TDSB Math Achievement Action Plan

To: Special Planning and Priorities Committee

Date: 23 November, 2023

Report No.: 11-23-4609

Strategic Directions

- Transform Student Learning
- Provide Equity of Access to Learning Opportunities for All Students
- Provide Equity of Access to Learning Opportunities for All Students
- Allocate Human and Financial Resources Strategically to Support Student Needs

Recommendation

It is recommended that the Math Achievement Action Plan Update for 2023-24 be received for information.

Context

The Toronto District School Board (TDSB) is steadfast in its commitment to providing exceptional, inclusive, empowering and culturally-responsive mathematics education. Every math classroom should be where students of diverse backgrounds and abilities can excel, fostering a deep appreciation for mathematics and promoting collaborative problem-solving while maintaining high expectations for student achievement, consistent with the board's requirements established under O. Reg. 224/23 (i.e., provincial education priorities).

As a strategy to fulfill the priorities in the Better Schools and Student Outcomes Act, 2023, the TDSB Math Achievement Action Plan is situated within this framework and is aligned with the Ministry priorities of:

- Ensuring fidelity of curriculum implementation
- Engaging in ongoing learning on mathematics content knowledge for teaching
- Knowing the mathematics learner, and ensuring mathematical tasks, interventions and supports are relevant and responsive

Historically, math has been considered a gateway to success in math, science and business fields. Math understanding is also key to successfully navigating personal finance and understanding data. A student's ability to access certain pathways in

secondary school can be altered by a student's experience with math. The TDSB is working to increase accessibility to high-level math, particularly to historically underserved groups. Careers linked to math and math-related subjects are often in demand and can be higher paying. Thus, we must ensure that all students can access mathematics throughout their school career. Student success in math will result from a strong foundation in math understanding and the provision of math programming that is rich, culturally responsive and based on a student's learned experience.

The TDSB Math Achievement Action Plan strategically supports the learning of staff from the classroom to the boardroom by linking the work through student learning outcomes and system improvement planning. Opportunities for learning will be offered to classroom teachers, school administrators and senior staff. The TDSB Math Achievement Action Plan is multidimensional and provides differentiated learning opportunities for educators in elementary, middle and secondary schools. These job embedded learning opportunities for Priority Schools are supported by Math Learning Partners (teachers who have specialized knowledge in math and math instruction) who can tailor the learning to the specific school and classroom context.

Progress on the priorities will be detailed in three updates to the Ministry as outlined in the Transfer Payment Agreement. The overarching objective of this plan is to enhance mathematics achievement and success among our students, focusing on curriculum fidelity, mathematics content knowledge for teaching, and understanding our students' unique needs.

The Math Achievement Action Plan, detailed fully in Appendix A, contains an overview to elevate mathematics education across all TDSB schools and emphasizes support for those designated as "Math Priority Schools" by the Ministry of Education. These are schools that were selected primarily based on the 2021-22 EQAO math assessment results (e.g., schools and specific grades within those schools in the lowest achieving 20% based on their 2021-22 EQAO results).

Ministry Reports: The Ministry of Education will expect us to provide them with updated information three times a year in November 2023, March and July 2024. These reports will include a section for all schools, which will provide information on the areas of need we identified, strategies we will be employing and the results we are reporting in the Ministry-provided strategies, and KPIs (Key Performance Indicators) for "all schools" and Priority Schools. The "all school" KPIs include digital math tool uptake in specific grades. When we report on the Priority Schools, the KPIs include report card marks in math, student attendance, student attitudes towards math, as well as digital math tool uptake in specific grades. The Ministry will require this to be reported individually for each of our 148 Priority Schools.

TDSB Board Reports: The TDSB strategy mirrors the three priorities of the Ministry plan and includes reporting on the strategies provided by the Ministry three times per year. The TDSB's board reports will include KPIs for the Ministry measures as well as additional KPIs for both "All Schools" and "Priority Schools" based on the measures we have determined are relevant for the board and school context and that reflect their focus in professional learning and the areas of focus in the school improvement process.

Broader reporting may include observations and conversations between students captured through the use of pedagogical documentation regarding student navigation of the mathematical processes in the curriculum, such as problem solving, formative

assessments in additive thinking showcasing increasingly sophisticated solution strategies, student feelings of belonging and representation in math class, and measures of student and teacher mathematical self-efficacy as captured through focus groups or surveys.

Action Plan

The TDSB action plan is multifaceted. Some actions are determined by the Ministry guidelines and others will be grounded in the TDSB context and system priorities such as:

- The importance of **Joy, Engagement and belonging** in our schools as a foundation for well-being, academic achievement and student success
- **Eliminating disproportionate outcomes** for students, particularly based on identity
- **STEM** - Achievement Trajectories from grade 4-9
- **Pathways** to post-secondary education
- **Learning recovery**

This math professional learning is designed to provide educators with an understanding of how to develop a program that balances both important foundational concepts and rich, culturally responsive, relevant and enjoyable mathematical learning tasks. The professional learning will be job-embedded, occurring in educator sessions with Math Learning Partners and within classrooms. The data will be tracked both at the board and at the school level. Principals and superintendents will actively collect and analyze student data, thus, embedding the work in the school improvement plan and providing coherence at every level of the system.

This November 2023 interim action plan provides a baseline for the two updates later in the year. Additional components will be added throughout the implementation of the Math Achievement Action Plan. Some of these will include:

- **Indigenous perspectives in math learning:** The math team will collaborate with staff from the Urban Indigenous Education Centre to help us to respectfully and meaningfully integrate Indigenous perspectives in mathematics into our classroom learning.

- **Centering Black Students: Culturally Relevant and Responsive Teaching in Mathematics:** The math team will collaborate with staff from the Centre of Excellence for Black Student Achievement to ensure that the mathematical learning will honour Black students' lived experiences, affirm their identities and be responsive to their individual profiles as learners.

- **Leader Learning:** Leader learning for both principals and superintendents regarding their support and monitoring of the math program in schools. This will be integrated with work on effective school improvement planning, data management, instructional leadership and analysis and communication strategies regarding student and school success.

- **Special Education and effective math practice**: Promoting meaningful inclusion in mathematics classes for students with special education needs and

supporting them to achieve grade-level learning whenever possible are central goals to TDSB's ongoing commitment to supporting all students.
This work includes:
Assistive Technology: Assistive Technology Teachers are collaborating with the Math Department to implement Brainingcamp, a virtual math manipulative resource.
Modifications in Mathematics and the Individual Education Plan (IEP): Ongoing professional learning with schools on modifications and accommodations as noted on IEPs using the Supporting Inclusion in Mathematics through Individual Education Plans and the 2020 Ontario Mathematics Curriculum, Grades 1-8 and Supporting Inclusion in Mathematics through Individual Education Plans and the 2021 Grade 9 Destreamed Mathematics Curriculum (2022) resources continues into the 2023-2024 school year focussing on Universal Design for Learning (UDL), Differentiated Instruction (DI) and Culturally Responsive and Relevant Pedagogy (CRRP).
Equals Math Kits for Primary ASD ISPs: Autism Services provided resources and professional development on *Equals Math Kits* to Primary Autism Intensive Support Programs (ASD ISP) teachers, aiding students in building essential math skills using this multi-sensory program.

