Milwaukee Mathematics Partnership (MMP)
Continuum of Professional Work for Mathematics

Stage 1 Learning Targets	Stage 2 Align State Framework and 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.
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.	**School Professional Work** • 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.	**School Professional Work** • Teachers select and study common CABS that will be used within a grade level. • Teachers identify math expectations of students assessed through the 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.	**School Professional Work** • 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.	**School Professional Work** • 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 successes and challenges of writing descriptive feedback and identifies professional learning needs of teachers.
Tools • Grade level learning targets listing 9-11 big ideas per grade • Horizontal list of targets by content across grades • Comprehensive Mathematics Framework (CMF)	**Tools** • WALT Lesson planning with formative assessment principles • Types of questions for supporting math learning goals • Target-descriptor alignment worksheets • WKCE Depths of Knowledge Framework • Curriculum pacing guides	**Tools** • Curriculum Pacing Guides • District Model CABS • Depths of Knowledge worksheet • Assessing the Assessment CABS Assessment Overview worksheet • WKCE and Benchmark Assessments student data	**Tools** • MMP Protocol for Analyzing Student Work • DVD of MMP Protocol • CABS Class Summary Report • School Improvement Plan	**Tools** • Types of Feedback sheet • Descriptive feedback worksheets • CABS Class Feedback Summary worksheet

Milwaukee Mathematics Partnership Continuum of Professional Work for Mathematics: School Self-Assessment Guide					

This school self-assessment should be completed as a group by a school's Learning Team and/or other leadership staff members.

Stage 1. Learning Targets 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 or barely started to study or use learning targets.	**2** **Emerging** Teachers are beginning to unpack and consider value and use of targets.	**3** **Moving Forward** Teachers can articulate learning goals for their students.	**4** **Strong** Teachers can articulate learning goals for students and growth across grades.
Estimate the percent of teachers of mathematics (general and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
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.				

If the majority of teachers are at the *Weak* or *Emerging* level, then your school's **entry point** is **Stage 1.** Strategies and data should be incorporated in your school's Math Action Plan to support the MTL moving the school to master *Stage 1* and move to *Stage 2*.

Stage 2. Align State Framework and 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.	**1** **Weak** Teachers have not yet or barely started to consider alignment.	**2** **Emerging** Teachers are studying alignment of targets to the State Framework descriptors.	**3** **Moving Forward** Teachers are studying how the school's math program is aligned to targets and descriptors.	**4** **Strong** Teachers use targets to guide daily instruction and inform students of learning goals.
Estimate the percent of teachers of mathematics (general and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
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.				

If the majority of teachers are at the *Weak* or *Emerging* level and your school has made sufficient progress on Stage 1, then your school's **entry point** is **Stage 2.** Strategies and data should be incorporated in your school's Math Action Plan to support the MTL moving the school to master *Stage 2* and move to *Stage 3*.

| Stage 3. Common Classroom Assessments (CABS) Provide a measure of consistency of student learning based on standards/descriptors and targets.	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 (general and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
Teachers select and study common CABS that will be used within a grade level.				
Teachers identify math expectations of students assessed through the 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.				

If the majority of teachers are at the *Weak* or *Emerging* level and your school has made sufficient progress on Stage 2, then your school's **entry point** is **Stage 3.** Strategies and data should be incorporated in your school's Math Action Plan to support the MTL moving the school to master *Stage 3* and move to *Stage 4*.

Stage 4. Student Work on CABS Examine student work to monitor achievement and progress toward the targets and descriptors.	1 Weak Teachers have not yet started to analyze student work on CABS together.	2 Emerging Teachers are beginning to analyze student work on CABS together within a grade level.	3 Moving Forward Teachers analyze student work on CABS and Benchmarks in grade- and cross-grade groups.	4 Strong Teachers regularly analyze student work together and report results to the Learning Team.
Estimate the percent of teachers of mathematics (general and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
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.				

If the majority of teachers are at the *Weak* or *Emerging* level and your school has made sufficient progress on Stage 3, then your school's **entry point** is **Stage 4.** Strategies and data should be incorporated in your school's Math Action Plan to support the MTL moving the school to master *Stage 4* and move to *Stage 5*.

Stage 5. Descriptive Feedback on CABS Use student work to inform instructional decisions, and to provide students with appropriate descriptive feedback.	1 Weak Teachers are not yet aware of nor have studied different types of feedback.	2 Emerging Teachers are beginning to collaborate to study and write descriptive feedback on student work.	3 Moving Forward Teachers provide students with descriptive feedback in regard to learning goals.	4 Strong Teachers provide timely descriptive feedback on learning goals and allow student revision toward improved learning.
Estimate the percent of teachers of mathematics (regular and special education) that are at each position.				
Stage Descriptors	**Summary Statements and Planning Ideas**			
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.				
Learning Team monitors the successes and challenges of writing descriptive feedback and identifies professional learning needs of teachers				

If the majority of teachers are at the *Weak* or *Emerging* level and your school has made sufficient progress on Stage 4, then your school's **entry point** is **Stage 5.** Strategies and data should be incorporated in your school's Math Action Plan to support the MTL moving the school to master *Stage 5* and move to *Stage 6 (yes, it does continue!).*
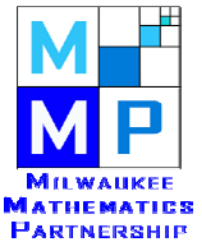
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Continuum of Professional Work for Mathematics

Name of School _____

Grade Range _____

Principal _____

Number of regular education teachers who teach math: _____   MTL _____

Number of special education teachers who teach math: _____   MTS _____

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**						
Stage 2. **Align State Framework and Math Program**						
Stage 3. **Common Classroom Assessments (CABS)**						
Stage 4. **Student Work on CABS**						
Stage 5. **Descriptive Feedback on CABS**						

Signatures: Principal _____ Date _____

Based on the above, the school will focus on Stage _____   MTL _____ Date _____

MPS Math Specialist _____ Date _____

Math Teacher Leader Goals

Name of School _____

Principal _____

MTL _____

MTS _____

Keep in mind the "5 Big Strategies" that should guide the work of a MTL:

1. Teachers will know how the math curriculum aligns with the Learning Targets and Wisconsin State Assessment Framework and use the alignment to focus teaching.
2. Common CABS and other formative assessments will be consistently administered at each of the grade levels ("smaller" and "more frequent" assessment strategies).
3. Teachers and other instructional staff will develop (and learn) more descriptive feedback techniques to assess students' work and to engage students in using the feedback to revise work and improve learning, particularly regarding CABS and the constructed response items on the Benchmark Assessments.
4. Math teachers and leaders will analyze data from the Benchmark Assessments and constructed response problems and use it to inform school and classroom practice.
5. The school will develop a portfolio system for teachers to use to analyze student learning over time and to document progress toward attainment of targets/descriptors.

Indicate the specific goals that will guide the work of the MTL for your school and how you will document evidence of progress toward the goals.	Anticipated Next Steps and Professional Work

Signatures: Principal _____ Date _____

MTL _____ Date _____

MPS Math Specialist _____ Date _____