

TCDSB K to 12 Professional Learning Form 2017-2018

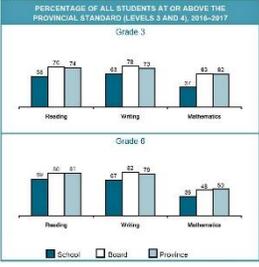
SCHOOL - Principal - Superintendent	St. Matthew Catholic School (Area 3); Principal: Luigi Pennacchio; Vice-Principal: Paul di Nizio; Superintendent Michael Caccamo
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Based on analysis of the data, in collaboration with staff identify a critical learning 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>- Low mathematics and computation scores on CAT4, 2016-2017:</p> <p>-Grade Two: 52nd and 52nd percentile respectively.</p> <p>-Grade Five: 52nd and 39th percentile respectively.</p> <p>-Grade Seven: 71st and 52nd percentile respectively.</p> <p>-EQAO, 2016-2017: Grade Three: 37% of students achieved</p>	<p>-Safe and Caring Catholic School Climate Survey, 2017 (Completed by 97 Grade 6 students and Grade 8 students, June 2017.)</p> <p>- 31% born outside of Canada</p> <p>-41% speak a language other than English in the home</p> <p>- 17% love school</p> <p>- 47% like school</p> <p>- 17% dislike school</p> <p>- 17% don't care or no response</p> <p>-70% believe it is very important to do well in school.</p> <p>-Students do not receive significant homework help outside of the school.</p> <p>-EQAO survey for 2016-2017 reported that, for the most part, students do like math:</p>	<p>-Total student population: approximately 560</p> <p>-72% of students born in Canada.</p> <p>-41% speak English in the home.</p> <p>-42% speak another language in the home.</p> <p>-20% of students are English Language Learners:</p> <p>-20% of students were absent for ten days or more.</p> <p>-32% of parents do not have a high school education.</p> <p>-Median Family income \$61,560</p> <p>-St. Matthew has been identified, by the Early Development Institute, the Board and the Ministry of Education, as a school in need of focused support to ensure student success.</p>	<p>-105 students have Individual Education plans.</p> <p>-Special Education classes in reading and mathematics in the Primary, Junior and Intermediate levels.</p> <p>-English as a Second Language classes in the Junior and Intermediate levels; some remedial mathematics help provided.</p> <p>-Remedial language help provided by French teachers.</p> <p>-Fifth Block for grade one and grade two students.</p> <p>-St. Matthew, under the provincial government's Revised Math Strategy, has been identified as an</p>	<p>-St. Matthew has a student population of approximately 560 students from FDK to grade 8.</p> <p>-It has a staff of 59; of which 37 are teachers.</p> <p>-As well, the school has a daily Italian and Portuguese heritage language program.</p> <p>-The 2010-11 Early Development Instrument (EDI) Report for Senior Kindergarten Students and Social Risk Index (SRI) reported that in the survey area, the St. Matthew neighbourhood has significant "percentage of children identified as having multiple challenges."</p>