- **Parent and Community Supports**: The math team will be working to create opportunities for families so they can understand our instructional methodologies and participate in the learning of their children.

All of these strategies will be implemented in a staged approach over the next year. Much like school planning, this is an iterative process whereby we will be monitoring the implementation (through measures such as attendance at sessions, presence of the work in schools, educator self-reports, student response etc). We will also monitor outcomes. This will be measured at several levels (classroom, school, and system). To assess outcomes, we rely on a combination of indicators mandated by the Ministry and those informed by the board (for more details, refer to the data section). It is essential to continue with strategies that we know are effective while remaining flexible and well-informed when adjustments to our plan are needed. While this is a long-term endeavour, by investing in our educators through high-quality professional learning and support and implementing accountability measures at every level of the system, we will observe positive changes in our students and schools currently facing math challenges.

To effectively address the goals of the Math Achievement Action Plan, the TDSB has initiated a series of comprehensive actions, including:

Professional Learning:

The Math Department has developed three distinct learning areas of focus for educators in schools:

1. **Building Foundational Math Skills in the Early Years**, based on the work of Dr. Alex Lawson

2. **Building Thinking Classrooms**, based on the work of Dr. Peter Liljedahl

3. **Spiraling Coding in Destreamed Grade Nine Classroom**s: The TDSB Mathematics and Numeracy Department has partnered with the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT) to support secondary math teachers with the effective implementation of the 2021 Grade 9 destreamed math curriculum.

A fourth professional learning series is being developed based on the work of Dr. Cathy Bruce: **Unlocking Fractions Understanding**. This will be available in term two.

These learning opportunities are provided to Priority Schools using collaborative inquiries to facilitate learning. Math learning partners deliver the learning to a cluster of Priority Schools and then support schools in the classroom in implementing and documenting the work with students. This work will be included in schools' School Improvement Plans (SIP) through their data collection and action plans.

Learning opportunities for "All Schools":

To support schools who are not deemed "Priority Schools" by the Ministry, schools have the opportunity to attend the professional learning once the Priority Schools have enrolled.

The Math Department also supports the system in a variety of ways including professional learning on the revised curriculum, system-wide Digital Math Tools, math additional qualification courses, developing resources (e.g., Math Equity Toolkit) and teachers' conferences. School Improvement Coaches who work with the non "Priority Schools" are also attending these sessions so they might support their schools in engaging in this work through hubs at the learning network level.

Staffing:

Math Learning Partners:

The Ministry provided targeted Priorities and Partnerships Funding (PPF) for school math facilitators (Math Learning Partners). These facilitators work closely with teachers in Grades 3, 6, and 9 classrooms within Priority Schools. Their role includes supporting academic achievement and providing in-class facilitation to enhance math content knowledge and high-impact instructional practices. They will also collaborate with classroom educators to identify students' strengths and needs and appropriate interventions. MLPs are elementary and secondary teachers centrally assigned by the TDSB to accelerate mathematics improvement efforts. They facilitate ongoing professional learning sessions primarily for educators in the same Math Priority Schools they support (e.g., working in the classes of teacher participants in target grades between sessions). These sessions focus on research-informed practices (e.g., Building Thinking Classrooms, continuum of foundational math skills in the early years, spiraling coding across strands in the destreamed grade 9 curriculum, emphasizing anti-oppressive approaches).

System Superintendents:

The Ministry also provided targeted PPF funding for two System Superintendents of Math who have been hired to collaborate with superintendents and principals in setting school improvement goals aligned with the Math Achievement Action Plan. They will lead efforts to achieve targets and enhance communication between the board, schools, parents, and the local community.

Digital Math Tools:

The Ministry also provided targeted PPF (grant) funding for digital math tools. Some tools are available system-wide and Math Priority Schools also receive access to a limited number of centrally-provided licenses to support math instruction (e.g., MathUP, Mathology), focusing on target grades (e.g., grade 3, 6). PPF funded digital math tools need to meet specific criteria (e.g., align with the Ontario Mathematics Curriculum, offering reporting capabilities for parents and educators). The TDSB has digital math tools that are accessible to all classes in the system (e.g., Knowledgehook, Brainingcamp), which allows the board to have the capacity to meet the Ministry target of students (especially in Grades 3, 6, 7, 8 and 9) to access the digital math tools.

Additional Qualifications Subsidy:

In an effort to improve educators' math content knowledge and instructional practices, the TDSB was successful in their grant application to the Ministry in order to offer subsidies to Ontario College of Teachers (OCT) certified staff who complete Additional Qualification (AQ) courses in math. These subsidies are designed to boost teachers' confidence in effectively teaching math and can be applied to any Math AQ course offered by an accredited provider. We are pleased to share that the TDSB also received approval for an increased PPF amount this year, with the goal of encouraging more staff, across the system, to take advantage of this opportunity.

TDSB Additional Qualifications Courses:

The TDSB also provides internal Math Additional Qualification (AQ) courses specifically designed to enrich educators' understanding of mathematics instruction. These courses involve active engagement in mathematics, group discussions, reading, analysis, reflection, and self-directed study. Participants will develop strong mathematical thinking skills and gain a toolkit of strategies to foster similar thinking in their students. Additionally, by offering these AQ courses in-house to TDSB staff, we can spotlight TDSB resources and underscore our math priorities while providing the course at a reduced rate of $450.

Associated Timeline

Timelines	Actions
June 2023	Cluster Organization: Etobicoke-York, West Toronto, North York, Don Valley, West Scarborough and East Scarborough
September 2023	Onboarding and training with their designated Math Priority Schools

September 2023	Professional Learning Cycle One begins
September 2023	Provision and promotion of Digital Math Tools
September 2023	Provision and promotion of the Math Additional Qualifications subsidy
October 2023	Board Math Leads (System Superintendents) begin
October 2023	Interim report delivered to PPC
October 2023	Ministry baseline data collected, board level data collection plan developed, and baseline collected
January 2024	Professional Learning Cycle Two begins
February 2024	Supplementary report delivered to Board Committee
February 2024	Mid-Point data collection in priority schools
May 2024	Final report delivered to Board Committee
May-June 2024	Final data collection including EQAO administration (Results in fall 2024)

Priority School Clusters:

The Ministry has funded targeted improvements, particularly for Grades 3, 6, and 9 math classes in Math Priority Schools. The Ministry's selection of schools for extra support assistance from Math Facilitators, called Math Learning Partners, was primarily based on the 2021-22 EQAO math assessment results (e.g., schools and specific grades within those schools in the lowest achieving 20% based on their 2021-22 EQAO results).

