November 30, 2022

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)
This professional learning event will meet virtually via ZOOM meetings on select Wednesdays throughout 2022-23
11:30 AM - 12:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

The KCM is excited to announce a new professional learning event just for Kentucky Math Intervention Teachers. This collegial learning and support opportunity is open to Kentucky K-5 Math Intervention Teachers who want to grow as professionals and share their knowledge, successes and struggles with fellow math intervention teachers. This group will meet virtually once a month on Wednesdays via a 1-hour ZOOM meeting from 11:30 am - 12:30 pm Eastern Time.
This event will be facilitated by KCM Regional Consultant Lisa Riggs along with other special guests.

TEACHER TOOL KIT:
In addition to the monthly collegial support meetings, being an active part of this select group will allow you to receive a fun KCM MIT teacher tool kit containing support materials from the KCM 3 times throughout the 2022-23 school year.

MONTHLY NEWSLETTER:
Participants will also receive a monthly newsletter with teacher tips and intervention resources.

SPECIAL MEET AND GREET:
Because virtual is great but in-person is better, we are planning a special, invitation-only meet and greet session for this group at the KCM Annual Math Conference in March 2023. (Monday & Tuesday, March 6 & 7)

MONTHLY ZOOM MEETING SCHEDULE:
Please note: These are live and interactive ZOOM meetings that meet from 11:30 am - 12:30 pm Eastern Time. If you know that you cannot meet on Wednesdays from 11:30 am - 12:30 pm EST, then you will be unable to participate in this professional learning event.
1. Wednesday, September 7, 2022
2. Wednesday, October 19, 2022
3. Wednesday, November 30, 2022
4. Wednesday, January 18, 2023
5. Wednesday, February 22, 2023
6. Wednesday, April 19, 2023

There is no registration fee for this event. It is free for Kentucky K-5 Math Intervention Teachers. We hope you are as excited about this opportunity as we are! If you want to be a part of this MIT Collegial Support Team, please register today as space may be limited.

Thank you for all you do for your students! The KCM is here to support you help your math students succeed in any way we can so don’t hesitate to reach out to us with any questions about this professional learning event, or if we can help you in some other way.
The KCM can be reached at 859-572-7690 or kcm@nku.edu or info@kentuckymathematics.org.
Our website is www.kymath.org and you can access lots of free resources there - like Math Fact Fluency games to use with your students.
Fluency Assessment Training Follow-up: Using the FM100 (November 2022)
Virtual - Zoom
04:30 PM - 05:00 PM EST
Kentucky Center for Mathematics , 859-572-7690
kcm@nku.edu
Fluency Assessment Training Follow-up: Using the FM100
Description: The FM100 is a KCM fluency assessment designed to assess students’ understanding of multiplication and division within 100 (Fluency Standard KY.3.OA.7). This short session will introduce participants to administering and scoring the FM 100.

Participants MUST have previously completed KCM Fluency Assessment Training. Participants must be able to participate virtually on the date of the session. This training is live and interactive. It is not recorded. Registered participants will receive the information they need to connect to the ZOOM meeting from the facilitator Cindy Aossey. This email may go to your junk or spam folder so look for it there. Please move any KCM emails you find in your junk and/or spam folders to your inbox and mark the sender as safe. Thank you.

DATE: Wednesday, November 30, 2022
TIME: 4:30 - 5:00 pm Eastern Time (which is 3:30 - 4:00 pm Central Time)
LOCATION: Virtual ZOOM Meeting

Contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Comprehensive Course for Primary K-2: PART 1 - HYBRID, Muhlenberg County, KY - Julie Adams & Cindy Aossey (2022-23)

4 virtual half-day sessions via ZOOM; 2 in-person sessions in Muhlenberg County, KY

IN-PERSON = Muhlenberg County Public Schools Central Office - Resource Room
Powderly, KY 42367
virtual sessions in Sept & Oct = noon-3pm CST; in-person on 11/15 & 12/6 = 9am-4
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Comprehensive Course for Primary Grades K-2: PART 1

Course Description:

This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students’ mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include counting and cardinality, number and operations in base ten, conceptual place value, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 1 Big Ideas = Mathematical Fluency & Number Sense and Computational Fluency to 100

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via live ZOOM meetings.
The 2 full-day in-person sessions will meet at the Muhlenberg County Public Schools Central Office - Resource Room

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS HOPKINSVILLE, KY COHORT:
Session 1: Tuesday, September 20, 2022; noon-3:00pm Central Time. (VIRTUAL)
Session 2: Wednesday, September 21, 2022; noon-3:00pm Central Time. (VIRTUAL)
Session 3: Tuesday, October 25, 2022; noon-3:00pm Central Time. (VIRTUAL)
Session 4: Wednesday, October 26, 2022; noon-3:00pm Central Time. (VIRTUAL)
Session 5: Tuesday, November 15, 2022, 9:00 am - 4:00 pm Central Time (IN PERSON)
Session 6: Tuesday, December 6, 2022, 9:00 am - 4:00 pm Central Time (IN PERSON)

Registration for this cohort closes at midnight on Tuesday, August 23, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.

In 2023, The KCM is offering Part 2 of this Comprehensive Course for Primary Grades
K-2 training. Participants wishing to attend Part 2 must have completed this Part 1 training in 2022. The BIG IDEAS covered in Part 2 will be Measurement, Time & Money, Algebraic Reasoning & Problem Solving, and Math Fact Fluency. Please visit our website to register for Comprehensive Course for Primary Grades K-2 PART 2.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2

Course Description:

Participants in KCM's AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions.
In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists.
Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.
IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM's AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY
PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Fluency Assessment Training- Cindy Aossey (December 2022)

Virtual - Zoom
04:00 PM - 05:30 PM EST
Kentucky Center for Mathematics , 859-572-7690
kcm@nku.edu

Fluency Assessment Training with KCM Regional Consult Cindy Aossey:
In this 90 minute session, participants will learn how to administer and score the KCM Kentucky Numeracy Project Fluency Assessments. In addition, there will be discussions about using the information from the assessments for planning mathematics instruction in elementary grades. Participants will gain access to the full suite of Fluency Assessments after completing a practice assessment with an elementary-aged student.

This Fluency Assessment Training is open to any elementary school math teacher; even those who teach outside of Kentucky.

For any teacher who has attended a KCM event in the past, your school email is already in our system; enter your school email address and then please update anything else that has changed or is missing.
KY educators must use their @(school district).kyschools.us email.
If you work for an organization and not a school or school district, please enter the name of the organization where you work.
Please include the grade of math you work with on your position title: examples = 3rd Grade Teacher; K-5 Math Interventionist; Curriculum Coach K-12.

DATE: Thursday, December 8, 2022
TIME: 4:00 - 5:30 pm Eastern Time (which is 3:00 - 4:30 pm Central Time)
LOCATION: Virtual ZOOM Meeting

Participants must be able to participate virtually on the date of the session. This training is live and interactive. It is not recorded.
Registered participants will receive the information they need to connect to the ZOOM meeting from the facilitator Cindy Aossey. This email may go to your junk folder so look for it there. Please move any KCM emails you find in your junk folder to your inbox and mark the sender as safe. Thank you.

Contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2
Course Description:

Participants in KCM’s AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions.
In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists.
Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.

IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM’s AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY
PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am- 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Building Numeracy with Middle Grades Students (5-8): HYBRID, Louisville, KY - Dee Crescitelli (2022-23)

Course Description:

PLEASE NOTE: This KCM professional learning event is available only to educators in Kentucky. This course is designed for 5th, 6th, 7th or 8th grade math teachers, but other Kentucky educators who believe this training would be helpful in their work are welcome to register and participate as well.

We know that students develop their mathematical reasoning skills over time and at different rates - and that the past year has created instructional gaps due to the time available for math instruction in different pandemic teaching situations. This year-long, in-depth course provides teachers with information and materials to enable them to strengthen mathematics instruction by building from students’ current funds of knowledge. Participants will learn teaching strategies for helping students develop the more sophisticated reasoning needed for middle grades mathematics with the goal of improving student access to grade-level content. Each participant will receive two sets of the "24 Game: Fractions/Decimals" card game. Each participant will also receive 4 books:

- Figuring out Fluency in Mathematics Teaching and Learning
- Elementary and Middle School Mathematics Teaching Developmentally, 10th edition
- Building Powerful Numeracy for Middle School & High School Students
- Lessons and Activities for Building Powerful Numeracy

COST: FREE (*This course is open to Kentucky educators only)

*Participants must be registered to attend and are expected to fully participate in both the in-person days and all 8 virtual sessions as scheduled below. The virtual sessions are live and interactive sessions that meet online via ZOOM. They are not recordings to be watched at any other time. All 8 half-day virtual sessions meet on Tuesday afternoons during the school year. Please confirm you can participate in this course on Tuesday afternoons before registering.

Duration: 10 Sessions (2 in-person days and 8 half-day virtual sessions)

Location:

2 IN-PERSON DAYS in Louisville, KY at the University of Louisville Conference Center, ShelbyHurst Campus, Founders Union Building
8 VIRTUAL half-day sessions online via ZOOM

2022-23 BUILDING NUMERACY SCHEDULE:

SESSION 1: Tuesday, June 21, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)

SESSION 2: Wednesday, June 22, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 3: Tuesday, August 23, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 4: Tuesday, September 20, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 5: Tuesday, October 25, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 6: Tuesday, November 15, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 7: Tuesday, December 13, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 8: Tuesday, January 24, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 9: Tuesday, February 21, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 10: Tuesday, March 14, 2023; noon-3:00pm Eastern Time (half-day virtual)

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

Please note: The KCM is absorbing all the costs associated with providing this professional development. If you register for this event and then find you are unable to attend for any reason, contact the KCM as soon as possible so your spot and materials can be given to another teacher. Registered teachers who fail to show up for this training may be charged for the cost of course materials, training and meeting space.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Virtual ZOOM meetings
04:15 PM - 06:15 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

High School Modeling - VIRTUAL - Leah Dix (2022-23)
Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students.
Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling.
Participants will digital materials and will be expected to attend all 6 sessions of this course.
Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)
Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Virtual ZOOM meetings
04:15 PM - 06:15 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students. Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling. Participants will digital materials and will be expected to attend all 6 sessions of this course. Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)

Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.

TBD in Lexington, KY
08:30 AM - 11:30 AM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Foundations for Early Childhood Mathematics (Lexington)

COURSE DESCRIPTION:
This Foundations for Early Childhood Mathematics professional development course is for Preschool and Kindergarten teachers who teach in the state of Kentucky only. It features content developed by the Erikson Institute, leaders in early childhood education. This professional learning highlights the "Big Ideas" in early mathematics which include sets, number sense, counting, number operations, pattern, measurement and shape. Participants will learn how to spark children's mathematical learning through developmentally appropriate exploration, discussion and activity using high-impact, evidence-based strategies and children's literature which support the teaching and learning of early mathematics.

**THIS COURSE MEETS IN PERSON ON FRIDAYS FROM 8:30 - 11:30 AM EASTERN TIME IN LEXINGTON, KY**

Upon registering, participants are expected to attend and actively participate in all eight half-day in-person sessions. Please do not register for this training if you are unable to attend in-person on Fridays from 8:30 -11:30 am Eastern Time on the dates listed below. Your school must provide substitutes for your classroom if necessary.

SCHEDULE:
Fridays, 8:30 - 11:30 AM Eastern Time IN-PERSON in Lexington, KY

Session 1: September 16, 2022
Session 2: October 28, 2022
Session 3: November 18, 2022
Session 4: December 16, 2022
Session 5: January 20, 2023
Session 6: February 17, 2023
Session 7: March 17, 2023
Session 8: April 21, 2023

COST: FREE (For Kentucky Preschool and Kindergarten teachers only)

Registration deadline is August 19, 2022.

