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UETCTM Meetings for 2018-19 Officers for 2018-2019:

Usual schedule: 4:00-4:45: Refreshments, announcements, business meetings, short presentations; 4:45-6:00: Programs for all levels.

Next Meeting: Thursday, March 14, 2019, Daniel Boone High School, Gray



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Comparing Early Math to the Push for Early Literacy

- Leslie Snapp -

The push for early literacy is always on the radar. Is the push as strong for early mathematical concepts? As a parent of a four-year-old and an educator of kindergarten students, my immediate answer is that it is not. Throughout early elementary school and continuing on to complete my M.Ed., language and literacy have always been strong suits. When I relate this to my own classroom, I begin to understand that my stronger subject has been the stronger academic area of my students as a whole.

When I really dig into the idea that math practices at foundational levels are relative to the education system and educators that serve as the presenters of this content, I understand that more should be done to enhance the primary groundwork for such concepts. Part of this viewpoint can come from my experience in the classroom as an educator. At the kindergarten level, there is a very obvious level of frustration in math. Math at the primary level should be intriguing, inquiry-based, and groundwork for the basis of mathematical practice for years to come. Are we as educators giving all we can to help mold our students to become math-loving, rather than math-fearing?

Primarily, we imagine our educational story beginning at the kindergarten level. However, we need to be more intentional about our push for early math just as we have purposefully been aiming towards gains in literacy. How do we realistically expect gains in math when we do not strive to make progress, evaluate our instruction, and intensify our professional development in the area?

As curriculum is purposefully geared and heading more toward literacy-based approaches to all content areas, math understanding seems to be declining. This approach is something that I traditionally stand behind. However, with the research of jobs opening and career paths our students will encounter, math engagement and understanding is something we should be striving to build upon. This is not to say that ELA is not

important, but should be integrated into math concepts while building a solid math baseline.

One thing that has really opened my eyes to the importance of influencing a love for math is the struggles I have personally had understanding and using math effectively. As I grow in my journey as an educator, I vow to keep both early literacy and early foundational math practices as key components of my classroom. Math deserves the same push, the same value, and the same passion that literacy receives, especially if we want our students to be able to perform the same and have the same drive to succeed. We owe it to our students and our future to push math with the same quality instruction. ⚙️

Announcement!

Meet Dr. Angela Barlow and discover NCTM's upcoming new journal!



What: Ask Me Anything with Dr. Angela Barlow

Date: Thursday, September 20th

Time: Noon - 2 p.m. EST

Where: <https://my.nctm.org>

"I'm honored and excited to serve as the inaugural editor of a publication that will look at new ways to bring relevant and engaging content to elementary, middle school, and high school teachers and other mathematics education professionals." – Dr. Angela Barlow

First Year in the Middle

- Lauren Smith -

This past school year was my first full year as a teacher. Not just any teacher, but a 6th grade math teacher. I have always heard horror stories

about teaching in middle school, but my year was the exact opposite. I was blessed with the best group of kiddos that I will forever remember as my first students. Every teacher has struggles and difficult situations, and I was no exception. Some of my struggles came from having to teach myself a whole new grade level. I have always felt that if I do not have a clear understanding of the math that I am teaching, then how will my students? Something else that I have learned while teaching math is that if you show your excitement about the material then the students will also be excited to learn. My first year went so smoothly because of the relationships I established with my students, creating a safe and respectful learning environment, and the interactive review games I used in my classroom.

I am a firm believer of building relationships before teaching content. A teacher is a role model in the eyes of a student. Set the tone early. Classroom management begins with knowing your students and showing them that you care. If they see that you care and respect them, then they will do the same in return. I made it my mission to know the likes and dislikes of all of my students. If they participated in a sport, I would go support them. Being a coach of three sports, this was at times difficult, but asking about their games and weekend activities is just one way to show students you care about their interests. Showing the students that you are a real person and not just a teacher was very important in building relationships with my students. I would share stories about my weekend, my family, my dog, and anything else that maybe they could relate to. A teacher should not be afraid to tell embarrassing stories about themselves because, trust me, those are their favorites and ones they will remember for the rest of the year.