To effectively address the Ministry-identified "Math Priority Schools," an organizational approach was adopted. These schools were not evenly distributed across the city; hence, they were grouped into "Clusters" strategically based on factors such as the :

- Learning Opportunities Index (LOI) and
- feeder-receiver school networks (geography), ensuring a strategic approach to math education improvement.

School Clusters:

Etobicoke-York	North York	Scarborough West
West Toronto	Don Valley	Scarborough East

Each cluster is composed of 19 to 25 Math Priority Schools set to receive additional support. The Math Learning Partners (MLPs) are pivotal in providing this support.

Each cluster has four Math Learning Partners (one secondary and three elementary). Each of the 24 Math Learning Partners is assigned 5 to 6 schools. Moreover, specific

focus grades have been identified by the Ministry in the Priority Schools (e.g., grades 3, 6, and 9).

There is also an elementary Hybrid Math Learning Partner who will host demonstration classrooms in her classroom. The MLPs will collaborate extensively with teachers, engaging in co-teaching, co-planning, and targeted professional development initiatives.

This new phase of the TDSB's Math Strategy is strategically designed to empower educators, elevate math education standards, and bolster student success. Priority Schools will be the targeted beneficiaries of these resources, but all schools can participate in the professional learning on our priorities after the Priority Schools have been registered. This plan aligns with the TDSB's unwavering commitment to continuously enhance mathematics education for all students.

Data Collection:

The Math Department will track the effectiveness of these initiatives through these strategic goals:

Ministry Priority Actions	Board Priorities
Ensuring fidelity of curriculum implementation and use of instructional and assessment practices with a proven track record of enhancing student achievement.	● Effective Assessment for/as Learning ● Building proficiency in our educators' mathematics content knowledge for teaching
Engaging in ongoing learning to strengthen mathematics content knowledge and teaching.	● Effective Assessment for/as Learning ● Building proficiency in our educators' mathematics content knowledge for teaching ● Effective and relevant pedagogical approaches
Knowing the mathematics learner, and ensuring mathematical tasks, interventions and supports are relevant and responsive	● Making mathematics relevant and enjoyable ● Addressing unfinished learning

The TDSB will monitor various data sets to assess our progress in meeting the above-mentioned expectations. These data sets include measures mandated by the Ministry as well as those informed by the board.

Data Sets
● Student assessments (diagnostic and formative) including developmental measures

• Report card marks and summative assessments
• Observations of student learning through pedagogical documentation
• Student conversations about math captured through pedagogical documentation
• The number of female-identifying students pursuing math and science in grades 11 and 12
• Increased teacher knowledge and confidence,
• Enhanced student confidence in mathematics, and
• Improved family satisfaction with math resources.
• Attendance patterns

Data and evidence will be continually refined as we monitor the implementation of the Math Achievement Action Plan. We will be monitoring what we are doing, what is changing as a result and who is better off. The use of qualitative data will point us in the direction of new ideas and solutions and will also provide insights into the successes and challenges experienced by educators and students as we work together to elevate math education.

As a part of this work, schools will be collecting and including this data in the achievement portion of their School Improvement Plan. Also, school principals and vice principals will be involved in collecting their own observational data through their walk-through processes which will also be included in the School Improvement Plan.

Resource Implications

Project and Staffing	**Source of Funding**
Staffing of School Math Facilitators and Board Math Superintendents	Ministry Funding Math Achievement Action Plan - School Math Facilitators and Board Math Leads (PPF)
Professional Learning	Mathematics and Numeracy Department Funds Board directed Student Success Funding
Professional Learning Release Time for	School Budget: there are no Ministry

school-based educators	Math PFF funds allocated Board directed Student Success Funding
School Resource Purchases (math tools, books, manipulatives etc.)	School Budget: there are no Ministry Math PFF funds allocated
Digital Math Tools	Math Achievement Action Plan - Digital Math Tools (PPF)
Additional Qualifications Subsidy	Math Achievement Action Plan – Additional Qualifications Subsidy (PPF)
TDSB Additional Qualifications Courses	Self-financing (no impact on TDSB budget)

Please note: The Ministry has NOT provided any funding for release time for this learning for Priority Schools or other schools.

Communications Considerations

Effective communication is vital for the successful execution of the Math Achievement Action Plan. A comprehensive communication strategy will be developed to ensure that the plan is clearly communicated internally and externally (e.g. to Trustees, staff, schools, parents/guardians/caregivers, and the wider TDSB community). Regular updates on progress and results will be shared to foster transparency and engagement. This will include a formalized process around the department's internal reporting in addition to system and public engagement and cohesion and alignment of practices.

Below is one priority of the Math Action Plan. The complete Math Action Plan is found in Appendix A.

Action Plan Priority 1 Math Priority Schools and All Schools

Priority 1: Ensuring fidelity of curriculum implementation and use of instructional and assessment practices with a proven track record of enhancing student achievement

Math Priority Schools	All Schools
Targeted Areas of Need	
The targeted areas of need for Math Priority Schools include improving educators' implementation of effective high-impact instructional practices, and teaching new curriculum expectations from the 2020 elementary.	The TDSB's areas of need include improving educators' familiarity with effective high-impact instructional practices, teaching new curriculum expectations from the 2020 elementary and 2021 Grade 9 curriculums, providing curriculum-aligned resources for home learning (e.g., digital), expanding professional learning opportunities so that more staff can attend.
TDSB System Goal	
We will prioritize understanding of the curriculum and the continuum of learning across grades.	We will prioritize understanding of the curriculum and the continuum of learning across grades.
Board Actions (What are we doing?)	
1) Math Learning Partners (MLPs) will facilitate system-wide professional learning to staff from Math Priority Schools in the areas of evidence-based pedagogical approaches including: Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions Understanding, and Spiralling Coding in the Grade 9 Curriculum. MLPs then support job-embedded learning and implementation with staff in classrooms through co-planning and co-teaching, as well as school-wide capacity building in partnership with local influencers. 2) MLPs and classroom teachers will engage in pedagogical documentation to identify learning strategies/instructional practices they are implementing in classrooms. The pedagogical documentation will outline the strategy, and changes in educator confidence and student math confidence. Pedagogical documentation should be connected to school improvement planning	1) Math Learning Partners (MLPs) will facilitate system-wide professional learning to Learning Network School Improvement Plan (LN SIP) coaches at the priority schools sessions in the areas of evidence-based pedagogical approaches including: Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions Understanding, and Spiralling Coding in the Grade 9 Curriculum. LN SIP coaches then support job-embedded learning and implementation for teachers, school administrators and Superintendents of Education (SOEs) through Learning Network (LN) math hubs. 2) Superintendents of Education, school administrators and classroom teachers will engage in pedagogical documentation to identify learning strategies/instructional practices they are implementing in classrooms. The pedagogical documentation will outline the strategy, and changes in