Should you register for this training and then find you are unable to attend for any reason, you must contact the KCM at kcm@nku.edu or 859-572-7690 so your spot can be offered to another Kentucky teacher. No shows may be charged for the cost of the materials, training and meeting space.
Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics
Bethany Noblitt
Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions.
Our normal business hours are M-F, 8:15 am - 4:30 pm.
Bethany Noblitt can be reached via email at noblittb@nku.edu.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at cm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or cm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
**Family Math - VIRTUAL - Lisa Riggs (2022-23)**

**Virtual ZOOM meetings**
09:30 AM - 11:00 AM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu

**Family Math - VIRTUAL - Lisa Riggs (2022-23)**

**Description:**
This free KCM professional learning event is for KENTUCKY mathematics educators only.

During this Family Math course, we will explore research on family engagement and how to educate parents concerning math fluency and the current standards.

Participants will explore family math resources and how to conduct a family math night event.

Participants will be given materials to conduct 2 Family Math Nights - one per semester.

Participants will implement two Family Math Nights at their school: the 1st before Dec 31, 2022 and the 2nd before April 28, 2023.

Participants will share their successes and takeaways from each of their Family Math Nights.

**Cost:** FREE (For Kentucky Mathematics Educators only)

**Duration:** 8 virtual 90-minute ZOOM meeting sessions, plus two Family Math Night implementations.

All 8 virtual sessions will meet on FRIDAYS from 9:30 - 11:00 am Eastern Time (which is 8:30 am - 10:00 am Central Time).

**SCHEDULE:**
1. Friday, August 26, 2022; 9:30-11:00 am Eastern Time
2. Friday, September 9, 2022; 9:30-11:00 am Eastern Time
3. Friday, September 23, 2022; 9:30-11:00 am Eastern Time
4. Friday, January 6, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 1st Family Math Night)
5. Friday, January 20, 2023; 9:30-11:00 am Eastern Time
6. Friday, February 3, 2023; 9:30-11:00 am Eastern Time
7. Friday, March 3, 2023; 9:30-11:00 am Eastern Time
8. Friday, April 28, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 2nd Family Math Night)

Before registering, please make sure that you are able to fully participate in all 8 live and interactive ZOOM meeting sessions on Fridays from 9:30 - 11:00 am Eastern Time. By registering for this course, you are agreeing to host two Family Math Nights: one before December 31, 2022, and one before April 28, 2023.

Registration cutoff date is July 29, 2022.

Please contact the KCM at cm@nku.edu or 859-572-7690 with any questions.

The KCM sends a registration confirmation email to everyone who registers for a KCM event. This email often goes to the recipient's junk folder. If you register and do not receive a confirmation email from cm@nku.edu, check your junk folder and then contact the KCM. Any KCM emails found in your junk folder need to be moved to your inbox and the sender marked as safe. Thank you.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students.

Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling. Participants will digital materials and will be expected to attend all 6 sessions of this course.

Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)

Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.
Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students’ mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023: noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Virtual ZOOM meetings
04:15 PM - 06:15 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students.

Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling. Participants will digital materials and will be expected to attend all 6 sessions of this course.

Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)

Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.
Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM
Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.
Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2
Course Description:

Participants in KCM's AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions.
In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists.
Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.
IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM's AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY
PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
January 18, 2023

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

This professional learning event will meet virtually via ZOOM meetings on select Wednesdays throughout 2022-23 from 11:30 AM - 12:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kc@nku.edu

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

The KCM is excited to announce a new professional learning event just for Kentucky Math Intervention Teachers. This collegial learning and support opportunity is open to Kentucky K-5 Math Intervention Teachers who want to grow as professionals and share their knowledge, successes and struggles with fellow math intervention teachers. This group will meet virtually once a month on Wednesdays via a 1-hour ZOOM meeting from 11:30 am - 12:30 pm Eastern Time.
This event will be facilitated by KCM Regional Consultant Lisa Riggs along with other special guests.

TEACHER TOOL KIT:
In addition to the monthly collegial support meetings, being an active part of this select group will allow you to receive a fun KCM MIT teacher tool kit containing support materials from the KCM 3 times throughout the 2022-23 school year.

MONTHLY NEWSLETTER:
Participants will also receive a monthly newsletter with teacher tips and intervention resources.

SPECIAL MEET AND GREET:
Because virtual is great but in-person is better, we are planning a special, invitation-only meet and greet session for this group at the KCM Annual Math Conference in March 2023. (Monday & Tuesday, March 6 & 7)

MONTHLY ZOOM MEETING SCHEDULE:
Please note: These are live and interactive ZOOM meetings that meet from 11:30 am - 12:30 pm Eastern Time. If you know that you cannot meet on Wednesdays from 11:30 am - 12:30 pm EST, then you will be unable to participate in this professional learning event.
1. Wednesday, September 7, 2022
2. Wednesday, October 19, 2022
3. Wednesday, November 30, 2022
4. Wednesday, January 18, 2023
5. Wednesday, February 22, 2023
6. Wednesday, April 19, 2023

There is no registration fee for this event. It is free for Kentucky K-5 Math Intervention Teachers. We hope you are as excited about this opportunity as we are! If you want to be a part of this MIT Collegial Support Team, please register today as space may be limited.

Thank you for all you do for your students! The KCM is here to support you help your math students succeed in any way we can so don't hesitate to reach out to us with any questions about this professional learning event, or if we can help you in some other way.
The KCM can be reached at 859-572-7690 or kc@nku.edu or info@kentuckymathematics.org.
Our website is www.kymath.org and you can access lots of free resources there - like Math Fact Fluency games to use with your students.
Course Description:
Modeling with mathematics is one of the most misunderstood Standards for Mathematical Practice, yet it is essential for ALL students to master. Participants of this course will experience an instructional routine that builds students' capacity to make sense of models and to develop questions to ask themselves when modeling. Learn about designs for interaction that build opportunities for students to develop mathematical language and process the ideas and concepts of modeling.

PLEASE NOTE:
Participants who teach in Kentucky will receive a copy of the book Teaching for Thinking. Participants who teach outside of Kentucky will need to purchase their own copy of Teaching for Thinking if they wish to participate in this course.

Cost: FREE
Duration: 4 half-day virtual sessions

Please note: This professional learning event will meet virtually via 4 half-day ZOOM meeting sessions on select Thursdays in 2023 from 3:45 - 6:30 pm EST. Teachers must be able to fully participate in all 4 live and interactive ZOOM meeting sessions as scheduled. Sessions are not recorded to be watched at any time.

SCHEDULE:
SESSION 1: Thursday, January 19, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 2: Thursday, February 9, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 3: Thursday, March 2, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 4: Thursday, March 23, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)

Teachers must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another teacher.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM
Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.
Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
Fluency Assessment Training- Cindy Aossey (January 2023)
Virtual - Zoom
12:00 PM - 01:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu

Fluency Assessment Training with KCM Regional Consult Cindy Aossey:
In this 90 minute session, participants will learn how to administer and score the KCM
Kentucky Numeracy Project Fluency Assessments. In addition, there will be discussions
about using the information from the assessments for planning mathematics instruction
in elementary grades. Participants will gain access to the full suite of Fluency
Assessments after completing a practice assessment with an elementary-aged
student.

This Fluency Assessment Training is open to any elementary school math teacher;
even those who teach outside of Kentucky.
For any teacher who has attended a KCM event in the past, your school email is
already in our system; enter your school email address and then please update anything
else that has changed or is missing.
KY educators must use their @(school district).kyschools.us email.
If you work for an organization and not a school or school district, please enter the
name of the organization where you work.
Please include the grade of math you work with on your position title: examples = 3rd
Grade Teacher; K-5 Math Interventionist; Curriculum Coach K-12.

DATE: Thursday, January 19, 2023
TIME: 12:00 - 1:30 pm Eastern Time (which is 11:00 - 12:30 pm Central Time)
LOCATION: Virtual ZOOM Meeting

Participants must be able to participate virtually on the date of the session. This training
is live and interactive. It is not recorded.
Registered participants will receive the information they need to connect to the ZOOM
meeting from the facilitator Cindy Aossey. This email may go to your junk folder so look
for it there. Please move any KCM emails you find in your junk folder to your inbox and
mark the sender as safe. Thank you.

Contact the KCM at cm@nku.edu or 859-572-7690, or the facilitator Cindy Aossey at
cindy.aossey@outlook.com, with any questions.
Foundations for Early Childhood Mathematics: In-Person, Lexington, KY - Julie Adams (2022-23)
TBD in Lexington, KY
08:30 AM - 11:30 AM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu
Foundations for Early Childhood Mathematics (Lexington)

COURSE DESCRIPTION:
This Foundations for Early Childhood Mathematics professional development course is for Preschool and Kindergarten teachers who teach in the state of Kentucky only. It features content developed by the Erikson Institute, leaders in early childhood education. This professional learning highlights the "Big Ideas" in early mathematics which include sets, number sense, counting, number operations, pattern, measurement and shape. Participants will learn how to spark children's mathematical learning through developmentally appropriate exploration, discussion and activity using high-impact, evidence-based strategies and children's literature which support the teaching and learning of early mathematics.

**THIS COURSE MEETS IN PERSON ON FRIDAYS FROM 8:30 - 11:30 AM EASTERN TIME IN LEXINGTON, KY**

Upon registering, participants are expected to attend and actively participate in all eight half-day in-person sessions. Please do not register for this training if you are unable to attend in-person on Fridays from 8:30 -11:30 am Eastern Time on the dates listed below. Your school must provide substitutes for your classroom if necessary.

SCHEDULE:
Fridays, 8:30 - 11:30 AM Eastern Time IN-PERSON in Lexington, KY

Session 1: September 16, 2022
Session 2: October 28, 2022
Session 3: November 18, 2022
Session 4: December 16, 2022
Session 5: January 20, 2023
Session 6: February 17, 2023
Session 7: March 17, 2023
Session 8: April 21, 2023

COST: FREE (For Kentucky Preschool and Kindergarten teachers only)

Registration deadline is August 19, 2022.

Should you register for this training and then find you are unable to attend for any reason, you must contact the KCM at cm@nku.edu or 859-572-7690 so your spot can be offered to another Kentucky teacher. No shows may be charged for the cost of the materials, training and meeting space.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY

Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

8/16/22: This AVMR PLUS: Part 2 course is now full. The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL. If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2
Course Description:

Participants in KCM's AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions. In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources. This course is designed for elementary grades teachers and interventionists. Participants will learn and practice assessments and teaching strategies for advancing students' foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division. AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.

IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM's AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY

PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Family Math - VIRTUAL - Lisa Riggs (2022-23)

Virtual ZOOM meetings
09:30 AM - 11:00 AM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Description:
This free KCM professional learning event is for KENTUCKY mathematics educators only.
During this Family Math course, we will explore research on family engagement and how to educate parents concerning math fluency and the current standards.

Participants will explore family math resources and how to conduct a family math night event.
Participants will be given materials to conduct 2 Family Math Nights - one per semester.
Participants will implement two Family Math Nights at their school: the 1st before Dec 31, 2022 and the 2nd before April 28, 2023.
Participants will share their successes and takeaways from each of their Family Math Nights.

Cost: FREE (For Kentucky Mathematics Educators only)
Duration: 8 virtual 90-minute ZOOM meeting sessions, plus two Family Math Night implementations.
All 8 virtual sessions will meet on FRIDAYS from 9:30 - 11:00 am Eastern Time (which is 8:30 am - 10:00 am Central Time).

SCHEDULE:
1. Friday, August 26, 2022; 9:30-11:00 am Eastern Time
2. Friday, September 9, 2022; 9:30-11:00 am Eastern Time
3. Friday, September 23, 2022; 9:30-11:00 am Eastern Time
   * Implementation of participant’s 1st Family Math Night to occur before December 31, 2022.
4. Friday, January 6, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant’s 1st Family Math Night)
5. Friday, January 20, 2023; 9:30-11:00 am Eastern Time
6. Friday, February 3, 2023; 9:30-11:00 am Eastern Time
7. Friday, March 3, 2023; 9:30-11:00 am Eastern Time
8. Friday, April 28, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant’s 2nd Family Math Night)

Before registering, please make sure that you are able to fully participate in all 8 live and interactive ZOOM meeting sessions on Fridays from 9:30 - 11:00 am Eastern Time. By registering for this course, you are agreeing to host two Family Math Nights: one before December 31, 2022, and one before April 28, 2023.

