ST. DOMINIC'S
VERITAS
FOUNDED 1870
GRAMMAR SCHOOL
FOR GIRLS

Mathematics at St Dominic's

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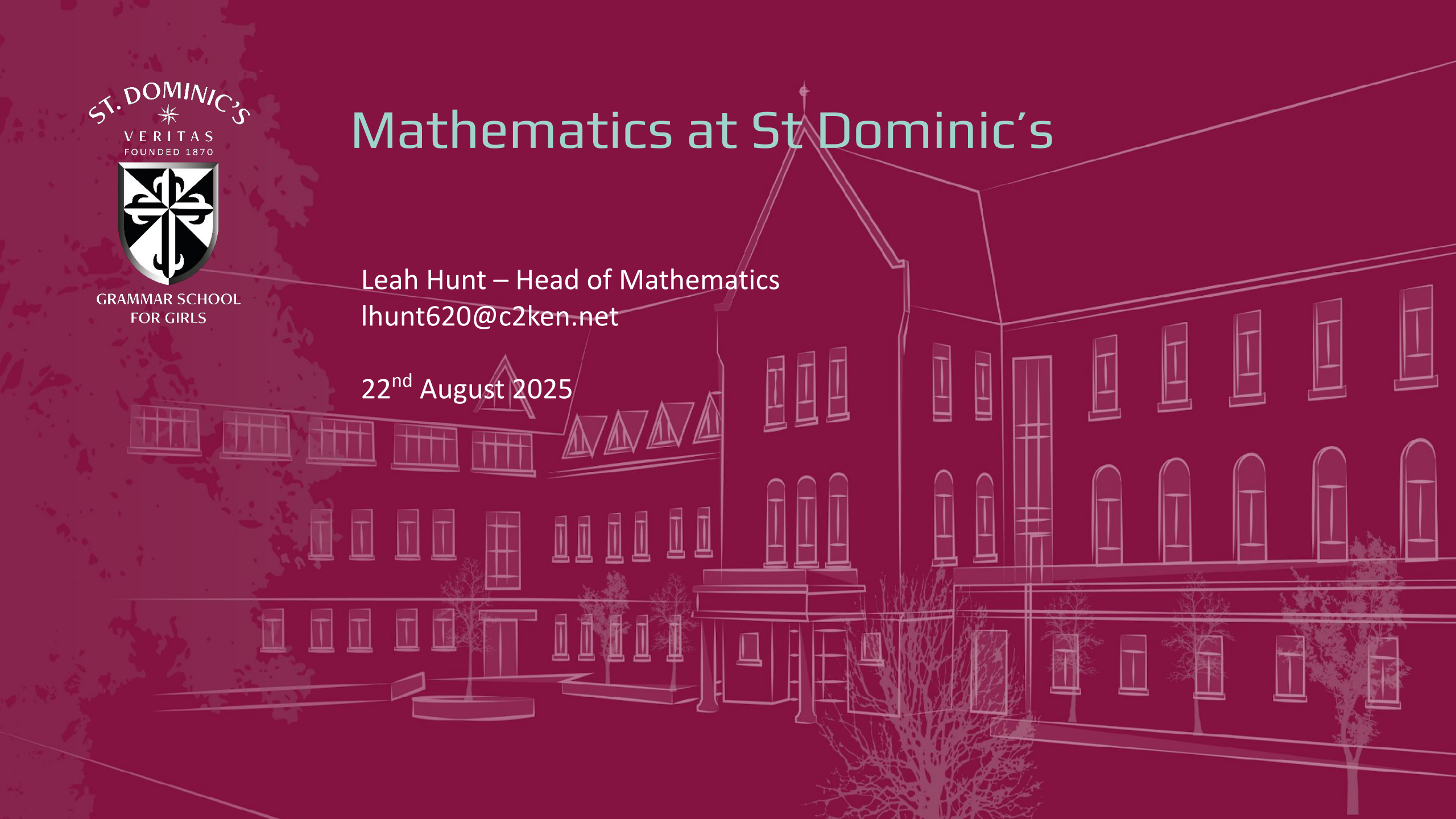
22nd August 2025



