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KCM Favorites

Thinking Together-
9 Beliefs for Building a Mathematical Community

Rozlyn Dance and Tessa Kaplan

Welcome!

Your host

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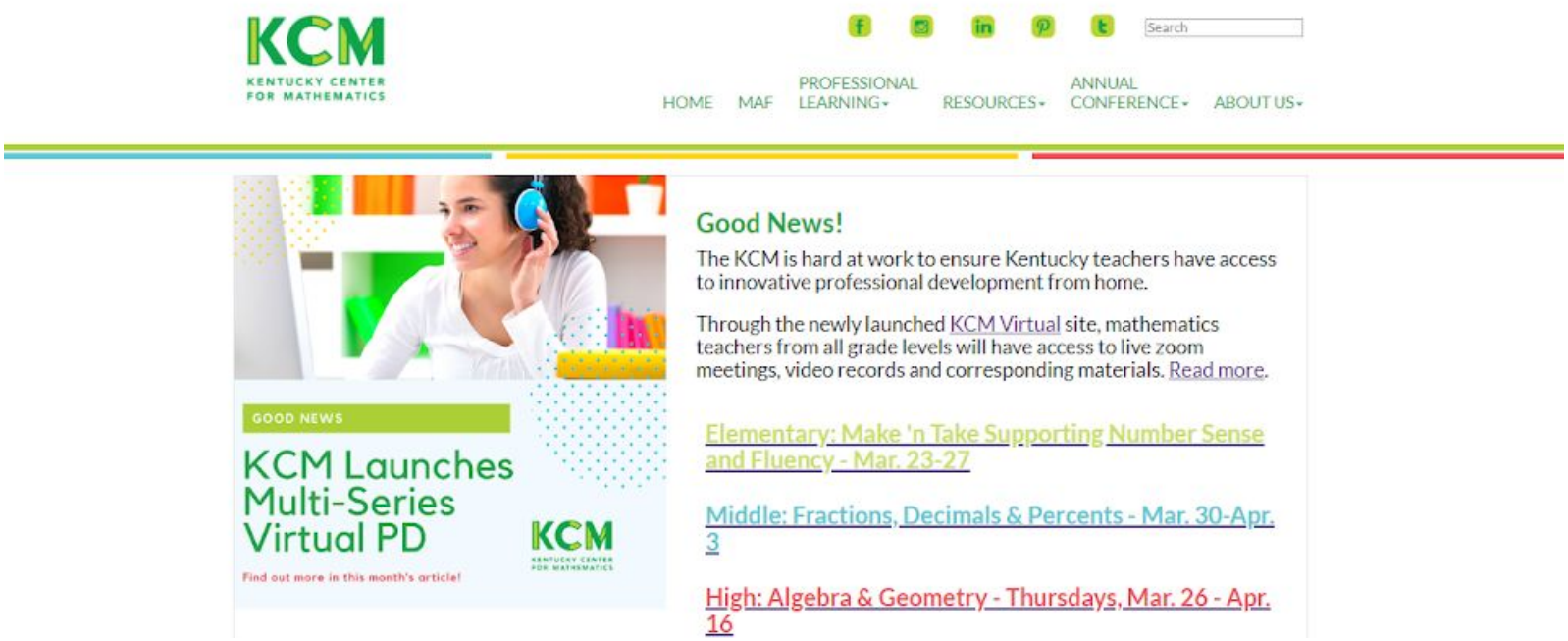

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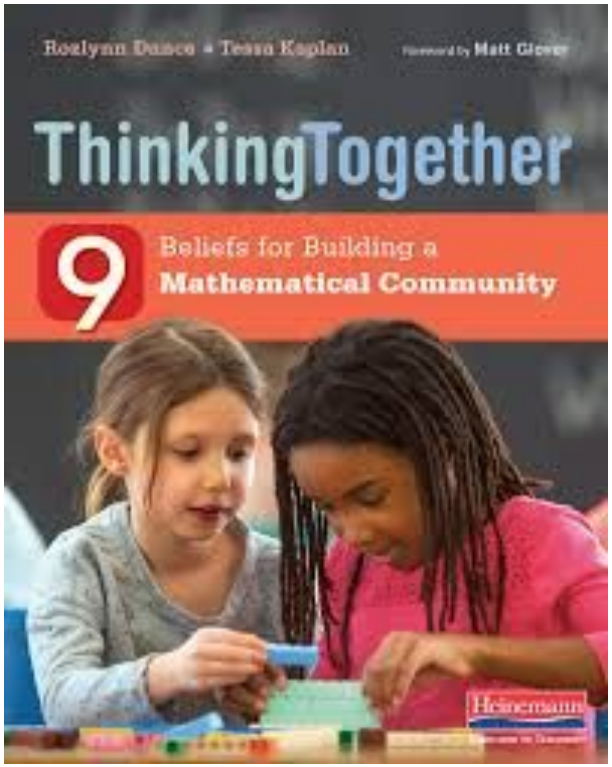
About the Authors



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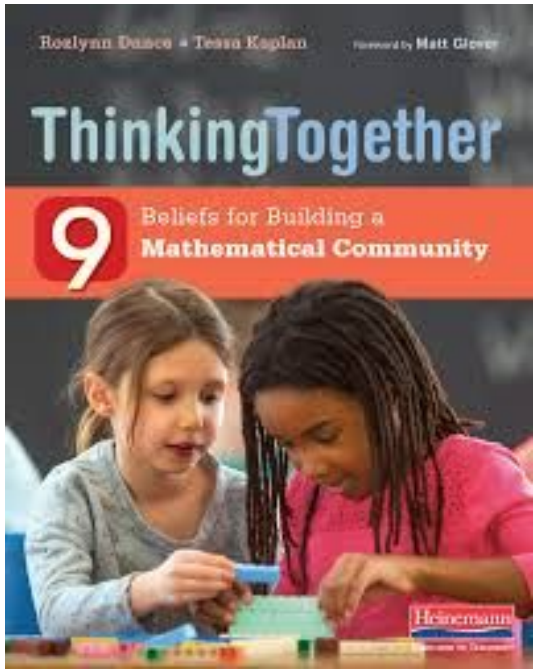