Registration cutoff date is July 29, 2022.
Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
The KCM sends a registration confirmation email to everyone who registers for a KCM event. This email often goes to the recipient's junk folder. If you register and do not receive a confirmation email from kcm@nku.edu, check your junk folder - and then contact the KCM. Any KCM emails found in your junk folder need to be moved to your inbox and the sender marked as safe. Thank you.
KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Sessions will meet virtually via ZOOM
04:45 PM - 06:45 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics
Bethany Noblitt

Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions. Our normal business hours are M-F, 8:15 am - 4:30 pm. Bethany Noblitt can be reached via email at noblittb@nku.edu.
Building Numeracy with Middle Grades Students (5-8): HYBRID, Louisville, KY - Dee Crescitelli (2022-23)

2 in-person days in Louisville, KY; 8 virtual sessions online via ZOOM

In-person = University of Louisville Conference Center, ShelbyHurst Campus, Founders Union Building: Room 15, Louisville, KY 40222

in-person days on June 21 & 22 = 9am-4pm EST; 8 virtual sessions = noon-3pm EST

Kentucky Center for Mathematics, 859-572-7690
kc@nlku.edu

THIS COURSE IS FULL. Please click here to be added to the WAIT LIST for this KCM Course.

Building Numeracy with Middle Grades Students (5-8): HYBRID, Louisville, KY - Dee Crescitelli (2022-23)
Course Description:

PLEASE NOTE: This KCM professional learning event is available only to educators in Kentucky. This course is designed for 5th, 6th, 7th or 8th grade math teachers, but other Kentucky educators who believe this training would be helpful in their work are welcome to register and participate as well.

We know that students develop their mathematical reasoning skills over time and at different rates - and that the past year has created instructional gaps due to the time available for math instruction in different pandemic teaching situations. This year-long, in-depth course provides teachers with information and materials to enable them to strengthen mathematics instruction by building from students’ current funds of knowledge.

Participants will learn teaching strategies for helping students develop the more sophisticated reasoning needed for middle grades mathematics with the goal of improving student access to grade-level content.

Each participant will receive two sets of the "24 Game: Fractions/Decimals" card game

Each participant will also receive 4 books:

Figuring out Fluency in Mathematics Teaching and Learning
Elementary and Middle School Mathematics Teaching Developmentally, 10th edition
Building Powerful Numeracy for Middle School & High School Students
Lessons and Activities for Building Powerful Numeracy

COST: FREE (*This course is open to Kentucky educators only)

*Participants must be registered to attend and are expected to fully participate in both the in-person days and all 8 virtual sessions as scheduled below. The virtual sessions are live and interactive sessions that meet online via ZOOM. They are not recordings to be watched at any other time. All 8 half-day virtual sessions meet on Tuesday afternoons during the school year. Please confirm you can participate in this course on Tuesday afternoons before registering.

Duration: 10 Sessions (2 in-person days and 8 half-day virtual sessions)

Location:
2 IN-PERSON DAYS in Louisville, KY at the University of Louisville Conference Center, ShelbyHurst Campus, Founders Union Building
8 VIRTUAL half-day sessions online via ZOOM

2022-23 BUILDING NUMERACY SCHEDULE:
SESSION 1: Tuesday, June 21, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 2: Wednesday, June 22, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 3: Tuesday, August 23, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 4: Tuesday, September 20, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 5: Tuesday, October 25, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 6: Tuesday, November 15, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 7: Tuesday, December 13, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 8: Tuesday, January 24, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 9: Tuesday, February 21, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 10: Tuesday, March 14, 2023; noon-3:00pm Eastern Time (half-day virtual)

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

Please note: The KCM is absorbing all the costs associated with providing this professional development. If you register for this event and then find you are unable to attend for any reason, contact the KCM as soon as possible so your spot and materials can be given to another teacher. Registered teachers who fail to show up for this training may be charged for the cost of course materials, training and meeting space.
Explorations in 3rd Grade Fractions - In-person, Lexington, KY - Cindy Aossey (2022-23)
Hilton Lexington Downtown
369 W Vine St
Lexington, KY 40507
09:00 AM - 04:00 PM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu
Explorations in 3rd Grade Fractions - In-person, Lexington, KY - Cindy Aossey (2022-23)

Course Description:

Grade 3 is a critical year in which students should develop strong conceptual foundations for understanding fractions. During this 1-day training course, teachers will explore hands-on activities and tasks aligned to the Kentucky Academic Standards for Mathematics designed to support students in developing conceptual understandings of fractions as numbers. Teachers will deepen their understanding of the third grade fractions standards, seeing them as part of a progression starting in first grade and continuing into middle school. Participants will receive prepared materials and manipulatives, including fraction squares, Cuisenaire rods and KNP-IG activities.

Cost: $100 per participant
Duration: 1 in-person day
Location: Hilton Lexington Downtown, 369 W Vine St., Lexington, KY 40507

COURSE SCHEDULE:
Wednesday, January 25, 2023; 9:00 am-4:00 pm Eastern Time (1 in-person day)

Registration close date is Wednesday, January 4, 2023.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

Registration fee is non-refundable once materials are ordered. Should you register and then be unable to attend, contact the KCM. If materials have already been ordered, your school or district should send a different teacher in your place.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2021; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
Explorations in 4th & 5th Grade Fractions - HYBRID, Berea, KY - Cindy Aossey (2022-23)

In-Person Days meet at the Historic Boone Tavern Hotel
Berea, KY 40403
09:00 AM - 04:00 PM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nku.edu

Course Description:

Intermediate grades are a critical time in which students are expected to develop an understanding of fractions as numbers and make sense of fraction operations. During this 4-session course, teachers will explore instructional strategies such as the use of manipulatives, fraction models (including number lines) and rich tasks. Teachers will deepen their understanding of the Kentucky Academic Standards for Mathematics, particularly the grades 4 and 5 fractions standards for number and operation, seeing them as part of a progression starting in first grade and continuing into middle school.

Participants will be provided with a variety of books and manipulatives.

Cost: $200 per participant
Duration: 4 Sessions (2 in-person days and 2 half-day virtual sessions)
Location: Berea, KY (Berea is in Madison County in Central Kentucky which is on Eastern Time)

In-Person Days meet at the Historic Boone Tavern Hotel, 100 S Main St North, Berea, KY 40403

COURSE SCHEDULE:
Session 1: Wednesday, November 16, 2022; 9:00am-4:00 pm Eastern Time (in-person day)
Session 2: Thursday, November 17, 2022; 9:00am-4:00 pm Eastern Time (in-person day)
Sessions 3 & 4: Thursday, January 26, 2023; 9:00am - noon AND 1:00-4:00 pm Eastern Time (2 VIRTUAL sessions on 1 DAY)

Registration close date is Wednesday, October 19, 2022

Please contact the KCM at 859-572-7690 or cm@nku.edu with any questions.

Registration fee is non-refundable once materials are ordered. Should you register and then be unable to attend, contact the KCM. If materials have already been ordered, your school or district should send a different teacher in your place.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Virtual ZOOM meetings
04:15 PM - 06:15 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students.

Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling. Participants will digital materials and will be expected to attend all 6 sessions of this course.

Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)

Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.
High School Modeling - VIRTUAL - Leah Dix (2022-23)

Virtual ZOOM meetings
04:15 PM - 06:15 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

High School Modeling - VIRTUAL - Leah Dix (2022-23)
Course Description:
PLEASE NOTE: This free KCM professional development course is open to Kentucky Educators only

This course provides an opportunity for classroom teachers of students in Grades 9-12 to learn, understand, apply the modeling process as well as the standards for mathematical practice for students.

Participants will explore lesson tasks that include algebra and statistics topics as well as create high yield tasks that incorporate student mathematical practice for modeling.

Participants will digital materials and will be expected to attend all 6 sessions of this course.

Participants must be able to fully participate in all six live and interactive sessions that will meet via ZOOM. These sessions are not recorded to be watched at any other time. KCM attendance certificates will be emailed to each participant.

Cost: FREE (For Kentucky Educators only)
Duration: 6 three-hour sessions (Each session is 2-hour synchronous with 1-hour asynchronous work)

Course Schedule:
SESSION 1: Wednesday, December 14, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 2: Thursday, December 15, 2022; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 3: Wednesday, January 11, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 4: Thursday, January 12, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 5: Wednesday, February 1, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)
SESSION 6: Thursday, February 2, 2023; 4:15-6:15pm Eastern Time (2-hour synchronous with 1-hour asynchronous work)

Kentucky Mathematics Educators must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another Kentucky teacher. Thank you.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)

Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
Family Math - VIRTUAL - Lisa Riggs (2022-23)

Virtual ZOOM meetings
09:30 AM - 11:00 AM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Family Math - VIRTUAL - Lisa Riggs (2022-23)

Description:
This free KCM professional learning event is for KENTUCKY mathematics educators only.
During this Family Math course, we will explore research on family engagement and how to educate parents concerning math fluency and the current standards.

Participants will explore family math resources and how to conduct a family math night event.
Participants will be given materials to conduct 2 Family Math Nights - one per semester.
Participants will implement two Family Math Nights at their school: the 1st before Dec 31, 2022 and the 2nd before April 28, 2023.
Participants will share their successes and takeaways from each of their Family Math Nights.

Cost: FREE  (For Kentucky Mathematics Educators only)
Duration: 8 virtual 90-minute ZOOM meeting sessions, plus two Family Math Night implementations.
All 8 virtual sessions will meet on FRIDAYS from 9:30 - 11:00 am Eastern Time (which is 8:30 am - 10:00 am Central Time).

SCHEDULE:
1. Friday, August 26, 2022; 9:30-11:00 am Eastern Time
2. Friday, September 9, 2022; 9:30-11:00 am Eastern Time
3. Friday, September 23, 2022; 9:30-11:00 am Eastern Time
4. Friday, January 6, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 1st Family Math Night)
5. Friday, January 20, 2023; 9:30-11:00 am Eastern Time
6. Friday, February 3, 2023; 9:30-11:00 am Eastern Time
7. Friday, March 3, 2023; 9:30-11:00 am Eastern Time
8. Friday, April 28, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 2nd Family Math Night)

Before registering, please make sure that you are able to fully participate in all 8 live and interactive ZOOM meeting sessions on Fridays from 9:30 - 11:00 am Eastern Time. By registering for this course, you are agreeing to host two Family Math Nights: one before December 31, 2022, and one before April 28, 2023.

Registration cutoff date is July 29, 2022.
Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
The KCM sends a registration confirmation email to everyone who registers for a KCM event. This email often goes to the recipient's junk folder. If you register and do not receive a confirmation email from kcm@nku.edu, check your junk folder - and then contact the KCM. Any KCM emails found in your junk folder need to be moved to your inbox and the sender marked as safe. Thank you.
Comprehensive Course for Primary K-2: PART 2 - HYBRID, Lexington, KY - Julie Adams (2022-23)

4 virtual half-day sessions via ZOOM; 2 in-person sessions in Lexington, KY
In-person on 1/11 & 3/28 = 9am-4pm EST; virtual sessions in Feb = noon-3pm EST
Kentucky Center of Mathematics, 859-572-7690
kcm@nku.edu

Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students’ mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023: noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu
8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2

Course Description:

Participants in KCM’s AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions. In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists. Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.
IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM’s AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY
PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Comprehensive Course for Primary K-2: PART 2 - HYBRID, Lexington, KY - Julie Adams (2022-23)

4 virtual half-day sessions via ZOOM; 2 in-person sessions in Lexington, KY
In-person on 1/11 & 3/28 = 9am-4pm EST; virtual sessions in Feb = noon-3pm EST
Kentucky Center of Mathematics, 859-572-7690
kcm@nku.edu

Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students' mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)

Virtual ZOOM meetings
03:45 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)

Course Description:
Modeling with mathematics is one of the most misunderstood Standards for Mathematical Practice, yet it is essential for ALL students to master. Participants of this course will

experience an instructional routine that builds students' capacity to make sense of models and to develop questions to ask themselves when modeling.

learn about designs for interaction that build opportunities for students to develop mathematical language and process the ideas and concepts of modeling.

