Date of Meeting: May 7, 2019

Item #: 4.0

REPORT TO:	☐ **Administrative Council**	☒ **Program and School Services Advisory Committee**
	☐ **Policy Working Committee**	☐ **Planning and Priorities Advisory Committee**
	☐ **Board**	☐ **Other:**
	☒ **PUBLIC**	☐ **IN-CAMERA**
TITLE OF REPORT:	Strategic Objective: Improve Student Achievement in Mathematics Update	
PRESENTED BY:	Sheila Builder, Superintendent of Student Achievement Marion Moynihan, Superintendent of Student Achievement Scott Armstrong, Learning Supervisor, Math, Science & Technology Roseanne Ferrara, Learning Supervisor, Special Education Ann McKerlie, Research & Assessment Associate	
PRESENTED FOR:	☐ **Approval**	☒ **Information** ☐ **Advice**
Recommendation(s):		
Purpose:	To provide an update to the Board of Trustees	
Content:	Lead representatives for the Strategic Objective: Improve Student Achievement in Mathematics will provide the Board of Trustees with an update on our actions and short-term indicators for this Strategic Objective.	
Cost/Savings:	N/A	
Timeline:	April 23, 2019: Administrative Council May 7, 2019: Program & School Services Advisory Committee	
Communications:	Administrative Council Program & School Services Advisory Committee	
Appendices:	PowerPoint	

Strategic Priority Area(s):	
Relationships:	☒ Students, families and staff are welcomed, respected and valued as partners. ☒ Promote and build connections to foster mutually respectful communication among students, families, staff and the broader community. ☒ Create opportunities for collaboration and partnerships.
Equity and Diversity:	☒ Create opportunities for equitable access to programs and services for students. ☒ Students and all partners feel heard, valued and supported. ☒ Programs and services embrace the culture and diversity of students and all partners.
Achievement and Well-Being:	☒ More students demonstrate growth and achieve student learning outcomes with a specific focus on numeracy and literacy. ☒ Staff will demonstrate excellence in instructional practices. ☒ Enhance the safety and well-being of students and staff.