A teacher must create a classroom environment where each student can reach his or her full potential. School is where a child feels safe. My classroom has always been a place for students to be themselves without judgment. Especially in math, I tell my students that it is okay to be wrong and that making mistakes is a good thing. A little quote I tell them is “Mistakes are proof that you are trying.” This is just a reminder that not everything

has to make sense the first time you try something new.

Middle school is a hard time for kids. Everyone is in their awkward stage and starting at a new school. There are locker combinations to remember, longer class periods, trying to remember what class to go to next, and a brand new set of faces to make friends with. Oh, and making good grades on top of all that. One of the first questions I ask my students is “How many of you hate math?” I usually get quite a few hands raised and surprisingly more students like math than hate it. I tell them that my job is to not change their opinion about math, but to guide them in making it enjoyable while learning new things.

The way I make math enjoyable is to turn the content into a competition. Here are some easy, interactive review games that my students love playing:

- Mathketball (My own version of Trashketball)
- Skinky Feet
- Kahoot!
- Snowball Math
- Scavenger Hunt Task Cards

Mathketball is kind of how it sounds. The students will complete a math problem and they get to shoot a ball into a goal to earn points. The team with the most points wins. **Stinky Feet** starts by drawing a big foot on the board. Then on sticky notes write + points and – points in whatever quantities you wish and place them on the foot. The students can be split into partners or groups and then asked questions. If they get the answer correct they get to grab a sticky note off the foot. The game is called stinky feet because you never know if you are going to add points or take away points. The most points wins.

Kahoot! is a website that the students can use devices to answers questions on the Smart Board. There are tons of quizzes on just about anything you want or you can make your own. This website also records each student’s answer, so you

will know exactly what they are missing. They love this because if they answer correctly they get points, but if they answer quickly and are correct to get more points. It shows a leaderboard each round, so the class is always very excited to see who is in first place.

Snowball Math is one of my favorites. Often students need extra practice, but you do not want to just give worksheets out or bookwork. This is a way for students to get an extra page of practice without realizing it. Now you do have to be careful and be very clear in your directions or you will have paper wads flying at you from across the room. Snowball math starts by each student working on the first problem. When they are finished they will crumple their paper into a ball. I tell my class that they will not throw this ball, but flip it out of the wrist onto the ground in front of them. They will toss the paper ball and then go receive a different paper ball, go back to their seats, and work on the next problem. This continues until the paper is done.

Scavenger Hunt Task Cards is a fun way for students to work through problems while writing their answers on a recording sheet. Each student will start at one task card that is placed around the room. Every task card has a question and an answer on it. This will tell them where to find the next card. Every question has an answer match all over the room. This activity gets students out of their seats while still being on task and working hard.

I hope my experience, as a first year teacher, is helpful to another. Staying positive and open-minded helped me to have a successful first year. Teaching is all about love and compassion. A quote from my dad that I have heard all of my life is: "If you don't love what you do, then get out of it." You have to love what you do in order to be a teacher. It takes a special kind of person to help shape the minds of little people. In the area that I teach, mostly rural low socioeconomic families, you might be the only positive influence they have in their life. I want my students leaving my classroom knowing that someone loves and cares about them...and maybe learn some math along the way. 🌟

NCTM President's Message

At its July meeting, the NCTM Board of Directors approved a plan to make legislative visits to Capitol Hill prior to the start of each Board meeting starting next February. While previous NCTM Presidents and individual Board members have made such visits, this action puts into place a plan for sustained and long-term engagement with policymakers.

Upcoming Online Events: NCTM President's Message

Positioning Students as Mathematically Competent

Webinar Series: President's Messages

September 5, 2018 | 7:00 p.m. ET

Unpacking Fractions: Moving from Senseless Rote to Sense Making and Joy

Webinar Series: Author Talks

September 12, 2018 | 7:00 p.m. ET

TI Sponsored Webinar: Pose Purposeful Questions and Support Productive Struggle in Learning Mathematics

Webinar Series: The Partnership Series

September 19, 2018 | 7:00 p.m. ET

Visit

<https://www.nctm.org/webinars/presidentsmessages> for more information!