PLEASE NOTE:
Participants who teach in Kentucky will receive a copy of the book Teaching for Thinking.
Participants who teach outside of Kentucky will need to purchase their own copy of Teaching for Thinking if they wish to participate in this course.

Cost: FREE
Duration: 4 half-day virtual sessions

Please note: This professional learning event will meet virtually via 4 half-day ZOOM meeting sessions on select Thursdays in 2023 from 3:45 - 6:30 pm EST. Teachers must be able to fully participate in all 4 live and interactive ZOOM meeting sessions as scheduled. Sessions are not recorded to be watched at any time.

SCHEDULE:
SESSION 1: Thursday, January 19, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 2: Thursday, February 9, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 3: Thursday, March 2, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 4: Thursday, March 23, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)

Teachers must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another teacher.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcmand

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)

Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.

Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2021; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu
8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2
Course Description:

Participants in KCM's AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions.
In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists.
Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.

IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM's AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY

PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Statistics as a Progression - VIRTUAL - Dee Crescitelli (2022-23)
Virtual sessions via ZOOM
12:00 PM - 03:00 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Statistics as a Progression
This professional learning event is open to any teacher. The intended audience for this course is 2nd through 6th Grade teachers.

COURSE DESCRIPTION:

Statistics is gaining recognition as an important component of mathematics education, from the primary grades to middle and high school continuing to post-secondary. During this course, participants will deepen their understanding of statistics and see the standards and skills of their grade level as part of a progression starting in primary and continuing into middle and high school.

Essential statistics standards in the Kentucky Academic Standards for Mathematics begin in first grade and continue through all grade levels with the goal of developing student ability to comprehend and deal with variability and statistical information in the world around them and participate effectively in an information-laden society.

The KCAS- Mathematics also position students as doers of statistics as they take part in the production, interpretation, and communication of data.

Participants will explore instructional strategies for developing statistical understanding and receive virtual resources for use with students.

Cost: FREE

Duration: 2 half-day sessions

2023 SCHEDULE:

Session 1: Wednesday, February 15, 2023; noon - 3:00 pm Eastern Time (which is 11am - 2 pm Central Time)
Session 2: Wednesday, March 15, 2023; noon - 3:00 pm Eastern Time (which is 11 am - 2 pm Central Time)

Please note: Participants must be able to participate in both sessions during the dates and times listed. These are live and interactive ZOOM meetings. They are not recordings that can be watched at other times.

Registration deadline is February 8, 2023.
Please contact the KCM at kcm@nku.edu or 859-572-7690 if you have any questions, or if you register and then are no longer able to attend. Thank you.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)
Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session))
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
Foundations for Early Childhood Mathematics: In-Person, Lexington, KY - Julie Adams (2022-23)
TBD in Lexington, KY
08:30 AM - 11:30 AM EST
Kentucky Center for Mathematics, 859-572-7690
cm@nkue.edu

Foundations for Early Childhood Mathematics (Lexington)

COURSE DESCRIPTION:
This Foundations for Early Childhood Mathematics professional development course is for Preschool and Kindergarten teachers who teach in the state of Kentucky only. It features content developed by the Erikson Institute, leaders in early childhood education. This professional learning highlights the "Big Ideas" in early mathematics which include sets, number sense, counting, number operations, pattern, measurement and shape. Participants will learn how to spark children's mathematical learning through developmentally appropriate exploration, discussion and activity using high-impact, evidence-based strategies and children's literature which support the teaching and learning of early mathematics.

**THIS COURSE MEETS IN PERSON ON FRIDAYS FROM 8:30 - 11:30 AM EASTERN TIME IN LEXINGTON, KY**

Upon registering, participants are expected to attend and actively participate in all eight half-day in-person sessions. Please do not register for this training if you are unable to attend in-person on Fridays from 8:30 -11:30 am Eastern Time on the dates listed below. Your school must provide substitutes for your classroom if necessary.

SCHEDULE:
Fridays, 8:30 - 11: 30 AM Eastern Time IN-PERSON in Lexington, KY

Session 1: September 16, 2022
Session 2: October 28, 2022
Session 3: November 18, 2022
Session 4: December 16, 2022
Session 5: January 20, 2023
Session 6: February 17, 2023
Session 7: March 17, 2023
Session 8: April 21, 2023

COST: FREE (For Kentucky Preschool and Kindergarten teachers only)

Registration deadline is August 19, 2022.

Should you register for this training and then find you are unable to attend for any reason, you must contact the KCM at kcm@nkue.edu or 859-572-7690 so your spot can be offered to another Kentucky teacher. No shows may be charged for the cost of the materials, training and meeting space.
Building Numeracy with Middle Grades Students (5-8): HYBRID, Louisville, KY - Dee Crescitelli (2022-23)

Course Description:

PLEASE NOTE: This KCM professional learning event is available only to educators in Kentucky. This course is designed for 5th, 6th, 7th or 8th grade math teachers, but other Kentucky educators who believe this training would be helpful in their work are welcome to register and participate as well.

We know that students develop their mathematical reasoning skills over time and at different rates - and that the past year has created instructional gaps due to the time available for math instruction in different pandemic teaching situations. This year-long, in-depth course provides teachers with information and materials to enable them to strengthen mathematics instruction by building from students’ current funds of knowledge.

Participants will learn teaching strategies for helping students develop the more sophisticated reasoning needed for middle grades mathematics with the goal of improving student access to grade-level content.

Each participant will receive two sets of the "24 Game: Fractions/Decimals" card game.

Each participant will also receive 4 books:

- Figuring out Fluency in Mathematics Teaching and Learning
- Elementary and Middle School Mathematics Teaching Developmentally, 10th edition
- Building Powerful Numeracy for Middle School & High School Students
- Lessons and Activities for Building Powerful Numeracy

COST: FREE (*This course is open to Kentucky educators only)

Participants must be registered to attend and are expected to fully participate in both the in-person days and all 8 virtual sessions as scheduled below. The virtual sessions are live and interactive sessions that meet online via ZOOM. They are not recordings to be watched at any other time. All 8 half-day virtual sessions meet on Tuesday afternoons during the school year. Please confirm you can participate in this course on Tuesday afternoons before registering.

Duration: 10 Sessions (2 in-person days and 8 half-day virtual sessions)

Location:

2 IN-PERSON DAYS in Louisville, KY at the University of Louisville Conference Center, ShelbyHurst Campus, Founders Union Building
8 VIRTUAL half-day sessions online via ZOOM

2022-23 BUILDING NUMERACY SCHEDULE:

SESSION 1: Tuesday, June 21, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 2: Wednesday, June 22, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 3: Tuesday, August 23, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 4: Tuesday, September 20, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 5: Tuesday, October 25, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 6: Tuesday, November 15, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 7: Tuesday, December 13, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 8: Tuesday, January 24, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 9: Tuesday, February 21, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 10: Tuesday, March 14, 2023; noon-3:00pm Eastern Time (half-day virtual)

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

Please note: The KCM is absorbing all the costs associated with providing this professional development. If you register for this event and then find you are unable to attend for any reason, contact the KCM as soon as possible so your spot and materials can be given to another teacher. Registered teachers who fail to show up for this training may be charged for the cost of course materials, training and meeting space.
Fluency Assessment Training- Cindy Aossey (February 2023)

Virtual - Zoom
04:30 PM - 06:00 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Fluency Assessment Training with KCM Regional Consult Cindy Aossey:
In this 90 minute session, participants will learn how to administer and score the KCM Kentucky Numeracy Project Fluency Assessments. In addition, there will be discussions about using the information from the assessments for planning mathematics instruction in elementary grades. Participants will gain access to the full suite of Fluency Assessments after completing a practice assessment with an elementary-aged student.

This Fluency Assessment Training is open to any elementary school math teacher; even those who teach outside of Kentucky.
For any teacher who has attended a KCM event in the past, your school email is already in our system; enter your school email address and then please update anything else that has changed or is missing.
KY educators must use their @(school district).kyschools.us email.
If you work for an organization and not a school or school district, please enter the name of the organization where you work.
Please include the grade of math you work with on your position title: examples = 3rd Grade Teacher; K-5 Math Interventionist; Curriculum Coach K-12.

DATE: Tuesday, February 21, 2023
TIME: 4:30 - 6:00 pm Eastern Time (which is 3:30 - 5:00 pm Central Time)
LOCATION: Virtual ZOOM Meeting

Participants must be able to participate virtually on the date of the session. This training is live and interactive. It is not recorded.
Registered participants will receive the information they need to connect to the ZOOM meeting from the facilitator Cindy Aossey. This email may go to your junk folder so look for it there. Please move any KCM emails you find in your junk folder to your inbox and mark the sender as safe. Thank you.

Contact the KCM at kcm@nku.edu or 859-572-7690, or the facilitator Cindy Aossey at cindy.aossey@outlook.com, with any questions.
This professional learning event will meet virtually via ZOOM meetings on select Wednesdays throughout 2022-23.
11:30 AM - 12:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

The KCM is excited to announce a new professional learning event just for Kentucky Math Intervention Teachers. This collegial learning and support opportunity is open to Kentucky K-5 Math Intervention Teachers who want to grow as professionals and share their knowledge, successes and struggles with fellow math intervention teachers. This group will meet virtually once a month on Wednesdays via a 1-hour ZOOM meeting from 11:30 am - 12:30 pm Eastern Time.

This event will be facilitated by KCM Regional Consultant Lisa Riggs along with other special guests.

TEACHER TOOL KIT:
In addition to the monthly collegial support meetings, being an active part of this select group will allow you to receive a fun KCM MIT teacher tool kit containing support materials from the KCM 3 times throughout the 2022-23 school year.

MONTHLY NEWSLETTER:
Participants will also receive a monthly newsletter with teacher tips and intervention resources.

SPECIAL MEET AND GREET:
Because virtual is great but in-person is better, we are planning a special, invitation-only meet and greet session for this group at the KCM Annual Math Conference in March 2023. (Monday & Tuesday, March 6 & 7)

MONTHLY ZOOM MEETING SCHEDULE:
Please note: These are live and interactive ZOOM meetings that meet from 11:30 am - 12:30 pm Eastern Time. If you know that you cannot meet on Wednesdays from 11:30 am - 12:30 pm EST, then you will be unable to participate in this professional learning event.
1. Wednesday, September 7, 2022
2. Wednesday, October 19, 2022
3. Wednesday, November 30, 2022
4. Wednesday, January 18, 2023
5. Wednesday, February 22, 2023
6. Wednesday, April 19, 2023

There is no registration fee for this event. It is free for Kentucky K-5 Math Intervention Teachers. We hope you are as excited about this opportunity as we are! if you want to be a part of this MIT Collegial Support Team, please register today as space may be limited.

Thank you for all you do for your students! The KCM is here to support you help your math students succeed in any way we can so don’t hesitate to reach out to us with any questions about this professional learning event, or if we can help you in some other way.
The KCM can be reached at 859-572-7690 or kcm@nku.edu or info@kentuckymathematics.org.
Our website is www.kymath.org and you can access lots of free resources there - like Math Fact Fluency games to use with your students.
AVMR 2 - VIRTUAL - Lisa Riggs (2022-23)

Virtual sessions meet online via ZOOM
04:30 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Registration is closed for this course in order to order the AVMR 2 kits needed. If you wish to participate in this training, call the KCM at 859-572-7690 or email us at kcm@nku.edu and we work to make that happen.

