

## Supporting Calgary Board of Education (CBE) Student Development in Math with

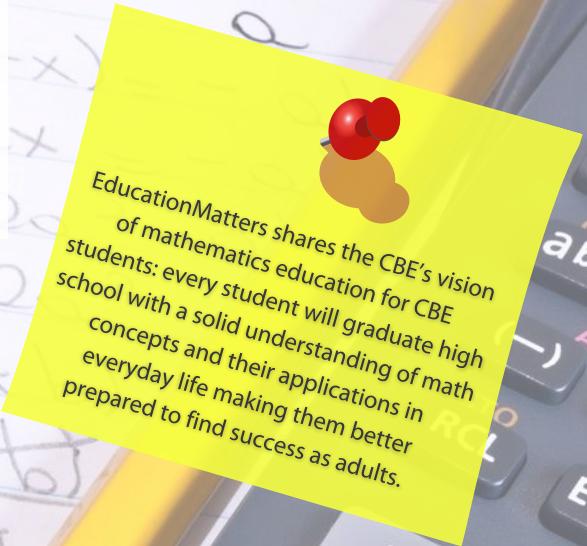


EducationMatters is committed to investing in classroom resources to enhance learning.

Results from the 2018 Grade 9 Provincial Achievement Tests (PAT) recorded 59.6% of CBE students achieved acceptable standards; these outcomes indicate a need to introduce new methodologies in how teachers are prepared to teach math.

The results are further compounded by the general acceptance that "math is hard" which helps to gloss over the issue rather than get to the root of why math is hard and how to overcome the difficulty to find success.

We know that not every teacher has the same confidence in teaching math. Most elementary teachers are expected to cover multiple curricula with their 25-30 students and all teachers, like their students, have their individual strengths and challenges.

EducationMatters shares the CBE's vision of mathematics education for CBE students: every student will graduate high school with a solid understanding of math concepts and their applications in everyday life making them better prepared to find success as adults.

For generalists who left their own time in school feeling that "math is hard", the prospect of inspiring a new generation to master the subject is a daunting one.

We need to provide resources that create a wraparound solution of increasing and diversifying resources for students and their teachers to ensure an equitable level of math instruction, math supports, and learning strategies are delivered to and received by all students.

After undertaking significant research, CBE has identified "MathUP" as a desired resource to add to classrooms. Incorporating this tool in CBE K-9 classrooms will be a beneficial investment in the way that math is taught and a pilot of the program is proposed to be undertaken to ensure that this is the optimal decision for students and staff.





"MathUP" is a Canadian online learning resource that provides professional development (P.D.) for teachers, math activities for students, and math support documents for guardians that offers multiple strategies to work towards math mastery for every student. For educators, "MathUP" offers just-in-time P.D. to help plan lessons, refresh long-ago studied concepts, and provide meaningful classroom activities for their students.

For students, the benefits are experienced both in school and at home. Their math teacher has the same access to resources regardless of their school or teaching background, creating consistently high quality math instruction throughout their school career, while their guardians are empowered to help with homework by virtue of "MathUP's" parent resources.

### Pilot Program Cost:

100 teachers x \$530\*  
\$53,000

\*can be upgraded to a \$699 lifetime license post-pilot



We believe that providing this resource to CBE educators will substantially increase achievement in math for students and EducationMatters is committed to sourcing funding for a "MathUP" pilot program beginning in the 2020-21 school year.

The plan involves licensing 100 teachers to use the software, and collecting data points to analyze educator confidence and mastery of different topics, student engagement and achievement, and parental involvement to determine the outcomes of the pilot.

Should the pilot prove successful with qualified outcomes, the platform will be adopted for all applicable CBE teachers in the 2021-22 school year and maintained for new CBE teachers on an ongoing basis.

“ By utilizing a resource that tailors to the learning of the program of studies, teachers will know that they are using grade appropriate materials for students. By having student learning and work front of mind, teachers can gain valuable insight into student learning and make decisions based on student success, not the next page in a textbook. I fully endorse the use of MathUP for teachers within the Calgary Board of Education. If we are to move forward as a system, I believe MathUp is one small way to truly impact student learning in mathematics.

Mark A - CBE Teacher



## Measuring Success:

The success of the CBE "MathUP" Pilot will be based on:



Report card data  
Student surveys

PAT scores  
Parent surveys

Data on classroom usage  
Teacher surveys

Should the pilot prove successful, pilot licenses will be upgraded and all applicable teachers will be given access to the resource.

## Helping Students:

Same level of math instruction regardless of CBE school attended

Easier to tailor classes to support different learning needs and styles

Online resources for use both in home and at school

Provides caregivers with support to assist in learning



## Helping Teachers:

Builds confidence in teachers' own math skills and knowledge

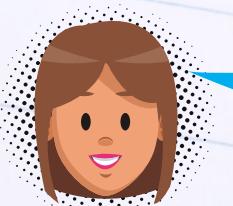
Helps ease teacher transitions between teaching different grade levels

Aids in lesson planning for diverse classes

Allows for just-in-time professional development

“ As someone who sometimes struggled with math during my own schooling, at the beginning of my practicum I was nervous when it came to planning and delivering math lessons. When I began using MathUP, I was relieved to see that they provide teachers with background information on the topic and explanations of concepts to support teaching and understanding math. After reading these explanations and examples over, I immediately felt more confident about my own understanding of the subject.

Emma H - U of C Education Student





PAT scores clearly show us that CBE needs to revise its approach to math instruction. "MathUP" is being used in 113 Canadian schoolboards, including Rockyview School District plus eight others in Alberta, and we believe it will have a marked impact in Calgary, too. In light of the current pandemic, it is timely to invest in an online platform that allows more flexibility in learning. The recent pivot to an online learning model has been incredibly challenging; having platforms like "MathUP" available across the district will help ensure consistent math instruction for students regardless of where they learn or from whom they are learning.

EducationMatters is raising \$53,000 to fund the "MathUP" pilot to help increase the level of achievement in math for CBE students; build teacher confidence and competencies; and provide a new toolbox of resources for math instruction in CBE classrooms. For every \$530 raised, we can purchase one (1) pilot license for a CBE teacher and help our future leaders graduate high school with competent mathematic skills who can dispel the "math is hard" myth.



## MathUP at a Glance:

provides teachers, students, and guardians with ideas, techniques, and information to help every student achieve their potential in math;

will be updated with new research and best practices for a guaranteed minimum of seven years;

helps teachers to tailor math lessons to their students' needs;

provides extra support to help students struggling with different math concepts;

helps teachers to consistently convey subject matter in different ways to support different needs/learning styles;

licenses are linked to teachers. No matter where the teacher moves they will still have access to the full platform helping to remove some of the equity gaps we can see in different communities;

provides resources for parents to help support their student(s) education;

helps ensure consistency across different schools and grades in the way math is learned;

provides a simple way for teachers to move between teaching different grade level curricula;

\$530 provides a pilot license for a teacher; this can be upgraded to a lifetime license after the pilot has ended.

Visit [www.educationmatters.ca](http://www.educationmatters.ca) for more information or contact Helen Nowlan-Walls (Director, Donor & Community Engagement) at 403-817-7472 or [hnowlanwalls@educationmatters.ca](mailto:hnowlanwalls@educationmatters.ca)