

Create and collaborate with digital Math and STEM tools

March 2022





Hello, I'm Ben.

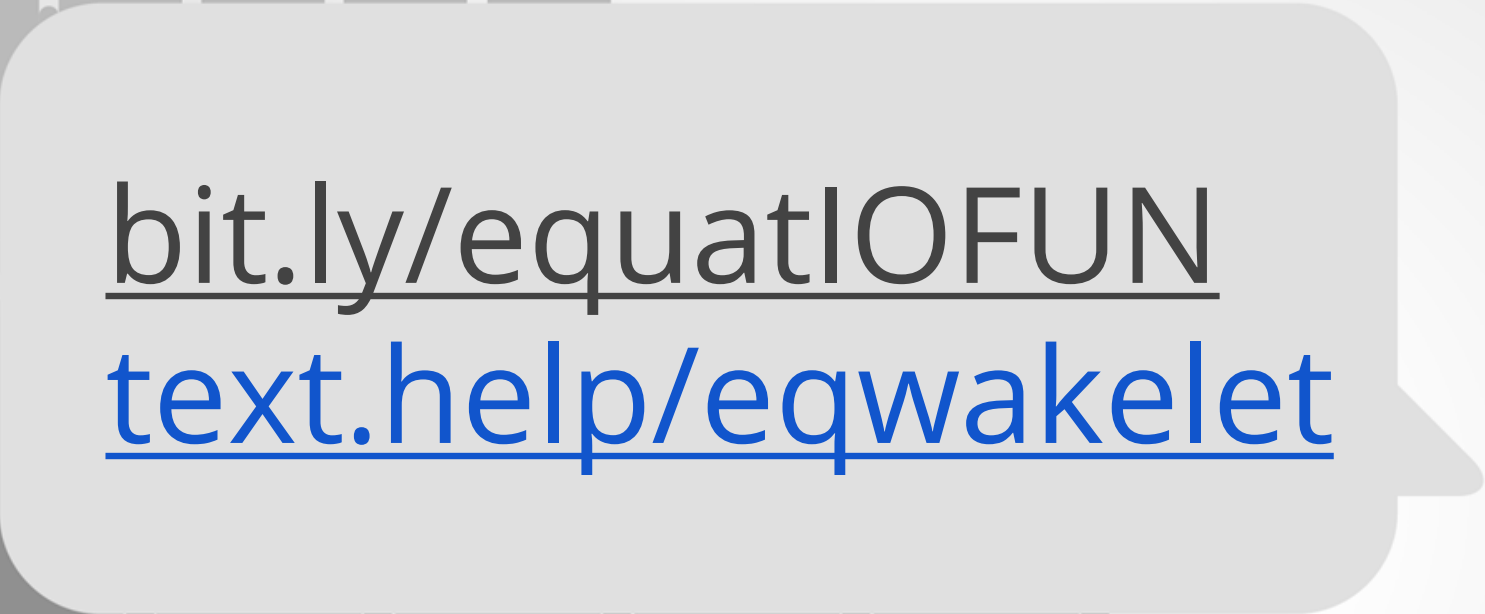
Ben Dyer

Customer Success Lead

Texthelp

@TH_BenDyer

b.dyer@texthelp.com



bit.ly/equatlOFUN
text.help/eqwakelet



Math hasn't changed

- Little to no collaboration with current classroom structure
- Worksheets don't allow for critical thinking or math manipulation



kids with persistent math problems in primary school are...

13%

...



...

29%

less likely to graduate
high school

less likely to attend
university

attitudes formed as early as junior high school have the ability to influence whether students want to pursue careers in STEM



need to build a STEM workforce

STEM career projections growth from 2015-2025:

28%

mathematical
science jobs

13%

STEM
post-secondary teachers

12%

computer
occupations

Ex 75

13/9/61

① 26 @ 60 cost 12 " 0

32 6 " 6

86 ~~81~~ 15 " 0 X

② 27 @ 84 cost 9 " 0

13 2 " 3

50 11 " 3

③ 26 @ 60 cost 13 " 0

32 6 " 6

19 " 6

④ 68 @ 32 cost 17 s " 0

1 1/2 8 " 6

1 " 5 " 6

⑤ 94 @ 80 cost 2 " 7 " 0

1 1/2 11 " 9

2 " 18 " 9

⑥ 85 @ 15 " 32 cost 5 " 6 " 3

50 1 15 5

7 " 1 " 8

⑦ 31 @ 20 " 60 cost 3 17 6

10 2 7

4 0 1

⑧ 43 at £1 cost 43 " 0 " 0
5s 10 " 15 " 0
96 " 15 " 0

⑨ 67 at £1 cost 67 " 0 " 0
10s 33 " 10 " 0
5s 16 15 " 0
117 5 0

⑩ 72 at £1 cost £ 72 " 0 " 0
10s 36 " 0 " 0
2s 7 " 4 " 0
117 " 4 " 0

⑪ 49 at £1 cost 49 " 0 " 0
£1 49 " 0 " 0
5s 12 " 5 " 0
2 " 9 " 0
112 14 0

⑫ $ax + b = a(x + b)$

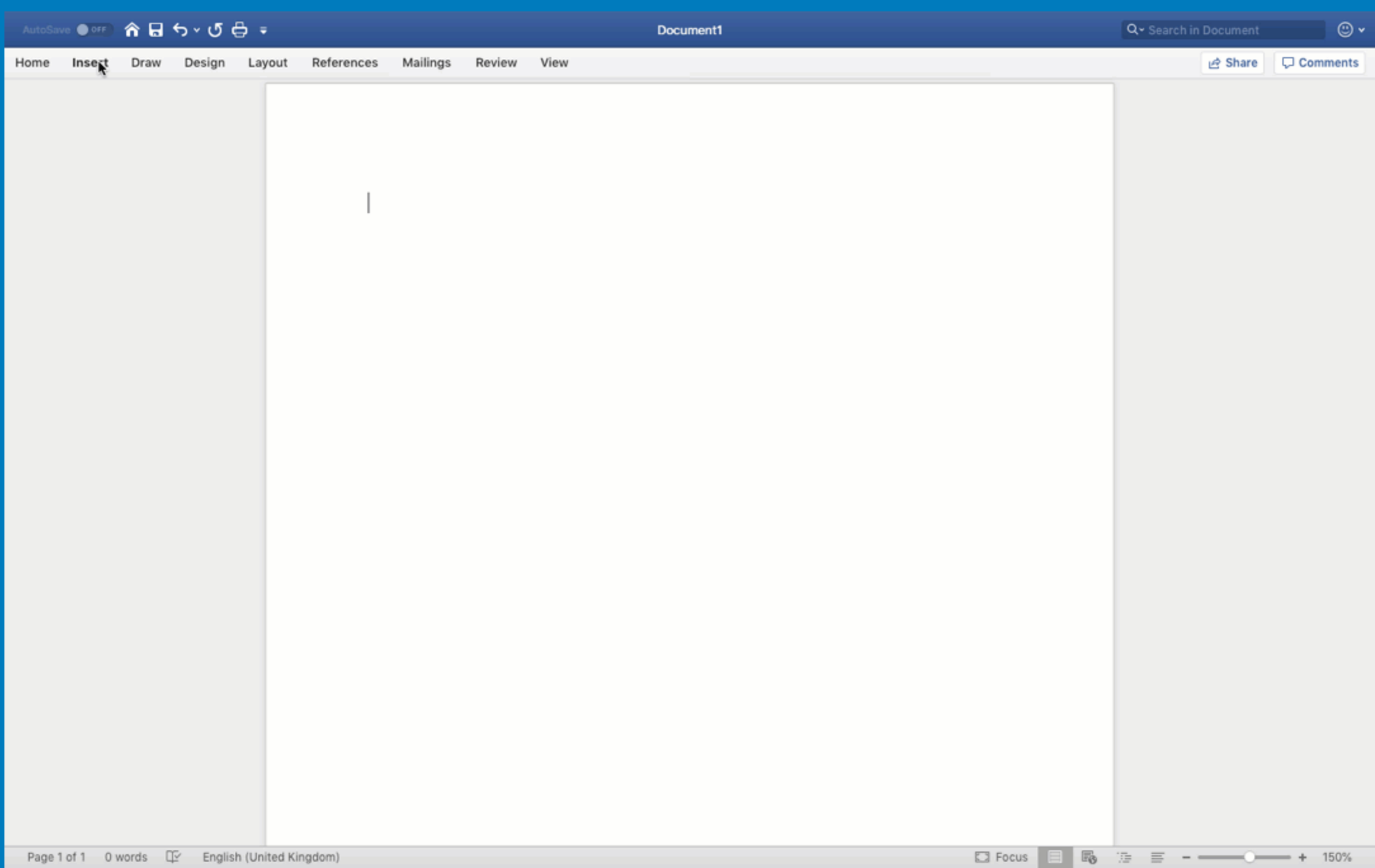
⑬ $ax - a^2 = a(x - a)$

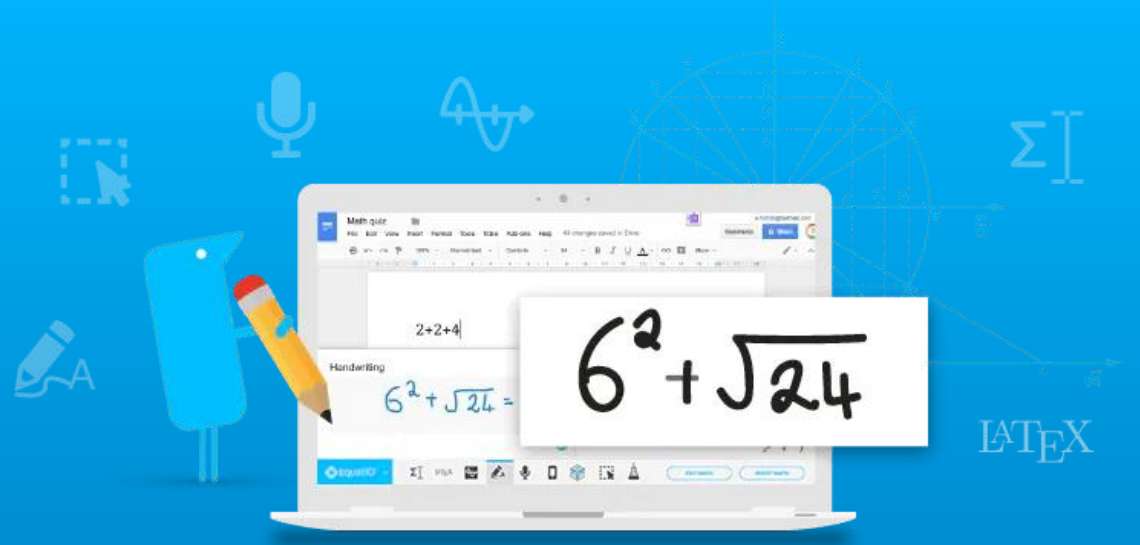
⑭ $x^2 - 3ax = x(x - 3a)$

⑮ $x^3 - 5ax^2 = x^2(x - 5a)$

⑯ $ax^2 - a^2x + a^3 = a(x^2 - ax + a^2)$

14/9/61





Make math digital

EquatIO allows you to create equations, formulas, and more, digitally. Helping to make math and STEM classes more accessible and engaging for every student.

Five platforms



EquatIO for Google

Chrome
Extension for
Docs, Forms (and
Forms
responses),
Slides, Sheets &
Drawings



EquatIO for Office 365

Extension for
Microsoft Online,
Excel Online,
Powerpoint
Online &
OneNote



EquatIO for Desktop

Desktop app for
Microsoft Word
and *Powerpoint



EquatIO mathspace

WebApp for
browsers and
iPad

*compatibility with
Chrome, Firefox, &
Safari*



EquatIO for LMS

LTI's for Learning
Management
Systems

*currently available
with Canvas,
Brightspace D2L,
Schoolology, & Infinite
Campus*

