

Implementing High Quality Math Materials

Day 1: Depth of Knowledge in Assessment



Agenda

- ❖ Norms & Goals
- ❖ Pre-Assessment
- ❖ Creating a Vision
- ❖ Crosswalk of MPS & MTP
- ❖ Depth Of Knowledge
- ❖ Standards Unpacking
- ❖ Assessment Alignment




Norms...

- ❖ Take an Inquiry Stance
- ❖ Hear All Voices
- ❖ Assume Positive Intentions
- ❖ Be Present
- ❖ Others?



Goals for Today


A decorative graphic in the top right corner consisting of a cluster of overlapping hexagons in various colors including purple, blue, teal, green, yellow, orange, red, and pink.

- ❖ Establish a shared vision for mathematics instruction
 - ❖ Create a Look-For Document by crosswalking the Math Practice Standards & the NCTM Math Teaching Practices
 - ❖ Explain the differences in the DOK levels of math tasks
 - ❖ Understand how to unpack standards
 - ❖ Identify DOK alignment of math standards and assessments
- 
- A decorative graphic in the bottom left corner consisting of a cluster of overlapping hexagons in various colors including purple, blue, teal, green, yellow, orange, red, and pink, mirroring the pattern in the top right.

Pre-Assessment



Purpose ~

- ❖ To make instructional decisions for professional development in supporting the implementation of a high quality math resource
 - ❖ To determine the value of professional development training
 - ❖ To assist teachers in reflecting on areas of strength and identify areas of growth
- 

Pre-Assessment
for Eureka Math

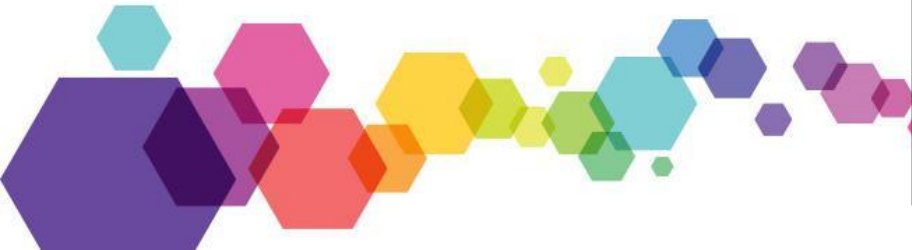
Shared Vision



Step 1: Select Aligned Math Materials

Step 2: Create a Shared Vision of Mathematics Instruction

Why?

- Engagement vs Compliance
 - Shared Understanding
 - Better Together
 - Others?
- 

Wisconsin's Vision for Mathematics

Review and reflect on your school's vision statement

Wisconsin's Vision for Mathematics



Mathematics should be experienced as coherent, connected, intrinsically interesting, and relevant



Every student must have access to and engage in meaningful, challenging, and rigorous mathematics



Problem solving, understanding, reasoning, and sense-making are at the heart of mathematics teaching and learning and are central to mathematical proficiency



Effective mathematics classroom practices include the use of collaboration, discourse, and reflection to engage students in the study of important mathematics

- *Read Wisconsin's Vision for Mathematics & Guiding Principles for Teaching and Learning Mathematics and record each key idea on a sticky note*
- *Create a summary of those ideas*
- *Craft the summary into a Vision Statement for Mathematics*



Math Practice Standards & Math Teaching Practices Crosswalk

[Math Practice Standards](#)

(Wisconsin's Standards for Mathematics)

[Math Teaching Practices](#)

(National Council of Teachers of Mathematics)

[Crosswalk Template](#)





Math Practice Standards & Math Teaching Practices Crosswalk

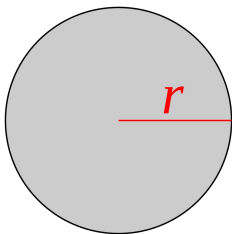
- *Review your document*
- *Identify & remove any duplicate ideas*
- *Check for consistent form & vocabulary*
- *Address questions or concerns*
- *Approve and share*



What & Why of DOK?

Tale of Two Tasks...What do you notice?

What is the circle's circumference and area when the radius is 20 units?



Which circle is bigger? Explain how you know.
Circle A or Circle B
Area = 45 sq units Circumference = 45 units

7.G.B.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

DOK Activity



DOK Level 1-Recall

DOK Level 2-Skill/Concept

DOK Level 3-Strategic Thinking

DOK Level 4-Extended Thinking

Depth of Knowledge



- ❖ Divide into four groups
- ❖ Each group choose one of the DOK levels
- ❖ Research the chosen level and create a poster with the following items...
 - Summary of Level
 - Identifying Features
 - Example Math Standard
 - Example Math Assessment



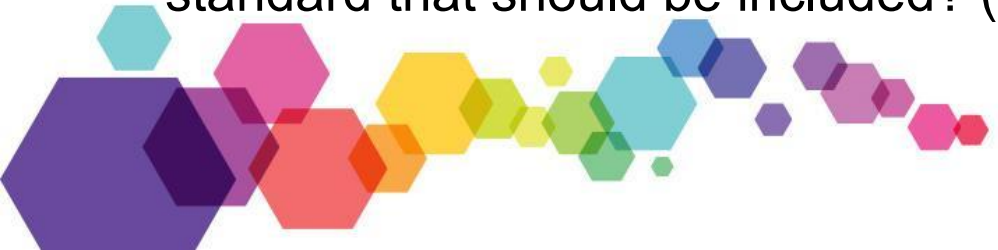
Unpacking Standards

- ❖ Choose a unit from your math resource
- ❖ Identify the math standards taught in that unit
- ❖ Choose one essential standard of those identified standards
- ❖ Use the template linked below to unpack that essential standard
 - [Unpacking Standards Template](#)
- ❖ Write learning targets based on the unpacked standard



A decorative pattern of overlapping hexagons in various colors (purple, blue, green, yellow, orange, red, pink) arranged in a diagonal line from the top right towards the center.

Examine the Learning Target

1. What would it look like to teach this target in the classroom including setting, materials, and strategies?
 2. Is the skill measurable? (Do we need to change the verb to make it more measurable?)
 3. What would the assessment look like?
 4. After examining the instructional and assessment implications, are there any targets that are IMPLICIT or not directly stated in the standard that should be included? (Previously learned skills)
- 
- A decorative pattern of overlapping hexagons in various colors (purple, blue, green, yellow, orange, red, pink) arranged in a diagonal line from the bottom left towards the center.




Assessment Alignment

- ❖ Find the assessment in your math unit that corresponds to the math standard you unpacked.
- ❖ Identify the DOK for that assessment.
- ❖ Compare the DOK of the learning targets and the math assessment from your resource.
- ❖ What did you notice? Be prepared to share.

How did we do?



- ❖ Establish a shared vision for mathematics instruction
 - ❖ Create a Look-For Document by crosswalking the Math Practice Standards & the Math Teaching Practices
 - ❖ Explain the differences in the DOK levels of math tasks
 - ❖ Understand how to unpack standards
 - ❖ Identify DOK alignment of math standards and assessments
- 

Thanks for a great day of learning!