Overview

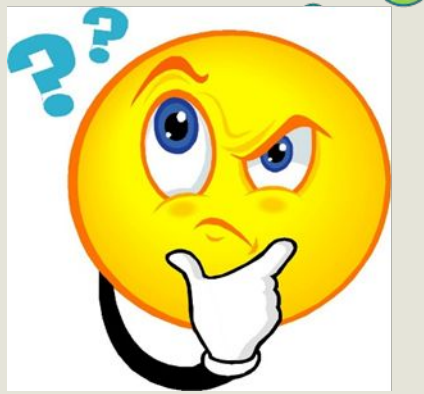
- Barriers to success in Mathematics
  - Fixed v Growth Mindset
  - Maths Anxiety
- Why Mathematics is important
  - Career opportunities
  - Scholarships
  - Gender imbalance

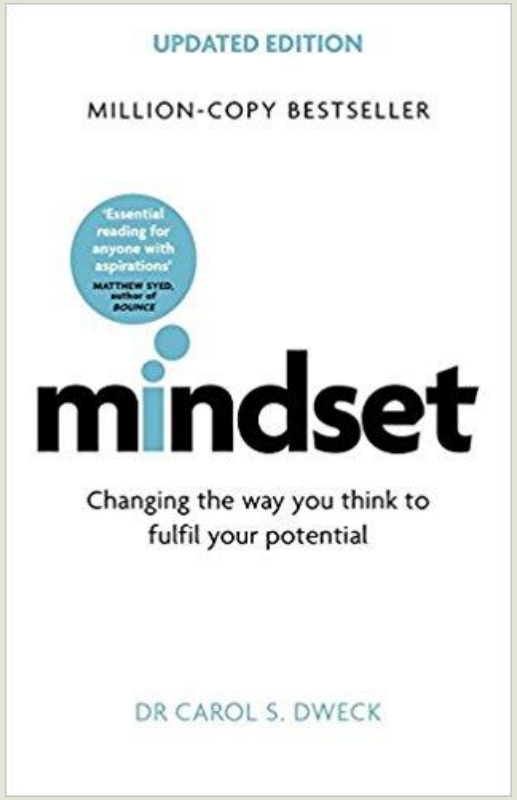
Overview

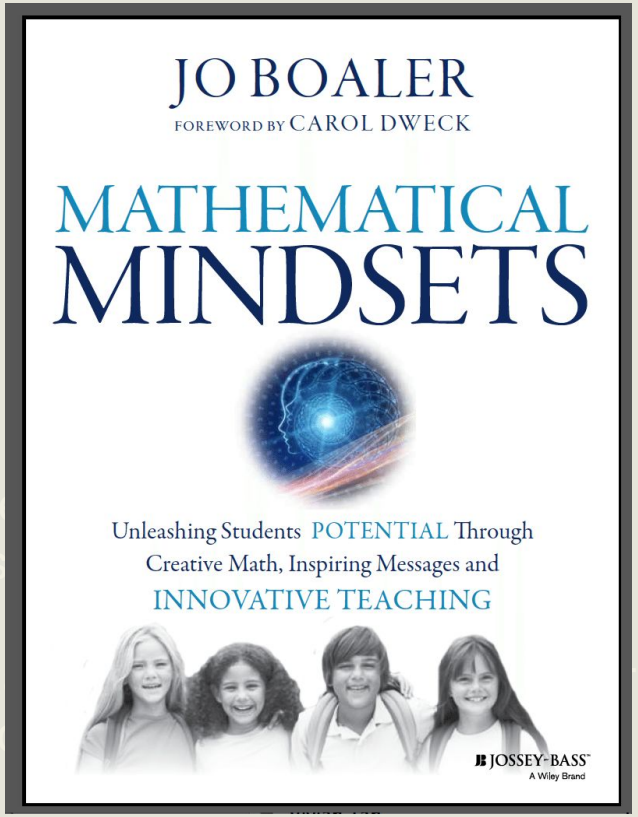
- Studying Mathematics in St Dominic's
  - Maths if fun!
  - Numeracy across the curriculum and beyond
  - Coding
  - Supporting parents to support their daughters in Maths

This morning with your daughters…

Who here is <u>good</u> at Maths?







- Choose your words wisely
- Be positive
- Have high expectations – exceptional daughters
- **Mindset is everything!**

Prof. Jo Boaler - How You Can Be Good At Maths

youcubed
at Stanford University

Building a Mathematical Mindset Community

Teachers and students believe *everyone* can learn maths at HIGH LEVELS.