Three advantages of using technology in math instruction

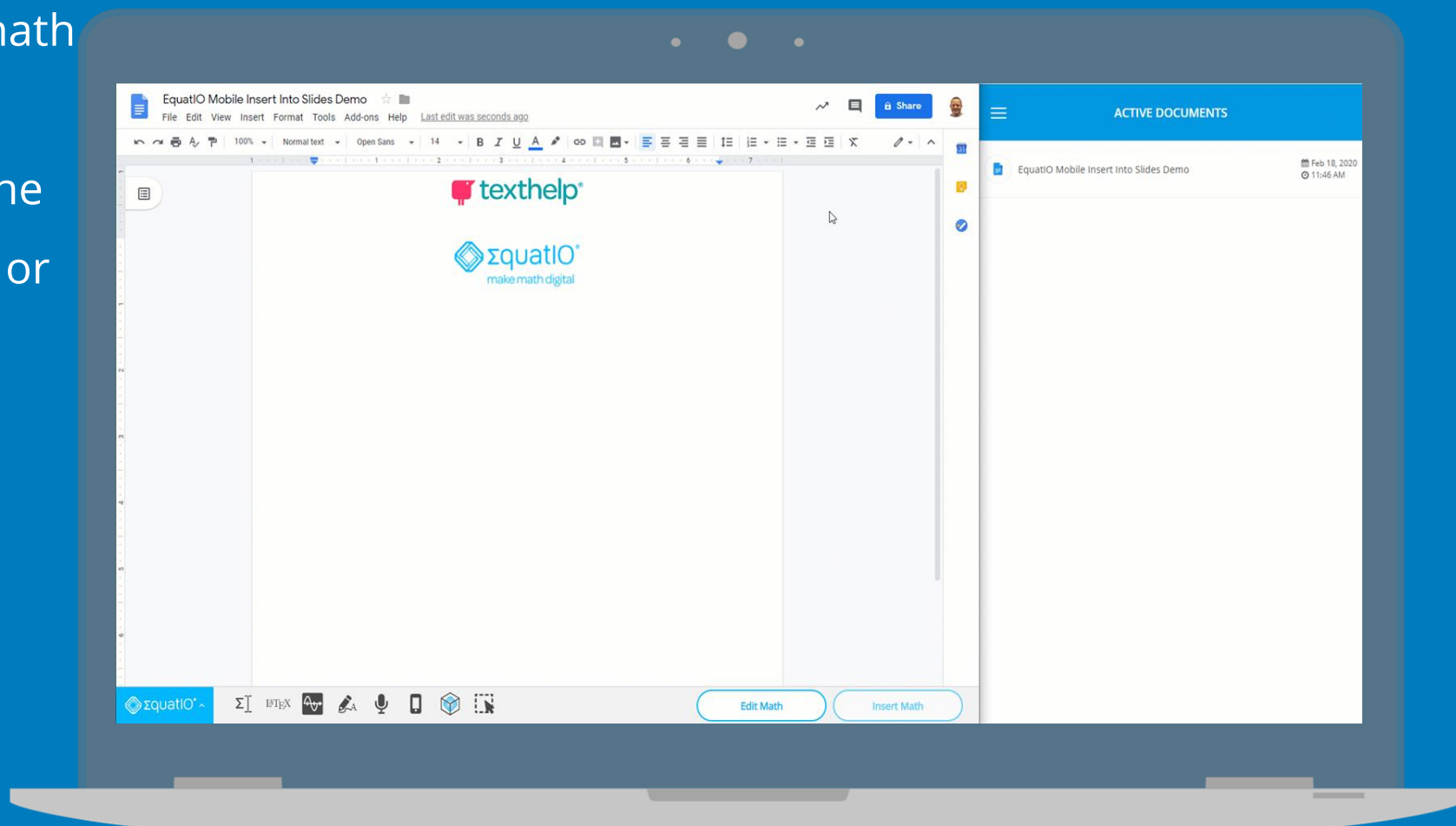
- Engages students and encourages group collaboration and discussion
- Provides multiple representations of math concepts
- Provides students with rapid sharing and teacher feedback

Demo time



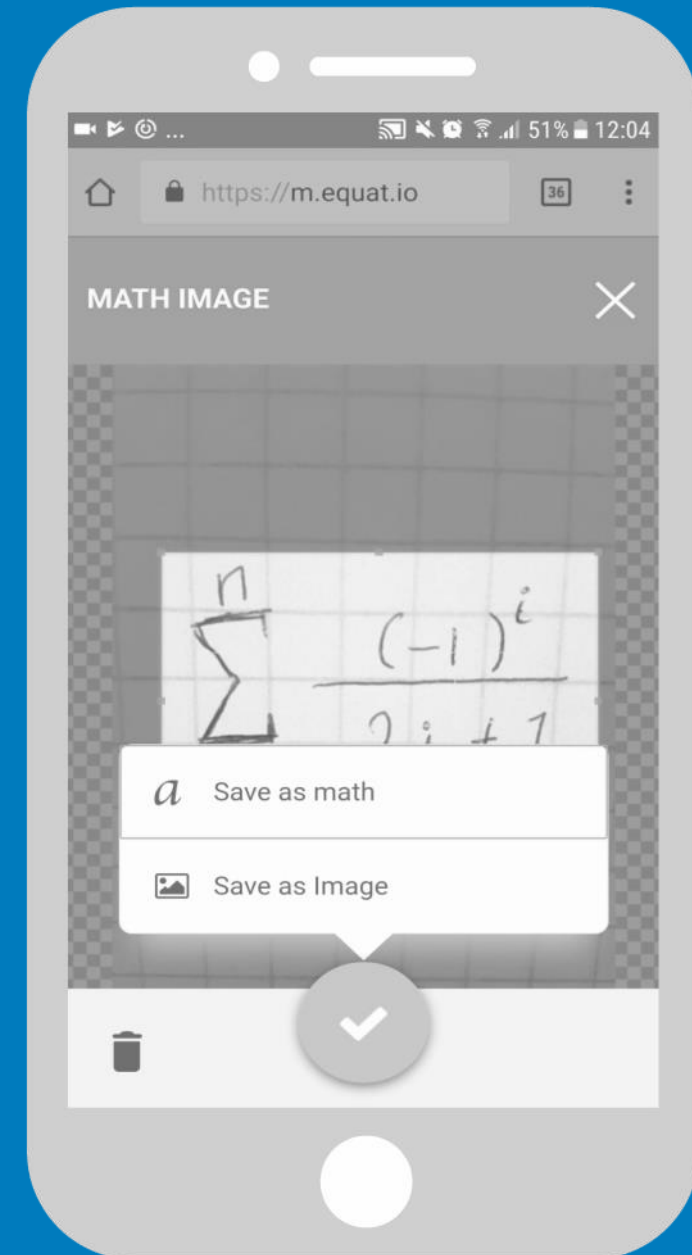
EquatIO mobile

- Use your phone/tablet to handwrite, record, or take an image of math
- Upload the math directly to the document on your computer or Chromebook



EquatIO mobile benefits

- Easy to make digital math - can use touch devices already have access to
- easily create maths using handwriting, speech or take a photo of handwritten maths



• • •



[illegible]



BETT 2022 award winner!

EquatIO wins Secondary - Digital Learning Product at BETT 2022

We are delighted that EquatIO picked up the award for Secondary - Digital Learning Product at the BETT Awards in London. A proud moment for all Texthelpers and thank you to the millions of teachers and students around the world who use EquatIO every day. This one's for you!

EquatIO Benefits



- A User Can Independently Edit & Solve The Math
- A Screen Reader Can Read The Equation & Sequence Through It Character By Character
- The Math Is Searchable By Users And The Math Can Be Found Inside Documents
- The Math Can Be Created In The Same Format It Was Presented
- Artificial Intelligence Will Have Access To The Math Which Will Enable Unlimited Ways For Users To Learn

“

Discovering EquatIO was the real turning point for me and my students, finally we could **all learn math in a fully digital and inclusive way.**