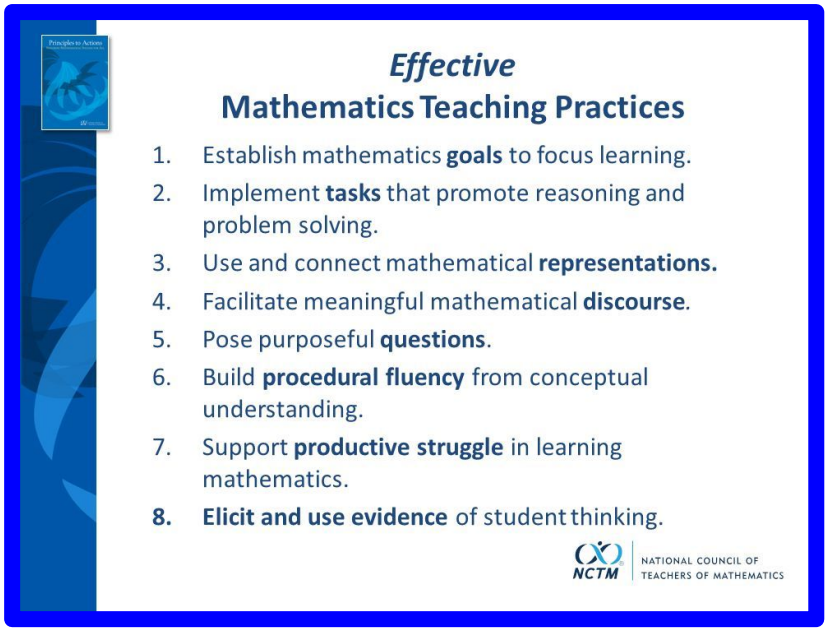

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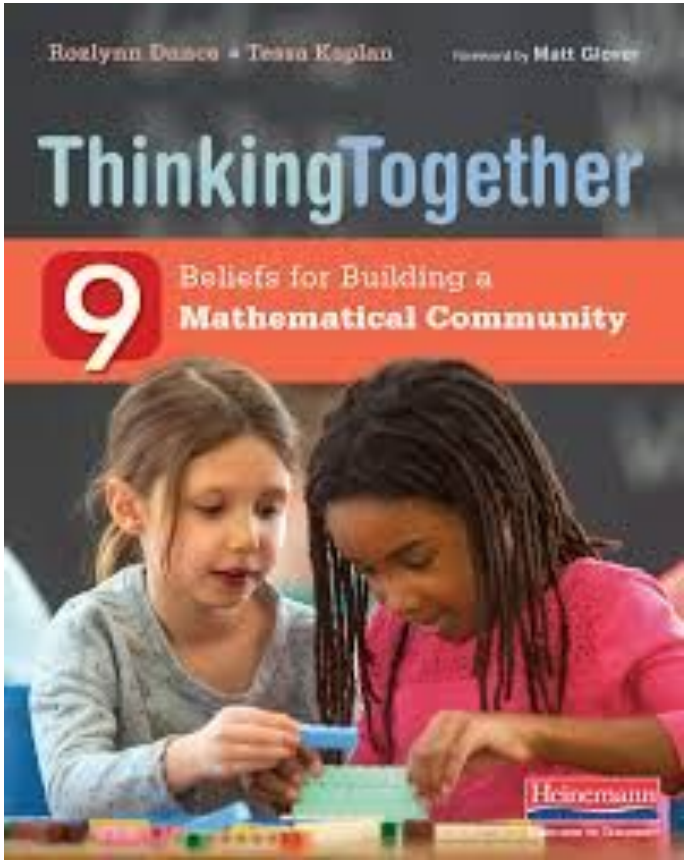

Building Mathematical Community

1. Everyone has the right to learn.
2. We respect the ideas of others.
3. Challenging problems help our brains to grow stronger.
4. Mistakes are great. (If we learn from them)
5. Good mathematicians are brave and try new things.
6. There are different strategies for solving a problem.
7. It's not about the answer.
8. Good learners ask questions.
9. Questions from the teacher help us to learn and grow.

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Why I Love This Book

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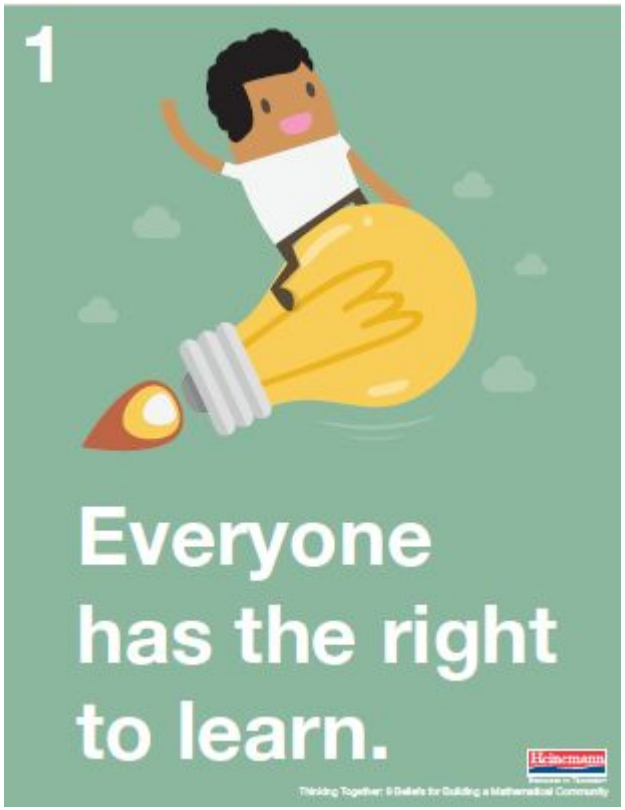
A Respectful Community of Learners



Posters available as a free download at the publisher's site.
https://downloads.heinemann.com/thinking-together-posters

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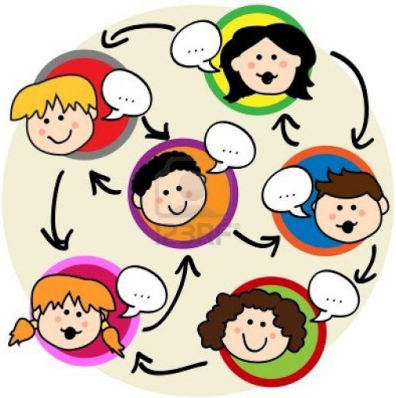
A Respectful Community of Learners

"When a respectful atmosphere exists in the classroom, students feel more comfortable sharing their mathematical thinking with one another, taking risks, and tackling new ideas."