- Students are not tracked or grouped by achievement
- All students are offered high level work
- "I know you can do this" "I believe in you"
- Praise effort and ideas, not the person
- Students vocalize self-belief and confidence

Communication and *connections* are valued.

- Students work in groups sharing ideas and visuals.
- Students relate ideas to previous lessons or topics
- Students connect their ideas to their peers' ideas, visuals, and representations.
- Teachers create opportunities for students to see connections.
- Students relate ideas to events in their lives and the world.

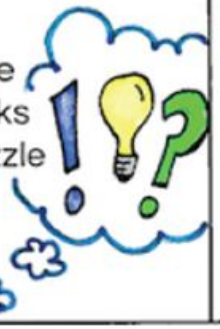
The maths is VISUAL.

- Teachers ask students to draw their ideas
- Tasks are posed with a visual component
- Students draw for each other when they explain
- Students gesture to illustrate their thinking

The maths is OPEN.

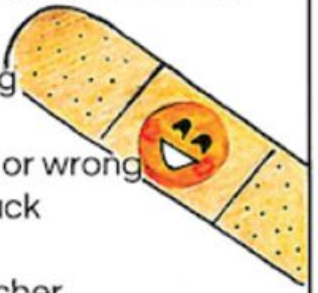
- Students are invited to see maths differently
- Students are encouraged to use and share different ideas, methods, and perspectives
- Creativity is valued and modeled.
- Students' work looks different from each other
- Students use ownership words - "my method", "my idea"

The environment is filled with *WONDER* and *CURIOSITY.*



- Students extend their work and investigate
- Teacher invites curiosity when posing tasks
- Students see maths as an unexplored puzzle
- Students freely ask and pose questions
- Students seek important information
- "I've never thought of it like that before."

The classroom is a risk-taking, *MISTAKE VALUING* environment



- Students share ideas even when they are wrong
- Peers seek to understand rather than correct
- Students feel comfortable when they are stuck or wrong
- Teachers and students work together when stuck
- Tasks are low floor/high ceiling
- Students disagree with each other and the teacher

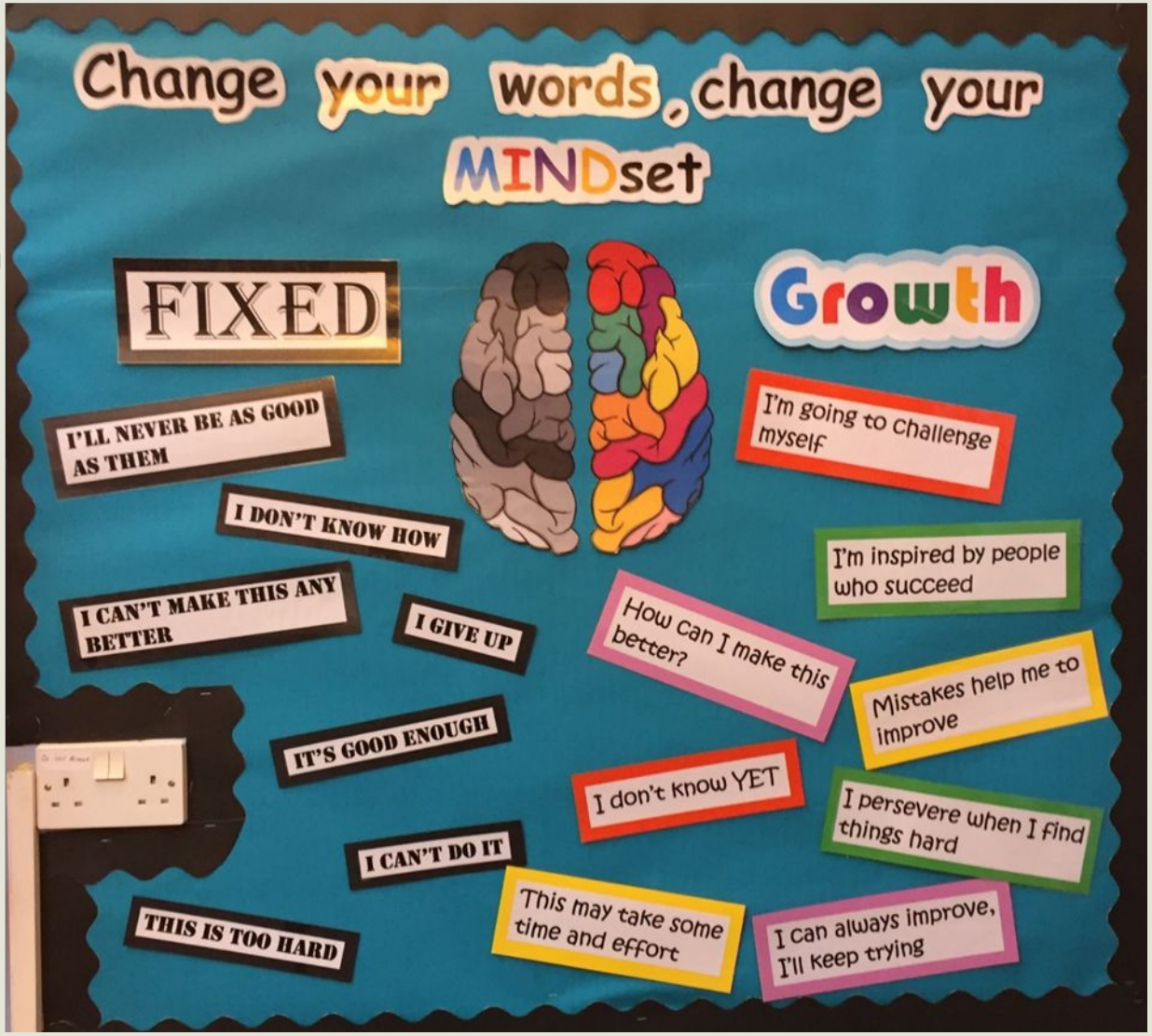
Developed by Jo Boaler/Youcubed.org and Tulare County Office of Education

