



# BetterLesson Professional Learning Webinar

Accessing and Engaging  
Student-Centered Mathematics

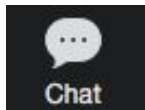


**Ohio Educational Service Center**

Date: June 3rd, 2024

Lisa Fik/Padraic O'Donnell

# Welcome!



Welcome!

Share in the chat:

- Where are you joining us from today?
- What is your current role?

# Your Hosts



**Lisa Fik**

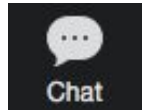
Instructional Coach



**Padraic O'Donnell**

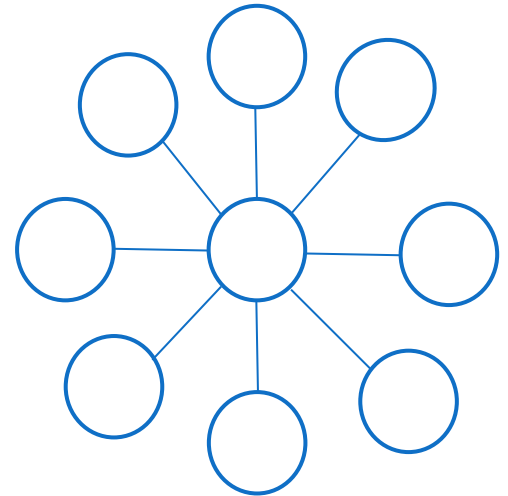
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# Welcome!

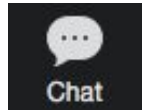


Place the numbers 1-9 in the circles so that the sum of the 3 numbers in every line is the same. You cannot use the same number twice.

Got a little more time?  
Find 2 different solutions.

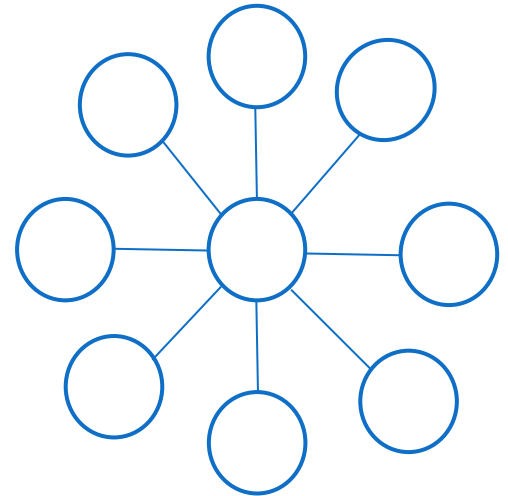


# Welcome!



**How does this problem provide access?**  
**How could you adjust it to support learners who are struggling?**

Place the numbers 1-9 in the circles so that the sum of the 3 numbers in every line is the same. You cannot use the same number twice.



Got a little more time?  
Find 2 different solutions.

# Aligned & Tailored for Ohio ESC Partnership



## Aligned

Our partnership is specifically designed to amplify the impact of other state-wide infrastructure and initiatives.

Our coaches will be familiar with key efforts, including:

- Materials Matter
- HQIM-related work streams with EdReports & Instruction Partners
- Ohio Standards for Math Practice



## Tailored

Our team has worked with leadership from the ESC of Central Ohio, OESCA, and the Department of Education to tailor our workshop, coaching, and learning walk content to the unique needs of ESC Math Specialists

# Our Series: Differentiation in a Student-Centered Math Classroom



## Goal

Examine the importance of providing grade-level, high-quality instruction while being responsive to students' diverse backgrounds and experiences

DEFINE

EXPLORE

BUILD

TRY, MEASURE, LEARN

**Equity in the math class.**

**The implementation of a strategy that provides access.**

**Ways to provide better access to grade-level math.**

# Our Webinar Series: Differentiation in a Student-Centered Math Classroom

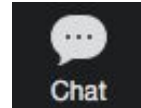
- 1 Accessing and Engaging Student-Centered Mathematics
- 2 Routines and Structures for Student-Centered Math Instruction
- 3 Differentiating for Student-Centered Mathematics
- 4 Strategies for Differentiating Math Tasks



# Let's Check In!



What does equity in math look like? Sound like?  
As a teacher, what are some strategies you use  
to ensure there is access and engagement.



It looks like... It sounds like... A strategy is...

# Define

## Equity in Math Class

# Qualities of a Powerful Math Classroom



## The Content

Students have opportunities to experience coherent and meaningful disciplinary ideas.



## Cognitive Demand

Students engage in productive struggle, grappling with challenging problems.



## Equitable Access to Content

Classroom structures invite and support active engagement of all students.



## Agency, Authority, Identity

Students provided opportunities to contribute to discussions and build on others' ideas.



## Formative Assessment

Instruction “meets students where they are” and gives them opportunities to deepen understanding.

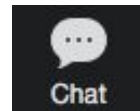
# Questions When Considering Access

- **Which students** participate and in which **ways**?
- What are the **language demands** of participating in the work? (e.g., academic vocabulary, discourse practices)
- How can we support the **development of students' academic language**?
- How are **norms** (or interactions, lesson/task structures resources, etc.) **facilitated** to support participation?
- What **teacher moves** might expand **students' access** to meaningful participation (modeling ways to participate, accountability, etc.)?