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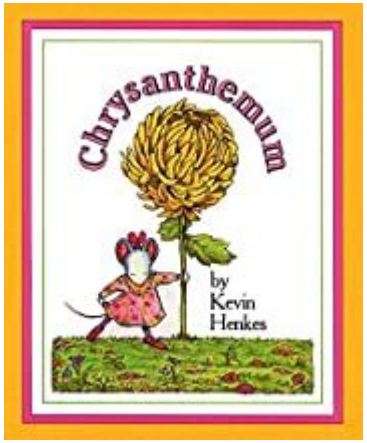
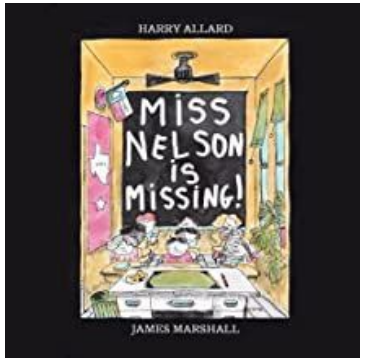
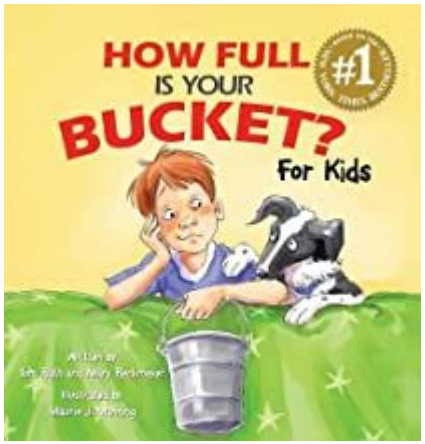
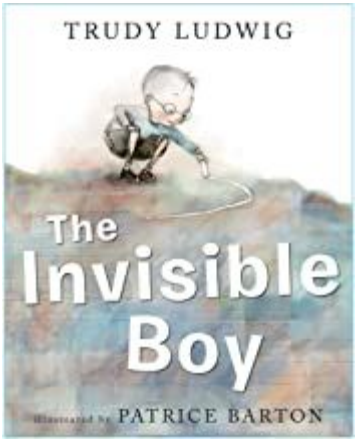
A Respectful Community of Learners

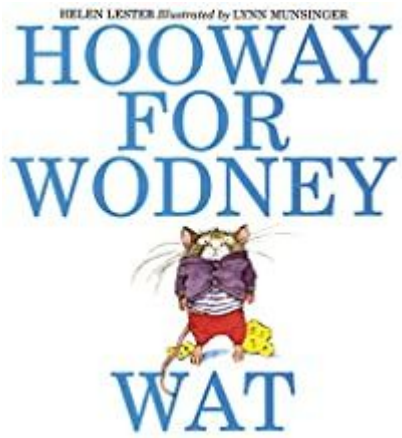
Using read alouds to help teach respect.

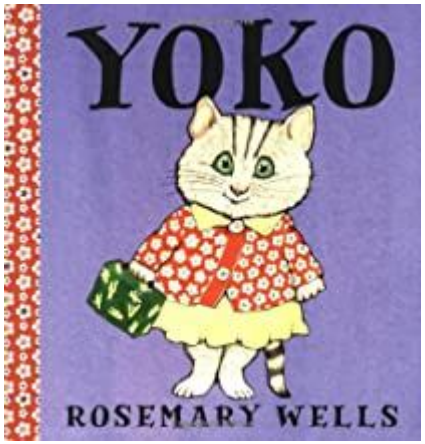












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Everyone has a right to learn

Teaching moves and routines that support a student's right to learn:

- Private Think Time
- "Don't steal my thinking"
- Turn and Talks
- How to Help a Partner
- **Revoicing/Retelling**
- Honoring All Students' Thinking
- Revising Thinking

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We respect the ideas of others

"As teachers, we model respectful behavior with our tone of voice, our consideration for everyone, and most importantly our celebration of differences with our classroom."

Authors Dance and Kaplan

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We respect the ideas of others

Respecting each other:

- Respectful listening
- Respectful disagreements
- Explaining disagreements
- Honoring mistakes
- Modeling
- Praise
- Public Records
- Sentence Stems

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We respect the ideas of others

Sentence Stems

- I respectfully disagree because…
- I solved the problem differently because…
- I like how you _____because_____
- I'm having trouble understanding you ___. Could you explain it in a different way?

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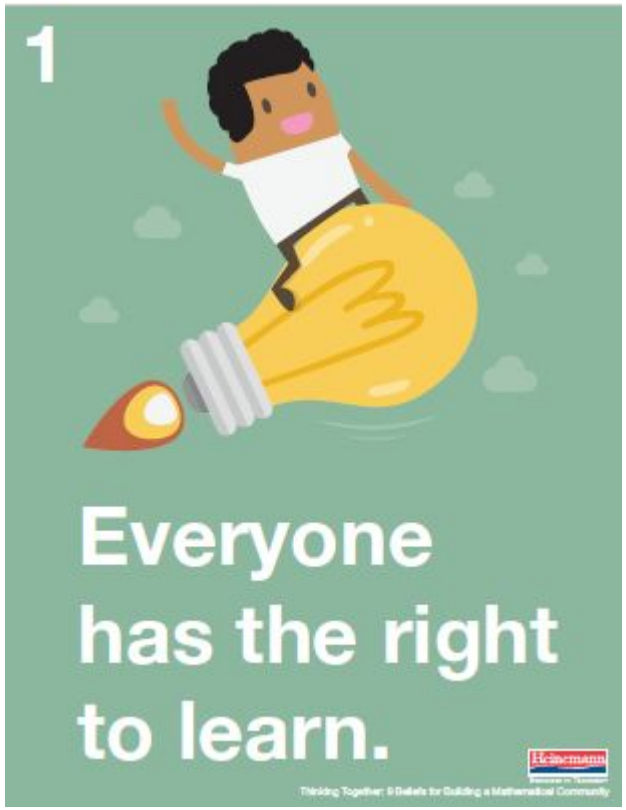
We respect the ideas of others

How do you develop classroom culture where...