Dan Lyons

Math Teacher,





Lakeview-Fort Oglethorpe High School, Catoosa

County Schools District, GA












Equation editor

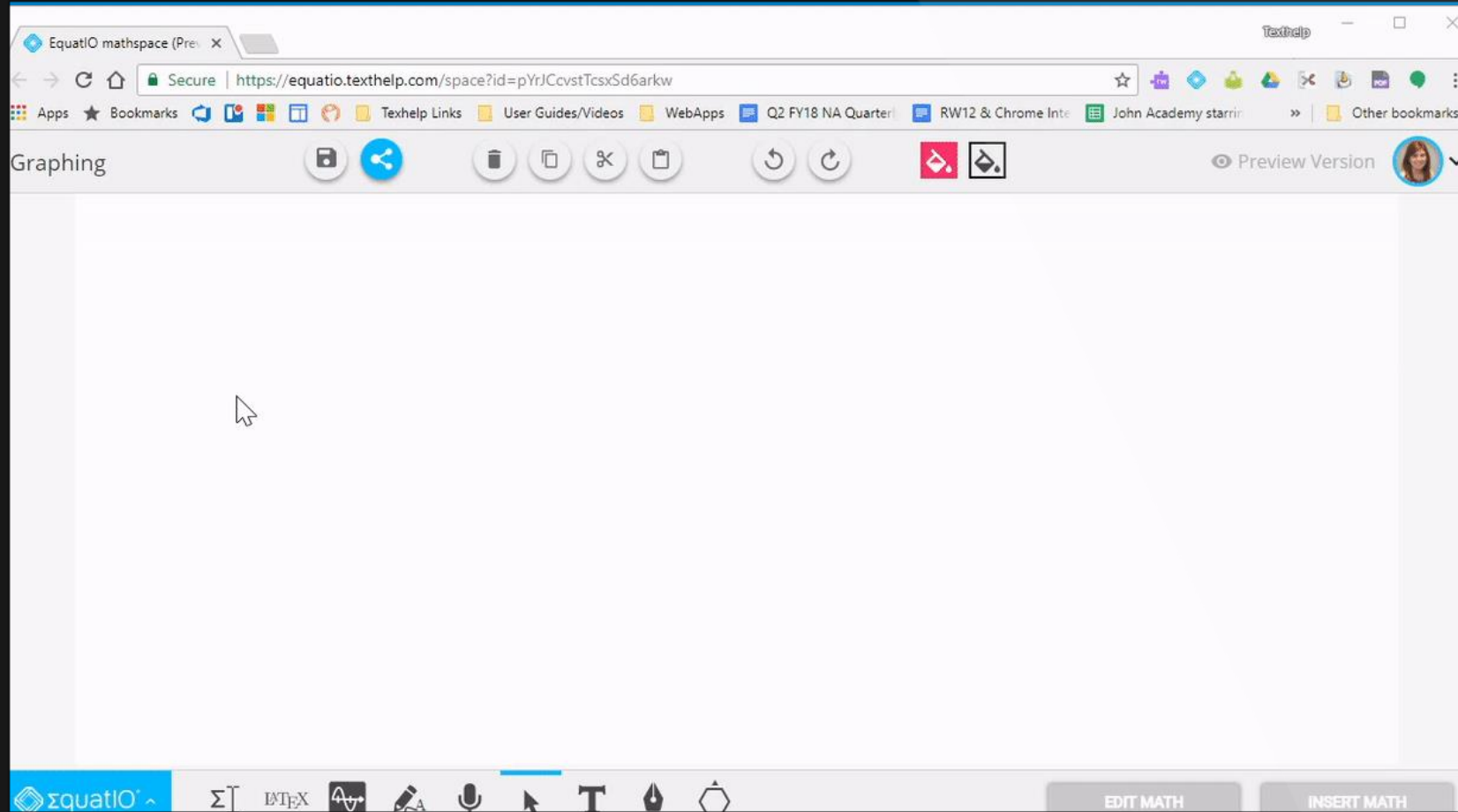


Math    

Start typing here... I

 **Did you know?** You can press **Ctrl+Shift+Enter** to duplicate your current equation

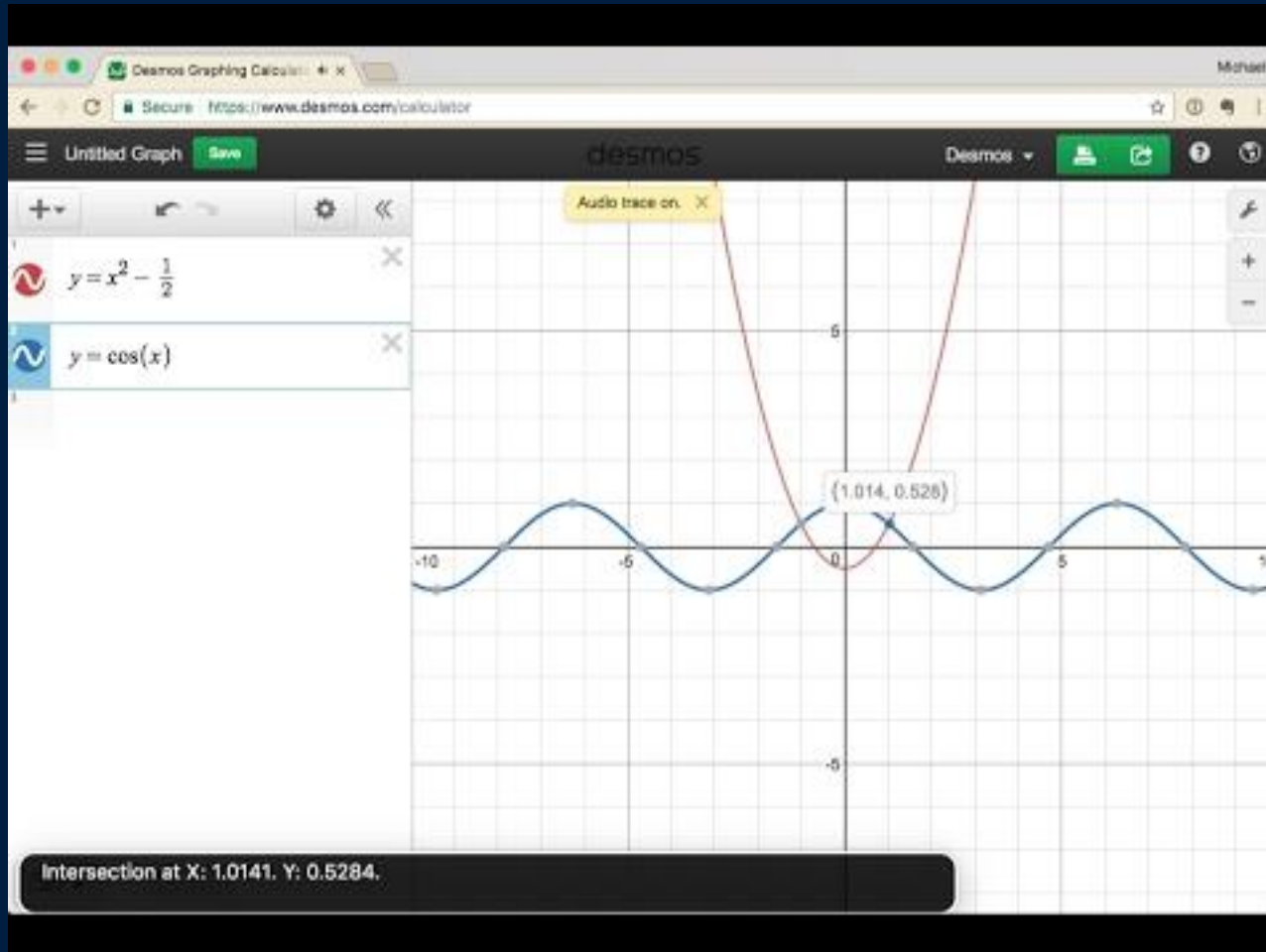