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<p>the provincial standard (a drop of 6% from previous assessment. Grade Six: 36% of students achieved the provincial standard (an increase of 17% from previous assessment).</p>  <p>Grade 3</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>School</th> <th>Board</th> <th>Province</th> </tr> </thead> <tbody> <tr> <td>Reading</td> <td>53</td> <td>71</td> <td>74</td> </tr> <tr> <td>Writing</td> <td>43</td> <td>78</td> <td>72</td> </tr> <tr> <td>Mathematics</td> <td>27</td> <td>43</td> <td>52</td> </tr> </tbody> </table> <p>Grade 6</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>School</th> <th>Board</th> <th>Province</th> </tr> </thead> <tbody> <tr> <td>Reading</td> <td>46</td> <td>50</td> <td>51</td> </tr> <tr> <td>Writing</td> <td>47</td> <td>52</td> <td>70</td> </tr> <tr> <td>Mathematics</td> <td>33</td> <td>45</td> <td>50</td> </tr> </tbody> </table> <p>-The Item Information Reports for Grade Three and Grade Six students, which analyze questions answered by math strand, indicate a weakness in all five math strands. They indicate a drop in performance by grade seven students when compared to their grade three counterparts. In none of the strands was the provincial standard (75% of students at Level 3) met.</p> <p>-This is borne out by EQAO's tracking of grade three and grade six students who wrote the primary-division</p>	Subject	School	Board	Province	Reading	53	71	74	Writing	43	78	72	Mathematics	27	43	52	Subject	School	Board	Province	Reading	46	50	51	Writing	47	52	70	Mathematics	33	45	50	<p>-58% of grade three students like math most of the time. -28% of grade three students like math some of the time. -52% of grade six students like math most of the time. -31% of grade six students like math some of the time.</p> <p>-The staff of the school will continue to work on promoting "Yes, I can!" mindset among the students.</p> <p>-This is a mindset that extolls a belief in students that the can achieve success in all they do, but especially in mathematics and language.</p> <p>-The Safe and Caring Catholic School Climate Survey, 2017 reported that 64% of students love or like school, but it also indicated that 77% of the students believed that the adults in the school community have high expectations for them. The staff of the school, therefore, will continue to encourage each student to succeed</p>	<p>-The school staff will encourage student achievement by promoting a "Yes, I can!" mindset among students, and by applying diagnostic tools and methodologies, and related pedagogical strategies, to address student needs, especially in the teaching of number sense.</p>	<p>Intensive Support School in mathematics.</p> <p>-As a result it receives the following help: a math facilitator for grade one to six, a math coach for grade six to seven, to in-house math lead teachers, and assistance from a Ministry of Education Student Achievement Officer.</p> <p>-The above programs and staff that deliver them will assist those students most in and in language and mathematics.</p>	<p>- The Early Development Instrument for 2010-2011, 61% of the students scored below the 10th percentile on one or more categories.</p> <p>-The 2014-2015 EDI reported that 22% of students are vulnerable in the Emotional Maturity Index and the Language and Cognitive Index. Development.</p> <p>-Portuguese, Italian and Spanish are the languages, other than English, most spoken in the home.</p> <p>- The school has one ME class</p> <p>-The school staff can mitigate the barriers to student achievement by promoting a "Yes, I can!" mindset among students, and by applying diagnostic tools and methodologies, and related pedagogical strategies, to address student needs, especially in the teaching of number sense.</p>
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<p>assessment in 2014, when they were in Grade 3, and the junior-division assessment in 2017, when they were in Grade 6.</p> <p>The results for the 44 students in the cohort are as follows:</p> <ul style="list-style-type: none"> -34% (15) met the provincial standard in Grade 3 and Grade 6; -5% (2) did not meet the standard in Grade 3 but met it in Grade 6; -9% (4) met the standard in Grade 3 but did not meet it in Grade 6; and -52% (23) did not meet the standard in Grade 3 and did not in Grade 6. <p>-The above data makes clear that mathematics proficiency needs to be strengthened.</p> <p>-There is a need to improve students' abilities to apply computation skills and computation and to enhance their problem solving abilities.</p> <p>-A sound understanding of number sense. Indeed, after the 2013-2014</p>	<p>through a "Yes, I can!" mindset.</p> <p>-"Yes, I can learn mathematics!" will be given particular emphasis.</p>			
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province-wide assessments, EQAO too urged a focus on number sense as a means of improving the mathematical understanding and abilities of students.				
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URGENT CRITICAL LEARNING NEED Explain in 140 characters or less ... student learning problems to solve - Professional learning focus for this year.	The urgent critical need is to strengthen number sense among students. Number sense will be enhanced by mental math lessons that reinforce a student's sense of number.
From the data, what learning conditions will support increased achievement?	<ul style="list-style-type: none"> -Improved teacher content knowledge of number sense -Improved teacher application of diagnostic tools and methodologies, and related pedagogical strategies to address student needs, especially in number sense and mental math -Improved teacher confidence in the use of a diversity of mental math strategies, especially those listed in the math curriculum -Improved teacher understanding of the 3-part Problem solving lesson structure -Improved teacher understanding of the Ontario Math Curriculum and the Board's Balanced Math Program

PROFESSIONAL LEARNING PLAN TO MEET URGENT CRITICAL NEED:

Collaborative Inquiry Question (What is the problem of practice?)	<ul style="list-style-type: none"> -How do we ensure that students will have a foundational understanding of Number Sense from Full Day Kindergarten to Grade Eight? -How do we address the problem that without immediate and focused intervention these students' weak number sense knowledge will grow weaker with each successive year thereby making acquisition of overall math skills more difficult? -How do teachers transfer their belief that students have the cognitive abilities to succeed in mathematics to the students thereby change the students' mindset?
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If... Then... Statement:	-If we nurture a love of learning mathematics and intentionally teach students mental math strategies and math vocabulary, THEN student achievement will improve in the areas of mathematical computations, reasoning, and communication.
Learning Goals (related to urgent critical learning need)	<ul style="list-style-type: none"> -Students will improve their understanding of Number Sense and Numeration based on grade level expectations in Mathematics. -Students will strengthen their skills in the area of mathematical computation, reasoning and communication using mental math. -Students will develop an understanding and use of mathematics vocabulary as a means of further developing their sense of number.