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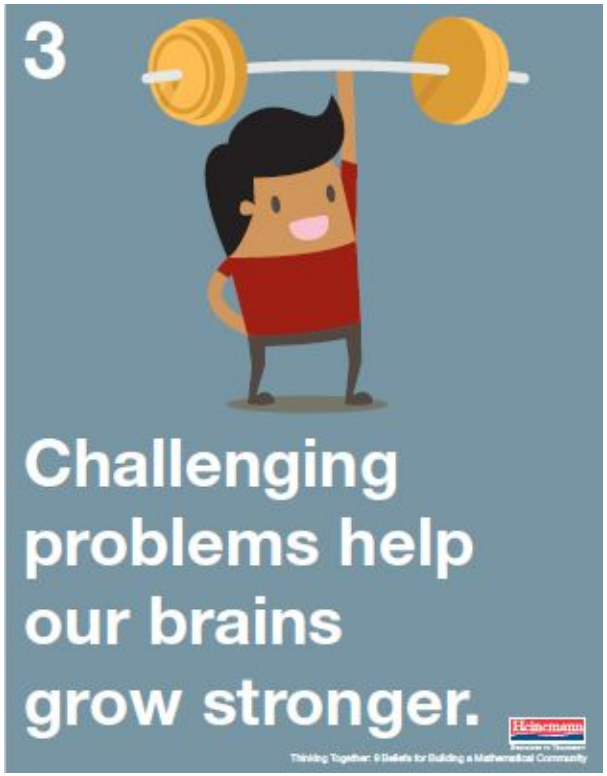
Building Brave Mathematicians



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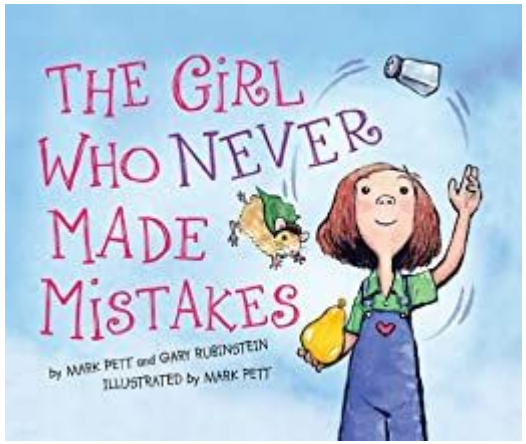
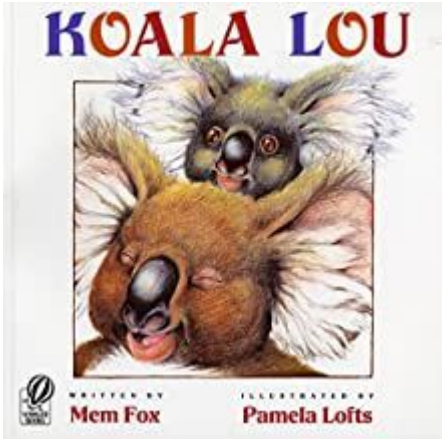
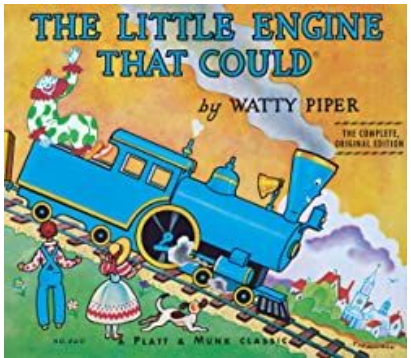
Building Brave Mathematicians

Using read alouds to encourage confidence, perseverance, and resilience.







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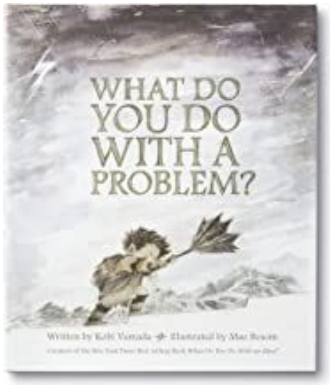