Combining Classroom Routine with Formative Assessments to Improve Student Learning

- Mary Gray -

When I started teaching, it didn't take long to recognize the need for organization. I learned quickly that I needed to establish a routine in order to avoid becoming overwhelmed with student work. I needed to grade papers and get them back in students' hands promptly in order keep the momentum of each lesson flowing. And I needed to

know what to reteach before building on learned skills. In math this is exceptionally important. I see math learning as a series of building blocks, each depending on the one before it to reach the next level. If a block (a skill) is missing, progress will grind to a halt.

According to Harry Wong, (*The First Days of School: How to Be an Effective Teacher*, 1991) classroom routines must be established early and maintained. I applied this principle not only to classroom management routines, but also to how student work is submitted.

In my middle school classroom, independent practice is due at the beginning of each day. Students who are not assigned to my homeroom are also required to submit work before class starts. I place a folder in the homeroom of each teacher. Students in each homeroom place their work in the homework folder before taking their seat as they enter in the morning. The homework folder is a different color for each class. It also has a flap to close so papers aren't "lost." A responsible student from each class brings the folder to me before class starts.

Grading quickly is key, so student pages are set up for me to scan them, identify errors, circle interesting methods, etc. No scratch paper. No doing work in the margins. Student work must be organized to be graded quickly. Unless I have my planning period at the start of the day (which I didn't for the first 12 years that I taught), I grade these papers while students work on a daily warm-up. The warm-up consists of 5 problems that review the previous day's lesson. When I've finished looking over the student work, and the students have finished the warm-up, I give their work back to them. I want them to see what they missed and what they got right before we start the review. During the review, we discuss student ideas together. "What is the right answer? Who got a wrong answer? How many other people got that wrong answer? What did they do differently? Who got the right answer but in a different way?" Surprisingly, when students are given the opportunity to explain the answer they got, they don't mind sharing their mistakes. What a great way

to learn! Now I ask the students to look at their homework, and look back at the review. "How many of you can identify a mistake you made on your homework that you already saw how to fix during the review? Does anyone have a problem they DON'T know how to fix?"

Students are given the opportunity to correct ALL assignments BEFORE a grade is taken. This accomplishes several goals. First, the students have every opportunity to be successful. They can ask questions during class discussion or individually before their assignment is graded. Second, students learn from their mistakes...and they often don't make the same mistakes twice! And finally, students practice organization and responsibility. Each student must return their corrected paper by the next school day. Since grades aren't assigned until AFTER corrections are made, corrections must be turned in to get credit for the assignment.

Combining classroom routines with formative assessments has helped guide my daily teaching and helped me set long-term goals for my students. This practice has also helped students master the skills necessary to succeed at the next level, both academically and organizationally. Maybe it can work for you, too! ⚙

The Importance of the Morning Meeting

- Cassie Neeley -

Which part of the day do I refuse to skip? Morning meetings and calendar time! You might be thinking, "Are you crazy? You would rather skip your writing block or guided reading groups versus something so trivial?" Morning meetings and calendar time are not trivial activities. They are not time fillers. Our morning meeting and calendar time set the tone for the rest of the day. If something major happens and we are forced to leave these out the whole rest of the day is set with a chaotic message.

So, with this being said, what exactly do we accomplish during this time period that is so important? Social skills for one. Some of my students are entering a whole new world. Some of

my students that I will greet in August have never been in a classroom setting. Some of them might be an only child who has never even interacted with other children. Some of them might be entering kindergarten with no knowledge of how to participate in a group. We begin here. We begin by teaching them how to enter the classroom, greet one another, and take care of their belongings. We lead them through discussions and show them how to talk with their peers. We let them know that it is a good thing to ask questions in order to clarify the meaning of what we are discussing. We guide them and support them when they are learning to express their thoughts and ideas. These are all extremely important skills for any one of us to have. These are the foundational listening and speaking skills for the remainder of their lives.