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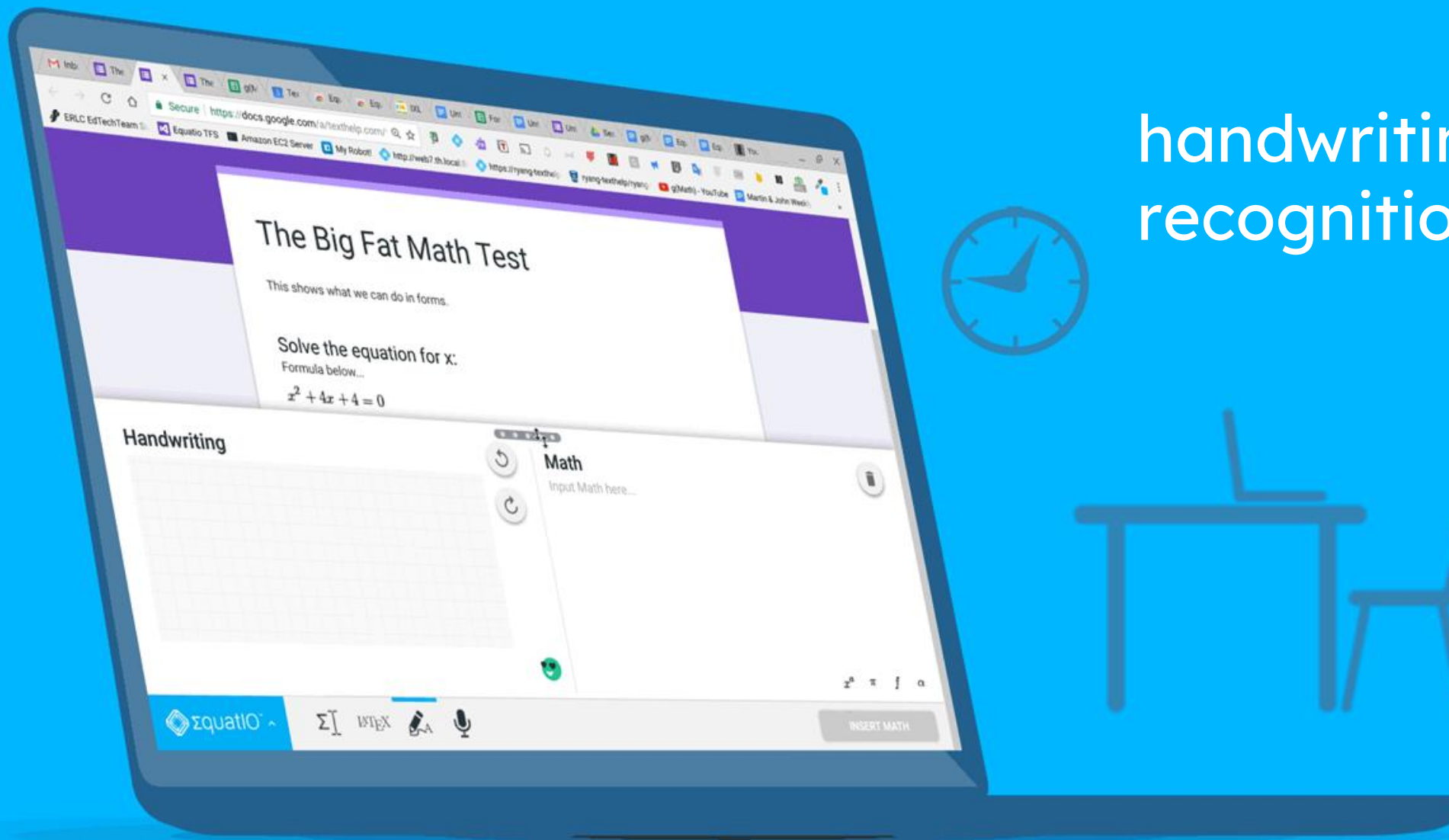
graph editor



Desmos Accessibility



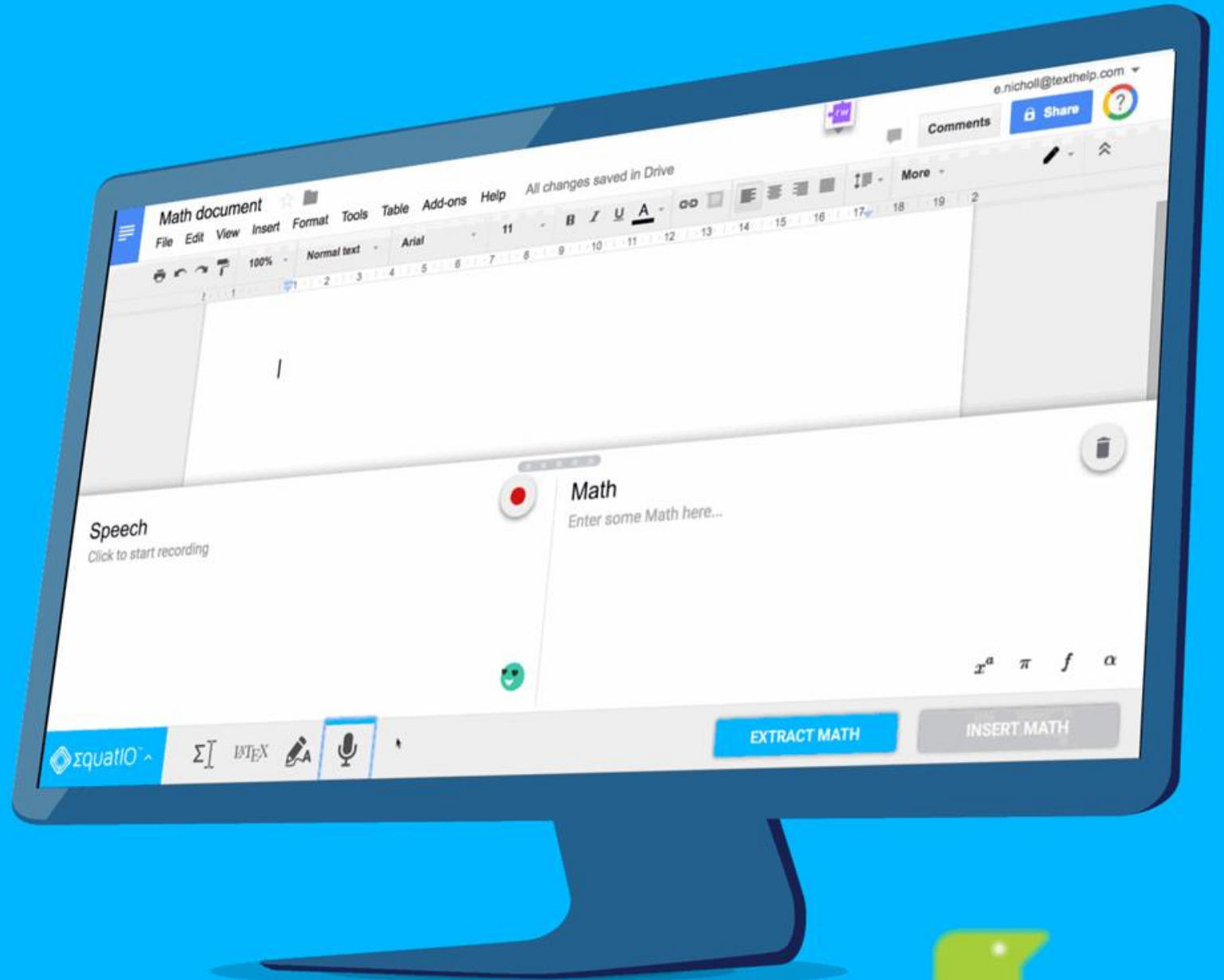
- Watch the video to the left to learn more about Desmos accessibility features
- As Desmos makes improvements to accessibility in the future, we will update our product to match those adjustments