Key Points…

- Celebrate/normalise mistakes
  - e.g. snap on iPad/share with class
- Mindset – results in a test are important but what's equally important is your daughter's response – resilience/actions to ensure success (60%/40%)
- Change the message – teachers & parents
- Types of examples/work given 'space inside for learning'

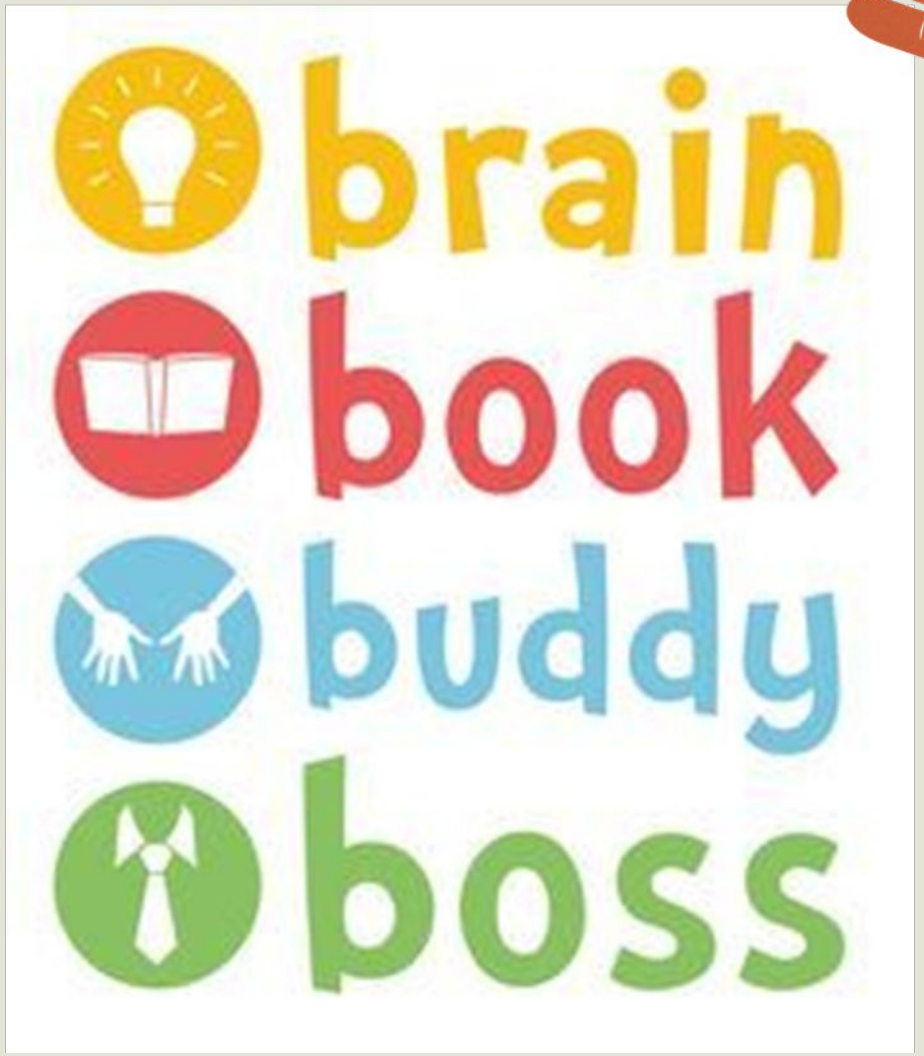
Language is crucial…

I can't do that… YET!!!



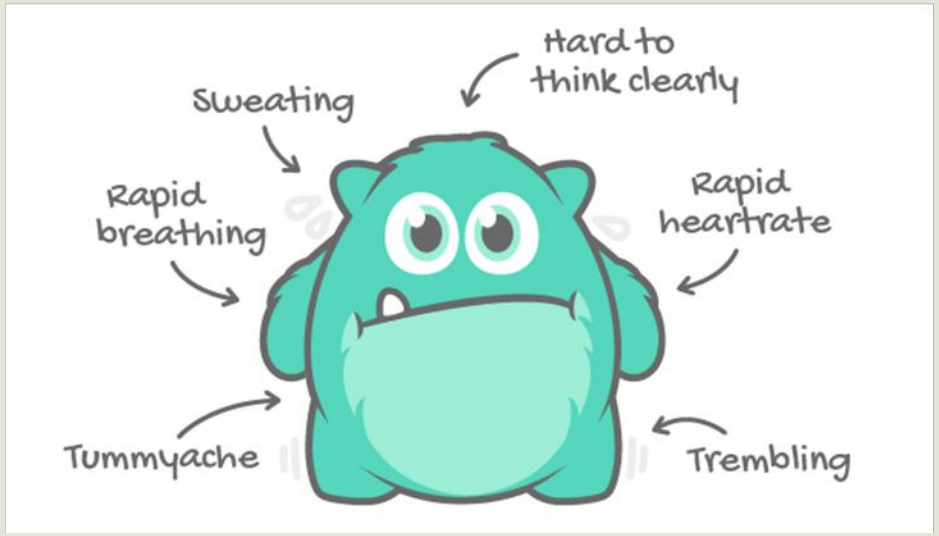
Teachers promote the independent learner!

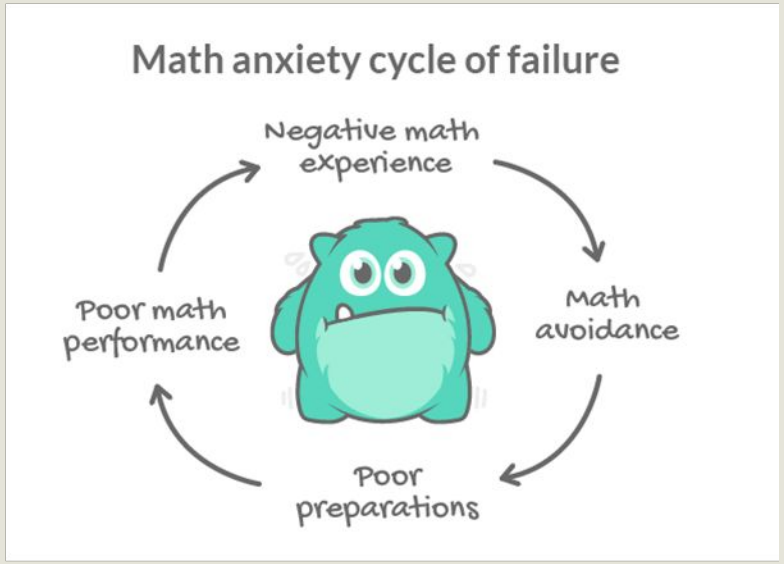
Human nature
versus
best practice



Parents when supporting their daughters should be the ‘boss’!

