Thames Valley District School Board

Date of Meeting:	**2024 November 05**
Agenda Item #:	5.0

REPORT TO:	Program and School Services Advisory Committee
	Public or In-Camera (for Board Meetings only): N/A
TITLE OF REPORT:	TVDSB Math Action Plan 2024-2025
PRESENTERS: ***(list ONLY those attending the meeting)***	Sheila Builder, Superintendent of Student Achievement Katherin O'Hara, System Principal, Mathematics Ann McKerlie, Research and Assessment Associate
REPORT AUTHORS:	Sheila Builder, Superintendent of Student Achievement Katherin O'Hara, System Principal, Mathematics Ann McKerlie, Research and Assessment Associate
PRESENTED FOR:	Information
Recommendations: *(only required when presented for approval)*	
Purpose: *(include context)*	To share the 2024-2025 TVDSB Math Action Plan with Program and School Services Advisory Committee for awareness and knowledge as the plan is going into year two of implementation in all Thames Valley DSB schools.
Content:	The presentation will provide an overview of the Thames Valley DSB Math Action Plan for 2024-2025. Additional information to support Trustees in their awareness and knowledge of the mathematics work in the district is provided in the attached report.
Financial Implications:	N/A
Timeline:	A timeline is provided in the presentation.
Communications:	N/A
Appendices:	PowerPoint presentation, "TVDSB Math Action Plan" 2024-2025 TVDSB Math Action Plan: Overview

Connection to Strategic Directions:

We value students' individual educational paths and provide the tools and resources necessary for student achievement including students with special education needs: Yes

To support student achievement, our schools and workplaces must be safe spaces for all: No

Our goal is to become Ontario's leader in education by fostering a culture of innovation and excellence: Yes

To inform our decision-making, we will build positive, trusting relationships across our district by increasing community engagement that is accessible, accountable, and transparent: Yes

Revised October 2024

Thames Valley
District School Board

TVDSB Math Action Plan

2024-2025

Program and School Services Advisory Committee
November 5, 2024

TVDSB Multi-Year Strategic Plan: Strategic Direction #1

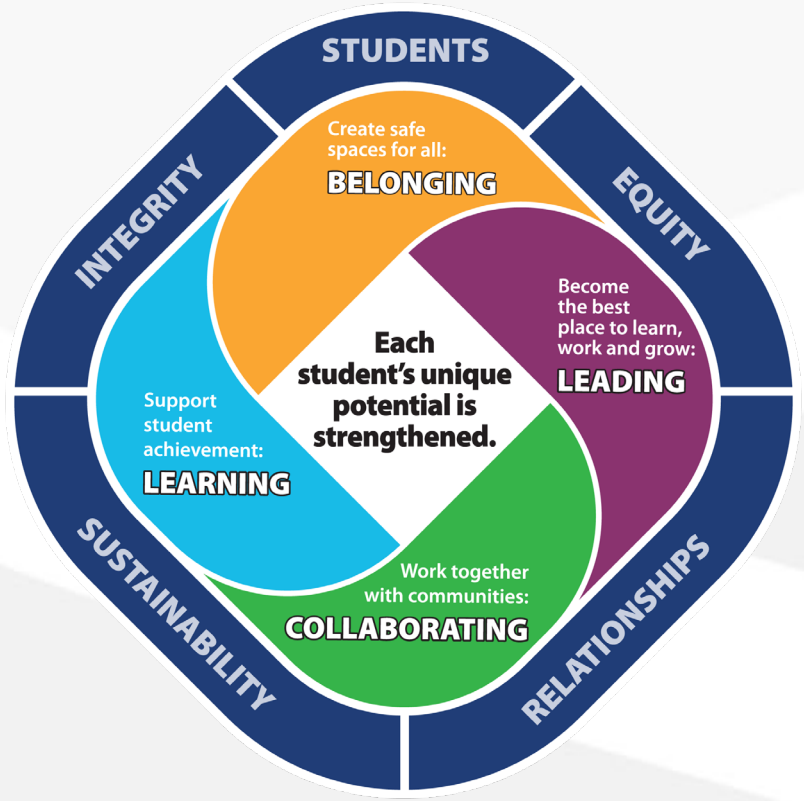
LEARNING – Support Student Achievement

GOALS

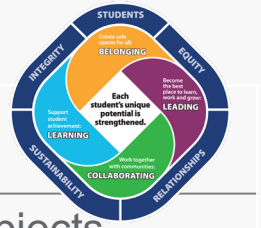
1.1. All students achieve academic success with an emphasis on students in equity-deserving groups, including Black students, Indigenous students, students with special education needs, and multilingual learners.

