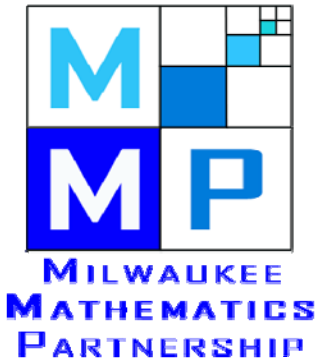
The MMP Continuum of Professional Work for Mathematics



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Building the capacity of schools for continuous improvement toward student success with challenging mathematics.

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Theory of Action

- The MMP Continuum is a roadmap to transform teaching through formative assessment practices.
- It views “change” as a developmental process for individuals, as well as for schools and districts.

MMP Continuum of Work for Mathematics

Stage 1 **Learning Targets**	Stage 2 **Align State Framework & Math Program**	Stage 3 **Common Classroom Assessments (CABS)**	Stage 4 **Student Work on CABS**	Stage 5 **Descriptive Feedback on CABS**
Understand importance of identifying and articulating big ideas in mathematics to bring consistency to a school's math program.	Develop meaning for the math embedded in the targets and alignment to state standards and descriptors and to the school's math program.	Provide a measure of consistency of student learning based on standards, descriptors, and targets.	Examine student work to monitor achievement and progress toward the targets and descriptors.	Use student work to inform instructional decisions, and to provide students with appropriate descriptive feedback.

Identified "Tools"

Stage 1 Learning Targets	Stage 2 Align State Framework & Math Program	Stage 3 Common Classroom Assessments	Stage 4 Student Work on CABS	Stage 5 Descriptive Feedback on CABS
Tools				
• Grade level lists of 9-11 big ideas per grade (the targets) • Horizontal list of targets by content across grades	• Target-descriptor alignment worksheets • WKCE Depths of Knowledge Framework • Curriculum Guides	• Curriculum Guides • Model CABS • Depth of Knowledge form • CABS Assessment Overview form • WKCE and Benchmarks student data	• MMP Protocol for Analysis of Student Work • DVD of MMP Protocol • CABS Class Summary Report form • School Improvement Plan	• Types of Feedback sheet • Descriptive feedback worksheets • CABS Class Feedback Summary worksheet

Defined "School Professional Work"

Stage 1 Learning Targets	Stage 2 Alignment of State Framework & Math Program	Stage 3 Common Classroom Assessments (CABS)	Stage 4 Student Work on CABS	Stage 5 Descriptive Feedback on CABS
School Professional Work				
• Teachers develop an awareness of district learning targets for each mathematics strand. • Teachers discuss what each learning target means and can articulate the math learning goals students are to reach. • Teachers examine the development of mathematical ideas across grade levels.	• Teachers examine alignment of state descriptors to targets. • Teachers identify the depth of knowledge in the descriptors. • Teachers study how the mathematical ideas in the descriptors are developed in the school's math program. • For each lesson, teachers inform students of the math learning goals in terms that students understand.	• Teachers select and study common CABS that will be used within a grade level. • Teachers identify math expectations of students assessed in CABS. • Teachers identify potential student misconceptions revealed through the CABS. • Learning Team and teachers examine student WKCE and Benchmark Assessment data to identify areas of strengths and weaknesses for focusing teaching and learning.	• Teachers collaborate in grade-level meetings to discuss student work and implications for classroom practice. • Teachers meet in cross grade-level meetings to discuss common expectations of student math learning and implications for school practice. • Learning Team monitors and discusses student learning on CABS results from across the school, shares observations with staff, and uses data for Educational Plan.	• Teachers collaborate to write students descriptive feedback on Benchmark Assessments and on common CABS from the curriculum guides. • Students use descriptive feedback to revise their work and improve learning. • Teachers use descriptive feedback to continuously adjust and differentiate instruction. • Learning Team monitors the successes and challenges of writing descriptive feedback and identifies professional learning needs of teachers.

Stage 1: Learning Targets

Understand importance of identifying and articulating big ideas in mathematics to bring consistency to a school's math program.

School Professional Work

- Teachers develop an awareness of district learning targets for each mathematics strand.
- Teachers discuss what each target means and can articulate math learning goals students are to reach.
- Teachers examine the development of mathematical ideas across grade levels.

Stage 3: Common Classroom Assessments

Provide a measure of consistency of student learning based on standards/descriptors and targets.

School Professional Work

- Teachers select & study common CABS to use at a grade level.
- Teachers identify math expectations assessed through CABS.
- Teachers identify potential student misconceptions.
- Learning Team and teachers examine student WKCE, Benchmark Assessment, & CABS data to identify areas of strengths and weaknesses for focusing teaching and learning.