AVMR 2 (2022-23)
Course Description:
This course is built around Add+Vantage Math Recovery™ and is designed for elementary grades teachers who want to expand and deepen knowledge and understanding of the mathematical development for all students by implementing diagnostic assessments for multiplication and division and place value understanding. This course is for Elementary Teachers/Coaches who teach in the state of Kentucky only.
Participants must have completed AVMR 1 training in order to participate.

Cost: $500 per participant
Duration: 8 two-hour virtual sessions via ZOOM

Session Dates:
*All 8 virtual sessions meet on THURSDAYS from 4:30-6:30 pm Eastern Time. These online sessions are live and interactive; they are not recordings that can be watched at any other time. Only register for this training if you can participate on Thursdays as scheduled below.

Session 1: January 5, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 2: January 12, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 3: January 19, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 4: January 26, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 5: February 2, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 6: February 9, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 7: February 16, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)
Session 8: February 23, 2023; 4:30-6:30pm Eastern Time/ 3:30-5:30pm Central Time (two-hour session)

Registration close date is November 17, 2022. The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Please contact the KCM at 859-572-7690 or kcm@nku.edu with any questions.

The registrations fee is nonrefundable once the AVMR2 kit is ordered.
KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Sessions will meet virtually via ZOOM
04:45 PM - 06:45 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics
Bethany Noblitt

Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions. Our normal business hours are M-F, 8:15 am - 4:30 pm.
Bethany Noblitt can be reached via email at noblittb@nku.edu.
Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students’ mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023: noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
Explorations in 3rd Grade Fractions - In-person, Hopkinsville, KY - Cindy Aossey (2022-23)
The Bruce Convention Center
303 Conference Center Dr.
Hopkinsville, KY 42240
09:00 AM - 04:00 PM CST
Kentucky Center for Mathematics, 859-572-7690
kcm@nk.edu
Explorations in 3rd Grade Fractions - In-person, Hopkinsville, KY - Cindy Aossey (2022-23)
Course Description:

Grade 3 is a critical year in which students should develop strong conceptual foundations for understanding fractions. During this 1-day training course, teachers will explore hands-on activities and tasks aligned to the Kentucky Academic Standards for Mathematics designed to support students in developing conceptual understandings of fractions as numbers. Teachers will deepen their understanding of the third grade fractions standards, seeing them as part of a progression starting in first grade and continuing into middle school. Participants will receive prepared materials and manipulatives, including fraction squares, Cuisenaire rods and KNP-IG activities.

Cost: $100 per participant
Duration: 1 in-person day
Location: Hopkinsville, KY (Hopkinsville is in Christian County in Western Kentucky which is on Central Time)
The Bruce Convention Center, 303 Conference Center Dr, Hopkinsville, KY 42240

COURSE SCHEDULE:
Tuesday, February 28, 2023; 9:00am-4:00 pm Central Time (1 in-person day)

Registration close date is Tuesday, January 31, 2023.

Please contact the KCM at 859-572-7690 or kcm@nk.edu with any questions.

Registration fee is non-refundable once materials are ordered. Should you register and then be unable to attend, contact the KCM. If materials have already been ordered, your school or district should send a different teacher in your place.
Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students' mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participants should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)

Virtual ZOOM meetings
03:45 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
ckm@nku.edu

Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)

Course Description:
Modeling with mathematics is one of the most misunderstood Standards for Mathematical Practice, yet it is essential for ALL students to master. Participants of this course will

experience an instructional routine that builds students’ capacity to make sense of models and to develop questions to ask themselves when modeling.
learn about designs for interaction that build opportunities for students to develop mathematical language and process the ideas and concepts of modeling.

PLEASE NOTE:
Participants who teach in Kentucky will receive a copy of the book Teaching for Thinking.
Participants who teach outside of Kentucky will need to purchase their own copy of Teaching for Thinking if they wish to participate in this course.

Cost: FREE
Duration: 4 half-day virtual sessions

Please note: This professional learning event will meet virtually via 4 half-day ZOOM meeting sessions on select Thursdays in 2023 from 3:45 - 6:30 pm EST. Teachers must be able to fully participate in all 4 live and interactive ZOOM meeting sessions as scheduled. Sessions are not recorded to be watched at any time.

SCHEDULE:
SESSION 1: Thursday, January 19, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30 pm Central Time)
SESSION 2: Thursday, February 9, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30 pm Central Time)
SESSION 3: Thursday, March 2, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30 pm Central Time)
SESSION 4: Thursday, March 23, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30 pm Central Time)

Teachers must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another teacher.
Family Math - VIRTUAL - Lisa Riggs (2022-23)
Virtual ZOOM meetings
09:30 AM - 11:00 AM EST
Kentucky Center for Mathematics , 859-572-7690
kcm@nku.edu

Description:
This free KCM professional learning event is for KENTUCKY mathematics educators only.
During this Family Math course, we will explore research on family engagement and how to educate parents concerning math fluency and the current standards.

Participants will explore family math resources and how to conduct a family math night event.
Participants will be given materials to conduct 2 Family Math Nights - one per semester.
Participants will implement two Family Math Nights at their school: the 1st before Dec 31, 2022 and the 2nd before April 28, 2023.
Participants will share their successes and takeaways from each of their Family Math Nights.

Cost: FREE  (For Kentucky Mathematics Educators only)
Duration: 8 virtual 90-minute ZOOM meeting sessions, plus two Family Math Night implementations.
All 8 virtual sessions will meet on FRIDAYS from 9:30 - 11:00 am Eastern Time (which is 8:30 am - 10:00 am Central Time).

SCHEDULE:
1. Friday, August 26, 2022; 9:30-11:00 am Eastern Time
2. Friday, September 9, 2022; 9:30-11:00 am Eastern Time
3. Friday, September 23, 2022; 9:30-11:00 am Eastern Time
4. Friday, January 6, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 1st Family Math Night)
5. Friday, January 20, 2023; 9:30-11:00 am Eastern Time
6. Friday, February 3, 2023; 9:30-11:00 am Eastern Time
7. Friday, March 3, 2023; 9:30-11:00 am Eastern Time
8. Friday, April 28, 2023; 9:30-11:00am Eastern Time (Reflection session to celebrate and share each participant's 2nd Family Math Night)

Before registering, please make sure that you are able to fully participate in all 8 live and interactive ZOOM meeting sessions on Fridays from 9:30 - 11:00 am Eastern Time. By registering for this course, you are agreeing to host two Family Math Nights: one before December 31, 2022, and one before April 28, 2023.

Registration cutoff date is July 29, 2022.
Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
The KCM sends a registration confirmation email to everyone who registers for a KCM event. This email often goes to the recipient's junk folder. If you register and do not receive a confirmation email from kcm@nku.edu, check your junk folder - and then contact the KCM. Any KCM emails found in your junk folder need to be moved to your inbox and the sender marked as safe. Thank you.
2023 KCM Conference: In-person - Lexington, KY
Hyatt Regency Lexington
401 W High St
Lexington, KY 40507
08:00 AM - 03:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

2023 KCM CONFERENCE
It's time to mark your calendars and save the date for the 2023 KCM Conference!
Monday and Tuesday, March 6 & 7, 2023 at the Hyatt Regency Lexington
The theme for the 2023 KCM Conference is EMPOWER: Building United Mathematical Communities.
After a 2-year break from meeting in-person, the KCM can't wait to see everyone again!
Breakfast and lunch provided both days. Free parking. 8:00 am - 3:30 pm Eastern.
$195 per attendee if you register by December 30, 2022.
After December 30, 2022, registration fee increases to $215 per participant so register early!

**All Registration Fees are NON-REFUNDABLE after January 20, 2023.
Should you register and find that you are unable to attend the 2023 KCM Conference on March 6 & 7 for any reason, you may send someone to attend in your place.
If you do not attend and someone does not attend in your place - you or your school/district/organization is still responsible to pay the registration fee.

BREAKOUT SESSION SPEAKERS

The KCM invites you to submit a speaker proposal for our 2023 Conference! Speaker proposals will be accepted September 2, 2022 through November 18, 2022. The KCM will send an email by 5 pm on Friday, December 16, 2022 to let submitters know whether their proposal has been accepted or not. IF a proposal is selected, the LEAD SPEAKER will automatically be registered for the Conference and their registration fee will be discounted to $100. Any and all co-speakers MUST register themselves and pay the standard registration fee ($195 through 12/30/22 or $215 after 12/30/22). We recommend that anyone submitting a proposal to be the LEAD SPEAKER of a Breakout Session NOT register themselves and pay the $195 registration fee before 12/17/22 - to avoid the KCM having to issue a $95 refund if your proposal is selected. To submit a speaker proposal: Visit the KCM's website at www.kymath.org, click on the ANNUAL CONFERENCE tab at the top of the home page, then 2023 KCM CONFERENCE, then SPEAKER PROPOSALS and click the Submit Your Proposal button.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

KEYNOTE SPEAKERS FOR THE 2023 KCM CONFERENCE

1. Amanda (Mandy) Jansen - Mathematics Education Professor at the University of Delaware

Early in her career, Mandy was a middle school mathematics teacher in Arizona. She earned her Ph.D. in educational psychology at Michigan State University. As a teacher educator at the University of Delaware, she prepares future elementary and middle school mathematics teachers, and she facilitates professional learning for in-service secondary mathematics teachers. In her research, Mandy investigates how mathematics teachers create engaging learning experiences for their students. One product from this research is her book, Rough Draft Math: Revising to Learn, which was published by Stenhouse.

2. Kyndall Brown - Executive Director of the California Mathematics Project Statewide
Office

Dr. Kyndall Brown has over 35 years of experience in mathematics education. Kyndall holds a bachelor’s degree in mathematics, master’s degrees in computer-based education and mathematics education, and a Ph.D in Education. He was a secondary mathematics teacher for 13 years. He has been a professional development provider for schools and districts in Los Angeles County for over 25 years. He is currently the executive director of the California Mathematics Project. He presents at local, state, and national conferences on mathematics education and writes articles for mathematics education publications. His research focuses on the impact of culture and identity on the ways that African-American males learn mathematics. He is the co-author of the book Choosing To See: A Framework For Equity In The Math Classroom.

3. Barbara Dougherty - Mathematics Education Professor at the University of Hawaii.

Dr. Barbara Dougherty teaches at the University of Hawaii where she was the Director of The Curriculum R&D Group. She served on the Board of Directors for the NCTM (National Council of Teachers of Mathematics), and she is currently a co-chair of the NCTM/CEC (Council for Exceptional Children) Joint Committee to support students who struggle in mathematics. Barbara has a passion for assisting struggling math students and has authored more than 35 books on mathematics education, including The Math Pact, High School: Achieving Instructional Coherence Within and Across Grades. Her soon-to-be published book from Corwin is Rich Algebra Classroom-Ready Tasks. Barbara holds certifications in 7-12 mathematics and K-12 SLD (Specific Learning Disability).

4. Sarah B. Bush - Professor of K-12 STEM Education at the University of Central Florida

Dr. Sarah B. Bush teaches primary graduate courses in mathematics education and is the program coordinator of the mathematics education PhD track at the University of Central Florida. Sarah is actively involved in the National Council of Teachers of Mathematics (NCTM), serving recently as an elected member of the Board of Directors (2019-2022). She is the author of the recent book series, The Math Pact, and she served as the lead writer and task force chair for Catalyzing Change in Middle School Mathematics: Initiating Critical Conversations, published in 2020. Sarah seamlessly integrates her practical experience as a middle school mathematics teacher in public schools with her innovative scholarship to serve as an instructional leader in the field of mathematics education and STE(A)M education.