handwriting
recognition



speech input



← → ↻ 🔍 bbc.co.uk/bitesize/guides/293k2p/revision/1

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Solving simultaneous equations by elimination

The most common method for solving simultaneous equations is the **elimination method** which means one of the unknowns will be removed from each equation. The remaining unknown can then be calculated. This can be done if the **coefficient** of one of the letters is the same in both equations, regardless of the sign.

Example

Solve the following simultaneous equations:

$$3x + y = 11$$

$$2x + y = 8$$

First, identify which unknown has the same coefficient. In this example this is the letter y , which has a coefficient of 1 in each equation.

Either add or subtract the two equations from each other to eliminate the letter y . In this example the equations will need to be subtracted from each other as $y - y = 0$.

If the equations were added together, then $y + y = 2y$, and so the letter y would not be eliminated.

$$3x + y = 11$$

minus

$$2x + y = 8$$

$$so\ x = 3$$

The value of x can now be **substituted** into either equation to find the value of y .

Substitute $x = 3$ into either $3x + y = 11$ or $2x + y = 8$.

$$3x + y = 11\text{ when }x = 3$$

Substitute: $x = 3$

$$3 \times 3 + y = 11$$

$$9 + y = 11$$

Find the value of y using **inverse operations to solve equations**. The inverse of adding 9 is subtracting 9, so subtract 9 from both sides:

$$9 + y - 9 = 11 - 9$$

$$y = 2$$

Check the answers by substituting both values into the other original equation. If the equation balances, then the answers are correct:

$$2x + y = 8\text{ when }x = 3\text{ and }y = 2$$

$$2x + y = 2 \times 3 + 2 = 6 + 2 = 8$$

Struggling to get your head round revision and exams?

Our team of exam survivors will get you started and keep you going.

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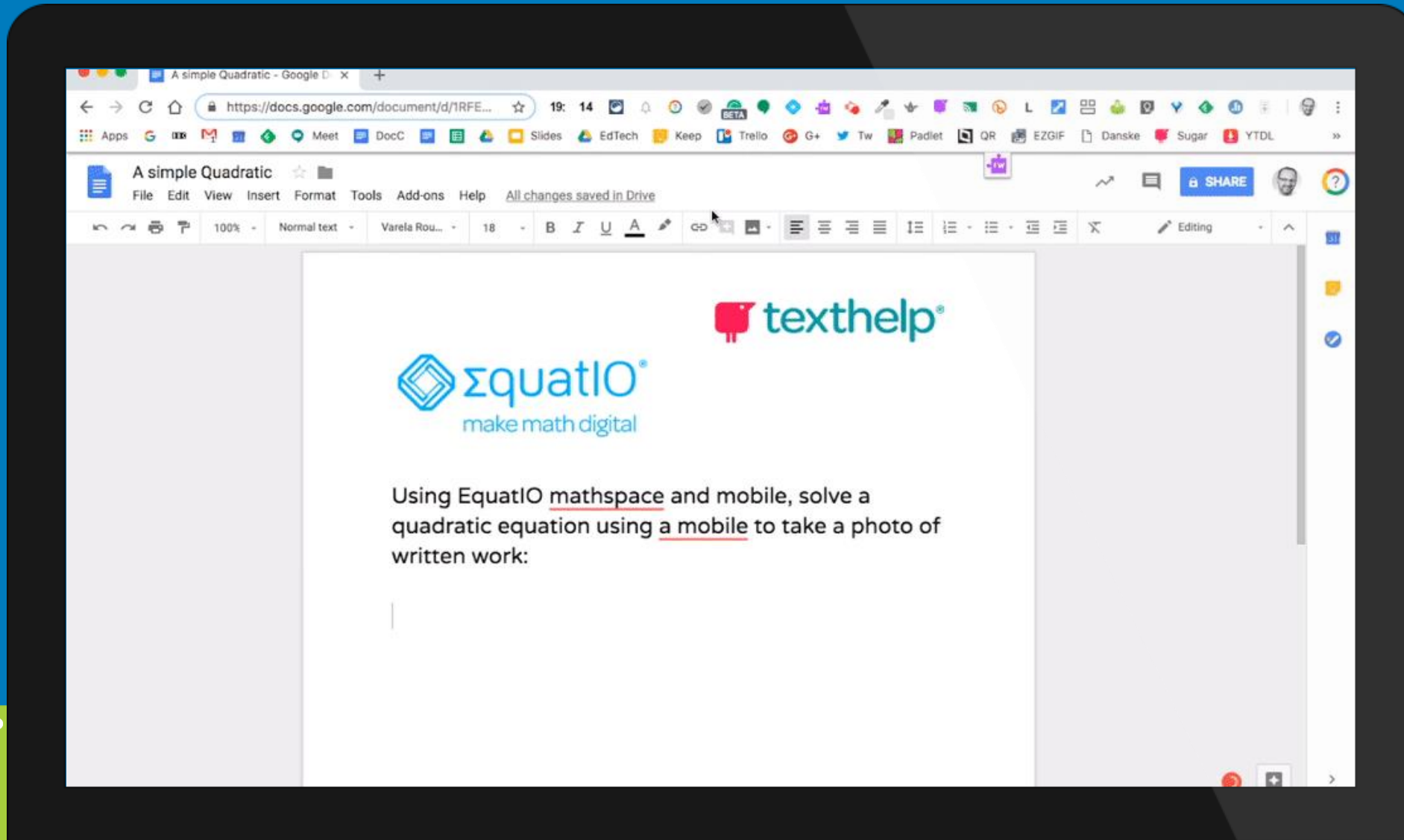
mathspace



Find the area of the circle:

The screenshot shows the Mathspace interface. At the top, there is a toolbar with icons for sharing, deleting, copying, pasting, undo, and redo. On the right, it says "Preview Version" next to a user profile icon. The main workspace is a large grid. The text "Find the area of the circle:" is written in the upper left. At the bottom, there is a toolbar with various mathematical symbols and tools. A blue arrow points to the circle icon in the bottom toolbar. To the right of the bottom toolbar are two buttons: "EXTRACT MATH" and "INSERT MATH".

mobile



LCC Equatio GCSE Circles and Angles (Sol) ☆


File Edit View Insert Format Tools Add-ons Help All changes saved in Drive

100% Normal text Open Sans 24 B I U A

Editing

Question 1.