processes and expectation will be that principals, educators and supervisory officers are all involved in analysis and discussion. 3) Sessions will be hosted to support supervisory officers and principals focused on co-creating expectations and indicators of pedagogical excellence and implementation methodology. 4) A Math Priority School Profile is being created by the Research and Assessment department to create a visual and interactive dashboard including evidence, quantitative and qualitative data about each Math Priority School and key performance indicators (KPIs). 5) A monitoring meeting structure is being established including supervisory leaders to review each Math Priority School profile individually and collectively to support the advancement of positive outcomes. 6) Additional Qualifications (AQ) - In an effort to improve educators' math content knowledge and instructional practices, the TDSB is providing Math AQ subsidies. These additional qualifications in mathematics boost teachers' confidence and efficacy in teaching math (e.g., high-impact practices, content knowledge, understanding the revised curriculum).	educator confidence and student math confidence. Pedagogical documentation should be connected to school improvement planning processes and the expectation will be that principals, educators and supervisory officers are all involved in analysis and discussion. 3) Professional learning will be geared to administrators' understanding and implementation of the curriculum connected to school improvement planning. 4) Sessions will be created and led by Board Math Leads to support supervisory officers and principals focused on co-creating expectations and indicators of pedagogical excellence and implementation methodology. 5) Additional Qualifications (AQ) - In an effort to improve educators' math content knowledge and instructional practices, the TDSB is providing Math AQ subsidies. These additional qualifications in mathematics boost teachers' confidence and efficacy in teaching math (e.g., high-impact practices, content knowledge, understanding the revised curriculum).
What is changing as a result?	
● There will be increased expectations and support for supervisory officers and administrators for accountability, monitoring, and ongoing support resulting in increased data literacy and change management skills. ● There will be the increased use of pedagogical documentation by MLPs and principals using a newly established Google repository that will identify and document changes in teaching practices and the implementation of effective math strategies. ● There will be an increased use of formative assessment tools as documented in pedagogical documentation.	● There will be increased expectations and support for supervisory officers and administrators for accountability, monitoring, and ongoing support resulting in increased data literacy and change management skills. ● There will be the increased use of pedagogical documentation by SOEs and principals using a newly established Google repository that will identify and document changes in teaching practices and the implementation of effective math strategies. ● There will be an Increased use of formative assessment tools as documented in pedagogical documentation.

Monitoring and Data Collection (Who is better off?)	
• An increase in 1% of students will self-report greater confidence and a love for mathematics as measured through the two question survey for all students in grade 3, 6, 7, 8, 9. • An increased 1% of staff in all Priority schools will self-report greater confidence in teaching math content as measured through staff surveys and qualitative data . • An increased 1% of schools and educators will improve across all Key Performance Indicators (KPIs) as measured in Math Priority Schools Profiles.	• An increased percentage of students in math focused schools will self-report greater confidence and a love for mathematics as measured through the two question survey for all students in grade 3, 6, 7, 8, 9 • An increased percentage of staff in math focused schools will self-report greater confidence in teaching math content as measured through staff surveys and qualitative data • An increased percentage of principals and SOEs in math focused schools will self-report greater confidence in implementing and monitoring the work in their schools.
School-level Goal	
Priority schools will engage in ongoing professional learning (e.g., in grade/division/ department meetings, learning teams, classroom visits) on the math curriculum, including making connections across strands and high impact practices.	Math-focused schools (a subset of “all schools”) will engage in ongoing professional learning (e.g., in grade/division/ department meetings, learning teams, classroom visits) on the curriculum, including making connections across strands.
School-level Actions (what are we doing?)	
1) Math priority schools have, as the achievement goal in their school improvement plan, a math focus. 2) Principals will send school-based learning teams (e.g., minimum of 2 teachers) to the professional learning on high-impact strategies for curriculum integration and interdisciplinary connections (ie., Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions and/or Spiralling Coding in the Grade 9 Class. 3) School administrators will participate in professional learning and support regarding their role in instructional leadership and monitoring the math learning at their school.	1) Math-focused schools have, as the achievement goal in their school improvement plan, a math focus. 2) Key leaders in math focused schools will engage in system-level learning (e.g. system-wide PD sessions, LN hubs) and continue the professional learning (e.g., in grade/division/department meetings, learning teams, classroom visits) on the curriculum, including making connections across strands and high-impact instructional practices at the school. 3) This learning will include job-embedded work with students and the ongoing collection of assessment data to bring back to future LN Hub sessions and monitor their work.
What is changing as a result?	
Principals who attend the Professional Learning (PL) with their staff will have a stronger understanding of high-yield strategies. Principals who attend can co-facilitate and co-learn with their staff. Increased understanding of “look fors” for walk throughs. Principals will give descriptive feedback to	Principals who attend math professional learning with their staff will have a stronger understanding of high-yield strategies. Principals who attend can co-facilitate and co-learn with their staff. Increased understanding of “look fors” for walk throughs. Administrators will increase their ability to give

teachers to improve classroom instructional practices. Administrators will increase their ability to give descriptive feedback to teachers to improve classroom instructional practices. Supporting teacher efficacy and improvement through Annual Learning Plans (ALPs), and Teacher Performance Appraisal (TPA) processes.	descriptive feedback to teachers to improve classroom instructional practices. They will support teacher efficacy and improvement through ALPs, and TPA processes. School administrators will be more effective in aligning structures and budgets to support the math work in their schools. SOEs and school administrators will be able to engage in deeper discussion and mentoring regarding the school Improvement Plan (SIP) and the math work happening in schools.
What is changing as a result?	
• School-based staff have increased capacity for teaching math (principal survey based on walkthrough observations and locally specific actions to support their SIP) • Students have increased achievement and attitudes in math (captured through surveys).	• School-based staff have increased capacity for teaching and monitoring for effective math practice (principal survey based on walkthrough observations and locally specific actions to support their SIP) • Students have increased achievement and attitudes in math (captured through surveys).
Monitoring and Collecting Data (Who is better off?)	
Educators in priority schools will draw explicit connections to and between mathematical processes and in lesson planning and use proven instructional and assessment practices (e.g., High-Impact Instructional Practices).	Educators in math focused schools will draw explicit connections to and between mathematical processes and in lesson planning and use proven instructional and assessment practices (e.g., high-impact instructional practices)
Classroom-level Actions (What are we doing?)	
1. Teachers are learning about and using instructional strategies and practices from their professional learning sessions to co-plan and co-teach with our Math Learning Partners.	1. Teachers are using instructional strategies and practices from their professional learning sessions to plan and teach lessons that are directly connected to the curriculum and that feature high impact instructional strategies. They will be collecting student data and using the data to inform their next steps and their future LN hub learning.
What is changing as a result?	
Classroom learning experiences incorporate more high-impact instructional practices, resulting in more student critical thinking, deeper learning, and higher achievement in math.	Classroom learning experiences incorporate more high-impact instructional and assessment practices, resulting in instruction aligned with the curriculum and precisely targeted to meet student needs. As a result, students will demonstrate higher levels of engagement, critical thinking, deeper learning, and achievement in math.
Monitoring and Collecting Data (Who is better off?)	
• School based staff have increased capacity for teaching math (principal survey based on	• School based staff have increased capacity for teaching and monitoring for effective math

