



# How Number Talks Transform Mathematics Classrooms

*Transforming Mathematics Classrooms: A Leadership Academy in Colorado*

***Daily Number Talks are a classroom routine that, when enacted with fidelity, can fundamentally transform the teaching and learning of mathematics across the K-20 continuum, having an impact that extends far beyond the 15 minute bounds of the routine itself...***

We are confident that this Number Talks Leadership Academy, which is focused on the pedagogies and mathematics of Number Talks, will result in enriched mathematics classrooms, and empowered mathematical dispositions for teachers and students alike.

This project is designed to prepare local cadres of teachers and coaches to become Number Talk Support Team leaders (NTSTs). Under the guidance of Ruth Parker, Cathy Humphreys and MEC leadership, these NTSTs will learn to provide ongoing support to classroom teachers who are working to enact Number Talks in their classrooms.

Throughout the project, NTSTs will participate in a series of specially designed 2-hour Number Talks professional development (PD) sessions. They will first put the ideas to work in a classroom, and then lead these PD sessions for elementary through post-secondary teachers throughout their regions.

NTSTs will participate in Number Talks, analyze the critical aspects of the practice, and begin supporting others to enact Number Talks in classrooms. Throughout, they will experience, first hand, the potential for Number Talks to bring about fundamental shifts for both students and teachers, including the following:

- Better number sense and a stronger mathematical foundation across all student and teacher demographics, including a deeper understanding of operations on rational numbers, the arithmetic properties, and numeric, algebraic, and geometric representations of mathematical ideas.

- Shifts in classroom cultures toward students having mathematical ideas and wanting to express those ideas clearly, leading to the understanding that mathematics makes sense and that everyone can be a mathematical sense-maker;
- Students and teachers who together have developed a curiosity, a thirst for mathematical knowledge, and an understanding that considering multiple perspectives or viewpoints enhances learning for everyone involved;
- Classrooms where students have taken up their own mathematical agency, and where they are considerate and respecting of their peers because they know from experience that everyone has mathematical ideas and questions worth considering; they strive to understand and learn from the thinking of others;
- More equitable mathematics learning environments where all voices are encouraged and welcomed; safe environments where every student wants to share their perspective and voice;
- Classrooms where “talking mathematics” is the norm, and deep understanding is the goal; classrooms where curiosity and the asking of new questions keep learning relevant and vibrant.
- Once again, we are confident that your participation will have a profound and transformative impact on the teaching and learning of mathematics for students and teachers throughout your region. We hope you will want to join us in this work.

***If you are interested in sponsoring a team of Number Talk Support Team Leaders in Colorado, please contact Sandie Gilliam at [sandie.gilliam@comcast.net](mailto:sandie.gilliam@comcast.net)***

***To learn more about this project, please visit <http://www.mec-math.org/number-talks-project-colorado/>***

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