So, where do the “real” standards come in, if you will? We need to be teaching the standards! The standards are embedded in all of the discussions and activities we do during this time. The above mentioned skills are all kindergarten speaking and listening standards. In our morning meeting/calendar time we are working on Counting and Cardinality, Operations and Algebraic Thinking, Numbers and Operations in Base Ten, Measurement and Data, Geometry, and even kindergarten science and social studies standards. Yes, this can all be included in a fifteen to twenty-five minute class meeting.

How exactly do we make all of this fit? The students begin on the first day of school learning the morning routines of greeting each other and taking care of their needs. We get this routine set in place until they can do it in a matter of minutes with no help from the teacher. They then proceed to the classroom meeting area where they find their seats and we begin immediately. Our meeting has a set a routine that we follow the same way every day. This ensures we do not forget something, but yes, it does happen. The students always keep me on track and are quick to remind me if I make a mistake! They are in charge of this time and they know exactly what needs to take place. This happens because of routine and practice. In our classroom meeting area we have a variety of math manipulatives, graphs, the calendar, weather pictures with explanations, number charts, tally charts, blocks, geometric shapes, and a variety of other tools. We keep all of this in pocket charts and the storage area underneath our classroom cart. Now you might be asking, “What exactly do we use all of these tools for and how do you teach all of the above mentioned standards in this amount of time?”

Here is the breakdown:

Daily Meeting Area Routines:

Each day we begin with the day’s date, day of the week name, review yesterday and tomorrow, and discuss the month of the year. We do this by

EARTH EXPEDITIONS

LEARNING IN THE WORLD COMMUNITY

Now accepting applications for 2019!

Miami University’s Project Dragonfly is accepting applications for 2019 Earth Expeditions graduate courses that offer extraordinary experiences in 16 countries throughout the world! Earth Expeditions can build toward the Global Field Program (GFP), a master’s degree that combines summer field courses worldwide with web learning communities so that students can complete the GFP master’s part-time from anywhere in the United States or abroad. Project Dragonfly also offers the Advanced Inquiry Program (AIP) master’s degree that combines web instruction from Miami University with experiential learning and field study through several AIP Master Institutions in the U.S.

Visit the website for more information: <https://earthexpeditions.miamioh.edu/>

using the days of the week song and we sing the months of the year song. Each day we also discuss and display the day's weather. By doing this we are hitting the kindergarten science and social studies standards; K.17, 18, 19 and K.ESS2.

We then use sticky notes to display the number of days we have been in school. This is a very simple way to show place value as well because you can show separate columns easily with sticky-notes. We use this number to work on discovering a sequence and predicting what will come next. We also show this number with tally marks and ten frames by having the students assist in counting one-to-one correspondence until the desired number of tally marks or ten frames have been completed. Using the number of the day the students learn to compare numbers and represent addition and subtraction with our meeting area manipulatives. The students also use coins to represent the day's date.

Later in the year we begin to graph the weather for each day, week, and month. When we get into our geometry unit we will add in a mystery shape each day. Through these quick and easy routines we have now reviewed kindergarten standards; counting and cardinality, operations and algebraic thinking, measurement and data, geometry, and numbers and operations in base ten.

We end our morning meeting by discussing the day's learning expectations and begin the rest of the day by stating affirmations to ourselves, each other, and our classroom...“Today is going to be...wait for it...LEGENDARY! Never underestimate the power of the morning meeting again! ❁

Why Engage Parents in Math?

- Charity Roberts -

Parents are the first and most influential teachers in a child's life. Children learn at an early age to respect and mimic their parents. This results in the adoption of parental attitudes and beliefs. These instances include the positive and negative.

As educators, we strive to engage parents in a variety of ways with the most meaningful

engagement occurring when parents are empowered to actively support academic learning. This most often happens in the area of reading. Literacy is a common ground that is viewed as a life skill by parents and teachers alike, but what about math literacy?

Math is often a touchy subject with parents. Many times parents shrug off the topic by indicating that they were never good at math in school or math simply wasn't their thing. This lack of enthusiasm for the area of mathematics is very common. How can we as educators bypass this obstacle?