1.2. Necessary tools, resources and staff, are equitably distributed to support student achievement.

1.3. Students are prepared for the next step in their learning journey and individual education paths.



LEARNING: Support Student Achievement



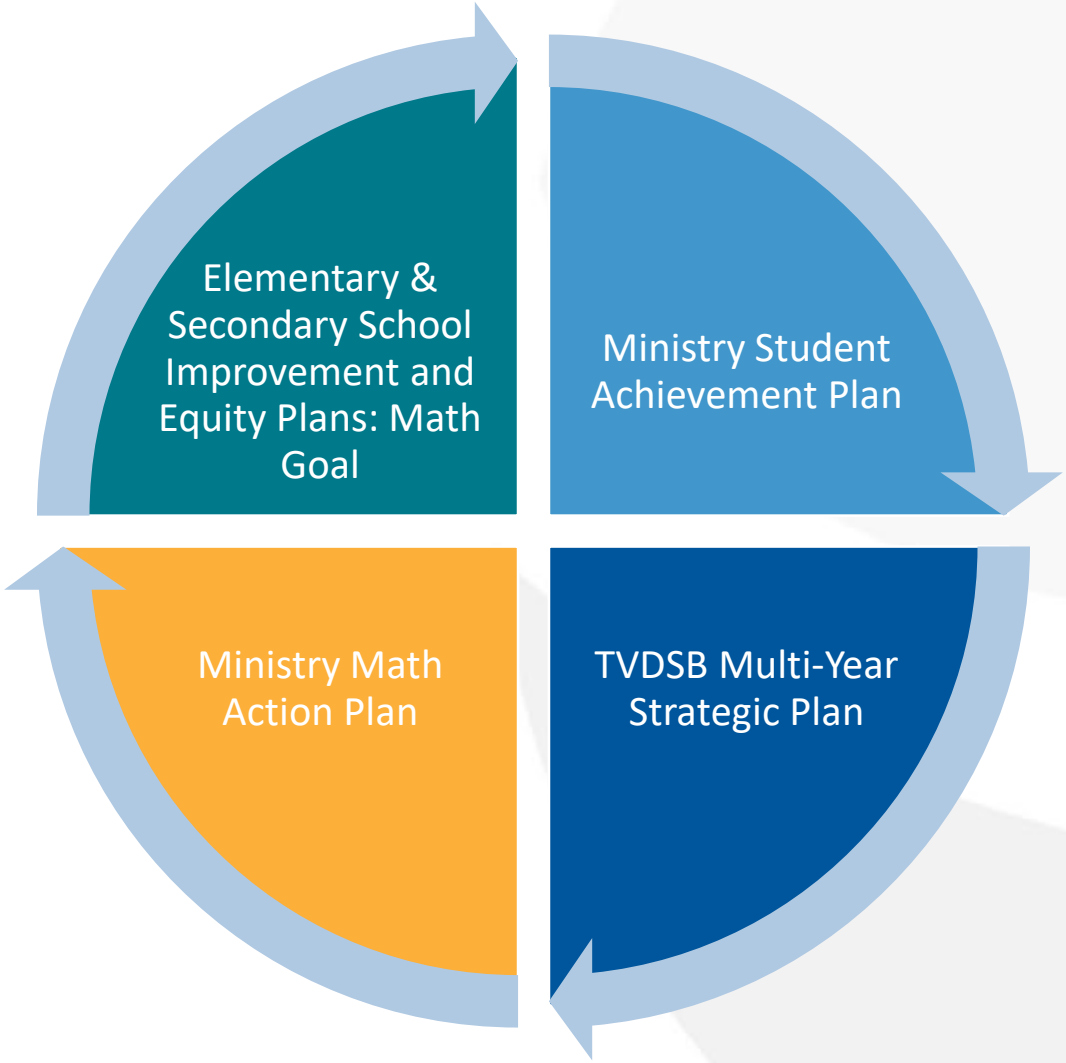
GOALS		OUTCOMES	
1.1	All students achieve academic success with an emphasis on students in equity-deserving groups, including Black students, Indigenous students, students with special education needs, and multilingual learners.	1.1.a	Students meet or exceed provincial standard in core academic subjects.
		1.1.b	Students in equity-deserving groups achieve at the same level as all students in core academic subjects.
		1.1.c	Students in equity-deserving groups meet or exceed provincial standard in core academic subjects.
		1.1.d	Students have access to learning opportunities beyond the core academic subjects.
1.2	Necessary tools, resources and staff, are equitably distributed to support student achievement.	1.2.a	Schools have equitable access to resources.
		1.2.b	Schools have access to staffing and programming resources they need based on their respective communities.
		1.2.c	Students have access to additional initiatives to support their achievement.
1.3	Students are prepared for the next step in their learning journey and individual education paths.	1.3.a	Students working towards an Ontario Secondary School Diploma graduate.
		1.3.b	Students in equity-deserving groups working towards an Ontario Secondary School Diploma graduate.
		1.3.c	Students leave Thames Valley Schools with the education required to be successful in their future.