The circumference of a circle of paving is 40m. Calculate the area.



$C = 40\text{m}$

$$r = \frac{40}{2\pi}$$

$$r = \frac{40}{6.28}$$

$$r = 6.37$$

$$A = \pi r^2$$

$$A = \pi \times 40.58$$

$$A = 127.5\text{m}^2$$


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The Quadratic Formula Explained

[Quadratic Formula](#)
[Discriminant](#)
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Purplemath

Often, the simplest way to solve " $ax^2 + bx + c = 0$ " for the value of x is to [factor the quadratic](#), set each factor equal to zero, and then solve each factor. But sometimes the quadratic is too messy, or it doesn't factor at all, or you just don't feel like factoring. While factoring may not always be successful, the Quadratic Formula can always find the solution.

The Quadratic Formula uses the " a ", " b ", and " c " from " $ax^2 + bx + c$ ", where " a ", " b ", and " c " are just numbers; they are the "numerical coefficients" of the quadratic equation they've given you to solve.

MathHelp.com


[Practice The Quadratic Formula](#)

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Quick EquatIO Quiz

QUESTIONS RESPONSES

A quick Quadratic Quiz

Showing How EquatIO can be used to set and answer maths in Google forms!

Name:

Short answer text

Solve using the standard quadratic formula

$$x^2 + 4x - 4$$

Short answer text





Make maths digital and accessible

- ✓ Input with handwriting, type, speech, LaTeX and any mobile device
- ✓ Smart prediction and equation library
- ✓ Integrated graphing
- ✓ Creative and flexible maths workspaces with manipulatives library.
- ✓ PC, Mac, Chrome, PDF, Web and Paper support
- ✓ Great for maths and science subjects
- ✓ 5 million + users

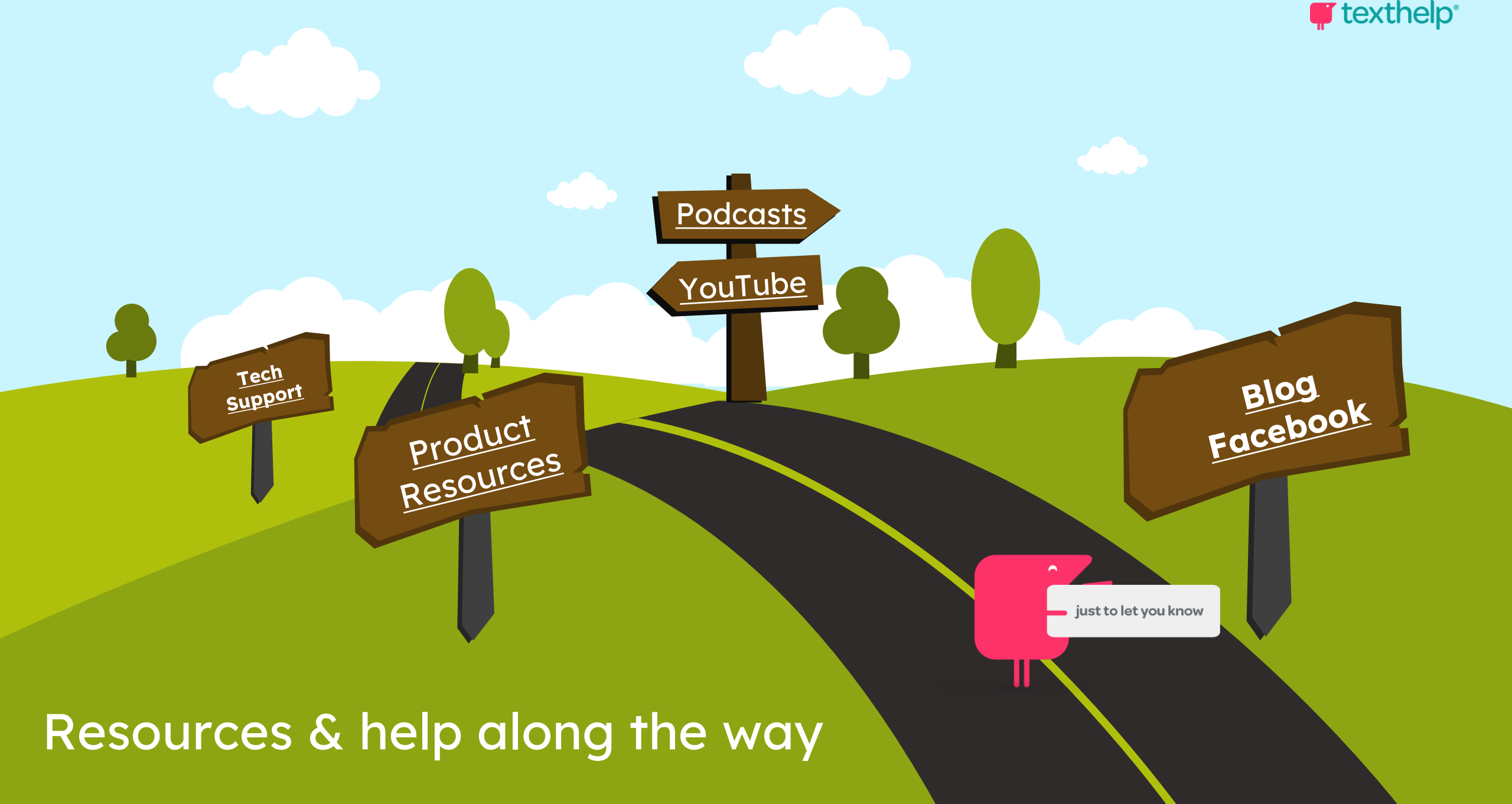
- 1 Reading, Writing and Comprehension
- 2 Integrated assessment of writing
- 3 PDF support
- 4 Practice Reading Aloud & comprehension
- 5 Digital Maths & STEM



