

TCDSB K to 12 Professional Learning Form 2017-2018

SCHOOL - Prin - Sup	St. Nicholas of Bari Catholic School – Ms. A. Arciero – Mr. J. Wujek
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Based on analysis of the data, in collaboration with staff identify a critical learning need area or strategy that addresses the learning of your school community (i.e., numeracy, 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, 5 th Block, Taking Stock, SSI, etc.)	Other (SSLN, EDI, etc.)
<p>-Mathematics (Problem Solving) scores on CAT4 have dropped in the past 3 years;</p> <p>-EQAO scores for Grade 3s have seen steady progress in the past three years;</p> <p>-EQAO Literacy scores for Grade 6s have been stagnant in the past 3 years; and</p> <p>-EQAO Numeracy scores for Grade 6s have dropped in the past 3 years.</p>	<p>- 94 ELL students receiving support;</p> <p>- large number of immigrant parents who are not able to engage in their children’s learning;</p> <p>-132 existing IEPs; and</p> <p>-14 identified high needs SE students (6 ASD, 1 ME, 1 MID, 1 GDD, 2 DHH & 3 ASD pending).</p>	<p>- 20% of students were born outside Canada;</p> <p>-61% of students speak a language other than English, predominantly Portuguese, at home;</p> <p>- 36% of families with parents who have not completed a high school diploma;</p> <p>- 27% of students live in a lone parent family; and</p> <p>-30% of students part of a family renting its home.</p>	<p>- 5th Block has 2 groups of 6 students per term receiving decoding support;</p> <p>- Empower Decoding has 8 students receiving decoding support during the year;</p> <p>-Empower Comprehension has 8 students receiving comprehension support during the year; and</p> <p>-On Your Mark Tutoring Program hopes is servicing 6 students at this time.</p>	<p>-Gr. 3 & Gr. 6 Afterschool Numeracy Program in 2016-2017;</p> <p>-Numeracy Coach continues to work with Grade 6 students and teachers;</p> <p>-Renewed Math Strategy Initiative in-services for 4 Primary teachers re: Mathology; and</p> <p>-Grades 7 & 8 teachers will be participating in a Math-based SSLN.</p>

URGENT CRITICAL LEARNING NEED Explain in 140 characters or less ... student learning problems to solve - Professional learning focus for this year.	Students need to develop the understanding of how to solve multi-step Math problems using Math vocabulary and application/thinking strategies.
From the data, what learning conditions will support increased achievement?	<p>- Learning goals, success criteria and providing descriptive feedback are key strategies to improve student achievement; and</p> <p>- Consistent use of Math language/terms and application/thinking problem solving strategies across all the divisions.</p>

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 deconstruct, understand and solve Math problems while also building independence?
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If... Then... Statement:	If teachers assist students in developing strategies to deconstruct and simplify Math problems, then students will be able to apply and demonstrate problem solving strategies and build towards independence.
Learning Goals (related to urgent critical learning need)	<ul style="list-style-type: none"> - Use consistent Math vocabulary across all divisions; - Use accurate Math vocabulary/terms; - Identify at risk students/students to watch; - Differentiate instruction based on student needs; - Develop deconstruction strategies; - Use supplemental resources (PRIME, Mathology and Rich Tasks/Real Life Situations) in addition to Nelson Math; and - Practise questions from previous EQAO years.
Marker groups that will receive intervention (subgroups e.g., achieving at 2.5-2.9, Applied, gender, Grade(s), etc.)	<ul style="list-style-type: none"> - Mid-level 2 to low level 3 students in all classes as per PRIME; - Specific interventions for target group(s) of Grade 3 students; and - Small Grade 6 target group(s) working with Math Coach.
Actions/Interactions (What will we do to meet our goals?)	<ul style="list-style-type: none"> - Continue to build Math Walls using Math vocabulary and conceptual diagrams; - Use Math Talk with students regularly; - Use 10-15 minutes daily during Math lessons for consolidation/success criteria; - Continue to use Application and Thinking Problem Solving Questions in Math program regularly; - Focus on problem solving vs. Problem of the Week; - Continue use of Assessment for Learning; - Teachers embed the use of technology in problem solving activities (e.g., Prodigy Khan Academy, Mathies, KnowledgeHook); and - Teachers work with Numeracy Coach and Numeracy Resource Teacher to support teaching and learning of strategies.
What professional learning have you engaged in (or will you engage in) to ensure that culturally responsive pedagogy is embedded in teaching and learning?	<p>-Staff PD with Brian Murray and Bart Vanslack on:</p> <ul style="list-style-type: none"> • the use of PRIME as a diagnostic tool to determine and address gaps in Numeracy; • implementation of Mathology series K – 3; and • strategies using rich tasks and real life situations to teach through problem solving.
Strategies to address the needs of students who have an IEP or are ELL	<ul style="list-style-type: none"> - 1:1 instruction; - Small group instruction; - Buddy system; - Use of visuals and manipulatives; - Use of Math related technology, websites, and apps such as Prodigy, Khan Academy, Mathies and KnowledgeHook; - Highlighting and/or underlining important Math words/terms; - Bansho; - Modeling; - Scaffolding; and - Gradual release of responsibility.

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<p>PD Required for Staff</p>	<ul style="list-style-type: none"> - Develop an understanding of how to use PRIME to analyze gaps in Mathematics; - Develop a deeper understanding of application/thinking strategies to solve multi-step Math problems; - Develop a deeper understanding of the vocabulary/terms that can assist with deconstruction and elicit multi-step solutions; - Co-plan/co-teach/moderated marking to identify strategies used by students to deconstruct questions and solve problems; - Share and analyze evidence that supports the learning goal and the “if” “then” statement; and - Reflect on learning goal and “if” “then” statement and show evidence of success criteria.
<p>Measures/Evidence of Success to be used</p>	<ul style="list-style-type: none"> - Analysis of student work; - Pre- and post- assessments; - Variety of assessments: diagnostic, formative (assessment for, of and as learning) and summative; - Students’ ability to communicate their understanding of deconstruction and multi-step problem solving strategies (e.g., Math talk/prompts, use of manipulatives, technology); - Students’ ability to justify their thinking/prove their answers using a variety of strategies (e.g., estimating, inferencing, predicting); - Effective use of success criteria; - 2016-2017 Primary & Junior EQAO; and - Data from DIP and PRIME.
<p>Resources Required (human, material, #code days)</p>	<ul style="list-style-type: none"> - <u>Big Ideas</u> by Marian Small; - <u>Making Math Meaningful</u> by Marian Small; - <u>Good Questions: Great Ways to Differentiate Mathematics Instruction</u> by Marian Small; - <u>ONAP</u>; - <u>Leaps and Bounds</u>; - Nelson’s <u>PRIME</u>; - <u>What to Look for</u> by Alex Lawson; - <u>Taking Shape</u> by Joan Moss - JUMP Math; - Math Manipulatives; - Technology-software programs and websites; - TVO Math Homework website; - Professional Learning: http://www.edugains.ca/newsite/math/prolearning.html; - Asking Effective Questions: http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf; - http://www.edugains.ca/newsite/math/resourcecollects.html - 21 Code Days for Professional Development (understanding and implementing PRIME, deconstruction strategies, types of questions and multi-step problem solving strategies using rich tasks and real life situations); - Math Coach to share strategies and support Grade 6 teachers; and - 4 Code Days for K-3 teachers to attend Mathology workshops with Math Resource Teacher.