Math Action Plan Ministry Areas of Focus: All Schools

- Curriculum Fidelity
- Math Content Knowledge for Teaching
- Knowing Your Students
- Measurable Results: Improvement in Math Achievement

Aligning the Focus of the Math Action Plan

2024-2025



Ministry Reporting Requirements

2024-2025

PRIORITY SCHOOLS Provincial Key Performance Indicators (KPIs) Report	PRIORITY SCHOOLS	ALL SCHOOLS
Intentional monitoring of Key Performance Indicators (KPIs) common to all Priority Schools in Ontario	School-level intensive improvement efforts	District-wide improvement efforts in mathematics

Year One: Key Details

2023-2024

- Provincial investment of $71.8 million
- Board Lead role and responsibilities
- Board Math Action Plan (BMAP) developed and shared
- Implementation of Plan in schools
- Priority Schools Support by CENTRAL STAFF

Year One: Reflecting on Our Work

2023-2024

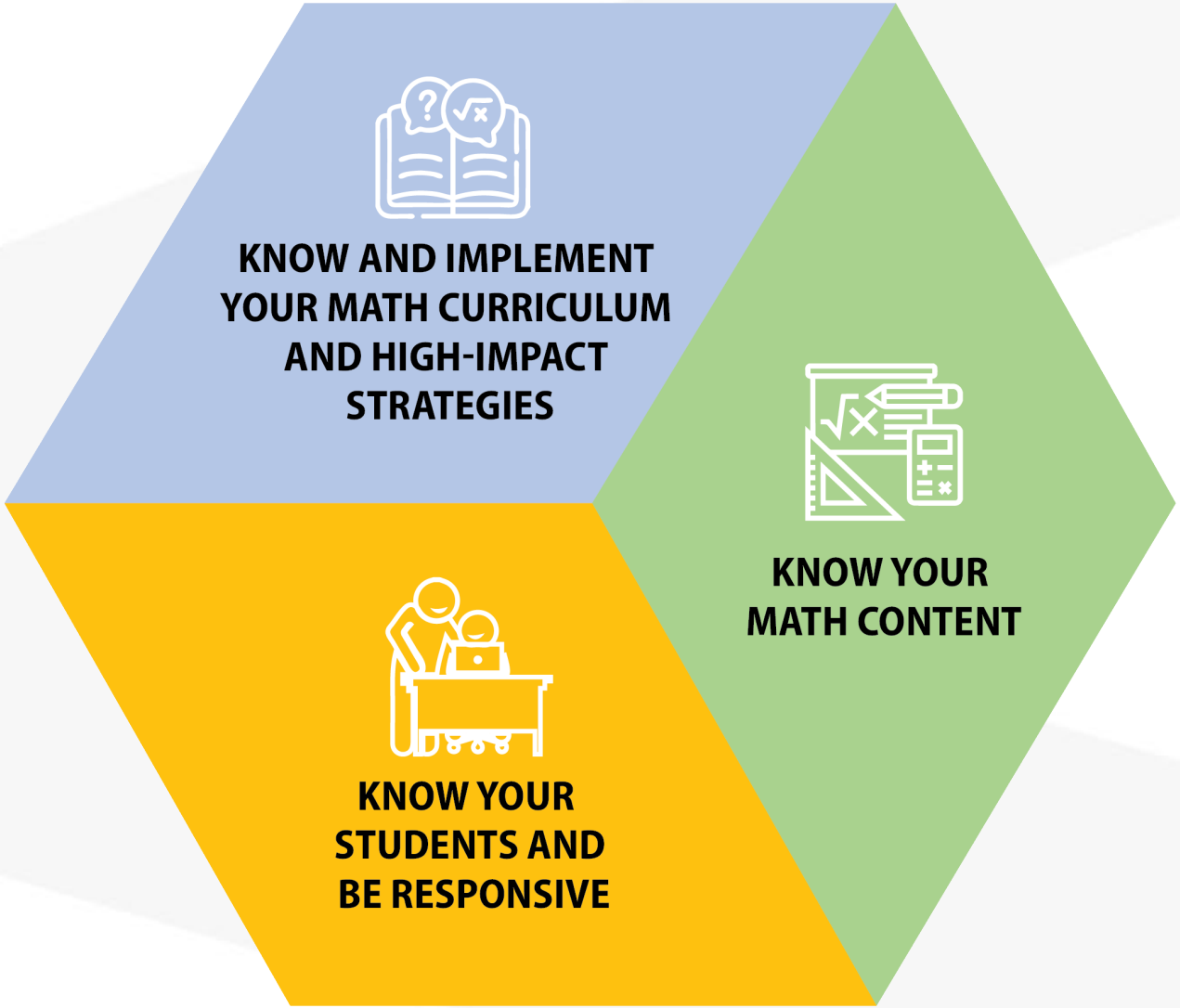
- Intentional focus through the Math Action Plan to support improvement efforts in Priority Schools, as well as district-wide
- Professional learning for administrators and educators
- Digital tools
- Family engagement opportunities
- EQAO Implementation Plan to support EQAO administration and use of results
- School Improvement and Equity Plan in every school with a focus on a math goal

