



UMathX Launch - Nurturing 'Growth Mindsets' in Ontario

Ontario (K to 10) Initiative - Put us to the Test and Rise Above the Rest!

A. UMathX Launch

We announce the launch of v2.0 of UMathX, the 10th version of Understanding Math, a browser-based, computer-assisted learning system that blends a wide variety of approaches to help students develop deeper understanding of mathematics concepts from K to 10. UMathX nurtures a 'growth mindset' through productive struggling, assessments, diagnostics and data analysis. Students "build it", "draw it", "talk it", "write it" and then "OWN IT!"

"UMathX has it all... a full service K to 10 learning environment, supporting a 'growth mindset' within a "learning pit" encouraging students and teachers to 'grapple' with concepts." .. (2016 GESS World Conference)

Stanford Researcher, Carol Dweck has linked the concept of growth mindsets to academic success. Embrace failure as an opportunity to develop new strategies and approaches to learning challenging concepts.

B. Sample District Gr 5 UMathX Initiative – 2015-16



Sample District Summary

District URL: www.umathx.com/sample

May 2016

Number of Licenses: 2052 .. Grade 5 Students

District Lead:

Teachers:

Category	Total	1 Week	30 Days	90 Days	6 Months	1 Year
Number of Lessons	15176	0	22	2707	11043	15176
Number of Tests	1299	0	0	104	539	1296



View A Report View Test Data

C. Sample ON Expectations .. 4.PA .. UMathX Test Data ... Growth over Time

ON 4.PA - Patterns & Algebra



Student	Test	Result	Duration	Date
Student1	ON 4.PA - Patterns & Algebra	50%	00:05:43	Mon Aug 8 2016
Student1	ON 4.PA - Patterns & Algebra	80%	00:10:00	Mon Aug 29 2016
Student1	ON 4.PA - Patterns & Algebra	90%	00:11:02	Mon Aug 29 2016
Student1	ON 4.PA - Patterns & Algebra	100%	00:15:52	Mon Aug 29 2016



D. Sample ON Expectations .. MFM1P.LR .. UMathX Test Data-Growth over Time

Student	Test	Result	Duration	Date
Student1	ON MFM1P.LR - Linear Relations	68.2%	00:10:27	Tue Aug 23 2016
Student1	ON MFM1P.LR - Linear Relations	81.8%	00:45:35	Mon Aug 29 2016
Student1	ON MFM1P.LR - Linear Relations	81.8%	00:30:45	Mon Aug 29 2016

E. Sample ON Expectations .. UMathX Test Question ... Show Understanding

Show your understanding of the process of division of $\frac{1}{5}$ by 8.

Hence $\frac{1}{5} \div 8 = \frac{1}{5} \times \frac{1}{8} = \frac{1}{40}$

F. UMathX Data .. “Valley of Despair” to “Learning Pit” .. Toronto, Houston

Growth Mindsets - Soaring Scores with UMathX

The Learning Pit
A Model for a Growth Mindset

Toronto District School Bd
Gr. 3 Joyce PS -EQAO Results

Year	Math
2001 – 2002	42%
2002 – 2003	39%
2003 – 2004	57%
Implement Understanding Math	
2004 – 2005	74%
2005 – 2006	80%
2006 – 2007	84%
2007 – 2008	82%
2008 – 2009	89%
2009 – 2010	89%
2010 – 2011	89%

EQAO Education Quality Accountability Office

From "Valley of Despair" to "Learning Pit"

With the nurturing growth experiences provided by UMathX, the mathematical “valley of despair” students used to experience when learning mathematics becomes a “learning pit”

Dr M. Kendall, Ed. D
Houston ISD Sec Math Manager - retired
National Math Consultant

In 2011, Neufeld Learning Systems began to create UMathX, the 10th version of Understanding Math.



G. UMathX Data ... Research, Multiple Strategies, Differentiation – Dr Kendall

Imagine a blended-learning system for K-Algebra I that incorporates the latest research on how students learn and provides continued professional learning for the teacher...

UMathX is such a system!

First, the “frameworks” activities designed for **UMathX** support learning experiences in which students construct their own understanding of mathematics concepts: students try something new by utilizing manipulatives and multiple representations to grapple with and make sense of the concepts.