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<p>Marker groups that will receive intervention (subgroups e.g., achieving at 2.5-2.9, Applied, gender, Grade(s), etc)</p>	<ul style="list-style-type: none"> -Students to move: At the beginning of the year and/or each math strand, a select group of students will be chosen so that their progress can be measured over time using the Prime Diagnostic tool, report card grades, anecdotal notes, etc. Throughout this student monitoring, teachers will be diagnosing student achievement by employing assessment for learning, assessment as learning and assessment of learning. -Student work will be analyzed by the teacher, the math facilitator, the student success coach individually or in moderated marking sessions to further assess the students to move.
<p>Actions/Interactions (What will we do to meet our goals?)</p>	<ul style="list-style-type: none"> -Teaching the following mental math strategies, from the Ontario curriculum, on a daily basis, within the 60 minute math lesson: counting on, counting back, doubles, associative property, commutative property, compatible numbers, compensation, and distributive property. -Teaching mental math problem solving using the 3-part Problem solving lesson structure. -Teaching by co-constructing learning goals and success criteria, at the end of the 3-part Problem solving lesson. -Teaching, through mental math lessons, basic math facts to develop automaticity in in students when recalling those facts. -Teaching of math vocabulary with the use of Math Word Walls in the primary grades, and the Frayer Model (graphic organizer) in the junior and intermediate grades. -Teachers' improved understanding, awareness and implementation of the Board's Balanced Math program. - Teachers' improved understanding of the Ontario math curriculum, especially the continuum as it relates to mental math strategies. -Teachers will provide flexible instruction to meet student needs: concentrate throughout the year on student learning needs to be able to close gaps in learning. - -Teachers will employ diagnostic tools such as Prime Diagnostic tool, report card grades, anecdotal notes, student conferencing to have the students explain their work and thinking, etc. <p>Responsibilities:</p> <ul style="list-style-type: none"> -Principal, vice-principal, classroom teachers, special education teachers, ESL teachers, math coach, math facilitator, Ministry Student Achievement Officer, and the Superintendent of Education.

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<p>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>	<p>-“Culturally responsive teaching has been defined as an approach to teaching that uses students’ cultural knowledge as a ‘conduit’ to facilitate the teaching-learning (Assembly of Alaska Native Educators, 1999; Ladson-Billings, 1994; Villegas & Lucas, 2002).”</p> <p>-“The crisis in mathematics learning among minority and low-income students is a great concern given that mathematical literacy is considered a valuable knowledge skill in an increasingly competitive global economy and politically interdependent world.”</p> <p>-“In summary, researchers on culturally responsive teaching have outlined core dimensions culturally responsive teaching that support successful learning for urban and low-income students. These include: -Belief in the learnability of students and their capability to do rigorous and high level mathematics (high expectation) [“Yes, I can!” mindset]; -Providing instructional scaffolding that supports student success [use peer support learning]; -Knowing and caring about students; -Positive teacher-student interactions and relationships in a learning community; -Promoting cooperative, collaborative and learning (co constructed learning goals and success criteria); -Contextualizing teaching and learning by connecting what is taught to students’ lives and communities;” -(The above was taken from: Omiunota N. Ukpokodu, <i>How Do I Teach Mathematics in a Culturally Responsive Way?</i>” http://files.eric.ed.gov/fulltext/EJ955945.pdf)</p> <p>-At the January math in-service, teachers will analyze the above article, and collaborate on ways of teaching math in culturally responsive ways.</p>
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<p>Strategies to address the needs of students who have an IEP or are ELL</p>	<ul style="list-style-type: none"> -Implementation of IEP strategies and outcomes. -For example: <ul style="list-style-type: none"> -Peer Support -Group Support -Scaffolded Steps for Math Activities -Re-word the text in simple phrases. -Write hints or reminders in the text. -Use real life experiences when discussing the reading material. -Have the work or tests read orally. -Pair ELL students with other ELLs. -Use manipulatives or hands-on aids in the development of computation and problem solving skills. -Use of a math word wall in primary grades to aid in the development of math vocabulary. -Use of the Frayer Model (graphic organizer) to aid all grades in the development of a math vocabulary. -Use of technology (Apple T.V., iPads, Cloudbooks and Chromebooks) to aid in the development math vocabulary, computation and problem solving skills.
<p>PD Required for Staff</p>	<ul style="list-style-type: none"> -Learning how to use the Prime Diagnostics tool. -Improving teacher awareness of mental math strategies embedded within the math curriculum. -Improving teacher awareness of how to teach mental math strategies. -Improving teacher ability to teach problem solving skills. -Improving teacher awareness of the Ontario math curriculum. -Improving teacher awareness of the Board's Balanced Math Program. -Develop teacher awareness of the three part lesson program, especially in how it is reflected in the Nelson math text.
<p>Measures/Evidence of Success to be used</p>	<ul style="list-style-type: none"> -Improved student understanding of number sense. -Improved student ability to solve problems. -Improved student ability to communicate their thinking using mathematics language. -Improved student ability to recall basic math facts instantaneously (automaticity). -A 7% increase in EQAO scores as reflected in the 2017-2018 assessments.
<p>Resources Required (human, material, #code days)</p>	<ul style="list-style-type: none"> -Mathematics Facilitator working with grades 1-5, but focusing on grade three. -Mathematics coach working with grades 6-8, but focusing on grade eight. -Ministry Student Achievement Officer to provide advice, strategies, etc. -Forty-one release days made available by the Revised Math Strategy for staff in-services in mathematics. -Six release days to be used by members of the School Learning Improvement Team to work on school improvement strategies and analysis; with a focus on mathematics. -Three release days to be used by the school's special education teachers for in-services in mathematics.