Form Revised October 2018

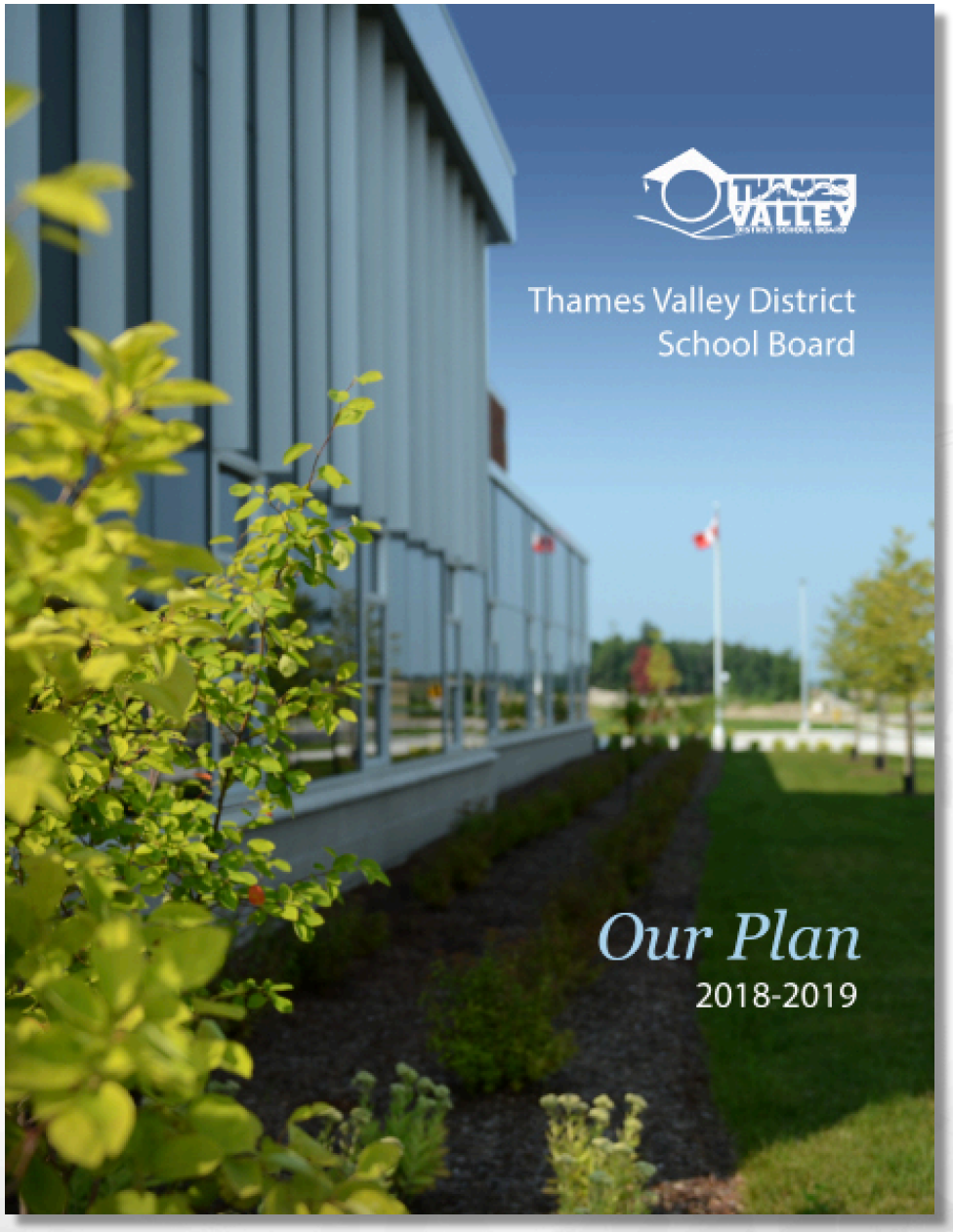
New TVDSB Strategic Plan

Mission

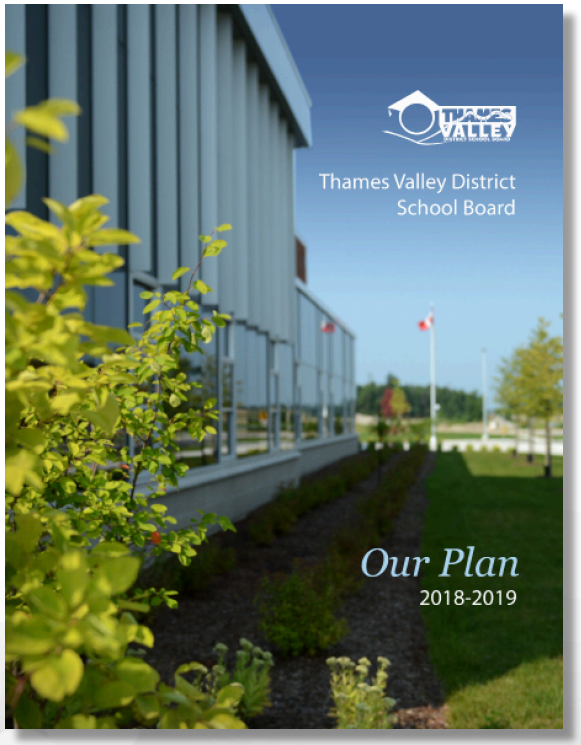
We build each student's tomorrow, every day.

Vision

The Thames Valley learning community inspires innovation, embraces diversity, and celebrates achievement - *a strong foundation for all students.*



Strategic Priority



RELATIONSHIPS

We build positive relationships with all members of our education community to foster an engaged and inclusive board culture.

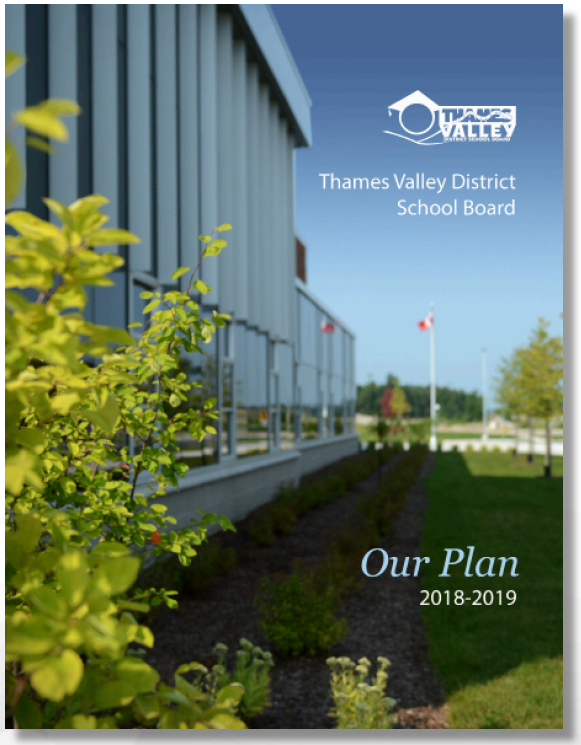
Goals:

1. Students, families and staff are welcomed, respected and valued as partners.

2. Promote and build connections to foster mutually respectful communication among students, families, staff, and the broader community.

3. Create opportunities for collaboration and partnerships.

Strategic Priority



EQUITY AND DIVERSITY

We provide an equitable and inclusive environment that champions learning opportunities for all.

