TCDSB K to 12 Professional Learning Form 2015-2016

SCHOOL NAME	St. Mary	Sup. Area	☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐ Monsignor Fraser Principal Name:

Based on analysis of the data, in collaboration with staff identify a <u>critical need</u> area or strategy that addresses the learning of your <u>school community</u> (i.e., assessment, problem solving, inquiry learning, learning skills, etc.)

BACKGROUND – DATA ANALYSIS

Student Achievement Data (EQAO, CAT4, etc.)	Perceptual Data (Survey data, School Climate, etc.)	Demographic Data (N tiles, etc)	Program Data (Empower, 5th Block, Taking Stock, etc.)	Other (SSLN, SSI, EDI,etc.)
-Mathematics (Problem Solving) scores on CAT4 been stagnant for the last two years -EQAO scores for grade 6 Number Sense have been around 50 for the past 3 years	- large number of immigrant parents who want to help their children with mathematics but don't necessarily have the language comprehension to do so	- children coming from Ontario Housing and some coming high end housing	-Empower decoding had 6 students - Empower comprehension had 4	-math coach worked with grade 6- 8 teachers

From the data, what key factors are identified for increasing Student Achievement?	Mathematics (Problem Solving) scores on CAT4 have remained consistently low the past 3 years

URGENT CRITICAL NEED	*Explain … what are the student learning problems we need to solve? Professional learning focus for this year.* **Students lack strategies to solve problems in multiplication**

PROFESSIONAL LEARNING PLAN TO MEET URGENT CRITICAL NEED:

Collaborative Inquiry Question (What is the problem of practice?)	**How do we support students in the process of developing strategies to solve problems in multiplication?**

If… Then… Statement:	**If** teachers assist students to recognize and identify different problem solving strategies in multiplication **then** they will be able to build their own repertoire of strategies to use when solving multiplication problems.
Learning Goals (related to urgent critical need)	To help students develop strategies to solve problems in multiplication
Actions/Interactions (What will we do to meet our goals?)	Teachers familiarize themselves with different multiplication strategies; Teachers solve multiplication problems using different strategies; Teachers collaborate with other teachers to identify different multiplication strategies used in solutions; Teachers purposely select questions that elicit various solutions; Teachers give students opportunities to solve multiplication problems in different ways; Teachers identify and name the strategies used by students to solve multiplication problems;

	Teachers expose students to other strategies if students are limited to only one strategy; Collect student solutions that show different strategies; Teachers challenge students to identify and name strategies;
PD Required for Staff	Study multiplication content to develop a deep understanding of multiplication; Recognize and identify different multiplication strategies; Understand the different representations of multiplication (e.g. concrete, algebraic, etc.) Create professional community to analyze student solutions; Study the trajectory and sequence of multiplication; Co-plan a multiplication lesson and choose an appropriate multiplication problem that can be solved using a variety of strategies; Co-teach a multiplication lesson to recognize and identify multiplication strategies in student solutions; Analyze how multiplication strategies evolve; Share and Analyze evidence that support learning goal and "if" "then" statement; Reflect on learning goal and "if" "then" statement and show evidence of success criteria;
Measures/Evidence of Success	Analysis of student work; Pre and post assessments; Students' ability to communicate their understanding of multiplication (triangulation of data: conversation, observation, product); Students' ability to justify their thinking;
Resources Required (human, material, code days)	Young Mathematicians at Work: Constructing Multiplication and Division by Catherine Twomey Fosnot and Maarten Dolk Classroom Discussions: Using Math Talk to Help Students Learn by Suzanne Chapin et al Big Ideas by Marian Small Making Math Meaningful by Marian Small Good Questions: Great Ways to Differentiate Mathematics Instruction by Marian Small Monographs (MOE) Code Day 1: Understanding Multiplication and Trajectory Code Day 2: Understanding Various Representations of Multiplication and Planning Session: Co-plan and Co-teach Code Day 3: Co-Teach; Reflect and analyze student work Code Day 4: Assessments

Please send the completed copy to your Area Superintendent with a copy to N. D'Avella (Secondary) D. Koenig (Elementary) by September 25, 2015.

Questions to Consider:

- Are we being collaborative in our decision making?
- Are we improving instructional leadership in our school?
- How are all stakeholders involved in the Professional Learning Plan?
- Does the plan build capacity amongst our staff related to student need?
- Are we using high yield instructional strategies? What does research say about this student learning problem?
- Have we increased the amount and quality of learning related to our student need?