walkthrough observations and locally specific actions to support their SIP) ● Students have increased achievement and attitudes in math (captured through surveys).	practice (principal survey based on walkthrough observations and locally specific actions to support their SIP) ● Students have increased achievement and attitudes in math (captured through surveys).

Board Policy and Procedure Reference(s)

Policy P038 - Transforming Student Learning in Literacy and Mathematics

Appendices

- Appendix A: TDSB Math Achievement Action Plan 2023-24

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Appendix A

TDSB Math Achievement Action Plan 2023-24

Priority 1: Ensuring fidelity of curriculum implementation and use of instructional and assessment practices with a proven track record of enhancing student achievement

Math Priority Schools	All Schools
Targeted Areas of Need	
The targeted areas of need for Math Priority Schools include improving educators' implementation of effective high-impact instructional practices, and teaching new expectations from the 2020 elementary curriculum. and 2021 Grade 9 curriculums, providing curriculum-aligned resources for home learning (e.g., digital), expanding professional learning opportunities.	The TDSB's areas of need include: improving educators' familiarity with effective high-impact instructional practices, teaching new curriculum expectations from the 2020 elementary and 2021 Grade 9 curriculums, providing curriculum-aligned resources for home learning (e.g., digital), expanding professional learning opportunities.
TDSB System Goal	
We will prioritize understanding of the curriculum and the continuum of learning across grades.	We will prioritize understanding of the curriculum and the continuum of learning across grades.
Board Actions (What are we doing?)	
1) Math Learning Partners (MLPs) will facilitate system-wide professional learning to staff from Math Priority Schools in the areas of evidence-based pedagogical approaches including: Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions Understanding, and Spiralling Coding in the Grade 9 Curriculum. MLPs then support job-embedded learning and implementation with staff in classrooms through co-planning and co-teaching, as well as school-wide capacity building in partnership with local influencers. 2) MLPs and classroom teachers will engage in pedagogical documentation to identify learning strategies/instructional practices they are implementing in classrooms. The pedagogical documentation will outline the strategy, and changes in educator confidence and student math confidence. Pedagogical documentation should be connected to school improvement planning processes and the expectation will be that principals, educators and supervisory officers are all involved in analysis and discussion. 3) Sessions will be hosted to support supervisory officers and principals focused on co-creating expectations and indicators of pedagogical excellence and implementation methodology. 4) A Math Priority School Profile is being created by the Research and Assessment department to create a visual and interactive dashboard including evidence, quantitative and qualitative data about each Math Priority School and key performance indicators (KPIs). 5) A monitoring meeting structure is being established, including supervisory leaders to review each Math Priority School profile individually and collectively to support the advancement of positive outcomes. 6) Additional Qualifications (AQ) - To improve educators' math content knowledge and instructional practices, the TDSB is providing Math AQ subsidies. These additional qualifications in mathematics boost teachers' confidence and efficacy in teaching math (e.g., high-impact practices, content knowledge, understanding the revised curriculum).	1) Math Learning Partners (MLPs) will facilitate system-wide professional learning to Learning Network School Improvement Planning (LN SIP) coaches at the priority schools sessions in the areas of evidence-based pedagogical approaches including: Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions Understanding, and Spiralling Coding in the Grade 9 Curriculum. LN SIP coaches then support job-embedded learning and implementation for teachers, school administrators and Superintendents of Education (SOEs) through Learning Network (LN) math hubs. 2) Superintendents of Education, school administrators and classroom teachers will engage in pedagogical documentation to identify learning strategies/instructional practices they are implementing in classrooms. The pedagogical documentation will outline the strategy, and changes in educator confidence and student math confidence. Pedagogical documentation should be connected to school improvement planning processes and the expectation will be that principals, educators and supervisory officers are all involved in analysis and discussion. 3) Professional learning will be geared to administrators' understanding and implementation of the curriculum connected to school improvement planning. 4) Sessions will be created and led by Board Math Leads to support supervisory officers and principals focused on co-creating expectations and indicators of pedagogical excellence and implementation methodology. 5) Additional Qualifications (AQ) - To improve educators' math content knowledge and instructional practices, the TDSB is providing Math AQ subsidies. These additional qualifications in mathematics boost teachers' confidence and efficacy in teaching math (e.g., high-impact practices, content knowledge, understanding the revised curriculum).
What is changing as a result?	
● There will be increased expectations and support for supervisory officers and administrators for accountability, monitoring, and ongoing support resulting in increased data literacy and change management skills.	● There will be increased expectations and support for supervisory officers and administrators for accountability, monitoring, and ongoing support, resulting in increased data literacy and change management skills.