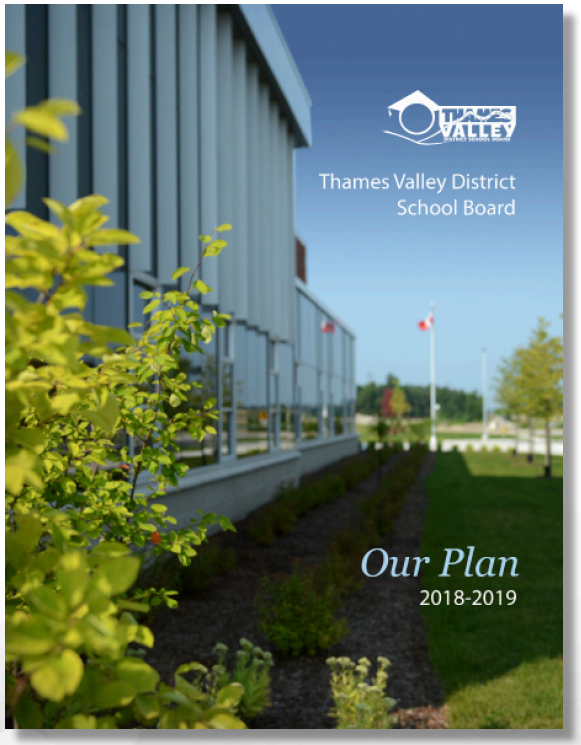
Goals:

1. Create opportunities for equitable access to programs and services for students.

2. Students and all partners feel heard, valued and supported.

3. Programs and services embrace the culture and diversity of students and all partners.

Strategic Priority



ACHIEVEMENT AND WELL-BEING

We engage in innovative learning experiences that promote excellence in student achievement and well-being.

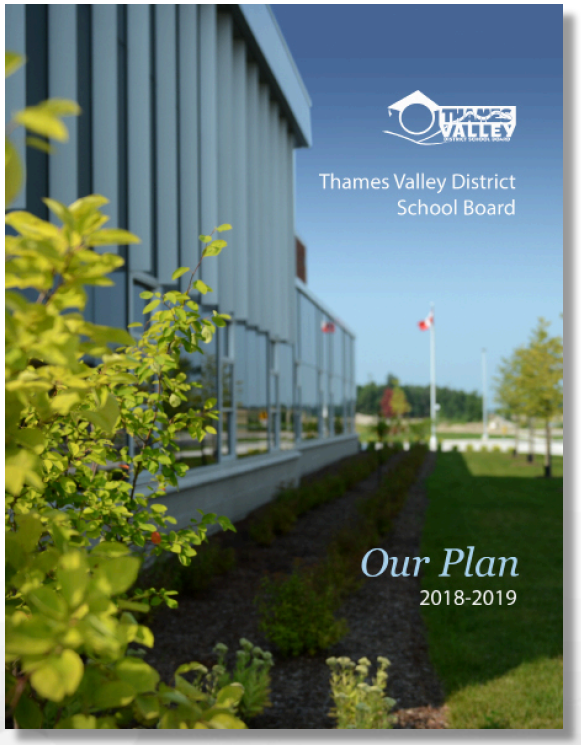
Goals:

1. More students demonstrate growth and achieve student learning outcomes with a specific focus on numeracy and literacy.

2. Staff will demonstrate excellence in instructional practices.

3. Enhance the safety and well-being of students and staff.

5 Strategic Objectives



1. **Improve student achievement in mathematics**
2. Improve the five year graduation rate
3. Create secondary learning experiences and environments that are engaging, inclusive and relevant (Implement Rethink Secondary Learning Plan by 2023)
4. Create equitable and inclusive learning and working environments for students and staff to achieve success
5. Enhance communication and engagement within our TVDSB community

Improve Student Achievement in Mathematics

Actions
Support school-based math leaders (i.e., school administrators, Elementary Math Lead Teachers, Grade 9 Spotlight Teachers) to develop their instructional leadership capacity in mathematics.
Provide job-embedded professional learning opportunities that focus on research-based instructional practices.
Provide school-based communications and learning activities to engage families in their children's learning of mathematics.

Professional learning and support provided based on needs of educators and curriculum focus areas:

Early Years – Grade 3

- Building math strategies based on Continuum of Instructional Strategies

Grades 4-6

- Ontario math curriculum content changes in early junior grade

Grades 7-9

- Content connections across strands and assessment

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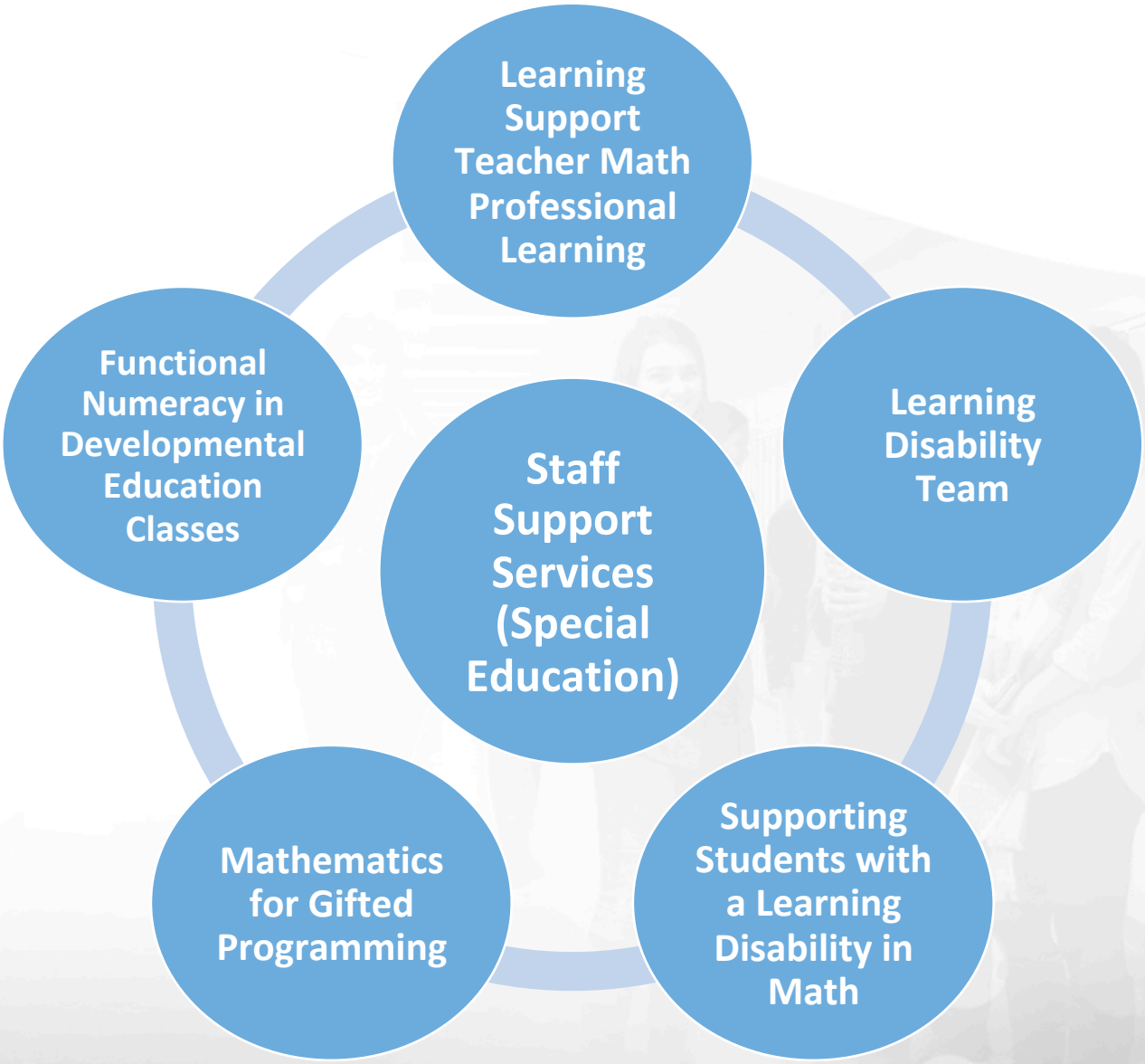