TVDSB Math Action Plan Priorities

2024-2025

Year Two: What's New?

Focus on:
* Implementation
* Responsiveness



TVDSB Math Action Plan: Priority #1

KNOW AND IMPLEMENT YOUR MATH CURRICULUM AND HIGH-IMPACT STRATEGIES

Board

Prioritize understanding the Ontario math curriculum, the continuum of learning across grades and high-impact instructional practices

School

Engage in professional learning on the Ontario math curriculum, making connections across grades and the high-impact instructional practices as part of School Improvement and Equity Planning

Classroom

Implement the Ontario math curriculum and high-impact instructional practices based on data to support improved student learning in math

TVDSB Scope and Sequence - Example

Grade 3 Year At A Glance Click Here

Concept Chart - Year at a Glance (Grade 3)

explore positive **social emotional learning skills** to support and connect learning through all expectations

apply mathematical processes: problem solving, reasoning and proving, reflecting, connecting, communicating, representing, selecting tools and strategies

make connections to previous knowledge, lived experiences, real-life applications

	Block 1	Block 2	Block 3	Block 4	Block 5
FINANCIAL LITERACY	*representing money amounts to $1000*	**money and finances** (providing change of whole dollar amounts and change for transactions less than one-dollar)		*represent 25¢ as 1/4 of dollar*	
SPATIAL SENSE	***measurement** (telling time)*	***measurement** (area)*	**measurement** (mass)	**measurement** (perimeter, relationships between unit measurements, capacity, mass, area)	
			geometric and spatial reasoning (3D shapes, angles, conguency)	**geometric and spatial reasoning** (decompose 2D shapes and 3D objects)	**geometric and spatial reasoning** (location and movement using distances and half- and quarter-turns)
DATA			**probability** (make and test predictions about the mean and mode)		**probability** (make predictions , possible outcomes)
	data literacy (organization and visualization)	*table of values*	**data literacy** (organization, visualization and analysis)		*frequency tables*
ALGEBRA	**mathematical modelling**	***ongoing***	**mathematical modelling**	***ongoing***	**mathematical modelling**
					coding (skills to create, solve, read, and write code that involves sequential, concurrent, and repeating events)
	equations and inequalities (equivalent expressions)		**equations and inequalities** (variables, equivalency in numerical expressions)		*repeating elements*
		patterns and relationships (patterns with repeating elements or repeating operations, table of values, missing elements)		*multiplicative relationships*	
NUMBER	**operations** (mental math strategies addition and subtraction to 1000, multiplication/division 2, 5, 10)	**operations** (adding and subtracting whole numbers to 1000, multiplication 10 x 10, division 100 ÷ 10)	**operations** (repeated addition of the unit fraction, addition)	**operations** (problem solving, multiplication of fractional amounts 1/2, 1/3. 1/4, ratios, multiplicative relationships)	*continue using skills with operations*
	number sense (whole numbers, represent, rounding, comparing, estimating)	**number sense** (whole numbers, mixed numbers, fractional amounts)	*whole numbers and fractions*	*whole numbers and fractions*	*whole numbers and fractions*

TIPS TO PREPARE FOR NEXT YEAR: How have students collected evidence of their learning so that it can be referred to when revisiting concepts next year?

These concepts and the relationships between them, are made visible through the use of **concrete manipulations, pictorial models, numerical representations, algebraic representations,** and **real-life applications represented in words.**

Start of the Year → Block 1 → Block 2 → Block 3 → Block 4 → Block 5 → End of the Year