• There will be the increased use of pedagogical documentation by MLPs and principals using a newly established Google repository that will identify and document changes in teaching practices and the implementation of effective math strategies. • There will be an increased use of formative assessment tools as documented in pedagogical documentation.	• There will be the increased use of pedagogical documentation by SOEs and principals using a newly established Google repository that will identify and document changes in teaching practices and the implementation of effective math strategies. • There will be an Increased use of formative assessment tools as documented in pedagogical documentation.
Monitoring and Data Collection (Who is better off?)	
• An increase in 1% of students will self-report greater confidence and a love for mathematics as measured through the two question survey for all students in grades 3, 6, 7, 8, 9. • An increased 1% of staff in all Priority schools will self-report greater confidence in teaching math content as measured through staff surveys and qualitative data. • An increased 1 % of schools and educators will improve across all Key Performance Indicators (KPIs) as measured in Math Priority Schools Profiles.	• An increased percentage of students in math-focused schools will self-report greater confidence and a love for mathematics as measured through the two question survey for all students in grades 3, 6, 7, 8, 9. • An increased percentage of staff in math-focused schools will self-report greater confidence in teaching math content as measured through staff surveys and qualitative data. • An increased percentage of principals and SOEs in math-focused schools will self-report greater confidence in implementing and monitoring the work in their schools.
School-level Goal	
Priority schools will engage in ongoing professional learning (e.g., in grade/division/ department meetings, learning teams, classroom visits) on the math curriculum, including making connections across strands and high impact practices.	Math-focused schools (a subset of “all schools”) will engage in ongoing professional learning (e.g., in grade/division/ department meetings, learning teams, classroom visits) on the curriculum, including making connections across strands.
School-level Actions (what are we doing?)	
1) Math priority schools have, as the achievement goal in their school improvement plan, a math focus. 2) Principals will send school-based learning teams (e.g., minimum of 2 teachers) to the professional learning on high-impact strategies for curriculum integration and interdisciplinary connections (ie., Building Thinking Classrooms, Building Foundational Math Skills in the Early Years, Unlocking Fractions and/or Spiralling Coding in the Grade 9 Class. 3) School administrators will participate in professional learning and support regarding their role in instructional leadership and monitoring the math learning at their school.	1) Math-focused schools have, as the achievement goal in their school improvement plan, a math focus. 2) Key leaders in math-focused schools will engage in system-level learning (e.g. system-wide PD sessions, LN hubs) and continue the professional learning (e.g., in grade/division/department meetings, learning teams, classroom visits) on the curriculum, including making connections across strands and high-impact instructional practices at the school. 3) This learning will include job-embedded work with students and the ongoing collection of assessment data to bring back to future LN Hub sessions and monitor their work.
What is changing as a result?	
Principals who attend the Professional Learning (PL) with their staff will have a stronger understanding of high-yield strategies. Principals who attend can co-facilitate and co-learn with their staff. Increased understanding of “look fors” for walk throughs. Principals will give descriptive feedback to teachers to improve classroom instructional practices. Administrators will increase their ability to give descriptive feedback to teachers to improve classroom instructional practices. Supporting teacher efficacy and improvement through Annual Learning Plans (ALPs), and Teacher Performance Appraisal (TPA) processes.	Principals who attend math professional learning with their staff will have a stronger understanding of high-yield strategies. Principals who attend can co-facilitate and co-learn with their staff. Increased understanding of “look fors” for walk throughs. Administrators will increase their ability to give descriptive feedback to teachers to improve classroom instructional practices. They will support teacher efficacy and improvement through ALPs, and TPA processes. School administrators will be more effective in aligning structures and budgets to support the math work in their schools. SOEs and school administrators will be able to engage in deeper discussion and mentoring regarding the School Improvement Plan (SIP) and the math work happening in schools.
What is changing as a result?	
• School-based staff have increased capacity for teaching math (principal survey based on walkthrough observations and locally specific actions to support their SIP) • Students have increased achievement and attitudes in math (captured through surveys).	• School-based staff have increased capacity for teaching and monitoring for effective math practice (principal survey based on walkthrough observations and local specific actions to support their SIP) • Students have increased achievement and attitudes in math (captured through surveys).
Monitoring and Collecting Data (Who is better off?)	
Educators in priority schools will draw explicit connections to and between mathematical processes and in lesson planning and use proven instructional and assessment practices (e.g., High-Impact Instructional Practices).	Educators in math focused schools will draw explicit connections to and between mathematical processes and in lesson planning and use proven instructional and assessment practices (e.g., high-impact instructional practices)

Classroom-level Actions (What are we doing?)	
1. Teachers are learning about and using instructional strategies and practices from their professional learning sessions to co-plan and co-teach with our Math Learning Partners.	1. Teachers are using instructional strategies and practices from their professional learning sessions to plan and teach lessons that are directly connected to the curriculum and that feature high impact instructional strategies. They will be collecting student data and using the data to inform their next steps and their future LN hub learning.
What is changing as a result?	
Classroom learning experiences incorporate more high-impact instructional practices, resulting in more student critical thinking, deeper learning, and higher achievement in math.	Classroom learning experiences incorporate more high-impact instructional and assessment practices, resulting in instruction aligned with the curriculum and precisely targeted to meet student needs. As a result, students will demonstrate higher levels of engagement, critical thinking, deeper learning, and achievement in math.
Monitoring and Collecting Data (Who is better off?)	
● School-based staff have increased capacity for teaching math (principal survey based on walkthrough observations and locally specific actions to support their SIP) ● Students have increased achievement and attitudes in math (captured through surveys).	● School-based staff have increased capacity for teaching and monitoring for effective math practice (principal survey based on walkthrough observations and locally specific actions to support their SIP) ● Students have increased achievement and attitudes in math (captured through surveys).

Priority 2 Engaging in ongoing learning to strengthen mathematics content knowledge for teaching

Math Priority Schools	**All Schools**
Targeted Areas of Need	
In Priority Schools, the TDSB's areas of need involve using student achievement data to inform professional learning and formulate strategies for advancing student learning. Additionally, there is a focus on enhancing teachers' comprehension of mathematics content, particularly in the areas of number sense and operations, to boost their confidence and teaching proficiency in math.	The TDSB's areas of need involve using student achievement data to inform professional learning and formulate strategies for advancing student learning. Additionally, there is a focus on enhancing teachers' comprehension of mathematics content, particularly in the areas of number sense and operations, to boost their confidence and teaching proficiency in math.
TDSB System Goal	
We will utilize student achievement data and student work to establish focus areas for mathematics professional learning.	We will utilize student achievement data and student work to establish focus areas for mathematics professional learning.
Board Actions (What are we doing?)	
1) Utilize Big Data at system levels in relation to both perceptual information from students about engagement and learning in mathematics and student achievement data from EQAO and report cards to establish broad areas of focus. School-based hubs will initiate a qualitative granular review of student experience in mathematics to establish core focus and pedagogic approaches. Align data collection and analysis strategies at the school Learning Network, Learning Centre and Board Level to enhance system coherence. 2) Leader Learning: Superintendents will be learning about their role as instructional leaders in their learning networks in order to support the learning of principals focusing on their role as instructional leaders in their buildings. LN funding will be utilized strategically to support leader participation in the priority schools' professional learning offerings. 3) Collaboration between the math team and other central departments in the TDSB to ensure that the professional learning includes learning regarding Indigenous Education, Anti-Oppressive pedagogies and Equity that is responsive to our students' lived experiences. 4) Professional learning will be developed to deepen content understanding in priority schools through	1) Utilize Big Data at system levels in relation to both perceptual information from students about engagement and learning in mathematics and student achievement data from EQAO and report cards to establish broad areas of focus. LN-based hubs will initiate a qualitative granular review of student experience in mathematics with school leaders and educators to establish core focus and pedagogic approaches. Align data collection and analysis strategies at the school Learning Network, Learning Centre and Board Level to enhance system coherence. 2) Leader Learning: Superintendents will be learning about their role as instructional leaders in their learning networks in order to support the learning of principals focusing on their role as instructional leaders in their buildings. 3) Collaboration between the math team and other central departments in the TDSB to ensure that the professional learning includes learning regarding Indigenous Education, Anti-Oppressive pedagogies and Equity that is responsive to our students' lived experiences. 4) Professional learning will be developed to deepen content understanding in priority schools through Building Foundational Skills in the Early Years, Rethinking Fractions and Spiralling Coding.