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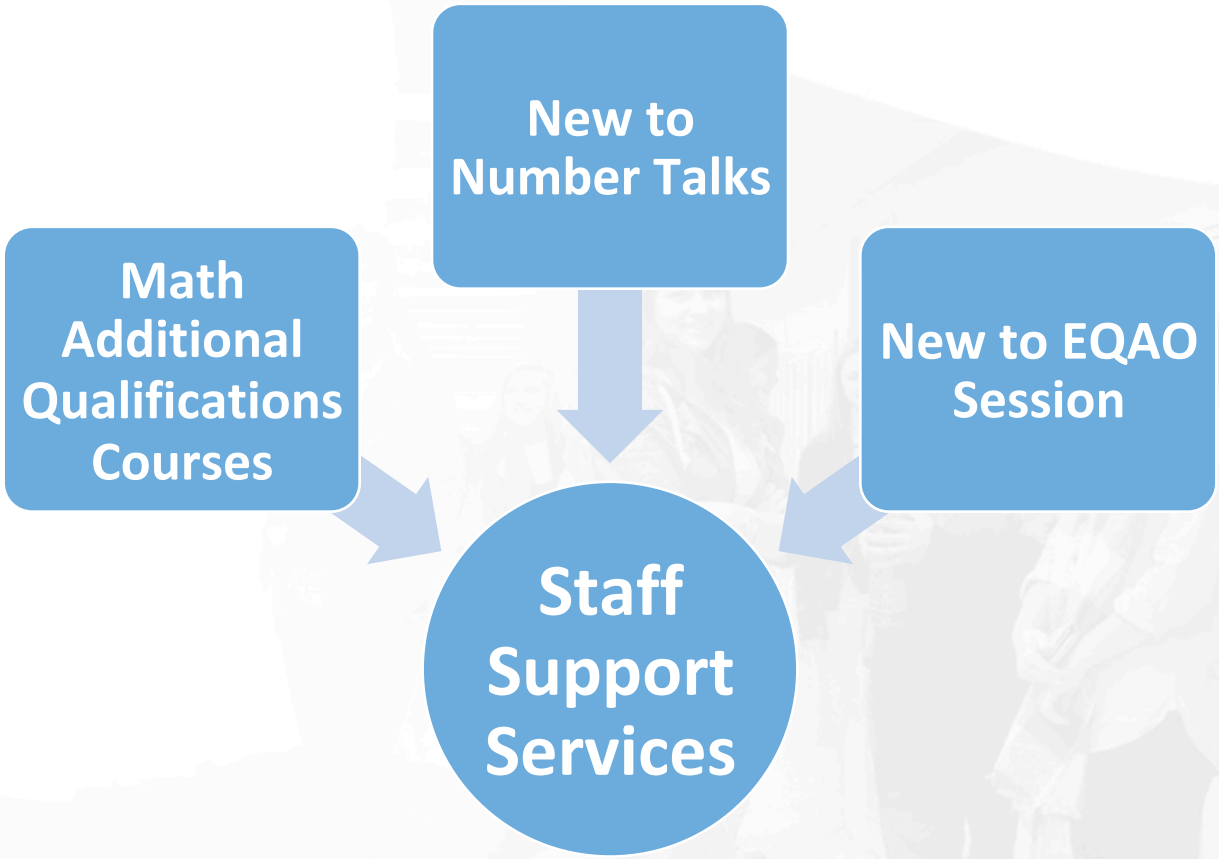

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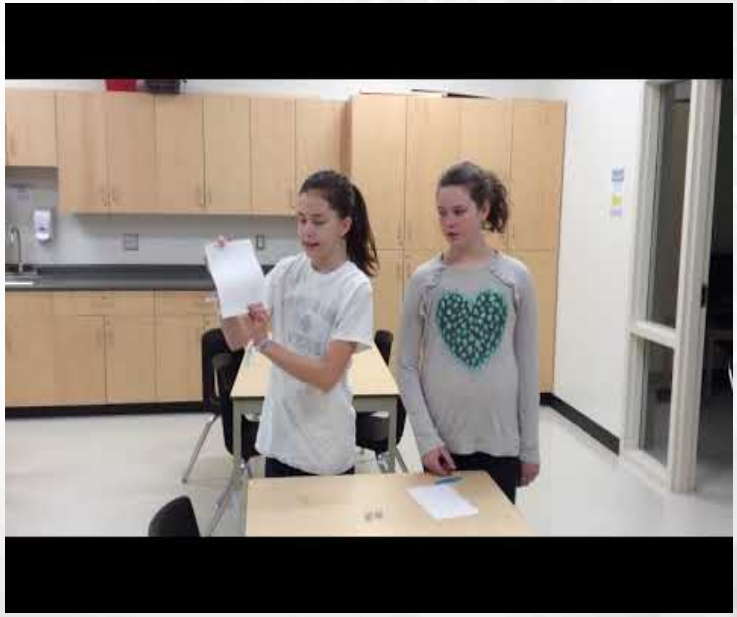
- ✓ Monthly **Newsletter Inserts** provided for each elementary school

- ✓ **Math Games Video Contest 2019** featuring **OUR** students teaching staff, students, parents/families and our TVDSB YouTube followers, how to play a math game (61 submissions from schools for the contest)



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164 Math Events hosted at our schools for families either before school or in the evening.

Improve Student Achievement in Mathematics

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✓ **A typical Math Night includes:**

- What math learning in the 21st Century looks like;
- Ontario and Canada's excellent performance on large scale assessments (PAN Canadian and PISA assessments);
- Dispelling the myths and providing the facts;
- Understanding the importance of the Concrete, Representational Abstract (CRA) Model;
- Engaging parents in math activities: using manipulatives, decomposing numbers, using open number lines, using various models to add, subtract, multiply and divide.