5. Deborah Peart - CEO of My Mathematical Mind

Deborah Peart is the founder of My Mathematical Mind and speaks on a variety of topics related to math identity, elementary math content and instruction, and literacy connections to mathematics. Blending her training in yoga and mindfulness with mathematics instruction, Deborah advocates for a mindful approach to teaching mathematics in order to address math anxiety, build confidence, and support the development of positive math identities. She has dedicated her career to supporting educators with innovative teaching strategies that allow students to see themselves as assets to the learning community and curious problem-solvers. She is the Director of Elementary Learning at UnboundEd and the lead author for second grade for the Illustrative Mathematics K-5 curriculum. Deborah believes that all children deserve high quality instruction and the opportunity to become competent readers, writers, and mathematics.

TENTATIVE 2023 KCM CONFERENCE SCHEDULE:

SUNDAY, MARCH 5, 2023:
6:30-7:30 pm: Early check-in will be available on Sunday night at the Hyatt - exact time
TBD.
MONDAY, MARCH 6, 2023:
7:00-8:00 am: CHECK-IN/REGISTRATION and BREAKFAST
8:00-9:30 am: (90-minute session) KEYNOTE SPEAKER #1 in Ballroom
9:45-10:30am (45-minute session) BREAKOUT SESSIONS ROUND 1
10:45-11:30am (45-minute session) BREAKOUT SESSIONS ROUND 2
11:45am-1:15pm (90-minute session) KEYNOTE SPEAKER #2 and LUNCH in Ballroom
1:30-2:15pm (45-minute session) BREAKOUT SESSIONS ROUND 3
2:30-3:15pm (45-minute session) BREAKOUT SESSIONS ROUND 4
TUESDAY, MARCH 7, 2023:
7:00-8:00 am: CHECK-IN/REGISTRATION and BREAKFAST
8:00-9:30 am: (90-minute session) KEYNOTE SPEAKER #3 in Ballroom
9:45-10:30am (45-minute session) BREAKOUT SESSIONS ROUND 1
10:45-11:30am (45-minute session) BREAKOUT SESSIONS ROUND 2
11:45am-1:15pm (90-minute session) KEYNOTE SPEAKER #4 and LUNCH in Ballroom
1:30-2:15pm (45-minute session) BREAKOUT SESSIONS ROUND 3
2:30-3:15pm (45-minute session) BREAKOUT SESSIONS ROUND 4
3:30 pm End-of-Conference Giveaways (Must be present to win)
*Schedule above is subject to change. All registered participants will be emailed a final schedule before the event
**2023 KCM Conference: In-person - Lexington, KY**

**Hyatt Regency Lexington**  
401 W High St  
Lexington, KY 40507  
08:00 AM - 03:30 PM EST  
Kentucky Center for Mathematics, 859-572-7690  
kcmanderson@nku.edu

**2023 KCM CONFERENCE**

It's time to mark your calendars and save the date for the 2023 KCM Conference!

Monday and Tuesday, March 6 & 7, 2023 at the Hyatt Regency Lexington

The theme for the 2023 KCM Conference is EMPOWER: Building United Mathematical Communities.

After a 2-year break from meeting in-person, the KCM can't wait to see everyone again!

Breakfast and lunch provided both days. Free parking. 8:00 am - 3:30 pm Eastern.  
$195 per attendee if you register by December 30, 2022.  
After December 30, 2022, registration fee increases to $215 per participant so register early!

**All Registration Fees are NON-REFUNDABLE after January 20, 2023.**

Should you register and find that you are unable to attend the 2023 KCM Conference on March 6 & 7 for any reason, you may send someone to attend in your place. If you do not attend and someone does not attend in your place - you or your school/district/organization is still responsible to pay the registration fee.

**BREAKOUT SESSION SPEAKERS**

The KCM invites you to submit a speaker proposal for our 2023 Conference! Speaker proposals will be accepted September 2, 2022 through November 18, 2022. The KCM will send an email by 5 pm on Friday, December 16, 2022 to let submitters know whether their proposal has been accepted or not. If a proposal is selected, the LEAD SPEAKER will automatically be registered for the Conference and their registration fee will be discounted to $100. Any and all co-speakers MUST register themselves and pay the standard registration fee ($195 through 12/30/22 or $215 after 12/30/22). We recommend that anyone submitting a proposal to be the LEAD SPEAKER of a Breakout Session NOT register themselves and pay the $195 registration fee before 12/17/22 - to avoid the KCM having to issue a $95 refund if your proposal is selected. To submit a speaker proposal: Visit the KCM's website at www.kymath.org, click on the ANNUAL CONFERENCE tab at the top of the home page, then 2023 KCM CONFERENCE, then SPEAKER PROPOSALS and click the Submit Your Proposal button.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

**KEYNOTE SPEAKERS FOR THE 2023 KCM CONFERENCE**

1. **Amanda (Mandy) Jansen - Mathematics Education Professor at the University of Delaware**

   Early in her career, Mandy was a middle school mathematics teacher in Arizona. She earned her Ph.D. in educational psychology at Michigan State University. As a teacher educator at the University of Delaware, she prepares future elementary and middle school mathematics teachers, and she facilitates professional learning for in-service secondary mathematics teachers. In her research, Mandy investigates how mathematics teachers create engaging learning experiences for their students. One product from this research is her book, Rough Draft Math: Revising to Learn, which was published by Stenhouse.

2. **Kyndill Brown - Executive Director of the California Mathematics Project Statewide**
Dr. Kyndall Brown has over 35 years of experience in mathematics education. Kyndall holds a bachelor's degree in mathematics, master's degrees in computer-based education and mathematics education, and a Ph.D in Education. He was a secondary mathematics teacher for 13 years. He has been a professional development provider for schools and districts in Los Angeles County for over 25 years. He is currently the executive director of the California Mathematics Project. He presents at local, state, and national conferences on mathematics education and writes articles for mathematics education publications. His research focuses on the impact of culture and identity on the ways that African-American males learn mathematics. He is the co-author of the book Choosing To See: A Framework For Equity In The Math Classroom.

3. Barbara Dougherty - Mathematics Education Professor at the University of Hawaii.

Dr. Barbara Dougherty teaches at the University of Hawaii where she was the Director of The Curriculum R&D Group. She served on the Board of Directors for the NCTM (National Council of Teachers of Mathematics), and she is currently a co-chair of the NCTM/CEC (Council for Exceptional Children) Joint Committee to support students who struggle in mathematics. Barbara has a passion for assisting struggling math students and has authored more than 35 books on mathematics education, including The Math Pact, High School: Achieving Instructional Coherence Within and Across Grades. Her soon-to-be published book from Corwin is Rich Algebra Classroom-Ready Tasks. Barbara holds certifications in 7-12 mathematics and K-12 SLD (Specific Learning Disability).

4. Sarah B. Bush - Professor of K-12 STEM Education at the University of Central Florida

Dr. Sarah B. Bush teaches primary graduate courses in mathematics education and is the program coordinator of the mathematics education PhD track at the University of Central Florida. Sarah is actively involved in the National Council of Teachers of Mathematics (NCTM), serving recently as an elected member of the Board of Directors (2019-2022). She is the author of the recent book series, The Math Pact, and she served as the lead writer and task force chair for Catalyzing Change in Middle School Mathematics: Initiating Critical Conversations, published in 2020. Sarah seamlessly integrates her practical experience as a middle school mathematics teacher in public schools with her innovative scholarship to serve as an instructional leader in the field of mathematics education and STE(A)M education.

5. Deborah Peart - CEO of My Mathematical Mind

Deborah Peart is the founder of My Mathematical Mind and speaks on a variety of topics related to math identity, elementary math content and instruction, and literacy connections to mathematics. Blending her training in yoga and mindfulness with mathematics instruction, Deborah advocates for a mindful approach to teaching mathematics in order to address math anxiety, build confidence, and support the development of positive math identities. She has dedicated her career to supporting educators with innovative teaching strategies that allow students to see themselves as assets to the learning community and curious problem-solvers. She is the Director of Elementary Learning at UnboundEd and the lead author for second grade for the Illustrative Mathematics K-5 curriculum. Deborah believes that all children deserve high quality instruction and the opportunity to become competent readers, writers, and mathematicians.

TENTATIVE 2023 KCM CONFERENCE SCHEDULE:
SUNDAY, MARCH 5, 2023:
6:30-7:30 pm: Early check-in will be available on Sunday night at the Hyatt - exact time
TBD.
MONDAY, MARCH 6, 2023:
7:00-8:00 am: CHECK-IN/REGISTRATION and BREAKFAST
8:00-9:30 am: (90-minute session) KEYNOTE SPEAKER #1 in Ballroom
9:45-10:30 am (45-minute session) BREAKOUT SESSIONS ROUND 1
10:45-11:30 am (45-minute session) BREAKOUT SESSIONS ROUND 2
11:45 am-1:15 pm (90-minute session) KEYNOTE SPEAKER #2 and LUNCH in Ballroom
TUESDAY, MARCH 7, 2023:
7:00-8:00 am: CHECK-IN/REGISTRATION and BREAKFAST
8:00-9:30 am: (90-minute session) KEYNOTE SPEAKER #3 in Ballroom
9:45-10:30 am (45-minute session) BREAKOUT SESSIONS ROUND 1
10:45-11:30 am (45-minute session) BREAKOUT SESSIONS ROUND 2
11:45 am-1:15 pm (90-minute session) KEYNOTE SPEAKER #4 and LUNCH in Ballroom
1:30-2:15 pm (45-minute session) BREAKOUT SESSIONS ROUND 3
2:30-3:15 pm (45-minute session) BREAKOUT SESSIONS ROUND 4
3:30 pm End-of-Conference Giveaways (Must be present to win)
*Schedule above is subject to change. All registered participants will be emailed a final schedule before the event
Building Numeracy with Middle Grades Students (5-8): HYBRID, Louisville, KY - Dee Crescitelli (2022-23)

Course Description:

PLEASE NOTE: This KCM professional learning event is available only to educators in Kentucky. This course is designed for 5th, 6th, 7th or 8th grade math teachers, but other Kentucky educators who believe this training would be helpful in their work are welcome to register and participate as well.

We know that students develop their mathematical reasoning skills over time and at different rates - and that the past year has created instructional gaps due to the time available for math instruction in different pandemic teaching situations. This year-long, in-depth course provides teachers with information and materials to enable them to strengthen mathematics instruction by building from students' current funds of knowledge.

Participants will learn teaching strategies for helping students develop the more sophisticated reasoning needed for middle grades mathematics with the goal of improving student access to grade-level content.

Each participant will receive two sets of the "24 Game: Fractions/Decimals" card game.

Each participant will also receive 4 books:

- Figuring out Fluency in Mathematics Teaching and Learning
- Elementary and Middle School Mathematics Teaching Developmentally, 10th edition
- Building Powerful Numeracy for Middle School & High School Students
- Lessons and Activities for Building Powerful Numeracy

COST: FREE (*This course is open to Kentucky educators only)

*Participants must be registered to attend and are expected to fully participate in both the in-person days and all 8 virtual sessions as scheduled below. The virtual sessions are live and interactive sessions that meet online via ZOOM. They are not recordings to be watched at any other time. All 8 half-day virtual sessions meet on Tuesday afternoons during the school year. Please confirm you can participate in this course on Tuesday afternoons before registering.

Duration: 10 Sessions (2 in-person days and 8 half-day virtual sessions)

Location:

2 IN-PERSON DAYS in Louisville, KY at the University of Louisville Conference Center, ShelbyHurst Campus, Founders Union Building

8 VIRTUAL half-day sessions online via ZOOM

2022-23 BUILDING NUMERACY SCHEDULE:

SESSION 1: Tuesday, June 21, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 2: Wednesday, June 22, 2022; 9:00 am - 4:00 pm Eastern Time (in-person day in Louisville)
SESSION 3: Tuesday, August 23, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 4: Tuesday, September 20, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 5: Tuesday, October 25, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 6: Tuesday, November 15, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 7: Tuesday, December 13, 2022; noon-3:00pm Eastern Time (half-day virtual)
SESSION 8: Tuesday, January 24, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 9: Tuesday, February 21, 2023; noon-3:00pm Eastern Time (half-day virtual)
SESSION 10: Tuesday, March 14, 2023; noon-3:00pm Eastern Time (half-day virtual)

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.