Many times parents are uncertain of how to engage students with math. Parents must be equipped with usable strategies that encourage daily math reasoning as they interact with their children. This is not explicit instruction; rather it is meaningful application and practical experience outside of the classroom. Most parents experience math in some form on a daily basis. By identifying these situations, parents open up the door for mathematical reasoning and practice. Family game nights, trips to the grocery store, and scheduling extracurricular activities are all examples of real life mathematics in practice. What does this mean for teachers?

In order to create a shift in parental attitudes regarding math, educators must take on the role of learning partners with parents. Some current trends to open the lines of communication with parents are family game nights, parent universities, and STEM events. The key to having a meaningful impact is to hook parents the same way that we would our students. Activities must be interesting; parents need specific practical strategies that are immediately applicable. Educators should avoid lecturing or traditional instruction; instead parents should be given the opportunity to play with math. Games are a great entry point because they promote an environment where it's okay to struggle and even fail. These opportunities open the door for discussions about daily math experiences and the importance of engaging students during those moments.

Parental support is extremely important in regards to motivation and conceptual development of mathematics for students. Parents often lack confidence with mathematics or have had a negative personal experience in a math class. It is crucial that educators intentionally engage and empower parent to support math literacy through hands on and real life examples of math reasoning. Engaging parents in ways that highlight the importance of everyday math is the key to creating positive cultural attitudes toward mathematics. ⚙️

Math Attitude

- Rhonda Ball -

Think about your students and parents for a moment. Now ask yourself, what topics can the parents easily help their child with? From my own classroom observations I am going to say reading and spelling. Why? Parents are more comfortable, it is easy to check spelling knowledge or read with your child. Now ask yourself, what subject do parents struggle with or shy away from the most? I would say most would answer the question with math. As teachers we need to help parents change their attitude about math. We want our parents to support their child's learning.

As educators, we recommend families reading to or with their child every night. We encourage families to begin at a very young age. It is never too early. We need to have these same encouragements with math. We should be encouraging families to have some "math" time. One way of doing this could be by having a family night. All ages love games and this can be a great way to spend quality family time together.

We also need to change how parents think about math. How many times have you heard, "I can't help my child?" Let's change that to "I can help my child." As parents we don't want children to see our fear of math. We want our parents to allow their children to explain the math to them. We want math to become a part of our homes. We can encourage this with our families by giving them ways to explore math. Encourage parents to show math problems from their lives: counting forks, matching cup to plates, having a plate for each

person (setting the table), cooking, telling time, and counting the money at the store.

I was a parent who struggled with math. Looking back I wish I would have done things differently. I wish I would have changed my attitude towards math. I wish I would have said "I can" instead of saying "I can't." In school my favorite subject was never math. I always said "I hate math." My daughters who are now in the sixth grade know my attitude towards math. I wish I would have never shared these thoughts with them. Instead I wish they would have seen the following attitudes in me.... Math is a verb, something that we do, we count, build, design, and cook. At these times we are doing math. It is ok to make mistakes. Not everyone has to use the same strategy to find the answer to the problem. It is ok to ask others for help. These are the attitudes I wish I had modeled to my daughters. This upcoming school year my daughters will notice a change.

As an educator I want my families to enjoy math together. We just need to show them how. In closing here are three ways that could help parents support their child's math development.

1. Begin working with your child as early as you can.
2. Make math fun.
3. Incorporate math into everyday activities. ⚙️

Relationships in the Classroom

- Dustin Pannell -

When I was in 1st grade, my teacher came to my baseball game. Where I went to school we looped, so that same teacher also came to one of my games during 2nd grade as well. Another memory I have of this teacher is her bringing a gift from our Holiday Gift Exchange to my house after I left sick from school early. Those are the only 3 memories I have of the first 2 years I was in school. Oddly enough, none of those memories actually happened in the classroom. Call it a belief, call it an opinion, call it whatever you want, I believe that in order to get the most out of your students you have to show them that you care about them as a person before you ever start caring about their education.