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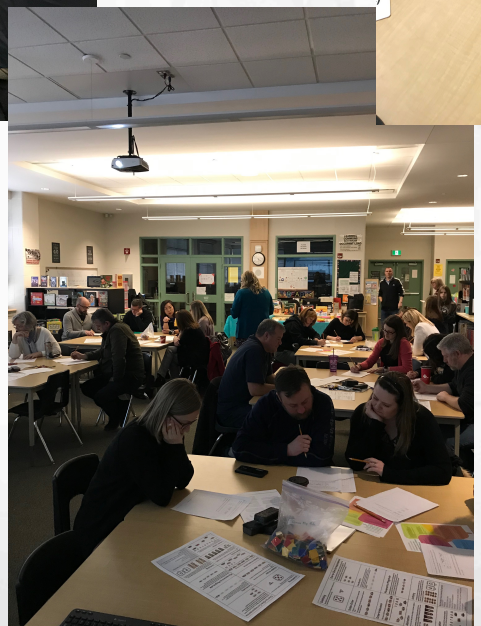
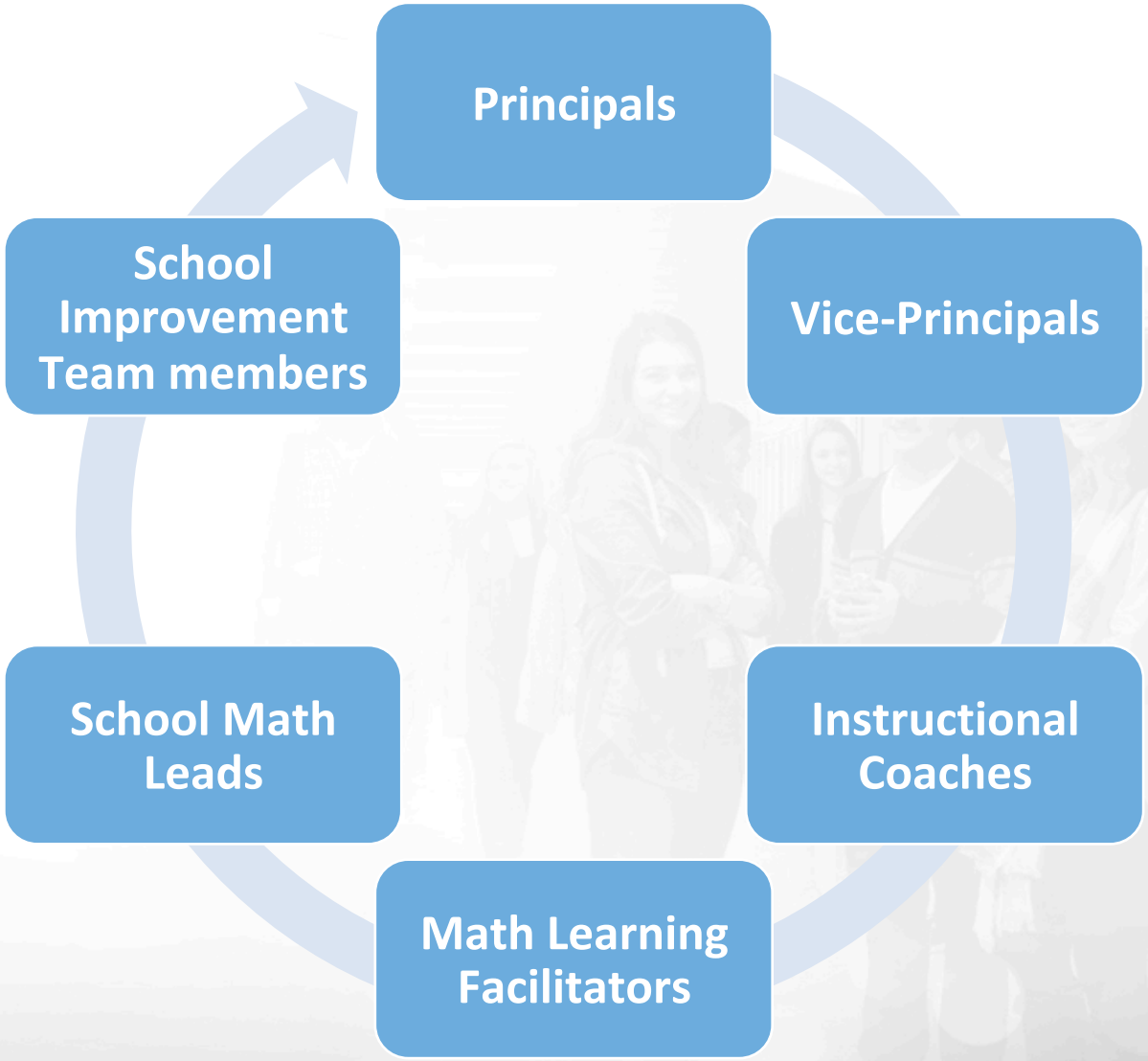


Improve Student Achievement in Mathematics

Short-term Indicators
School level math leaders facilitate professional learning sessions, as evidenced by an audit of agendas and Superintendent visits.
Administrators and Math Leads report increased confidence, knowledge, and skills in leading instructional programming in mathematics.
Job-embedded professional learning opportunities are provided equitably across our system.
Classroom walkthrough data shows improvement in math instructional and assessment practices in order to meet individual student learning needs.
Review EQAO student perceptual data to establish a baseline for long-term goal of improvement.
Audit of school-based communication documents (e.g., newsletter inserts, math activities provided by classroom teacher, math nights, speakers) through school administrator and math lead surveys.