Suggested Timeline

Block 1: Number Representations And Relationships

Ongoing: Math Talks, Fractions, Rich Questions

September

TVDSB First 10 Days: click here
Readiness Task for this Section: click here

D1.2	collect data through observations, experiments, and interviews to answer questions of interest that focus on qualitative and quantitative data, and organize the data using frequency tables
E2.6	use analog and digital clocks and timers to tell time in hours, minutes, and seconds
B1.1	read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life
C2.3	identify and use equivalent relationships for whole numbers up to 1000, in various contexts
B1.5	use place value when describing and representing multi-digit numbers in a variety of ways, including with base ten materials
B1.2	compare and order whole numbers up to and including 1000, in various contexts
B1.4	count to 1000, including by 50s, 100s, and 200s, using a variety of tools and strategies
B2.2	recall and demonstrate multiplication facts of 2, 5, and 10, and related division facts
B1.3	round whole numbers to the nearest ten or hundred, in various contexts
B2.3	use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used

End of October

Complete: Check-in #1 HERE Link to Heatmap (Class Profile)

Thames Valley District School Board

TVDSB Math Action Plan: Priority #2

KNOW YOUR MATH CONTENT

Board

Prioritize math content knowledge for educators in professional learning opportunities, allocation of resources, including staffing and supporting family engagement in mathematics

School

Provide opportunities for educators to enhance their individual math knowledge through professional learning and sharing of resources

Engage families and communities to support different ways of understanding and doing mathematics

Classroom

Access resources and professional learning to continuously develop content knowledge for teaching math and engage families to support math learning

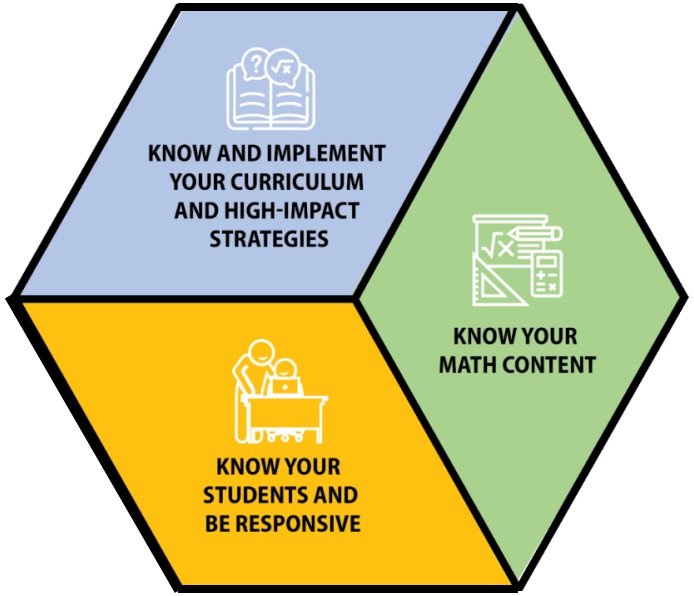
New Math SharePoint with Teacher Resources

Thames Valley District School Board

MATH

CLICK THE SECTIONS BELOW

TO CHECK OUT RESOURCES THAT FOCUS ON EACH SECTION OF THE TVDSB MATH ACTION PLAN



KNOW YOUR STUDENTS AND BE RESPONSIVE

- BUILDING ESSENTIONAL CONDITIONS FOR LEARNING IN THE MATH CLASSROOM
- CREATING A SAFE SPACE IN THE MATH CLASSROOM
- ASSESSMENT
- EXECUTIVE FUNCTIONING IN THE MATH CLASS

KNOW AND IMPLEMENT YOUR CURRICULUM AND HIGH-IMPACT STRATEGIES

- LEARNING GOALS, SUCCESS CRITERIA, & DESCRIPTIVE FEEDBACK
- PROBLEM SOLVING
- SMALL GROUP INSTRUCTION
- MATH CONVERSATIONS AND NUMBER TALKS
- TOOLS AND REPRESENTATIONS
- MATH GAMES & ENGAGEMENT STRATEGIES

KNOW YOUR MATH CONTENT

- MATH DIGITAL TOOLS & SOFTWARE
- TVDSB SCOPE AND SEQUENCE
- PROFESSIONAL DEVELOPMENT
- HOW CAN I STRENGTHEN MY KNOWLEDGE? AQs? READINGS?
- EQAO SUPPORT

Coming Soon:

New Page on TVDSB Website with Math Supports for Families

Math Community Connections

A A A | Share

Hide Right Content Hide Contact

Supporting Math Learning at Home

Engaging in your child's math education can significantly enhance their learning experience and academic success. When parents and caregivers actively participate, children often develop a more positive attitude towards math, seeing it as a valuable and enjoyable subject. This involvement can range from helping with homework to discussing math-related topics in everyday life, which reinforces learning and builds confidence. Additionally, family engagement provides emotional support, encouraging children to persevere through challenging problems and fostering a growth mindset.

We welcome Thames Valley families to enjoy mathematics with their children at home to foster a love of math. To support families with these learning opportunities, click on the links below for more information!