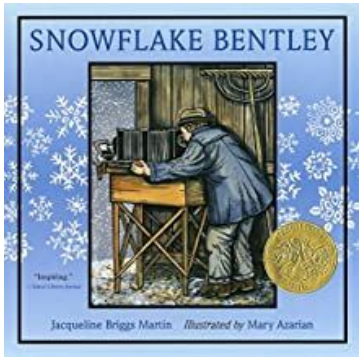

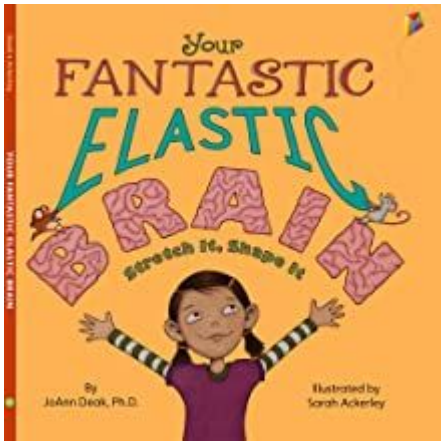

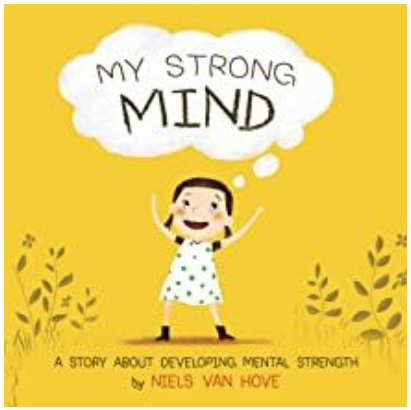

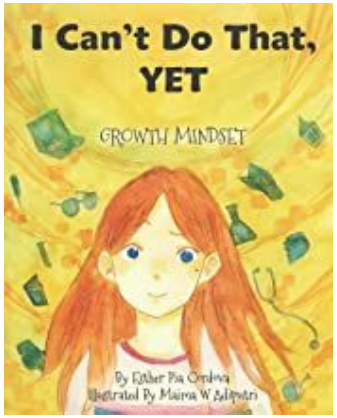

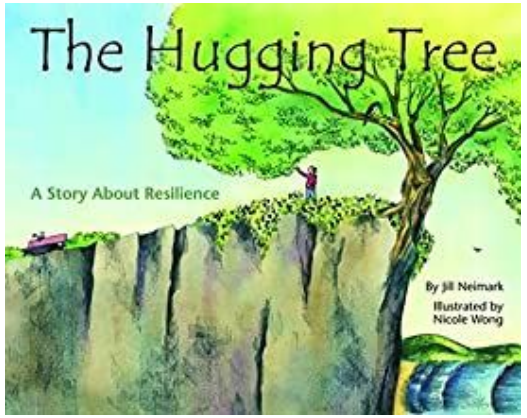

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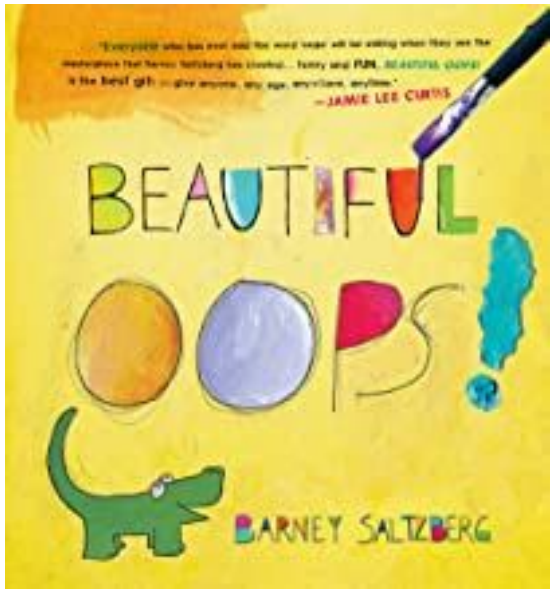

https://www.youtube.com/watch?v=2fZjMYdQjGM

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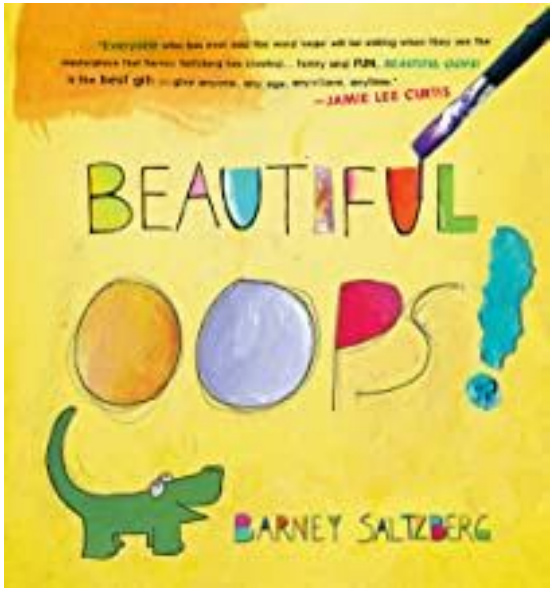
Building Brave Mathematicians

KCM challenge for you…

Incorporate more read alouds into your classroom to enhance the mathematical culture.



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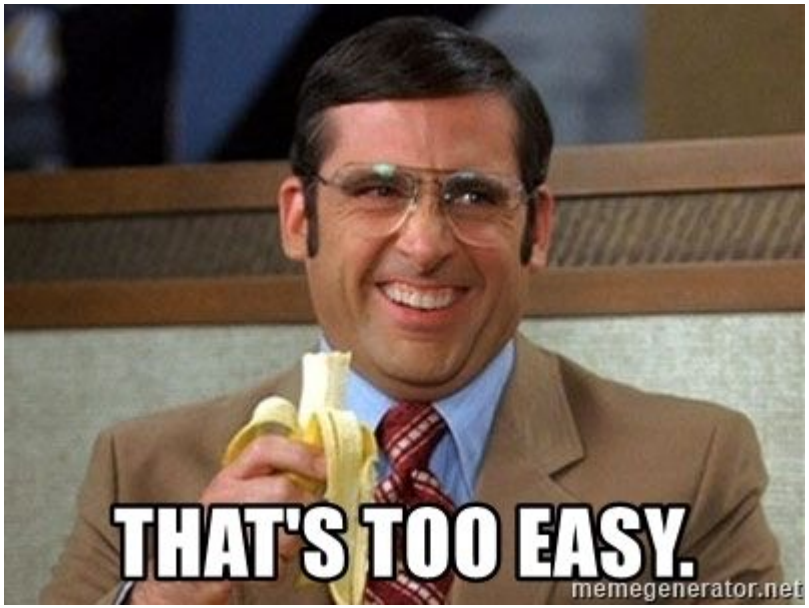

When students exclaim, “That’s easy!” “We must remind them that we all learn at different paces and in different ways and just because the problem is easy for one doesn’t mean it is easy for all.”

Authors Dance and Kaplan

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Building Brave Mathematicians

Mathematical Confidence

- Perseverance
- Valuing Mistakes
- Taking Risks
- Self-Reliance

What does this look like in the classroom?
Paint a picture of mathematical confidence.

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Great Minds Think Differently

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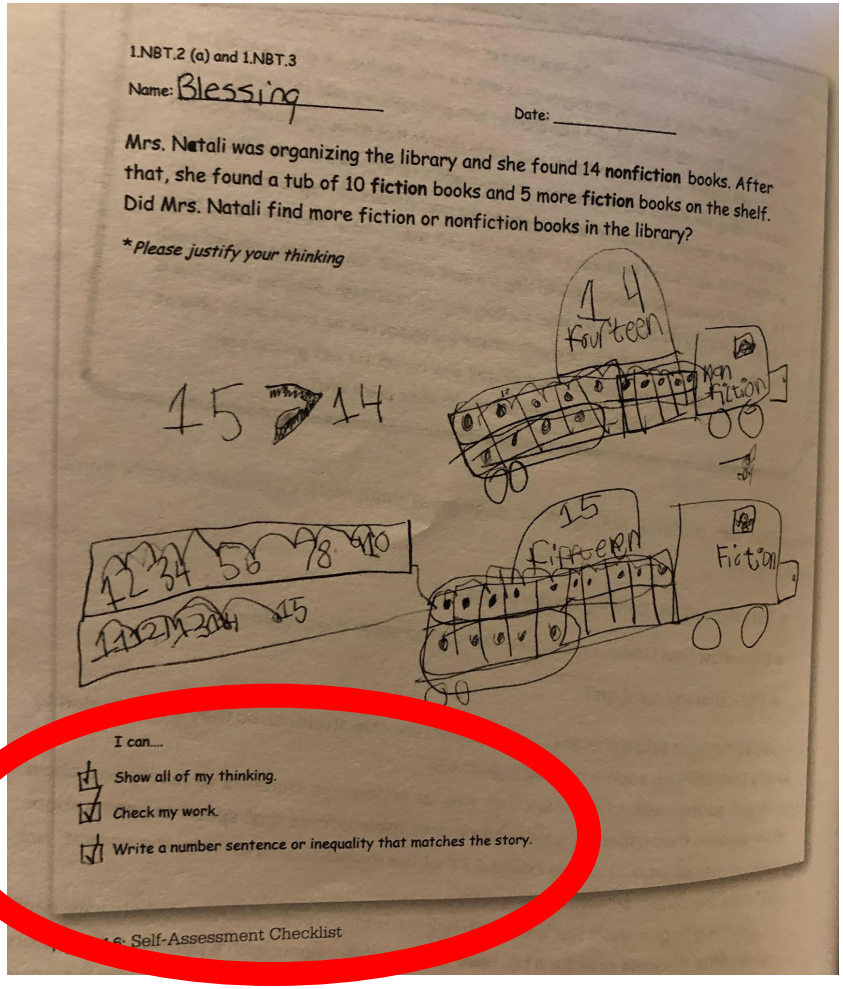
Great Minds Think Differently