Building Foundational Skills in the Early Years, Rethinking Fractions and Spiralling Coding. 5) AQs: TDSB utilized data to develop AQ courses that are responsive to the students in the specific TDSB context. The AQ is also aligned to system math priorities of numeracy.	5) AQs: TDSB utilized data to develop AQ courses that are responsive to the students in the specific TDSB context. The AQ is also aligned to system math priorities of numeracy.
What is changing as a result?	
Greater coherence between system professional learning offerings and school needs. Deepened system leader understanding of data collection and analysis and alignment with learning to support effective practice. Data reported from the schools to system level teams will become a more accurate measure of educator (SOE, School Administrators and Teachers) confidence with Math Knowledge for leading and teaching.	Greater coherence between system professional learning offerings and school needs. Deepened system leader understanding of data collection and analysis and alignment with learning to support effective practice. Data reported from the math focussed schools to system level teams will become a more accurate measure of educator (SOE, School Administrators and Teachers) confidence with Math Knowledge for leading and teaching.
Monitoring and Data Collection (Who is better off?)	
• System leaders are aligning resources and learning with the data in their schools. School board funds are being allocated effectively to directly support student math learning. • System and School leaders can articulate a rationale based on their knowledge of effective math content instruction for the decisions they are making in support of student learning in math priority schools.	• System leaders are aligning resources and learning with the data in their schools. School board funds are being allocated effectively to directly support student math learning. • System and School leaders can articulate a rationale based on their knowledge of effective math content instruction for the decisions they are making in support of student learning in math-focussed schools.
School-level Goal	
Priority schools will collaborate with the Board Math Leads to identify school/division/grade mathematics content knowledge focus areas, including planning and monitoring associated professional learning.	Schools will collaborate with the Board Math Leads to identify school/division/grade mathematics content knowledge focus areas, including planning and monitoring associated professional learning.
School-level Actions (what are we doing?)	
1) Schools will send educators (teachers and administrators) to professional learning and participate fully in the learning both at the session and the job-embedded work back at the school with the MLP and in the classroom.	1) Schools will send educators (teachers and administrators) to professional learning and participate fully in the learning both at the session and the job-embedded work back at the school both through the SIP and their work with teachers in the classroom. Data will be collected between sessions to take back to the hub for further analysis and to indicate the next steps in both education and student learning.
What is changing as a result?	
Alignment of the student data and the selected professional learning. Administrator presence as an instructional leader co-learning and co-facilitating math learning. The Principal is collecting data with the classroom teacher to use to inform future work at the school level (i.e., PL, resources etc.). Principals can clearly articulate the direction of the mathematics program in their school to various stakeholders such as families, educators and their superintendent.	Alignment of the student data and the selected professional learning. Administrator presence as an instructional leader co learning and co facilitating math learning. The Principal is collecting data with the classroom teacher to use to inform future work at the school level (i.e., PL, resources etc.). Principals can clearly articulate the direction of the mathematics program in their school to various stakeholders such as families, educators and their superintendent.
Classroom-level Goal	
Educators in Math Priority Schools will access resources (e.g., teacher supports on the Curriculum and Resources website), experts (e.g., curriculum consultant, school math facilitator), and professional learning to continuously develop their content knowledge for teaching.	Educators in Math focused schools will access resources (e.g., teacher supports on the Curriculum and Resources website), experts (e.g., curriculum consultant, school math facilitator), and professional learning to continuously develop their content knowledge for teaching.
Classroom-level Actions (What are we doing?)	
1) Teachers are learning about math content and the development of student math thinking through professional learning offerings such as Building Foundational Skills in the Early Years and Unlocking Fractions (term 2).	1) Teachers are learning about math content and the development of student math thinking through professional learning offerings such as Building Foundational Skills in the Early Years and Unlocking Fractions (term 2).

What is changing as a result?	
Student learning is more accurately paired to their developmental stage of mathematical thinking, resulting in more precise and personalized learning based on formative math data.	Student learning is more accurately paired to their developmental stage of mathematical thinking, resulting in more precise and personalized learning based on formative math data.
Monitoring and Collecting Data (Who is better off?)	
● School leaders will report greater efficacy in both data management and coherence with school improvement plans. School leaders will utilize formative student data to inform decisions at the school level regarding resource allocation and educator professional learning. ● Students will be moving forward in their math thinking development as a result of the learning being deeper and more targeted to their current learning needs.	● School leaders will report greater efficacy in both data management and coherence with school improvement plans. School leaders will utilize formative student data to inform decisions at the school level regarding resource allocation and educator professional learning. ● Students will be moving forward in their math thinking development as a result of the learning being deeper and more targeted to their current learning needs.

Priority #3: Knowing the mathematics learner, and ensuring mathematical tasks, interventions and supports are relevant and responsive

Math Priority Schools	All Schools
Targeted Areas of Need	
The Math Priority Schools' areas of focus include improving data analysis skills to inform interventions and planning, utilizing observations and student conversations to understand their mathematical strengths, interests, and areas for growth, and addressing student needs through diverse approaches such as differentiated instruction, universal design for learning, and culturally relevant and responsive real-world problems.	The TDSB's areas of need include enhancing data analysis skills, expanding culturally responsive resources, and addressing student needs through diverse approaches like differentiated instruction, universal design for learning, and real-world problems that are culturally relevant and responsive.
TDSB System Goal	
Build capacity in data analysis resources to understand mathematics achievement from a variety of sources, including alignment between EQAO, report cards, and locally-developed assessment tools/tasks.	Align the Math Improvement Action Plan with board improvement planning, including using student assessment and demographic data to identify areas of focus.
Board Actions (What are we doing?)	
1) Data: Alignment of strategies of data collection and analysis at the School, Learning Network, Learning Centre and Board Level to enhance system coherence. 2) Leader Learning: Work with system leaders to enrich their understanding of the effective selection, collection, analysis and interpretation of a variety of data sets in service of mathematics learning at every level of the system. (ie. Street Data) 3) Leader Learning: Superintendents working with school leaders (e.g., Principals) to use data to identify key teachers in schools to participate in Math collaborative inquiries and professional learning that will improve their use of data to ensure that the math learning occurs in a rich context that is relevant and responsive to their needs. 4) Leader Learning: Leaders will participate in learning about mathematical pedagogy that is culturally responsive and relevant, honouring of students' lived experience and relevant to their lives (i.e., Building Thinking Classrooms and Choosing to See). .	1) Data: Alignment of strategies of data collection and analysis at the School, Learning Network, Learning Centre and Board Level to enhance system coherence. 2) Leader Learning: Work with system leaders to enrich their understanding of the effective selection, collection, analysis and interpretation of a variety of data sets in service of mathematics learning at every level of the system. (ie. Street Data) 3) Leader Learning: Superintendents working with school leaders (e.g., Principals) to use data to identify key teachers in schools to participate in LN professional learning through hubs that will improve their use of data to ensure that the math learning occurs in a rich context that is relevant and responsive to their needs. 4) Leader Learning: Leaders will participate in learning about mathematical pedagogy that is culturally responsive and relevant, honouring of students' lived experience and relevant to their lives (i.e.,. Building Thinking Classrooms and Choosing to See). 5) Developing tools to determine increases in the sense of efficacy in utilizing data to make decisions by members of the senior team, school administrators, and central staff (e.g., report regarding math foci for professional learning in their Learning Networks).
What is changing as a result?	
Greater coherence in the utilization of data at all levels of the system to support math improvement system-wide.	Greater coherence in the utilization of data at all levels of the system to support math improvement system-wide.