- Math Curriculum Links
- TVO Math Supports and More
- Math Conversations at Home and More
- Digital Math Software
- EQAO Standardized Assessment
- Problem Solving and Doing Mathematics with Your Child
- TVDSB Math Action Plan

TVDSB Math Action Plan: Priority #3

KNOW YOUR STUDENTS AND BE RESPONSIVE

Board

Provide digital tools to support mathematics learning at home and school that can be used by educators to understand current student learning levels and provide targeted supports for students

School

Use data from assessments and digital tools to support identifying urgent student learning needs in mathematics as part of the School Improvement and Equity Plan (Math Goal)

Classroom

Plan, teach, and assess learning in culturally responsive and relevant ways to support students learning in mathematics

Family Engagement:

Accessing Digital Tools at Home

TVDSB Math Action Plan 2024

Family Engagement: Digital Math Tools

Thames Valley District School Board

Knowledgehook

How Students Use Knowledgehook at Home:

- Go to joinkh.com
- Enter the class code or scan the QR code provided by the teacher
- Select name from class list
- Enter password (provided by the teacher or selected by the student)

Knowledgehook Access for Parents and Caregivers:

You can see the milestones your child is achieving or where they are struggling. Ask your child's teacher to email an invitation or send home an information package with instructions to register.

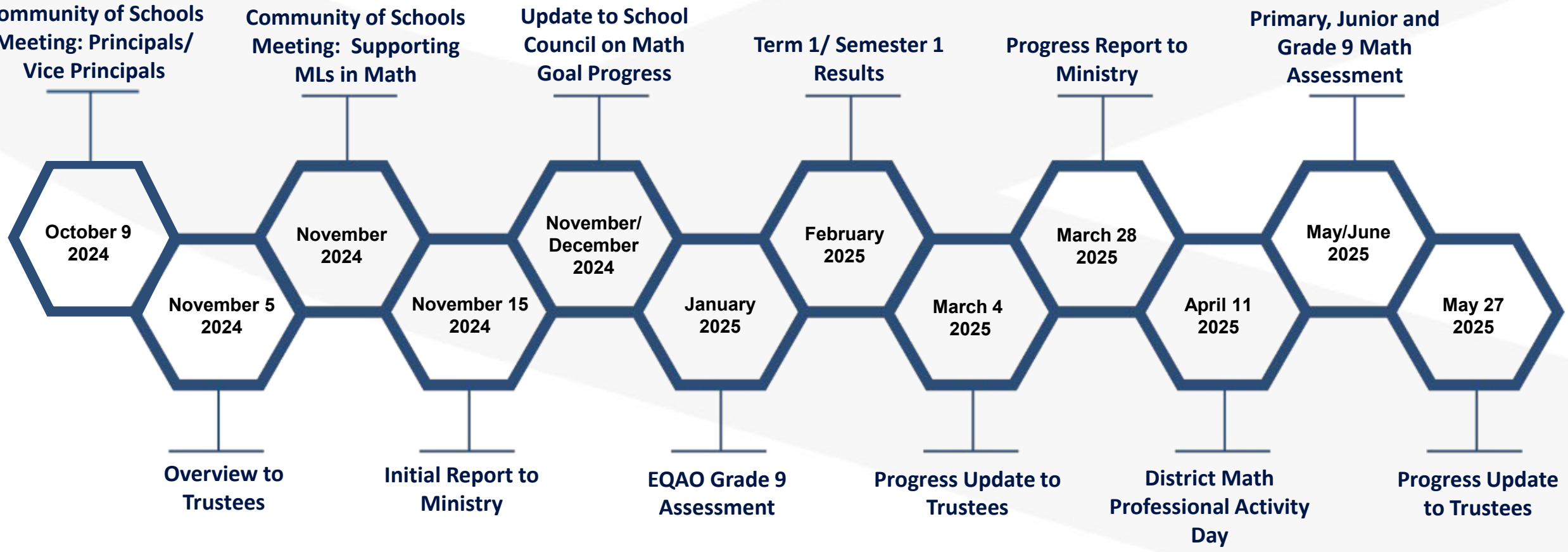
matific

How Students Use Matific at Home:

- Visit matific.ca/login-page
- Help your child log in to their account using the username and password, or by scanning the QR code on their login card (provided by teacher)

Communication Strategy

2024-2025



Without mathematics, there's nothing you can do. Everything around you is mathematics. Everything around you is numbers."

Shakuntala Devi

Thank You!

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2024-2025 TVDSB Math Action Plan: Overview

Program and School Services Advisory Committee, November 5, 2024

The purpose of this presentation is to provide an overview of Thames Valley District School Board's (TVDSB) *Math Action Plan* for the 2024-2025 school year, including key details about the plan, priority areas as identified by the Ministry of Education, an overview of reporting requirements, how the plan relates to other work in the board, and learning from year one of the Plan. This overview provides supplemental information to accompany the presentation.