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**What word or phrase pops out for you? Why?**



Creating, supporting, and sustaining a culture of access and equity require being responsive to students' backgrounds, experiences, cultural perspectives, traditions, and knowledge when designing and implementing a mathematics program and assessing its effectiveness. Acknowledging and addressing factors that contribute to differential outcomes among groups of students are critical to ensuring that all students routinely have opportunities to experience high-quality mathematics instruction, learn challenging mathematics content, and receive the support necessary to be successful. - NCTM



Addressing equity and access includes both **ensuring** that all students attain mathematics proficiency and **increasing** the numbers of students from all racial, ethnic, linguistic, gender, and socioeconomic groups who attain the highest levels of mathematics achievement. - NCTM

# How do you strive to meet individual needs?

## Equality



## Equity







# Explore

## Experience a Strategy

## Strategies that Provide Access

- Provide multiple access points
- Provide different pathways that students can choose from
- Make connections between student approaches
- Encourage the refinement of ideas rather than critiquing incorrect ideas
- Support the use of multiple language registers (restate ideas)
- Use a variety of strategies to encourage broad participation
- Use tasks with language and contexts connected to students' experiences
- Accelerate learning by providing just-in-time support

# Let's Do Some Math!

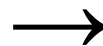
Source: Open Middle

Using the digits 0 to 9 at most one time each, place a digit in each box to create a true statement.

**Composite #**

&

**Composite #**



**Greatest Common  
Factor**



# Think, Pair, Share

## Think

Students have quiet individual time.

## Pair

Students share their response with a partner.

## Share

Students share what they talked about with their partner with the class.

**How does this strategy increase equitable participation?  
What impact might it have if one of these steps was eliminated?**



# Think, Pair, Share

## Think

Students have quiet individual time.

## Pair

Students share their response with a partner.

## Share

Students share what they talked about with their partner with the class.

**How can we make each of these more purposeful and intentional?**



# Think, Pair, Share

## Think

Students have quiet individual time.

**Ensure prompt is open-ended and elicits multiple strategies.**

## Pair

Students share their response with a partner.

**Provide sentence frames and accountability protocols**

## Share

Students share what they talked about with their partner with the class.

**As you circulate, select and sequence strategies to highlight.**

# Build

How can we make this work actionable?

# Let's Explore: Strategy Choice Board

Choose any of the sections below and explore the related BL resources & strategies.

**Activate Prior  
Knowledge**

**Notice and  
Wonder**

**Collaborative  
Learning Strategy**

**Think-Pair-Share**

**Enter the Content  
in Different Ways**

**You Do, We Do, I  
Do**



## Q & A

**What questions do you have about our conversation today?**





**We value your feedback!**

“

**Your input is important to us, please take a moment to complete our survey using the link in the chat.**

# Thank you!





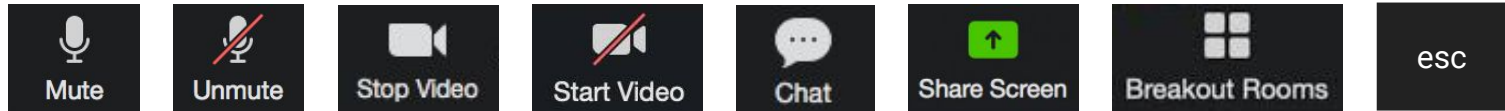




# Graphics & Callouts

# Style Guides - Zoom Icons

Please do not change the size or scale the image. Copy+paste any icons that you need and use them as they appear here.





# Style Guides - Numbers

Please do not change the size or scale of the image. Copy+paste any icons that you need and use them as they appear here.



# Style Guides - Alpha

Please do not change the size or scale of the image. Copy+paste any icons that you need and use them as they appear here.



A B C D E

# Attention Callouts - Markers

To call attention to information, use outlined box, rounded box, or arrow in yellow.

EXAMPLE:

Call out copy here

Call out copy here

Call out

Call out

Call out copy here

The screenshot shows a BetterLesson session page for "Flexible Math: Introduction to Student-Centered Mathematics Practices". The page includes a header with the BetterLesson logo, the session title, and fields for "Partner name" and "Date, time". A yellow rounded rectangle highlights the "Key Links & Resources" section, which contains a bulleted list of instructions for joining the session. Below this, the "Agenda" section is visible, featuring a table with columns for "Time", "Focus", and "Resources". A yellow outlined box highlights the "Key Links & Resources" section, and a yellow arrow points to the "Call out" text in the example.

**Key Links & Resources**

- Join the session using the Zoom link
- Check in for the session in the BetterLesson Lab
- Find the slides for this session
- Your BetterLesson Coach for this session is name, email

**Agenda**

In this session we will define "student-centered math" and explore approaches to creating student-centered learning experiences in both in-person and virtual settings.

Time	Focus	Resources
20 minutes	Welcome, Introductions & Agreements	<ul style="list-style-type: none"><li>• BetterLesson Check In  </li><li>• Find fun, math-y prompts at:<ul style="list-style-type: none"><li>◦ <a href="#">Which One Doesn't Belong</a></li></ul></li></ul>

# Attention Callouts - Icons



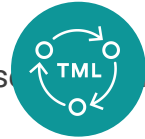
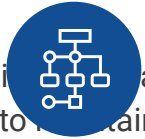
# Icons

Used for visual cues, highlighting key concepts, drawing attention to icons, and being used in the blue color. Hold Shift when resizing icons to maintain the correct aspect ratio.



# Icons

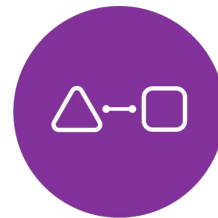
Used for visual icons. Highlight concept/idea. Law of icons. Use icons to be used. Hold S when res. Icons to maintain the correct aspect ratio.



# Additional Graphics



# Additional Graphics



**READ**

**REFLECT**

**CONNECT**



**EXPLORE**

**REFLECT**

**CONNECT**



# Teacher / Students

Teacher

Student/students