I have the privilege of both teaching elementary school and coaching at the high school level. This past year, the students I had my first year were the same kids that I coached in baseball. Several times we spoke about their experiences in the 5th grade classroom we shared years ago, and not one time did they mention how they learned to plot a point on the coordinate plane. Every single conversation, we would talk about something that happened outside the classroom or something random inside the classroom. The same response is true for my students' parents. I have not once had a parent thank me for teaching their child how to master a concept like long division or multiplying a decimal. As teachers, we are in a tough spot. The standards keep growing, the testing keeps getting longer and weighted more and the time keeps shrinking. How do we possibly have time to build relationships and get through the curriculum at the same time?

The answer is simple.... Go outside your classroom.

Sara Rimm-Kaufman and Lia Sandilos say in their work *Improving Students' Relationships with Teachers to Provide Essential Supports for Learning* that "students who have close, positive and supportive relationships with their teachers will attain higher levels of achievement than those students with more conflict in their relationships." How do we develop those relationships once students start getting older? I have found it hard to develop those relationships inside of the classroom. Asking one student what they did over a weekend leads to 25 students wanting to tell what they did over the weekend. It also leads to some students saying they went to an expensive theme park while another student feels inadequate because no one at their house would spend time with them.

I have found that I can build these relationships the best outside of the classroom. Whether it is showing up in art class to talk to students about their art; playing all time pitcher in those crazy recess kickball games; my personal favorite, just eating lunch with the students; the one that I feel works the best, but unfortunately is the

most time consuming, is showing up to the dance recitals and the basketball games.

Showing students that we care about them outside of the classroom is the key to success inside the classroom. It gains their trust. Students want to know that they mean more to us than a TVAAS score. They want to know that we genuinely care about them as human beings. Let me be the first to say that I am a competitor. I care deeply about TVAAS scores. That's why I am so passionate about building these relationships outside of the classroom. Creating those relationships helps build the trust both ways, the students trust me and are comfortable enough to speak up when they are lost and in turn I trust my students enough to express their concerns during class. Like Dr. Rimm-Kaufman and Dr. Sandilos say in their work, students perform better for teachers that they feel like they have a positive relationship with. Humans are hard-wired with the desire to connect with others. Showing this interest in student's personal lives creates that connection.

Imagine if the only conversations we had with our students during the year were about numbers and how their weekend went. I don't think it would be a very memorable year for anyone. It is the reason that I still remember my 1st and 2nd grade teacher coming to my games. The reason why my players only talk to me about things that happened in 5th grade on the playground. It is all about that personal connection. It is what we are hard-wired for as people. ⚙

The Three Cs of an Effective Classroom: What new Teachers Need to Know - Natalie Murray -

Being a new teacher creates a load of various emotions. New teachers feel excitement as well as nervousness and anxiousness. Many new teachers experience a great deal of confusion and uncertainty despite spending years preparing for the classroom. In hopes of helping, there are always more experienced individuals that are ready to give advice. However, the advice often becomes overwhelming and stressful. As a new high school

mathematics teacher this past year, I faced all of these emotions, plus some; I also received a great deal of advice constantly from others. In order to reduce the stress from mixed emotions and the tremendous amount of advice, while also taking in all that I could absorb, I quickly found out that the most important aspects for new teachers to consider could be simply put into what I like to call the “three C’s” of an effective classroom.

1. Be COMPASSIONATE:

First and foremost, educators must be compassionate. This is the easiest of the three C’s to implement, especially as a new teacher. When beginning a teacher career, educators are fresh and ready to love on students. Many of the students in the classroom will truly need love. In my mathematics classroom I witnessed students who yearned for someone to just show them some love and attention. There were students who just needed a little compassion and patience in order to have a chance at succeeding in math. However, there is a fine line between being compassionate and being a pushover. Students love to test boundaries. They will try to get away with anything. It is important that, as a new teacher, one learns to stand firm in situations that truly do not require compassion. These situations are those of pure laziness or carelessness.

2. Be CLEAR:

When it comes to setting rules, giving directions, teaching new concepts, establishing rewards and consequences, and anything else that will help the classroom run smoothly, being clear is essential. By being clear with rules, consequences, and rewards, teachers are able to let students know exactly what is expected of them. There is no room for confusion or arguments from the students when expectations are made extremely clear. When students know the exact consequences or rewards that follow certain behaviors, they become less likely to complete undesired behaviors and more likely to perform desired behaviors. Yet, being clear does not always help every student’s behavior; there may be a student or two that actually enjoys getting in trouble. Some students prefer to be sent to the hallway, be sent to the office, or have attention from others – even if it is negative attention. These

Last Month’s Highlights!