System leaders are effectively using data to inform their decisions around professional learning and in the selection of the participants in the learning. Professional learning is impacting teacher practice and teachers at the sessions are participating more fully in the sessions and are implementing the work back at the schools. Math performance board-wide will improve.	System leaders are effectively using data to inform their decisions around professional learning and in the selection of the participants in the learning. Professional learning will improve school and system leaders' understanding of effective instructional practice that engages all students through culturally responsive and relevant practices. Professional learning is impacting teacher practice and teachers at the sessions are participating more fully in the sessions and are implementing the work back at the schools. Math performance and student engagement will improve.
Monitoring and Data Collection (Who is better off?)	
• System leaders are aligning resources and learning with the data in their schools. School board funds are being allocated effectively to directly support student math learning.	• System leaders will be better positioned to make decisions and to be able to articulate why they have made decisions to support specific strategies in support of the math learning in their learning centres/learning networks. Their staff participation in professional learning will increase because it is meeting their learning needs.
School-level Goal	
Priority schools will develop processes to identify and monitor achievement of students achieving below Level 2 in mathematics and provide ongoing supports so that students can access grade-level curriculum.	Math focused schools will develop processes to identify and monitor achievement of students achieving below Level 2 in mathematics and provide ongoing supports so that students can access grade-level curriculum.
School-level Actions (what are we doing?)	
1) Professional learning for and implementation of assessment tools at the school level to support school improvement planning and effective math instruction in classrooms (e.g. Lawson continuum, Knowledgehook, MathUP assessments, student interviews). 2) Align resources and utilize assessment data to provide targeted intervention to support both teachers and students.	1) Professional learning for and implementation of assessment tools at the school level to support school improvement planning and effective math instruction in classrooms (e.g. Lawson continuum, Knowledgehook, MathUP assessments, student and staff interviews). 2) Administrators will align resources and utilize assessment data to provide targeted interventions to support both teachers and students.
What is changing as a result?	
Principals and teachers are expressing efficacy in identifying students who are below Level 2 and providing targeted interventions that are successfully moving students to Level 3 or above. Principals express efficacy in articulating the rationale behind school-level decisions that support mathematics instruction in classrooms.	Principals and teachers are expressing confidence in identifying students who are below Level 2 and providing targeted interventions that are successfully moving students to Level 3 or above. Principals express confidence in articulating the rationale behind school-level decisions that support mathematics instruction in classrooms.
Monitoring and Collecting Data (Who is better off?)	
• School administrators, teachers, and all students, particularly those achieving below Level 2 Principals will report feelings of efficacy in collecting, analyzing and utilizing student and staff data to align resources and make decisions that support educator and student learning in math. Principals will be able to articulate their decision making process and provide rationale for the decisions they make in support of mathematics programming. • Educators will express feelings of efficacy in collecting, analyzing and utilizing student assessment data to inform their instructional decisions. • Students will experience success in mathematics. Students will report feeling positive about themselves as math learners.	• School administrators, teachers, and all students, particularly those achieving below Level 2. Principals will report feelings of efficacy in collecting, analyzing and utilizing student and staff data to align resources and make decisions that support educator and student learning in math. Principals will be able to articulate their decision making process and provide rationale for the decisions they make in support of mathematics programming. • Educators will express feelings of efficacy in collecting, analyzing and utilizing student assessment data to inform their instructional decisions. • Students will experience success in mathematics. Students will report feeling positive about themselves as math learners and feeling engaged in math learning.
Classroom-level Goal	
Educators in Math Priority Schools will adapt lesson planning in response to data collected from multiple, frequent assessment opportunities (e.g., interviews, conversations, student agendas, exit tickets, portfolios, surveys).	Educators in math focused schools will adapt lesson planning in response to data collected from multiple, frequent assessment opportunities (e.g., interviews, conversations, student agendas, exit tickets, portfolios, surveys)

Classroom-level Actions (What are we doing?)	
1) Teachers will be learning with MLPs and principals how to collect both perceptual and achievement data throughout the teaching and learning cycle to guide their instructional decisions. Principals will be learning how to utilize this data to align resources and provide supports for teacher learning that will support student learning.	1) Teachers will be learning with LN SIP coaches and principals how to collect both perceptual and achievement data throughout the teaching and learning cycle to guide their instructional decisions. Principals will be learning how to utilize this data to align resources and provide supports for teacher learning that will support student learning.
What is changing as a result?	
Students will be taught in a manner that is responsive to their strengths and needs. Educators and principals will report feeling efficacious in utilizing student data to make decisions in support of student math learning that improves outcomes for all learners.	Students will be taught in a manner that is responsive to their strengths and needs. Educators and principals will report feeling efficacious in utilizing student data to make decisions in support of student math learning that improves outcomes for all learners.
Monitoring and Collecting Data (Who is better off?)	
● School administrators, teachers, and all students, particularly those achieving below Level 2 ● Principals will report feelings of efficacy in collecting, analyzing and utilizing student and staff data to align resources and make decisions that support educator and student learning in math. Principals will be able to articulate their decision making process and provide rationale for the decisions they make in support of mathematics programming. ● Educators will express feelings of efficacy in collecting, analyzing and utilizing student assessment data to inform their instructional decisions ● Students will experience success in mathematics. Students will report feeling positive about themselves as math learners..	● School administrators, teachers, and all students, particularly those achieving below Level 2. ● Principals will report feelings of efficacy in collecting, analyzing and utilizing student and staff data to align resources and make decisions that support educator and student learning in math. Principals will be able to articulate their decision making process and provide rationale for the decisions they make in support of mathematics programming. ● Educators will express feelings of efficacy in collecting, analyzing and utilizing student assessment data to inform their instructional decisions. ● Students will experience success in mathematics. Students will report feeling positive about themselves as math learners and feeling engaged in math learning.

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