Second, students interact with a computer-assisted learning system designed to scaffold their practice, fill in the gaps, and deepen their understanding.

Third, the **UMathX** system supports teachers’ planning by providing curriculum menus, differentiated instruction through multiple entry points, and opportunities for students to reflect and connect in small-group experiences.

As a former district mathematics leader, **I promoted the district-wide purchase and use of previous versions of this system. Now, as a mathematics education consultant, I enthusiastically continue to share with other educators the benefits to students and teachers that UMathX provides.**

Monica Kendall, Ed. D.; Houston ISD Sec Math Manager (retired)

H. UMathX – Quick Introduction and Access

Visit www.umathx.com and select:

- **Videos**

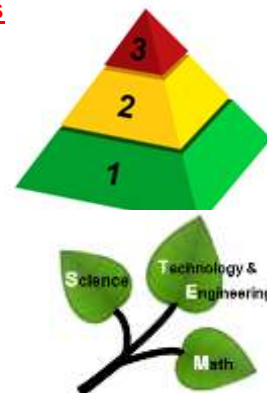
UMathX – What is it? – The Learning Pit	UMathX – Frameworks
UMathX – Walk Through	UMathX - Assessments
UMathX – Navigation	UMathX – Data Analysis
- **Media** Brochure – North America
- **Preview** to access 30 days as **Student** or **Teacher** or **School Lead** or **District Lead**.

LESSONS: within UMathX Menu

Operations – Demonstrate Addition Facts – Making 5 - A
Place Value 2. Model Numbers Grouped in Packs–C–1)Ones & Groups of Ten
Operations 12) Add 3 or 4 # – A – Add 3 # Vertically
Fractions –The Meaning of Fractions – Think, Write, Say – **tier 1, tier 2, tier 3**
Operations – 27) Introduce Mult Facts - 2, 3, 4, 5 - Mult: Groups of 4
Decimals to tenths, hundredths, thousandths
Multiply 2 Digit Numbers – Partial Products – Ex. 1 - **tier 1, tier 2, tier 3**
Add Fractions – Pattern Blocks & Word Prob – Eat Candy - **tier 1, tier 2, tier 3**
Multiply Fractions – Developing the Rule - tiers **1, 2, 3** - word problems
Fractions – Ratios and Proportions – Ratio Table - **tier 1, tier 2, tier 3**
Dividing Fractions– Modeling Examples – 1,2,3,4,5,6 – **tier 1, tier 2, tier 3**
Measurement – Per&Area Polygons – Area Polygons – **tier 1, tier 2, tier 3**
Graphing without a Scale – **tier 1, tier 2, tier 3**
Slope & Line – Walk in Real World - **tier 1, tier 2, tier 3**
Graphing – Relations, Equations, Functions – Relations – Ex2: tiles, Part 1
Graphing–Quadratic Functions–Maximize Cage Area–Trial & Error to Summary
Algebra – Factoring Expressions – Factoring Trinomials – With Tiles

within Ontario Expectations

K.NSN.01.8
1.NSN.01.08;
K.NSN.03.12
4.NSN.01.06
4.NSN.03.05
6.NSN.01.01
5.NSN.03.03
7.NSN.02.07
8.NSN.02.04
6.NSN.03.01
8.NSN.02.04
5.M.01.04
8.DMP.02.05
MPM1H.AG.03.01; MFM2P.MLR.02.06
7.PA.01.04
MFM2P.QR.03.01
MPM2D.QR.03.02; MFM2P.QR.01.02





Frameworks for Learning

..available at www.umathx.com/frameworks & in the Ontario Expectations curriculum menu.

I. Pricing and Ordering

Cost - \$10 per student.

Contact information is at www.umathx.com or 866 429 6284 (toll free)

Contact **UMathX** Support Team Members for the **UMathX** Special.

J. Put us to the Test and Rise Above the Rest. – We will Guarantee Growth.

- **UMathX** fills gaps, to catch up and to excel.
- **UMathX** has teacher training, assessments, and data analysis.
- **UMathX** provides measure of usage and shows growth in student understanding.

Use **UMathX** 3 times a week for 30 minutes each, then ...

UMathX will Guarantee Growth!

B Mathies

Executive Assistant

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www.umathx.com

Toll Free .. 866 429 6284