Below are some brief descriptions of the different presentations offered at the most recent UETCTM session:

- **K-2 Session Facilitated by Jessica Hurd - Surgoinsville Elementary (Hawkins County)**

Session Description: **Number Sense Strategies That Build Conceptual Knowledge.**

Participants gained strategies to develop a deeper understanding of number relationships. Strategies included building fluency through number routines and games, numberless word problems, 3 act tasks, and more.

- **3-8 Session Facilitated by Dr. Jamie Price - ETSU**

Session Description: **"Let's Have Fun Problem Solving!"**

Problem solving is at the heart of mathematics, however for many students the idea of problem solving brings out unpleasant emotions. In this session, participants learned to consider some new ways to present problem solving to students in order to hook them in and keep them interested. Three-act tasks and Open Middle problems were highlighted in this session. Participants left with ideas that they can implement immediately into their own teaching.

- **9-12 Session Facilitated by Dr. Ryan Nivens - ETSU**

Session Description: **"Investigating the LEMMA Curriculum from New Zealand: Identifying Maxima and Minima"**

We developed specific principles for finding an antiderivative of a given function using this newly created curriculum from half-way around the world. Time was split between mathematical investigation and curriculum analysis.

students will try to get in trouble daily. Therefore, it is important that new teachers know that being clear is an effective method for reducing uncertainties or misinterpretations of expectations for most students but not for all.

Being clear is vital when teaching new concepts and giving directions, especially in the mathematics classroom. As a high school math teacher, I quickly realized that many of my students struggled with following the instructions for solving problems or following the directions of an assignment. I soon learned that by giving short, simple, and CLEAR instructions many more students were able to understand the concepts. Being clear with instruction and directions starts when teaching a new concept. Most students are more likely to accurately learn the material when they are presented the information in step by step instructions. I began finding ways to teach every lesson in steps and had better success from my students by doing so. Being clear in methods, instruction, and directions, along with rules, consequences, and rewards, is critical for creating effective learning opportunities for students.

3. Be CONSISTENT:

Consistency is key in having a fair learning environment for all students. When students witness teachers giving others chance after chance it does not take them very long to figure out that the consequences are not strictly enforced. This is the area I struggled with the most in my first year of teaching. Too often I caught myself giving students second, third, and even fourth chances. I had rules that were posted in the room and made known to the students, but I was not consistent with how I handled students who broke those rules. My most prevalent example of this was allowing students to turn in work long after the due date. I made it very at the beginning of the year that I would not accept late work—with the exception of work given when a student was absent. However, I did not stay consistent with that rule. I soon began having problems with students not doing work “just because” and then turning in the work a week later, which I would accept. Being consistent is important so that students know exactly what to expect when they perform undesired behaviors. Students will

behave better when they know consequences or rewards will actually be given based on their choice of actions.

Being a new teacher is tough. New teachers must find ways to manage behavior, present material, and create a positive, effective learning environment. Getting advice from more experienced educators is always useful and appreciated, but new teachers should not allow it to become overwhelming. The “three C’s”—when implemented correctly—allow new teachers to encompass all the advice experienced teacher have to offer. However, only having to remember three simple factors takes away a great deal of stress. Never forget: be compassionate, be clear, and be consistent. ✿

In Closing

Don't forget to check out back issues of the Upper East Tennessee Council of Teachers of Mathematics by heading over to:

<https://www.etsu.edu/cas/math/activities/uetctm.php>

They are free to access!





**Upper East Tennessee Council of Teachers of Mathematics
Membership Application for 2017-2018**

Complete and return to Sunshine Light with a check for \$10.00 made payable to UETCTM. Completed application and check may be mailed to:

Sunshine Light
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:

- I am a current member of NCTM.
- Please check if you do NOT want your information to be shared.
- I would be interested in leading a session at UETCTM
- I would be interested in holding an officer position with UETCTM