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Dance, R., & Kaplan, T. (2018). *Thinking together: 9 beliefs for building a mathematical community*. Portsmouth, NH: Heinemann. pg 72.

Great Minds Think Differently

Be careful with praise.

"I really like the way you showed the way you used the cubes on your paper."

"I like how you worked hard to write the sentences that clearly explain the steps you took when you used your doubles strategy."

"This picture shows me exactly what you did to solve the problem."

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Thinking Through Questioning

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Thinking Through Questioning

Teachers questions generally fit into 3 categories

- Questions that clarify and probe for justification
- Questions that guide, challenge, and extend
- Questions that assess understanding

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Thinking Through Questioning

Questions that clarify and probe for justification-

"How did using a ___ (model) help you solve the problem?"

"What tool did you use? How did it help you?"

"What in the problem told you that?"

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Thinking Through Questioning

Questions that guide, challenge and extend-

"I saw you use a number line yesterday. Would that tool help you today? Why? Why not?"

"Do you think one strategy is more efficient that another in this problem? Explain."

"Can you create a similar problem that I can give to the class?"

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Thinking Through Questioning

Questions that assess understanding-

"Why did you use this operation?"

"I saw that some of our classmates had ____ as their answer. What do you think they did to get that answer?"

"What does the number ___ represent in the problem? Explain your thinking."

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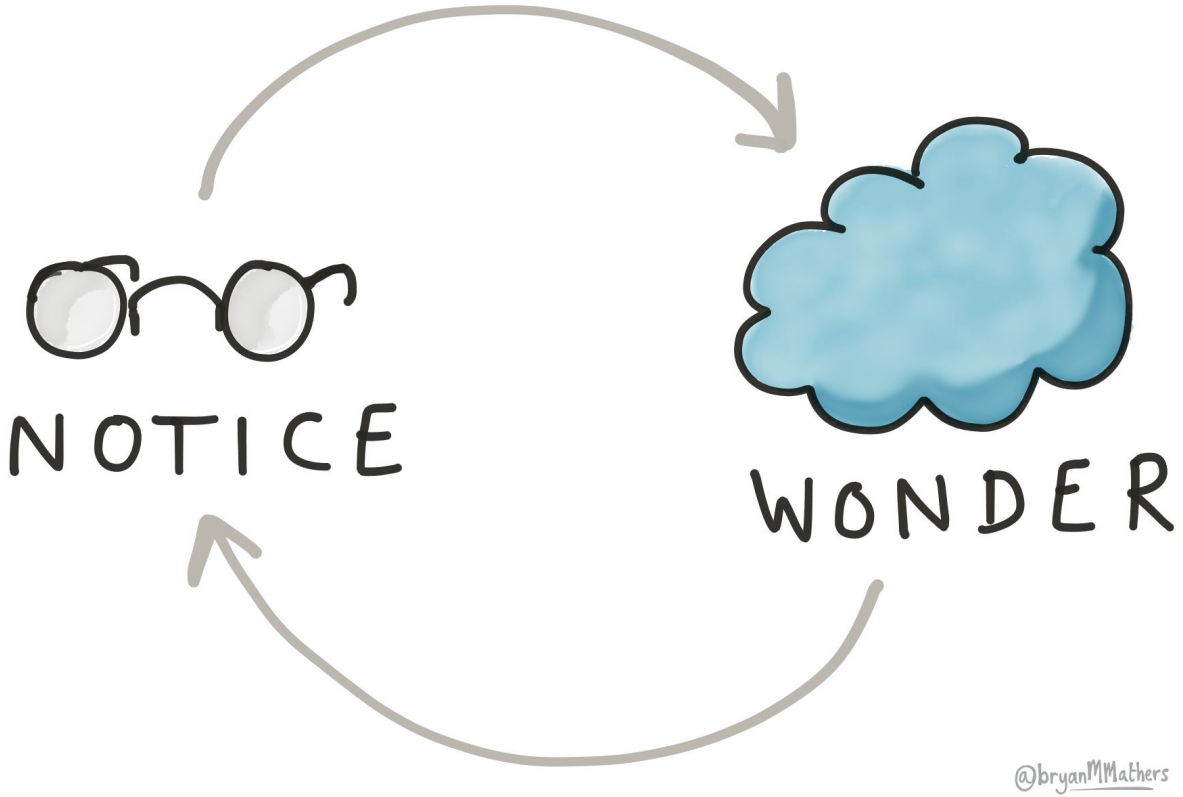
Thinking Through Questioning



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Thinking Through Questioning

Teacher Talk Moves to Encourage Questioning

- Does anyone have questions for _____?
- What questions can you ask _____ to help yourself better understand (his/her) thinking?
- Can you tell me more about ___?

