Math Intervention
Expert Talks
with
Tonda Thompson
Welcome!

Expert Math Interventionist

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More About Me

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Kentucky legislators created the Mathematics Achievement Fund in 2005.

The goal of the MAF is…

“to provide developmentally appropriate diagnostic assessment and intervention services to students, primary through grade 12, to help them reach proficiency in mathematics on the state assessments.”
Agenda

- What does the research say?
- Look at the Mathematics Teaching Practices (MTPs)
- Video Viewing
- What MTPs are evident in the video?
- How can Implementing the MTPs in our teaching improve reasoning and problem solving?
Research

“The teaching practices, based on knowledge of mathematics teaching and learning accumulated over more than two decades, represents a core set of high-leverage practices and essential teaching skills necessary to promote deep learning of mathematics” (NCTM 2014, p.9).
8 Effective MTPs

1. Establish mathematics goals to focus learning.
2. Implement tasks that promote reasoning and problem solving.
3. Use and connect mathematical representations.
4. Facilitate meaningful mathematical discourse.
5. Pose purposeful questions.
6. Build procedural fluency from conceptual understanding.
7. Support productive struggle in learning mathematics.
8. Elicit and use evidence of student thinking.
Establish Mathematics Goals to Focus Learning

“Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.” (NCTM, Taking Action , 2017)

When and how might you communicate lesson goals in ways that make sense to students?

Was a goal communicated to the student and how did it drive instruction?

https://youtu.be/lr6mhxfTYsI

HUH?
Why not just teach the KAS?
Pose Purposeful Questions

Do you think the questions make the mathematics visible?

Were strategies used to ensure the student is thinking of answers?

https://youtu.be/lr6mhxfTYsI
Support Productive Struggle

What might get in the way of students reasoning and thinking for themselves?

What kind of support might students need in order to determine for themselves the correctness of their thinking?

https://youtu.be/lr6mhxfTYsI
A Vision for Teachers as Facilitators of Student Learning

“Ambitious teaching views students as capable of making sense of mathematical ideas and being able to use their understanding to solve authentic problems (Lampert, Boerst, and Graziani 2011) and values students’ thinking, including emergent understanding and errors, and attends to student thinking in an equitable and responsive manner (Anthony et al. 2015).”
SHARED MATERIALS

- NUMERAL ROLL
- NUMERAL TRACK
- TREASURE HUNT
Upcoming Virtual Professional Learning

APRIL 6 - 10
2:00-2:30 PM EST

Math Intervention Expert Talks!

Monday, April 6 - Meet the Expert- Kristie Manley

Tuesday, April 7 - Instructional Moves with KCM's Lisa Riggs

Wednesday, April 8 - Meet the Expert- Michael Hines

Thursday, April 9 - Instructional Moves with KCM's Tonda Thompson

Friday, April 10 - Meet the Expert- Jackie Damron
Visit Our KCM Website

www.kentuckymathematics.org

Good News!
The KCM is hard at work to ensure Kentucky teachers have access to innovative professional development from home.

Through the newly launched KCM Virtual site, mathematics teachers from all grade levels will have access to live zoom meetings, video records and corresponding materials. Read more.

**Elementary:** Make 'n Take Supporting Number Sense and Fluency - Mar. 23-27

**Middle:** Fractions, Decimals & Percents - Mar. 30-Apr. 3

**High:** Algebra & Geometry - Thursdays, Mar. 26 - Apr. 16

**Math Intervention Expert Talks** - Apr. 6 - Apr. 10

Focus on Place Value - Apr. 13 - Apr. 17
KCM is here to support teachers!

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