Please note: The KCM is absorbing all the costs associated with providing this professional development. If you register for this event and then find you are unable to attend for any reason, contact the KCM as soon as possible so your spot and materials can be given to another teacher. Registered teachers who fail to show up for this training may be charged for the cost of course materials, training and meeting space.
Statistics as a Progression - VIRTUAL - Dee Crescitelli (2022-23)
Virtual sessions via ZOOM
12:00 PM - 03:00 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu
Statistics as a Progression
This professional learning event is open to any teacher. The intended audience for this course is 2nd through 6th Grade teachers.

COURSE DESCRIPTION:

Statistics is gaining recognition as an important component of mathematics education, from the primary grades to middle and high school continuing to post-secondary. During this course, participants will deepen their understanding of statistics and see the standards and skills of their grade level as part of a progression starting in primary and continuing into middle and high school.

Essential statistics standards in the Kentucky Academic Standards for Mathematics begin in first grade and continue through all grade levels with the goal of developing student ability to comprehend and deal with variability and statistical information in the world around them and participate effectively in an information-laden society. The KCAS- Mathematics also position students as doers of statistics as they take part in the production, interpretation, and communication of data. Participants will explore instructional strategies for developing statistical understanding and receive virtual resources for use with students.

Cost: FREE
Duration: 2 half-day sessions
2023 SCHEDULE:
Session 1: Wednesday, February 15, 2023; noon - 3:00 pm Eastern Time (which is 11am - 2 pm Central Time)
Session 2: Wednesday, March 15, 2023; noon - 3:00 pm Eastern Time (which is 11 am - 2 pm Central Time)

Please note: Participants must be able to participate in both sessions during the dates and times listed. These are live and interactive ZOOM meetings. They are not recordings that can be watched at other times.

Registration deadline is February 8, 2023.
Please contact the KCM at kcm@nku.edu or 859-572-7690 if you have any questions, or if you register and then are no longer able to attend. Thank you.
**Fluency Assessment Training- Cindy Aossey (March 2023)**

**Virtual - Zoom**

10:00 AM - 11:30 AM EST

Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

**Fluency Assessment Training with KCM Regional Consult Cindy Aossey:**

In this 90 minute session, participants will learn how to administer and score the KCM Kentucky Numeracy Project Fluency Assessments. In addition, there will be discussions about using the information from the assessments for planning mathematics instruction in elementary grades. Participants will gain access to the full suite of Fluency Assessments after completing a practice assessment with an elementary-aged student.

This Fluency Assessment Training is open to any elementary school math teacher; even those who teach outside of Kentucky.

For any teacher who has attended a KCM event in the past, your school email is already in our system; enter your school email address and then please update anything else that has changed or is missing.

KY educators must use their @(school district).kyschools.us email.

If you work for an organization and not a school or school district, please enter the name of the organization where you work.

Please include the grade of math you work with on your position title: examples = 3rd Grade Teacher; K-5 Math Interventionist; Curriculum Coach K-12.

**DATE:** Wednesday, March 15, 2023

**TIME:** 10:00 - 11:30 am Eastern Time (which is 9:00 - 10:30 am Central Time)

**LOCATION:** Virtual ZOOM Meeting

Participants must be able to participate virtually on the date of the session. This training is live and interactive. It is not recorded.

Registered participants will receive the information they need to connect to the ZOOM meeting from the facilitator Cindy Aossey. This email may go to your junk folder so look for it there. Please move any KCM emails you find in your junk folder to your inbox and mark the sender as safe. Thank you.

Contact the KCM at kcm@nku.edu or 859-572-7690, or the facilitator Cindy Aossey at cindy.aossey@outlook.com, with any questions.
Foundations for Early Childhood Mathematics: In-Person, Lexington, KY - Julie Adams (2022-23)

08:30 AM - 11:30 AM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Foundations for Early Childhood Mathematics (Lexington)

COURSE DESCRIPTION:
This Foundations for Early Childhood Mathematics professional development course is for Preschool and Kindergarten teachers who teach in the state of Kentucky only. It features content developed by the Erikson Institute, leaders in early childhood education. This professional learning highlights the "Big Ideas" in early mathematics which include sets, number sense, counting, number operations, pattern, measurement and shape. Participants will learn how to spark children's mathematical learning through developmentally appropriate exploration, discussion and activity using high-impact, evidence-based strategies and children's literature which support the teaching and learning of early mathematics.

**THIS COURSE MEETS IN PERSON ON FRIDAYS FROM 8:30 - 11:30 AM EASTERN TIME IN LEXINGTON, KY**

Upon registering, participants are expected to attend and actively participate in all eight half-day in-person sessions. Please do not register for this training if you are unable to attend in-person on Fridays from 8:30 - 11:30 am Eastern Time on the dates listed below. Your school must provide substitutes for your classroom if necessary.

SCHEDULE:
Fridays, 8:30 - 11:30 AM Eastern Time IN-PERSON in Lexington, KY

Session 1: September 16, 2022
Session 2: October 28, 2022
Session 3: November 18, 2022
Session 4: December 16, 2022
Session 5: January 20, 2023
Session 6: February 17, 2023
Session 7: March 17, 2023
Session 8: April 21, 2023

COST: FREE (For Kentucky Preschool and Kindergarten teachers only)

Registration deadline is August 19, 2022.

Should you register for this training and then find you are unable to attend for any reason, you must contact the KCM at kcm@nku.edu or 859-572-7690 so your spot can be offered to another Kentucky teacher. No shows may be charged for the cost of the materials, training and meeting space.
KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Sessions will meet virtually via ZOOM
04:45 PM - 06:45 PM EST
Kentucky Center for Mathematics , 859-572-7690
kcm@nku.edu

Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics
Bethany Noblitt

Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions. Our normal business hours are M-F, 8:15 am - 4:30 pm.
Bethany Noblitt can be reached via email at noblittb@nku.edu.
Explorations in Geometry (K-5) - VIRTUAL - Cindy Aossey (2022-23)

VIRTUAL sessions via ZOOM
09:00 AM - 04:00 PM EST
Explorations in Geometry (K-5)

COURSE DESCRIPTION:
Geometry is a critical area spanning all elementary grade levels with connections to measurement, operations and algebraic thinking, and fractions.
Participants will:

- attend 2 half-day synchronous virtual sessions.
- receive the book “Teaching Student-Centered Mathematics” for grades K-2 or 3-5 (choose a grade band during registration) and hands-on materials.
- deepen their understanding of the Van Hiele Model of geometric reasoning and the Kentucky Academic Standards for Mathematics Geometry standards.
- explore both virtual and hands-on instructional tasks for developing geometric reasoning.

Cost: $50 per participant (Note: This professional learning event is only open to math educators who work in the U.S.)

Duration: 1 virtual day
Schedule: Tuesday, March 21, 2023; 9:00am-noon and 1:00-4:00pm Eastern (2 half-day sessions on one day)
(If you are in the Central Time Zone, then you will attend these sessions from 8:00-11:00 am and noon-3:00pm Central)

**Participants must be able to meet on March 21 during both sessions. These sessions are live and interactive ZOOM meetings. Sessions are not recordings that can be viewed at other times.

Please note: Book and course materials will be shipped via UPS to the school address entered on each registration. UPS is unable to deliver to PO BOX #s, so please provide the physical mailing address of your school - no PO Box #s.

Registration closes January 24, 2023 to allow enough time to order the correct grade-band specific books and materials kits. Participants will select their Grade Band when they select their registration package.

Should you register for this professional learning event and are unable to attend for any reason, contact the KCM at kcm@nku.edu or 859-572-7690. The registration fee must be paid once materials are ordered. If you are unable to attend after materials have been ordered and there is a wait list for this course, the KCM can void your registration; if there is no wait list, then your school or district should select a different teacher to attend in your place.
Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)

Virtual ZOOM meetings
03:45 PM - 06:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Modeling WITH Mathematics: Middle School Grades 6-8 - VIRTUAL - Dee Crescitelli (2022-23)
Course Description:
Modeling with mathematics is one of the most misunderstood Standards for Mathematical Practice, yet it is essential for ALL students to master. Participants of this course will

experience an instructional routine that builds students' capacity to make sense of models and to develop questions to ask themselves when modeling.
learn about designs for interaction that build opportunities for students to develop mathematical language and process the ideas and concepts of modeling.

PLEASE NOTE:
Participants who teach in Kentucky will receive a copy of the book Teaching for Thinking.
Participants who teach outside of Kentucky will need to purchase their own copy of Teaching for Thinking if they wish to participate in this course.

Cost: FREE
Duration: 4 half-day virtual sessions
Please note: This professional learning event will meet virtually via 4 half-day ZOOM meeting sessions on select Thursdays in 2023 from 3:45 - 6:30 pm EST. Teachers must be able to fully participate in all 4 live and interactive ZOOM meeting sessions as scheduled. Sessions are not recorded to be watched at any time.

SCHEDULE:
SESSION 1: Thursday, January 19, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 2: Thursday, February 9, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 3: Thursday, March 2, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)
SESSION 4: Thursday, March 23, 2023; 3:45-6:30 pm Eastern Time (which is 2:45-5:30pm Central Time)

Teachers must be registered to participate. Registration deadline is December 1, 2022.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions. Should you register for this event and then are no longer able to attend, contact the KCM to have your registration voided so that your spot can be offered to another teacher.
AVMR PLUS: PART 2 (Virtual AVMR2 with bonus in-person day) - Lexington - Cindy Aossey (2022-23)

Virtual Sessions meet online via ZOOM; in-person day meets in Lexington, KY
Virtual Sessions 1-8=noon-2 pm EST; In-person Session 9=9am-4pm EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

8/16/22: This AVMR PLUS: Part 2 course is now full.
The KCM has a 2nd cohort of AVMR 2 starting in 2023: Please click here to see the schedule for that cohort and to register for AVMR 2 - VIRTUAL.
If you would like to be added to a WAIT LIST for this AVMR PLUS: Part 2 course click here.

AVMR PLUS: PART 2
Course Description:

Participants in KCM's AVMR PLUS: PART 2 will complete Add+Vantage Math Recovery (AVMR™) Course 2 by attending 8 virtual two-hour sessions.
In addition, participants will attend a bonus KCM-designed in-person day where they will receive additional materials and instructional resources.
This course is designed for elementary grades teachers and interventionists.
Participants will learn and practice assessments and teaching strategies for advancing students’ foundational number knowledge. Topics covered include place value, multi-digit addition & subtraction, and multiplication & division.
AVMR PLUS: PART 2 is the second part of the KCM course formally called KNPI (Kentucky Numeracy Project Intensive) Course.
IN ORDER TO ATTEND THIS COURSE, Participants must have completed KCM's AVMR PLUS: PART 1 or have completed Add+Vantage Math Recovery (AVMR™) Course 1.

COST OF AVMR PLUS: PART 2: $500 per participant

DURATION: 8 virtual sessions and one optional in-person day in Lexington, KY
PLEASE NOTE: Approximately one hour of asynchronous work will be assigned for each two-hour virtual session.

SCHEDULE FOR AVMR PLUS: PART 2:
Session 1: Wednesday, November 2, 2022; noon-2:00pm Eastern Time
Session 2: Friday, November 4, 2022; noon-2:00pm Eastern Time
Session 3: Wednesday, December 7, 2022; noon-2:00pm Eastern Time
Session 4: Friday, December 9, 2022; noon-2:00pm Eastern Time
Session 5: Wednesday, January 18, 2023; noon-2:00pm Eastern Time
Session 6: Friday, January 20, 2023; noon-2:00pm Eastern Time
Session 7: Wednesday, February 8, 2023; noon-2:00pm Eastern Time
Session 8: Friday, February 10, 2023; noon-2:00pm Eastern Time
Session 9: Friday, March 24, 2023; 9:00am– 4:00pm (bonus in-person day w/lunch break in Lexington)

*Registration cutoff date is September 14, 2022
The KCM needs a minimum of 7 weeks to order and receive the AVMR2 kits from Math Recovery needed for this course.