Supports for the *Math Action Plan*

In June 2023, the Ministry of Education provided school boards with information and funding to support student learning in mathematics. The Ministry investment included the allocation of funding for one designated Board Lead, at the Supervisory Officer level, who would have specific responsibilities for the district's *Math Action Plan*. This Plan would guide the work at the district and school level, and outline what is expected to be accomplished in every math classroom.

Along with the Board Lead funding, the Ministry provided funding for centralized math-specific staff. In TVDSB, these classroom support teachers work at Priority Schools to ensure the *Math Action Plan* is implemented with fidelity. This is done through job-embedded professional learning for staff, right in the classroom, and by working directly with students in grades 3, 6, and 9. Ministry funding has continued for the 2024-2025 school year, as the *Math Action Plan* continues into the second year.

The table below summarizes the specific central staff roles that are supporting schools as part of the *Math Action Plan*.

FTE	Staff Role	Responsibilities
1	Board Math Lead at the Supervisory Officer level	Specific responsibilities for the Board's *Math Action Plan*
13	11 Classroom Math Support Teachers (Elementary) 2 Classroom Math Support Teachers (Secondary)	Support students and educators in numeracy in Priority Schools
3	2 Learning Coordinators (Elementary) 1 Learning Coordinator (Secondary) **Note: Not funded through Ministry Math Action Plan*	Support educators in numeracy in all schools
1	1 System Principal for Math (K-12) **Note: Not funded through Ministry Math Action Plan*	Support for principals, district math team, and educators

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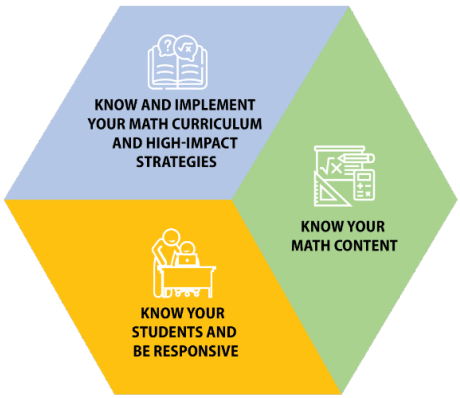
Math Priority Schools

The Ministry has identified 62 schools in TVDSB as Math Priority Schools based on 2022-2023 EQAO math assessment results. These schools are the same as those identified during year one of the *Math Action Plan*. There are 53 elementary schools identified as Math Priority Schools. Elementary schools are identified as Priority Schools for only grade three, only grade six, or both grade three and six. Nine secondary schools have been identified as Math Priority Schools. As outlined above, there are specific supports through the *Math Action Plan* to support math learning in Priority Schools. A list of the 2024-2025 Priority Schools is included in this package.

TVDSB *Math Action Plan*: Overview

The *2023-2024 Math Action Plan* was written by TVDSB staff in Fall of 2023, in response to direction from the Ministry of Education that all Ontario school boards write and implement a plan to support student and educator math learning. The Plan was refined in September 2024 based on learning from year one.



The 2024-2025 *Math Action Plan* includes three priority areas: know and implement your math curriculum and high-impact teaching strategies, know your math content, and know your students and be responsive. These are aligned to the priority areas for all action plans as determined by the Ministry.

To support math learning and measure progress of the Plan, the Ministry requires school boards to identify and implement specific strategies at the board, school, and classroom levels as well as key performance indicators (KPIs) for each priority area. Throughout the year, relevant data will be collected and reviewed by staff responsible for leading the implementation of work related to the priority areas. Regular checkpoints have been determined and TVDSB staff will work in concert to ensure progress is monitored throughout the school year.

Please refer to the following three tables for specific strategies, KPIs, and data sources related to each of the three priority areas.

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Know and Implement Your Math Curriculum & High-Impact Strategies

	Board Level	School Level	Class Level
Strategy	Prioritize understanding the Ontario math curriculum, the continuum of learning across grades and high-impact instructional practices	Engage in professional learning on the Ontario math curriculum, making connections across grades and the high-impact instructional practices as part of School Improvement and Equity Planning	Implement the Ontario math curriculum and high-impact instructional practices based on data to support improved student learning in math
Key Performance Indicator	Percentage of educators with increased knowledge of the Ontario math curriculum, high-impact instructional practices, and the TVDSB Scope and Sequence	Number of professional learning opportunities related to the Ontario math curriculum and high-impact instructional practices increased	Percentage of educators implementing the Ontario math curriculum and using the high-Impact instructional practices increased
Data Sources	• Educator surveys • Administrator surveys • Superintendent surveys • Professional learning opportunities available to educators • Central math staff and resource supports provided in schools • EQAO (grades 3, 6, and 9) math achievement scores • Report card marks (grades 3, 6, and 9) • Pass rates (grade 9 math)		