School Self-Assessment Guide

Stage 3. Common CABS Understand importance of identifying and articulating big ideas in mathematics to bring consistency to a school's math program.	**1** **Weak** Teachers have not yet started to use CABS.	**2** **Emerging** Teachers are beginning to collaboratively study CABS to identify student math expectations and potential misconceptions.	**3** **Moving Forward** Teachers are using common CABS within grade levels and have common expectations for student performance.	**4** **Strong** Teachers regularly use common grade-level CABS and collaboratively examine student data on WKCE and Benchmarks.
Estimate the percent of teachers of mathematics (regular and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
Teachers select & study common CABS that will be used at grade level.				
Teachers identify math expectations of students assessed through the CABS.				
Teachers identify potential student misconceptions revealed through CABS.				
Learning Team and teachers examine WKCE, Benchmark, and CABS data to identify areas of strengths & weaknesses to focus teaching and learning.				

School Continuum Report

Stage	What percent of the staff is at each stage?				Plan for School Professional Work	Plan to Document Evidence of Impact on Classroom Practice or Teacher Instructional Growth
	Weak	Emerging	Moving	Strong		
Stage 1. Learning Targets						
Stage 2. Align State Framework and Math Program						
Stage 3. Common CABS						
Stage 4. Student Work on CABS						
Stage 5. Descriptive Feedback on CABS						

Learning Team Continuum of Work for Mathematics
Baseline placement for the Governor's Math Initiative

Name of School Goodrich Elementary
Grade Range K4-5
Principal Mary Zimmermann
MTL Geri Volkert
MTS LuAnn Pruske

Number of regular education teachers who teach math: 19
Number of special education teachers who teach math: 5

For each Stage of the Continuum, indicate your school's current status and plans for developing the stage and documenting its impact.

Continuum Stage	What percent of the staff is at each stage?				Plan for School Professional Work	Plan to Document Evidence of Impact on Classroom Practice
	Weak	Emerging	Moving	Strong		
Stage 1. Learning Targets		5%	5%	90%	Teachers will look at the development of the mathematical ideas across grade levels paying close attention to the grade level above and below their grade level and where the Everyday Math curriculum fits in and use the curriculum pacing guides as a resource.	Teachers summit summaries to the principal when meeting in their grade level groups and MTL will also have a summary when used as a professional development activity.
Stage 2. Align State Framework and Math Program			5%	95%	At grade level meetings / after school sessions teachers will simplify targets and descriptors to be posted for the students during the math lessons. Teachers will look at the targets for the grades below and above their grade level to further their understanding of the big math ideas.	Students will be able to verbalize the targets / descriptor or they will be posted in the classroom for an outside observer .(principal)
Stage 3. Common CABS	10%	50%	40%		Grade levels will meet to plan the use of CABS on a regular basis/ at least once per unit for Everyday. MTL will conduct in-services with the staff to familiarize the staff with the CABS and to open the discussion on the big mathematical ideas and the depth of knowledge assessed by the CABS (district CAB or teacher generated)	Sample of common cabs will be used on a regular basis by the grade level team and given to the MTL to be shared with the learning team.
Stage 4. Student Work on CABS	20%	80%			Grade levels will analyze and discuss student work and use the CABS summary reports to help plan for future lessons to clarify and address any misconceptions or lack of understanding discovered while reviewing the student work.	CABS summary reports will be turned in to the MTL to be shared with the learning team and used to develop strategies for the Education Plan.
Stage 5. Descriptive Feedback on CABS	90%	10%			Grade levels especially the Kindergarten, 1st and second grades will receive in-services on the writing of descriptive feedback for common CABS used by the grade level. Grades 3-5 will continue to work together to write descriptive feed back on Math CABS.	Examples of descriptive feedback as well as the district CABS or teacher generated CABS will be periodically collected and shared with the learning team.

Based on the above, the school will begin with a focus on Stage 3 (indicate stage)
(This must be verified by the MMP Accountability Administrator.)

Signatures: Date 11/17
Principal Mary L. Zimmermann
MTL Geri Volkert
MMP Accountability Administrator

K-8 Schools at Each Stage

	n	Stage 1 Learning Targets	Stage 2 Alignment State & Program	Stage 3 Common CABS	Stage 4 Student Work	Stage 5 Descriptive Feedback
Year 1 2003-04	101	38%	53%	9%	0%	1%
Year 2 2004-05	97	18%	34%	38%	5%	4%
Year 3 2005-06	89	13%	26%	41%	18%	2%
Year 4 2006-07	109	11%	26%	39%	18%	6%
Year 5 2007-08	113	20%	32%	32%	14%	2%
Year 6 2008-09	113	3%	8%	39%	30%	20%

High Schools at Each Stage

	n	Stage 1 Learning Targets	Stage 2 Alignment State & Program	Stage 3 Common CABS	Stage 4 Student Work	Stage 5 Descriptive Feedback
Year 4 2006-07	20	50%	25%	25%	0%	0%
Year 5 2007-08	22	26%	32%	21%	16%	5%
Year 6 2008-09	22	0%	5%	56%	26%	16%

The MMP Continuum is the backbone and roadmap of our efforts. This document outlines the MMP initiatives and connects those initiatives to formative assessment strategies, along with our school improvement plan.

The strongest influence the Continuum has had on our math teachers is that is provides us with coherence in our approach to improving student achievement, beginning with alignment and ending with analyzing student work as a school. This helps to bring the issue of math achievement to a school level concern, not only one of math teachers alone.

- *James Edler, MTL, Lincoln Center of the Arts*

Thank you

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