talking to my students as individuals and getting to know them on a personal level. I made a point to laugh with them and to make them laugh. I showed them my faults and became vulnerable in front of them. I became human to them. When there were options for free time or reward time, I became a player in their card or board games. I didn't bury myself in “teacher” things during those times. The papers remained ungraded and the lessons stayed not fully planned. However, I got more out of those times with my kids than I can explain. I became a better teacher during those times of

interaction than planning a lesson or creating an assessment.

Once I changed my priorities, my classroom became a happy place for so many students. It is a place where they can vent, cry, laugh, sing, dance, struggle, get upset, and feel safe from whatever life is throwing at them. When they are placed in my classroom, we become a family - at times dysfunctional but always supportive.

I wish I could explain what I did (and still do) in my classroom to make relationships a priority, but I am not sure words could encompass every little thing. Every teacher and every group of students are different. My strategies might not work for everyone or for every group. However, there are a few things which I feel are good starting points.

- Go to their sports events: They will notice you - even if they don't say anything about it. We are all busy, but spare just a little bit of time for them. If you can't be there physically, be aware of them and ask about it. This goes for activities such as plays, meets, matches, competitions, etc. If it's important to the students, make it important to you.
- Make an effort to speak directly to each student about something not content related. Ask them about their day, evening, weekend, etc. Don't forget to listen when they respond to you. Look them in the eye.
- PICK YOUR BATTLES. Some things are just not a big deal. Just let it go.
- Compliment them! Every student wants to feel special.
- Noticing when the student isn't acting like themselves. “How are you...really?” Make sure you are actively listening to them and be prepared for their responses.
- Share their pain when they have it. Hold their proverbial hand, wipe their tears, and be their shoulder to lean on. Some kids can't leave it at the door - neither can we. We are all human.

- See their potential and encourage them to pursue their dreams. Accept your students for who they are and where they are then push them toward THEIR level of greatness.

I once saw a picture on Twitter which resonated with me. It said “Some teachers taught curriculum today. Some teachers taught students.” If you think back on your own education experience, most will never remember the tests which were taken or the assignments given. What is remembered are the teachers and how they made us feel when we were in their classes. I can’t tell you much about the work I did in school, but I can tell you specific incidents when a teacher made me feel sad and when they made me feel special.

Those students do not come back to visit their former teachers to reminisce about the math test they took or their TN Ready scores. They come back to see those whom they cared for and who cared for them. So, are you going to be the teacher who only teaches the content or will you be the one that teaches students as well? ■

Mathematics Education Trust (MET) Grant Applications due May 1st

Looking for money for next school year? Apply now for the summer cycle of MET grants, scholarships, and awards. Funding ranges from \$1,500 to \$24,000 and is available to help math teachers, prospective teachers, schools, and other math educators improve the teaching and learning of mathematics. Applications are due May 1, with decision notifications sent in July. Find the application information for each funding opportunity and link to the online application portal [here](#).

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. Even if your membership does not expire this month, you can renew now and encourage others to join NCTM as well.

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!

2020 NCTM Leadership Conference

The NCTM Leadership Conference planning is underway. To maximize the benefits of the conference, we encourage our Affiliates and school districts to send two or more members to work as a team and take advantage of the focus sessions and great networking opportunities. This conference will drive the support and the ability to empower your leaders, members, and entire mathematics community.

The NCTM Leadership Conference will be held in New Orleans on July 20-22, 2020.

Day 1: Working reception and opening activities

Day 2: Full-day program, with lunch provided.

Day 3: Half-day program, with breakfast provided. Conference ends at noon.

Contact NCTM Affiliate Relations at affiliates@nctm.org for additional information.

NCTM Annual Meeting and Exposition St. Louis

October 21, 2020 - October 24, 2020

4:00 PM - 2:00 PM

The St. Louis Annual Meeting & Exposition brings together classroom teachers; school, district, and state mathematics education leaders; administrators; mathematics teacher educators; mathematicians; and researchers from around the world. You'll see and hear new ideas and approaches that you can take away to do your part to provide more and better mathematics instruction for each and every student.



**Upper East Tennessee Council of Teachers of Mathematics
Membership Application for 2019-2020**

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

Cameron Buck, UETCTM Treasurer
c/o Robinson Middle School
1517 Jessee Street
Kingsport TN 37664

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

Membership dues are for July 1, 2019-June 30, 2020.