 text.help/future-building
SAVE THE DATE 4th May 2022

Future Building in education





Resources & help along the way

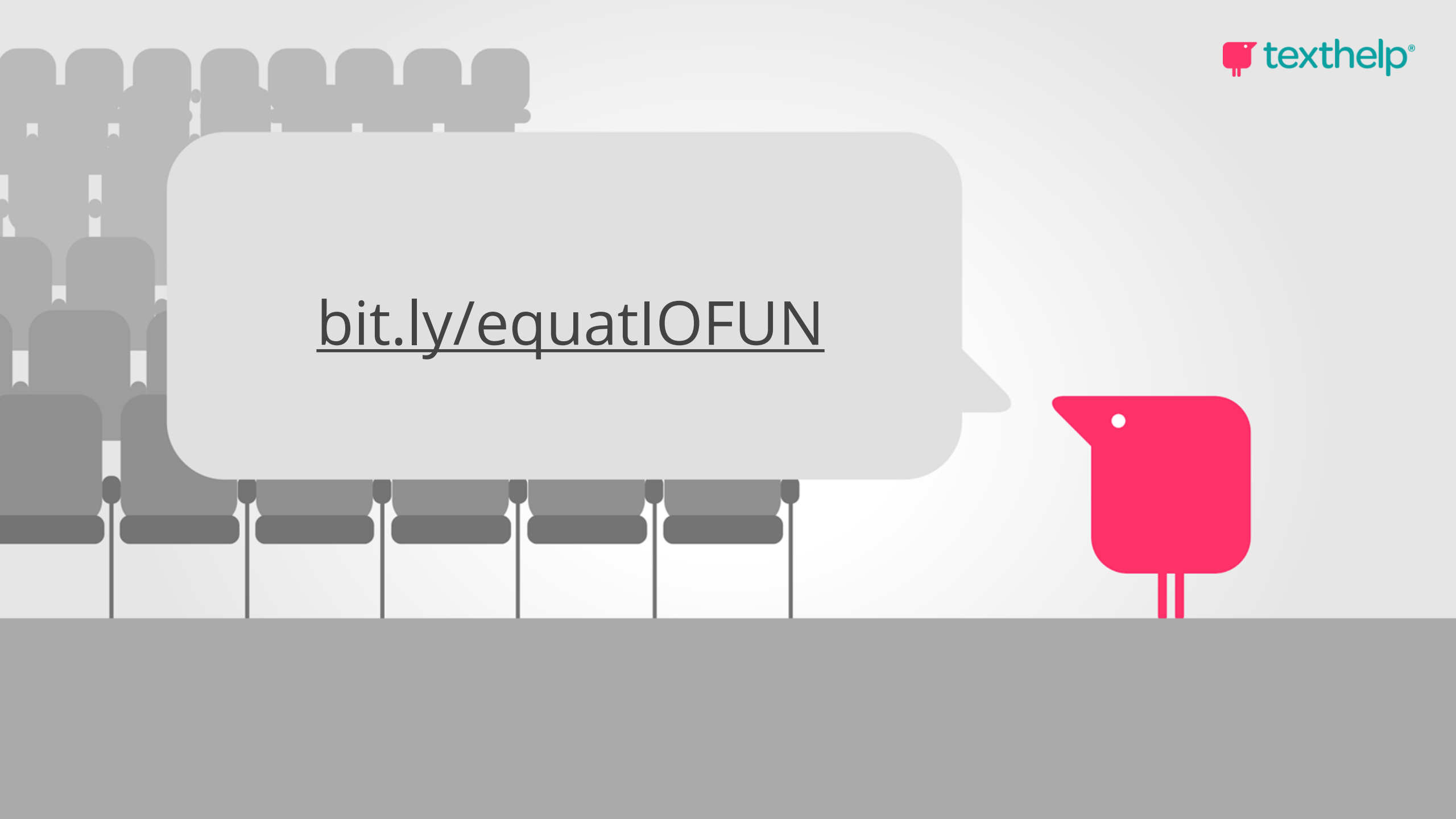


Be part of the Texthelp Community

Review our tools, help teachers and share your insights, to shape what we do and how we do it.

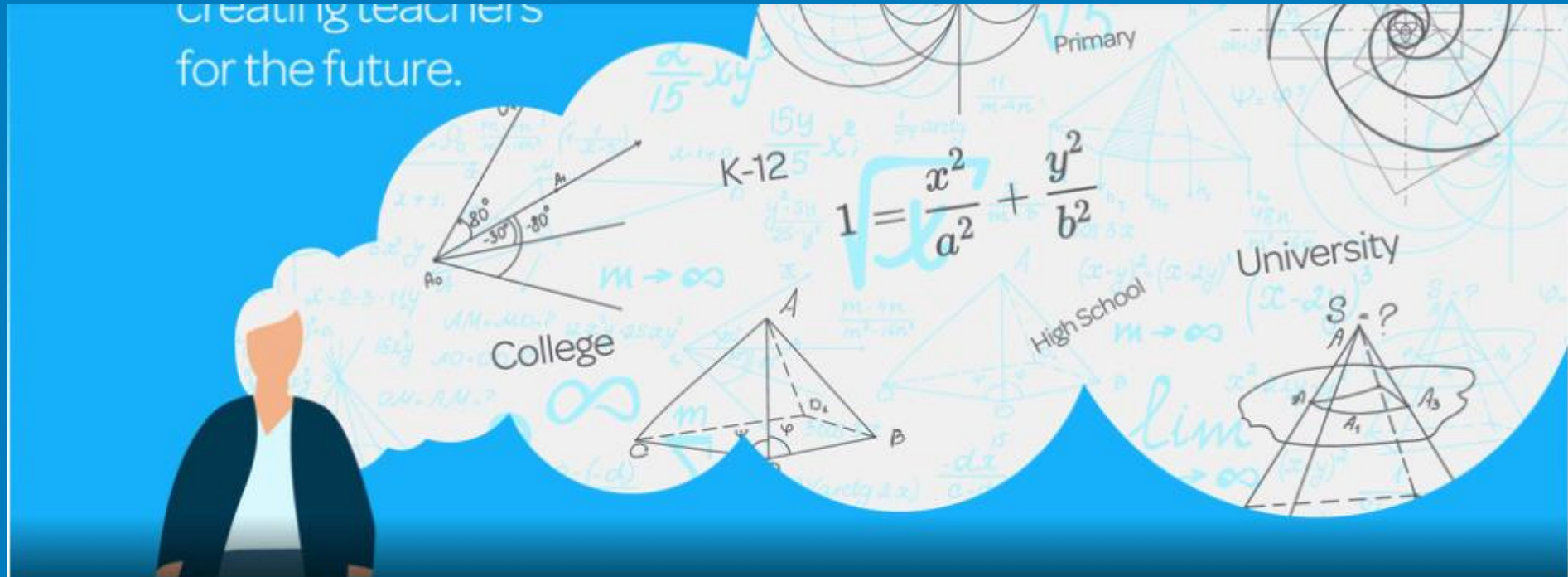
Contact Ben Dyer to discuss!

At Texthelp our customers are at the centre of everything we do.
We love getting your feedback and finding out the impact that
our tools are having on teaching and learning.

The background of the slide features a stylized illustration of a classroom. On the left, there are several rows of grey chairs. In the center, a large, light grey speech bubble with a tail pointing towards the right contains the URL. On the right side, a red speech bubble icon is positioned, matching the one in the logo. The bottom of the slide is a solid grey horizontal bar.

bit.ly/equatIOFUN

Creating teachers
for the future.



Group by Texthelp

EquatIO Texthelp Titans

Private group · 284 members

Cancel Request



search for

Thank you for listening!
Any questions?

Get in touch, I'm here to help.



Thanks for watching!

b.dyer@texthelp.com

@TH_BenDyer

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