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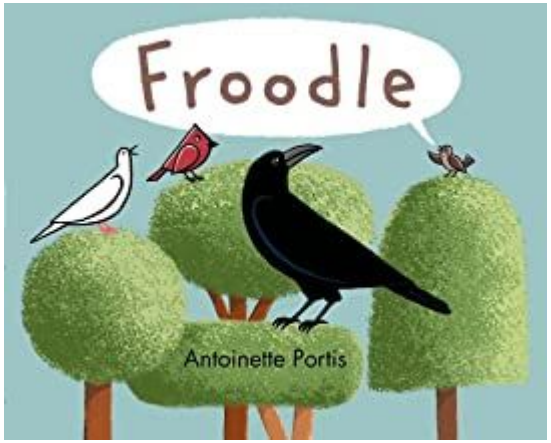
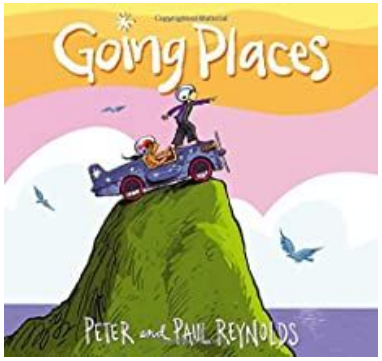
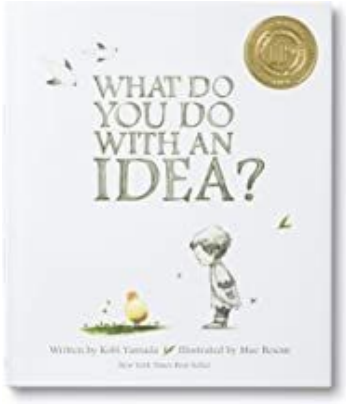
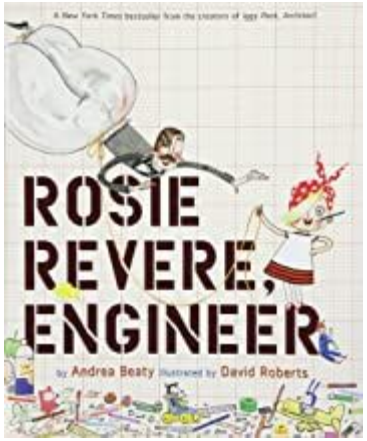
Great Minds Think Differently

Using read alouds to encourage thinking differently.









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Building Mathematical Community

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Which belief is most important to you?
Type in chat box or unmute mic and share with our friends.

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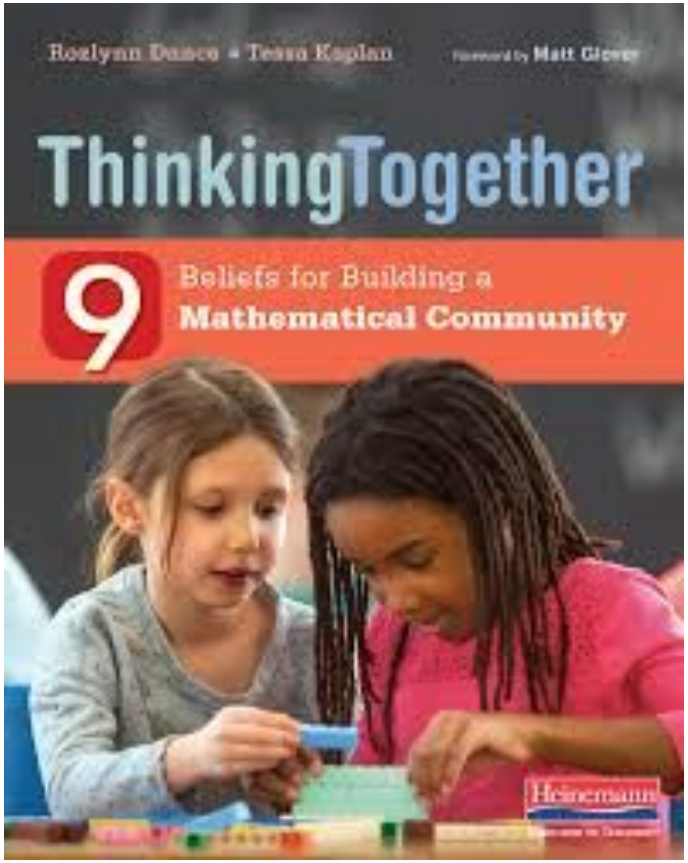

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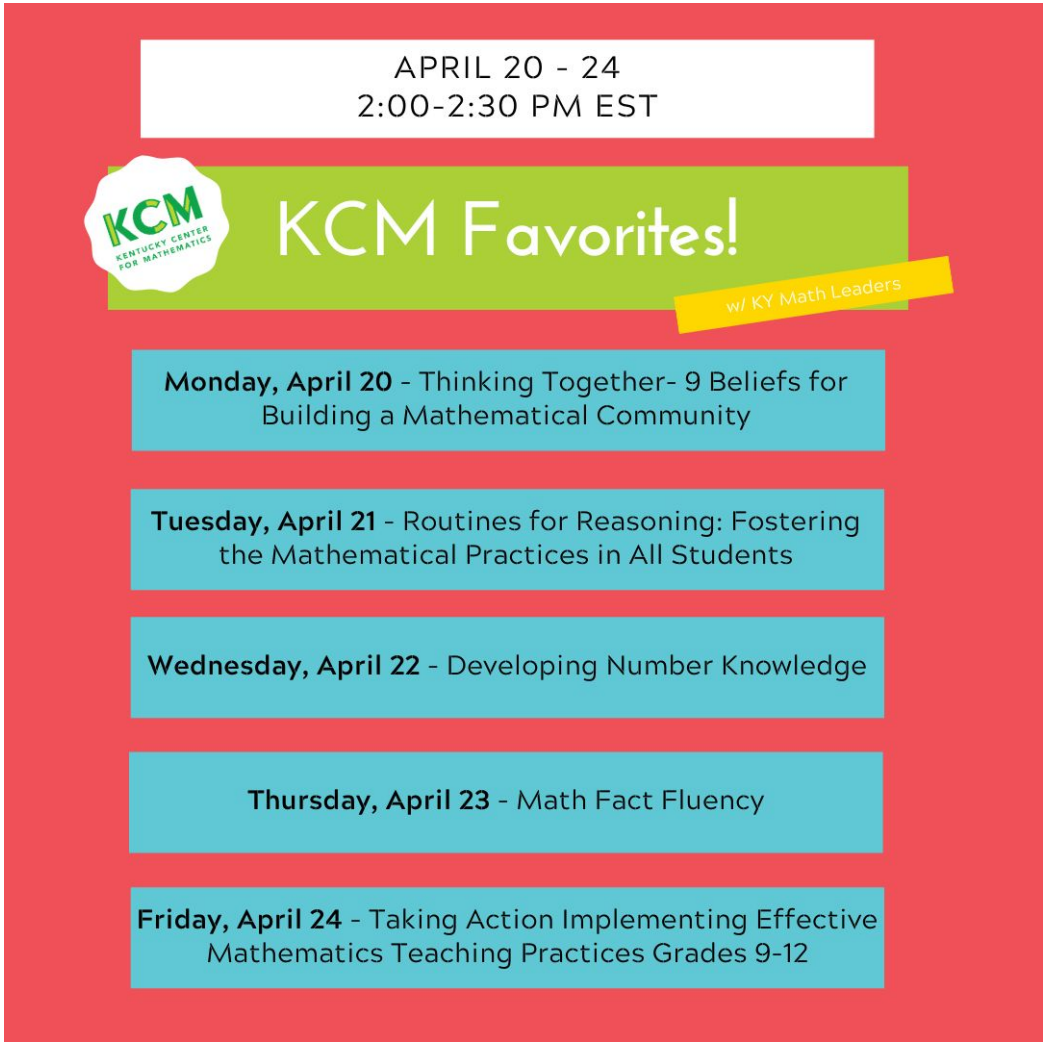