Registration fee is non-refundable once the AVMR kits are ordered.

Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
Comprehensive Course for Primary Grades K-2: PART 2

Course Description:

PLEASE NOTE: THERE IS A PREREQUISITE FOR THIS COURSE: Anyone wishing to attend this course must have completed KCM’s Comprehensive Course for Primary Grades K-2: Part 1 in the Fall of 2022. You may register for both in the Spring of 2022; but only those participants who complete Part 1 will be allowed to participate in Part 2. This 6-session professional learning opportunity is designed for classroom, special education, and mathematics intervention teachers of students in Grades K-2. Participants will engage in varied instructional strategies, and will acquire tools to assess, support, and advance students’ mathematical reasoning and knowledge. Aligned to research-based teaching practices and Kentucky Academic Standards, topics will include operations and algebraic thinking, measurement and data, and math/literature connections. Participants will receive books, activities and instructional materials, along with assessment strategies to identify and target student needs and misconceptions in early numeracy.

PART 2 Big Ideas = Measurement, Time & Money, Algebraic Reasoning & Problem Solving and Math Fact Fluency

Cost: $400 per participant

Duration: 6 sessions (4 half-day virtual sessions plus 2 in-person days)

Location:

The 4 half-day virtual sessions will meet online via ZOOM meetings. The 2 full-day in-person sessions will meet in Lexington, KY

PLEASE NOTE: The virtual sessions are not recorded to be watched at any other time. They are live and interactive virtual sessions that participates should be fully engaged in as scheduled below.

SESSION SCHEDULE FOR THIS LEXINGTON, KY COHORT:
Session 1: Wednesday, January 11, 2023; 9:00 am - 4:00 pm Eastern Time (IN PERSON)
Session 2: Tuesday, February 7, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 3: Wednesday, February 8, 2023; noon-3:00pm Eastern Time. (VIRTUAL)
Session 4: Tuesday, February 28, 2023: noon-3:00pm Eastern Time. (VIRTUAL)
Session 5: Wednesday, March 1, 2023, noon-3:00pm Eastern Time. (VIRTUAL)
Session 6: Tuesday, March 28, 2023, 9:00 am - 4:00 pm Eastern Time (IN PERSON)

Registration for this cohort closes at midnight on Thursday, December 1, 2022.

Please note: The $400 registration fee for this course is non-refundable once materials have been ordered. Should a registered participant find they are no longer able to attend this event, they should find a teacher from their school or district to take their place and notify the KCM at kcm@nku.edu or 859-572-7690.
Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics Bethany Noblitt
Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions. Our normal business hours are M-F, 8:15 am - 4:30 pm. Bethany Noblitt can be reached via email at noblittb@nku.edu.
Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

This professional learning event will meet virtually via ZOOM meetings on select Wednesdays throughout 2022-23

11:30 AM - 12:30 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu

Math Intervention Teachers (MIT) Collegial Support - Lisa Riggs - (2022-23)

The KCM is excited to announce a new professional learning event just for Kentucky Math Intervention Teachers. This collegial learning and support opportunity is open to Kentucky K-5 Math Intervention Teachers who want to grow as professionals and share their knowledge, successes and struggles with fellow math intervention teachers. This group will meet virtually once a month on Wednesdays via a 1-hour ZOOM meeting from 11:30 am - 12:30 pm Eastern Time.

This event will be facilitated by KCM Regional Consultant Lisa Riggs along with other special guests.

TEACHER TOOL KIT:
In addition to the monthly collegial support meetings, being an active part of this select group will allow you to receive a fun KCM MIT teacher tool kit containing support materials from the KCM 3 times throughout the 2022-23 school year.

MONTHLY NEWSLETTER:
Participants will also receive a monthly newsletter with teacher tips and intervention resources.

SPECIAL MEET AND GREET:
Because virtual is great but in-person is better, we are planning a special, invitation-only meet and greet session for this group at the KCM Annual Math Conference in March 2023. (Monday & Tuesday, March 6 & 7)

MONTHLY ZOOM MEETING SCHEDULE:
Please note: These are live and interactive ZOOM meetings that meet from 11:30 am - 12:30 pm Eastern Time. If you know that you cannot meet on Wednesdays from 11:30 am - 12:30 pm EST, then you will be unable to participate in this professional learning event.

1. Wednesday, September 7, 2022
2. Wednesday, October 19, 2022
3. Wednesday, November 30, 2022
4. Wednesday, January 18, 2023
5. Wednesday, February 22, 2023
6. Wednesday, April 19, 2023

There is no registration fee for this event. It is free for Kentucky K-5 Math Intervention Teachers. We hope you are as excited about this opportunity as we are! If you want to be a part of this MIT Collegial Support Team, please register today as space may be limited.

Thank you for all you do for your students! The KCM is here to support you help your math students succeed in any way we can so don’t hesitate to reach out to us with any questions about this professional learning event, or if we can help you in some other way.

The KCM can be reached at 859-572-7690 or kcm@nku.edu or info@kentuckymathematics.org.
Our website is www.kymath.org and you can access lots of free resources there - like Math Fact Fluency games to use with your students.
TBD in Lexington, KY
08:30 AM - 11:30 AM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu
Foundations for Early Childhood Mathematics (Lexington)

COURSE DESCRIPTION:
This Foundations for Early Childhood Mathematics professional development course is for Preschool and Kindergarten teachers who teach in the state of Kentucky only. It features content developed by the Erikson Institute, leaders in early childhood education. This professional learning highlights the "Big Ideas" in early mathematics which include sets, number sense, counting, number operations, pattern, measurement and shape. Participants will learn how to spark children's mathematical learning through developmentally appropriate exploration, discussion and activity using high-impact, evidence-based strategies and children's literature which support the teaching and learning of early mathematics.

**THIS COURSE MEETS IN PERSON ON FRIDAYS FROM 8:30 - 11:30 AM EASTERN TIME IN LEXINGTON, KY**

Upon registering, participants are expected to attend and actively participate in all eight half-day in-person sessions. Please do not register for this training if you are unable to attend in-person on Fridays from 8:30 - 11:30 am Eastern Time on the dates listed below. Your school must provide substitutes for your classroom if necessary.

SCHEDULE:
Fridays, 8:30 - 11:30 AM Eastern Time IN-PERSON in Lexington, KY

Session 1: September 16, 2022
Session 2: October 28, 2022
Session 3: November 18, 2022
Session 4: December 16, 2022
Session 5: January 20, 2023
Session 6: February 17, 2023
Session 7: March 17, 2023
Session 8: April 21, 2023

COST: FREE (For Kentucky Preschool and Kindergarten teachers only)

Registration deadline is August 19, 2022.

Should you register for this training and then find you are unable to attend for any reason, you must contact the KCM at kcm@nku.edu or 859-572-7690 so your spot can be offered to another Kentucky teacher. No shows may be charged for the cost of the materials, training and meeting space.
Family Math - VIRTUAL - Lisa Riggs (2022-23)

Virtual ZOOM meetings
09:30 AM - 11:00 AM EST
Kentucky Center for Mathematics , 859-572-7690
cm@nku.edu

Family Math - VIRTUAL - Lisa Riggs (2022-23)

Description:
This free KCM professional learning event is for KENTUCKY mathematics educators only.
During this Family Math course, we will explore research on family engagement and how to educate parents concerning math fluency and the current standards.

Participants will explore family math resources and how to conduct a family math night event.
Participants will be given materials to conduct 2 Family Math Nights - one per semester.
Participants will implement two Family Math Nights at their school: the 1st before Dec 31, 2022 and the 2nd before April 28, 2023.
Participants will share their successes and takeaways from each of their Family Math Nights.

Cost: FREE (For Kentucky Mathematics Educators only)
Duration: 8 virtual 90-minute ZOOM meeting sessions, plus two Family Math Night implementations.
All 8 virtual sessions will meet on FRIDAYS from 9:30 - 11:00 am Eastern Time (which is 8:30 am - 10:00 am Central Time).

SCHEDULE:
1. Friday, August 26, 2022; 9:30-11:00 am Eastern Time
2. Friday, September 9, 2022; 9:30-11:00 am Eastern Time
3. Friday, September 23, 2022; 9:30-11:00 am Eastern Time
4. Friday, January 6, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 1st Family Math Night)
5. Friday, January 20, 2023; 9:30-11:00 am Eastern Time
6. Friday, February 3, 2023; 9:30-11:00 am Eastern Time
7. Friday, March 3, 2023; 9:30-11:00 am Eastern Time
8. Friday, April 28, 2023; 9:30-11:00 am Eastern Time (Reflection session to celebrate and share each participant's 2nd Family Math Night)

Before registering, please make sure that you are able to fully participate in all 8 live and interactive ZOOM meeting sessions on Fridays from 9:30 - 11:00 am Eastern Time. By registering for this course, you are agreeing to host two Family Math Nights: one before December 31, 2022, and one before April 28, 2023.

Registration cutoff date is July 29, 2022.
Please contact the KCM at kcm@nku.edu or 859-572-7690 with any questions.
The KCM sends a registration confirmation email to everyone who registers for a KCM event. This email often goes to the recipient's junk folder. If you register and do not receive a confirmation email from kcm@nku.edu, check your junk folder - and then contact the KCM. Any KCM emails found in your junk folder need to be moved to your inbox and the sender marked as safe. Thank you.
KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)
Sessions will meet virtually via ZOOM
04:45 PM - 06:45 PM EST
Kentucky Center for Mathematics, 859-572-7690
kcm@nku.edu
KCM Math Circle for Teachers of Grades 6-12 - VIRTUAL - Bethany Noblitt (2022-23)

Description: Math Circles are communities focused on the enjoyment of mathematical problem solving. The purpose of our meetings is to do what brought us to the profession of teaching mathematics in the first place – our love of mathematics! Our meetings will be interactive and challenging in a highly rewarding way. We will work together to try to solve interesting, puzzling, perplexing, non-routine, worthwhile mathematics problems. This Math Circle is open to all in-service teachers, preservice teachers, and mathematics teacher educators interested in grades 6-12 mathematics.

All Math Circle virtual meeting sessions will meet once a month via ZOOM from October 2022 - May 2023 on select Mondays from 4:45 pm - 6:45 pm Eastern (which is 3:35 pm - 5:45 pm Central)

Facilitator: KCM Faculty Associate/NKU Professor of Mathematics and Statistics
Bethany Noblitt
Cost: There is no fee to participate in this KCM event.
Location: Virtual via ZOOM.

Please note: The ZOOM meeting link will be emailed to all registered participants. Once you register and receive the ZOOM link, you may share that link with colleagues and friends who wish to participate, but we ask that they register themselves or that they contact the KCM to have us complete their registration. Because participants do not need to be able to attend all 8 sessions, and because participants may join any session late or leave early if necessary, we kindly ask that all participants be registered and let the facilitator and/or the KCM know when they will be unable to participate in a session. Please show professional courtesy to the facilitator Bethany Noblitt and your fellow math educators by letting Bethany and/or the KCM know when you will not be attending a session, will be late or will be leaving early.

EVENT DATES:
1. Monday, October 24, 2022
2. Monday, November 14, 2022
3. Monday, December 19, 2022
4. Monday, January 23, 2023
5. Monday, February 27, 2023
6. Monday, March 20, 2023
7. Monday, April 17, 2023
8. Monday, May 15, 2023

The KCM can always be reached at 859-572-7690 or kcm@nku.edu with any questions. Our normal business hours are M-F, 8:15 am - 4:30 pm.
Bethany Noblitt can be reached via email at noblittb@nku.edu.