



Video - Mathematical Mindset: Transforming Middle School Mathematics Experience

Facilitator's Guide

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Activity Background

What does instruction that builds a positive math mindset look like in a classroom with middle grades students? This activity allows school-based instructional leaders to view a video of middle grades students engaging in a math task that supports building a positive math mindset and then reflect on how they can support the inclusion of similar elements in the math classes they support.

Materials

1. Participants will need a computer with internet connectivity.
2. Facilitators will need to access the slides *Mathematical Mindset: Transforming the Middle School Mathematical Experience* (includes link to video).
3. Video link: [Math Mindset: Transforming the Middle School Math Experience](#) (Click on “Full Documentary” to start the video.)

Instructions

If you intend to have a viewing party, watch the video yourself before viewing it with others.

There is always the consideration of how a video might be received by its audience that should be addressed before viewing. If you think the audience may be skeptical of content because this school is not like your school, you might consider having that conversation before viewing; that this is just one example, that we can acknowledge what is similar and what is different between our school and this example, and that it is the actions that support positive math identities in students.

At minute 17:00 the focus turns to the Teaching Fractions Toolkit (see Note below), so you might stop before, but it turns back to math identity around **minute 19:00**.

Also, **after 19:00** you may want to continue in order to listen to the administrator acknowledge that this teaching that has students working together, sharing strategies, and questioning and supporting each other is producing increased test scores.

Good math teaching results in good test scores!

Step 1 (Launch):

1. Go to the [Math Mindset: Transforming the Middle School Math Experience website](#) and download the [Viewing Guide](#).
2. Read the first paragraph and the "About the documentary" section of the viewing guide.
3. Prior to viewing the video, use the following prompts to start a discussion about what students do when math instruction is engaging and supports developing a positive math mindset.
 - a. What do you think of when you hear the term "positive math mindset"?
 - b. What do you expect to see students doing in a math class that supports developing a positive math mindset?

Step 2 (Explore):

1. Click on the "Full Documentary" link on the website to view the [Math Mindset: Transforming the Middle School Math Experience](#). View the video with your group.
2. Use the questions in the "Discussion questions" section of the [Viewing Guide](#) to reflect on your impressions from the video.
3. Reflect on how viewing the video influenced your own math mindset. If you feel comfortable, share your thoughts with the group.

Step 3 (Summary):

1. Identify two steps you will implement in the next week to support teachers and/or students develop a positive math mindset.
2. Share your steps with the others in your group.

Further Resources for Building Community:

For *building communication* between classmates in the first week of school: [NC2ML for 6-8 Classrooms](#)
[YouCubed Week of Inspirational Math](#)

For *building community* in the classroom:

[From Edutopia](#)

Note: The Teaching Fraction Toolkit referred to in the video is under development. An efficacy evaluation will be conducted during the 2024-2025 academic year. Depending on the results, the Toolkit may be available through the Illinois State Board of Education after that. The Teaching Fraction Toolkit is being developed through a partnership between the Regional Educational Laboratory (REL) Midwest and the Illinois State Board of Education and school districts in Illinois to strengthen grade 6 students' conceptual understanding of fractions and how to solve fraction computation, ratio, and rate problems. There are links below to some of the resources that are available from this project.

- Here is a link to the [Teaching Fractions Toolkit Overview Handout](#).

- Here is a link to a blog about the 6th grade Teaching Fractions Toolkit, [*The Teaching Fractions Toolkit: Equipping educators to develop effective grade 6 instruction in fractions.*](#)
- Here is a link to a blog with five recommendations for teaching fractions at the beginning of middle school, [*Five recommendations for teaching fractions at the start of middle school.*](#)
- Here is a link to the What Works Clearinghouse Practice Guide for developing effective fractions instruction, [*Developing Effective Fractions Instruction for Kindergarten Through 8th Grade*](#)