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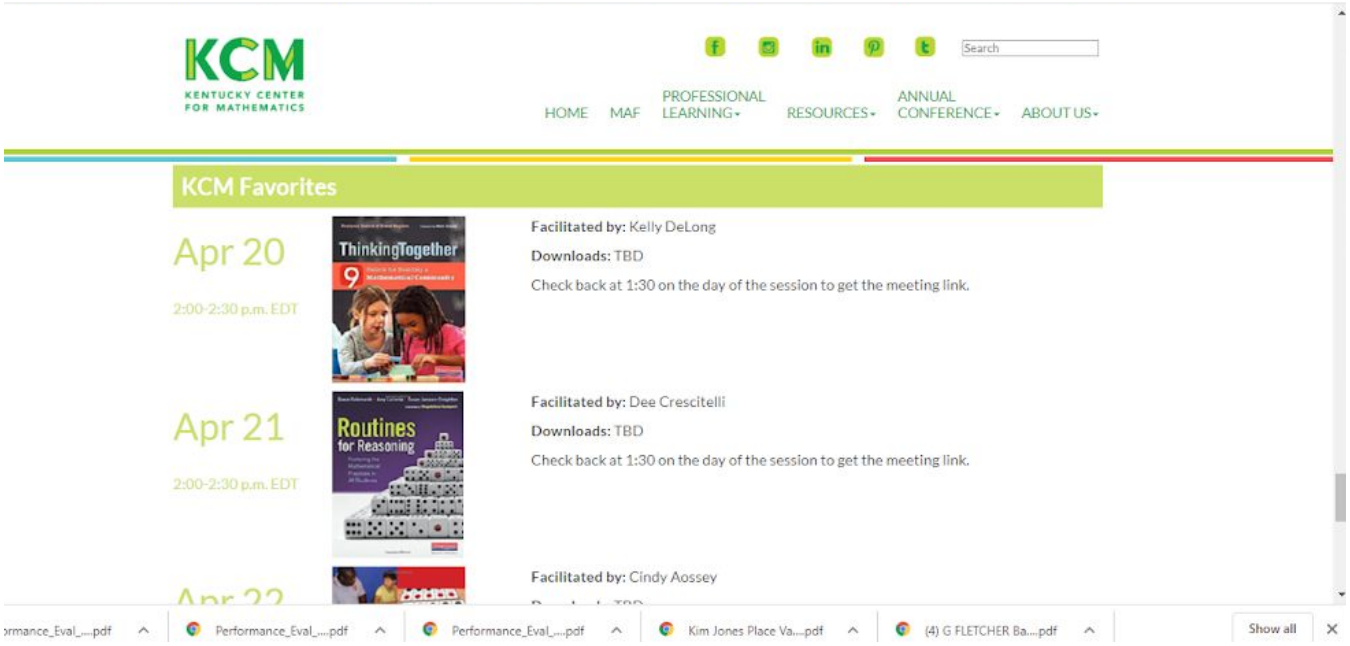

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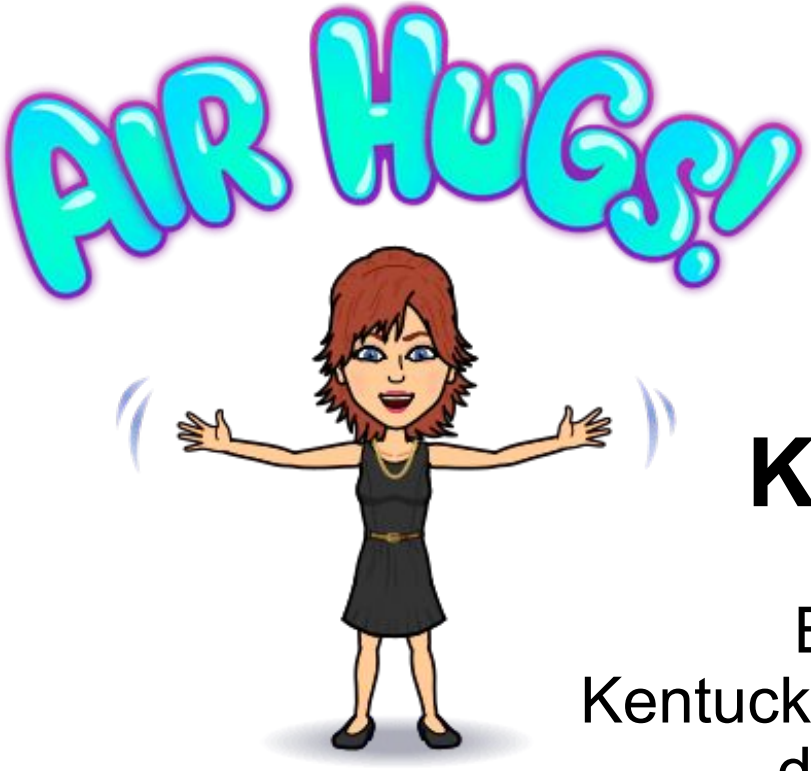

Contact me

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