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Know Your Math Content

	Board Level	School Level	Class Level
Strategy	Prioritizing math content knowledge for educators in professional learning opportunities, allocation of resources, including staffing and supporting family engagement in mathematics	Provide opportunities for educators to enhance their individual math knowledge through professional learning and sharing of resources Engage families and communities to support different ways of understanding and doing mathematics	Access resources and professional learning to continuously develop content knowledge for teaching math and engage families to support math learning
Key Performance Indicator	Number of opportunities where math content knowledge was prioritized for educators in professional learning, the allocation of resources, and supporting family engagement in mathematics increased	Number of educators who accessed opportunities to enhance their own math knowledge increased Number of math engagement opportunities offered for families and communities to support mathematics learning increased	Number of educators requesting resources, support from central math staff, and professional learning to develop content knowledge for teaching math and engage families increased
Data sources	• Completion of Additional Qualifications courses • Professional learning opportunities available to educators • Central math staff and resource supports provided in schools • Activity on the TVDSB math website • Educator surveys • Administrator surveys • Digital tool platforms		

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Know Your Students and Be Responsive

	Board Level	School Level	Class Level
Strategy	Provide digital tools to support mathematics learning at home and school that can be used by educators to understand current student learning levels and provide targeted supports for students	Use data from assessments and digital tools to support identifying urgent student learning needs in mathematics as part of the School Improvement and Equity Plan (Math Goal)	Plan, teach, and assess learning in culturally responsive and relevant ways to support students learning in mathematics
Key Performance Indicator	Percentage of students using Knowledgehook (grades 1-10) and Matific (grades 4-6) increased Percentage of educators using Knowledgehook (grades 1-10) and Matific (grades 4-6) to support students mathematics learning increased	Number of schools with increased use of student assessment data to determine urgent learning needs in mathematics	Number of educators with increased use of culturally responsive and relevant ways to plan, teach, and assess learning
Data Sources	• Administrator surveys • Superintendent surveys • Digital tool platforms • Central math staff and resource supports provided in schools • EQAO (grades 3, 6, and 9) math achievement scores • Report card marks (grades 3, 6, and 9) • Pass rates (grade 9 math)		

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Initial Report: November 2024 Submission and Development of KPIs

As boards develop their Initial Report submission (due to the Ministry of Education on November 15th), discussions around the province in many network sessions of Board Math Leads, has centered on the establishment of Key Performance Indicators and identifying specific data to report progress. For TVDSB, we are working through this work with intentionality, considering learnings from year one to continue to focus the *Math Action Plan.*

Next Steps

Drawing together the priorities of the *Math Action Plan*, TVDSB remains committed to using data to inform our work in supporting student success. Staff will provide updates to Trustees and the Ministry of Education throughout this year on the progress of the work of the *Math Action Plan.*

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3

- Aldborough
- Annandale
- Arthur Ford
- Bonaventure
- Caradoc North
- Cartier
- CC Carrothers
- Central
- Delaware
- East Carling
- Forest Park
- Hillcrest
- Jeanne Sauve
- John Wise
- June Rose Callwood
- Laurie Hawkins
- Lord Elgin
- McGillivray
- Mosa
- Northbrae
- Oliver Stephens
- Parkhill
- Pierre Elliott Trudeau
- Prince Charles
- Princess Anne
- Princess Elizabeth
- Roch Carrier
- Sir John A Macdonald
- Straffordville
- Trafalgar
- Tweedsmuir
- Victoria
- White Oaks
- Wilfrid Jury
- Wilton Grove
- Woodfield FI

6

- Aberdeen
- Annandale
- Bonaventure
- CC Carrothers
- East Carling
- Eastdale
- Ekcoe
- Emily Stowe
- Evelyn Harrison
- Forest City
- Glen Cairn
- Innerkip
- John Wise
- JP Robarts
- JS Buchanan
- Kettle Creek
- Knollwood
- Laurie Hawkins
- Lord Elgin
- McGillivray
- Nicholas Wilson
- Northbrae
- Oliver Stephens
- Parkhill
- Port Burwell
- Sir John A Macdonald
- Southside
- Straffordville
- Victoria
- Winchester
- Woodland Heights

9

- Arthur Voaden
- Clarke Road
- College Ave.
- Glencoe
- HB Beal
- Montcalm
- Sir Wilfrid Laurier
- West Elgin
- Westminster

Thames Valley District School Board

2024-2025 Math Priority Schools