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Elementary Administrators and Math Leads are consistently leading professional learning at staff meetings, with staff individually, and through email communications.

Most Elementary Administrators indicate system supports are effective in helping them support staff.

Spotlight Teachers are considered to be confident decision-makers with clearly articulated roles, sharing learning during Math Department meetings and with colleagues individually.

Improve Student Achievement in Mathematics

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October PA Day

Fundamentals of Mathematics (Elementary)

November PA Day

Math Department Commitments (Secondary)

Improve Student Achievement in Mathematics

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Classroom Walkthroughs

Administrators see an increase in the desired, research-based instructional and assessment strategies towards achievement of school goals

Individual feedback is provided to educators and overall feedback is provided to staff during Staff Meetings as part of the School Improvement Process

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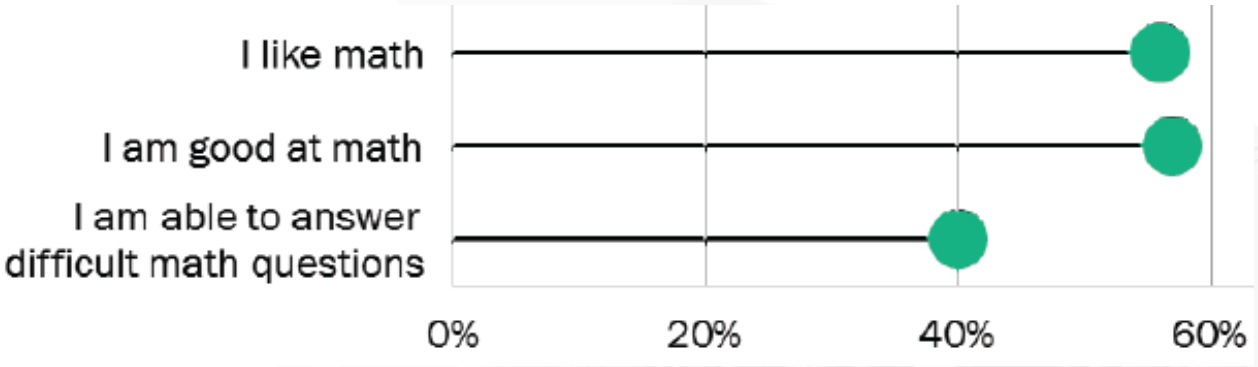
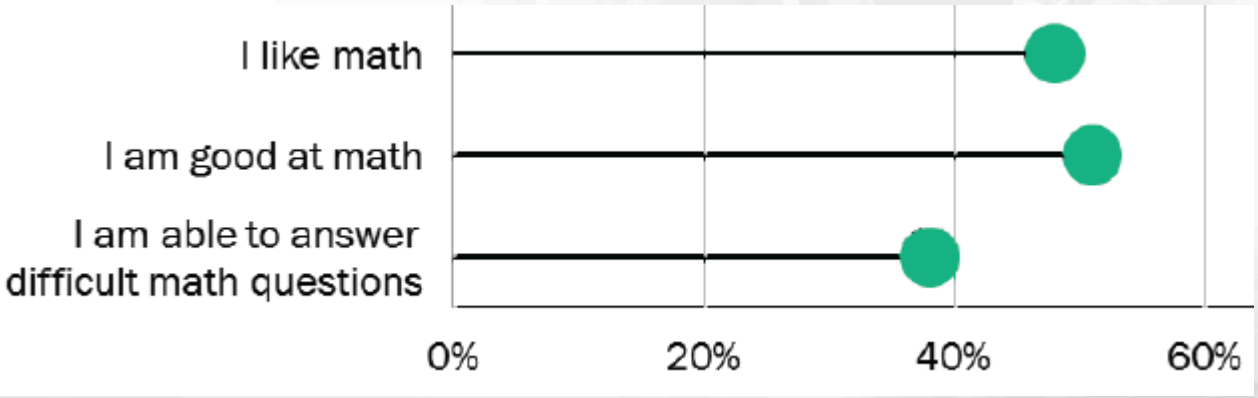
Elementary EQAO 2017-2018: % Grade 3 Students



Elementary EQAO 2017-2018: % Grade 6 Students



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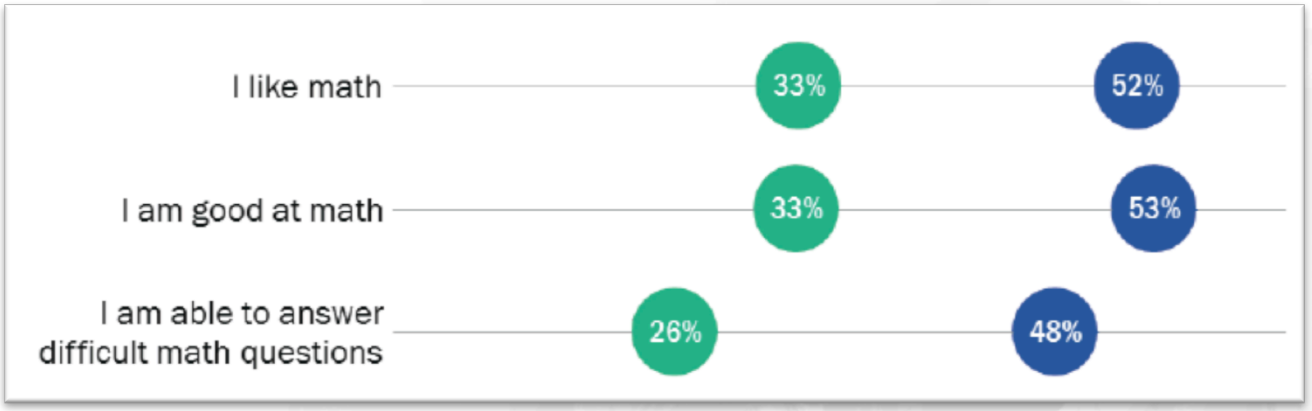
Secondary EQAO 2017-2018: % Grade 9 Students



Engagement in mathematics is more positive for students taking Grade 9 academic math compared to students taking Grade 9 applied math

Improve Student Achievement in Mathematics

Long-term Measures of Success

Decreased requests for support from Math Learning Coordinators because the school math team is able to provide this support.

EQAO Math results have improved by 2% (grades 3, 6, and 9).

Achieving Excellence in Applied Courses (AEAC) reporting shows positive changes in teacher practice and student achievement in mathematics.

Increase in credit accumulation in math with a specific focus on compulsory applied level math courses.

EQAO student perceptual data indicates increased involvement and support from families.

Families report increased understanding and engagement in their child's learning of mathematics through a family survey.

Applied Math Course Pass Rates: Percentage of Students

Grade 9

89% (2015-16; n=1695)

88% (2016-17; n=1666)

90% (2017-18; n=1685)

Grade 10

87% (2015-16; n=2044)

88% (2016-17; n=1986)

87% (2017-18; n=1933)

Improve Student Achievement in Mathematics

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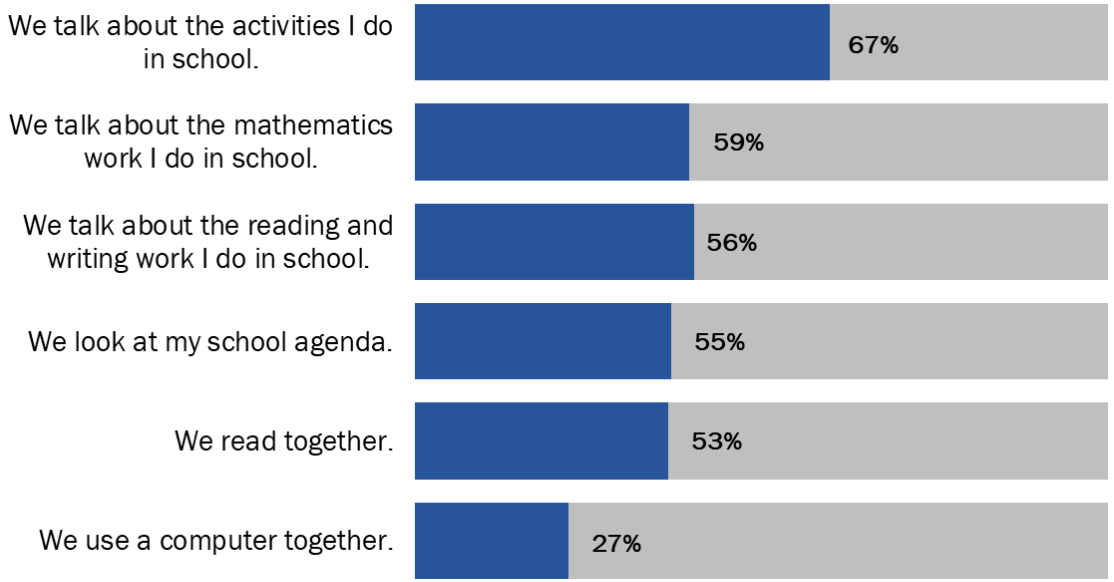
How often do you and a parent, a guardian or another adult who lives with you do the following?



% Indicated At Least Once Per Week
Grade 3 TVDSB Students
2017-2018

Improve Student Achievement in Mathematics

Thank you!

Questions?