Maths Anxiety





8 Practical Ways to Conquer Your Child's Math Anxiety

1 Be involved

Student success in school has been shown to increase if their parents are positively involved in their education.

2 Encourage a growth mindset

Studies have shown that effort trumps ability when it comes to learning math, so set high expectations when encouraging your child.

3 Be positive about math

A parent's perception of mathematics influences not only their child's feelings about math but also their child's achievement in mathematics.

4 Overcome gender stereotypes

Foster math confidence regardless of the gender of your child by highlighting achievements made by both male and female scientists.

8 Make math relevant to real life

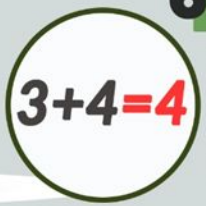
Highlight ways in which you and your family use math in everyday life and discuss how good math skills will open the doors to a larger choice of career options.

7 Take baby steps

Support new topics by slowly building from the topics your child already understands. Use gradual, repeated success to build math confidence in your child.

6 Allow mistakes

Focus on the concepts rather than the right answer, since making (and correcting) mistakes is an essential part of math learning.

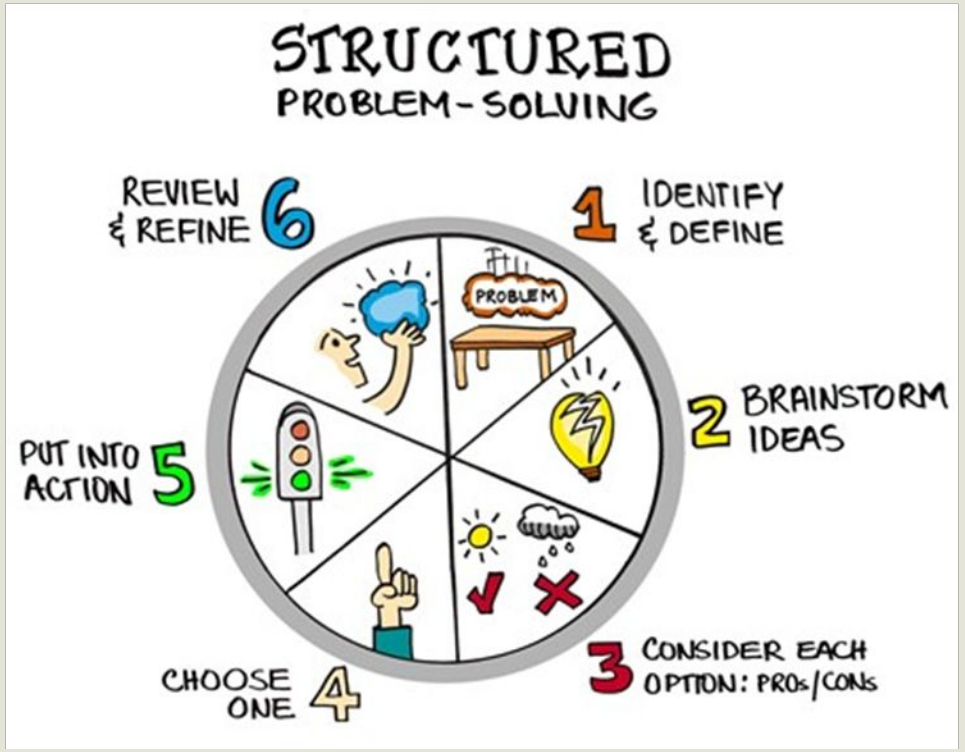


5 Learn the basics

Rote learning is essential to mathematics performance as many higher level concepts build on the memorization and repetition of the basic math facts.

Problem Solving

- New GCSE/Alevel specifications
- All exam boards
- Problem solving and logical skills are seen as key by employers



More problem-solving questions

Tasks have little or no scaffolding: there is little guidance given to the candidate beyond a start point and a finish point.

Questions do not explicitly state the mathematical process(es) required for the solution.

Tasks provide for multiple representations, such as the use of a sketch or a diagram as well as calculations.

There is a need for the results to be interpreted or methods evaluated, for example, in a real-world context.

Tasks have a variety of techniques that could be used.

The solution requires understanding of the processes involved rather than just application of the techniques.

Employers consulted by CCEA

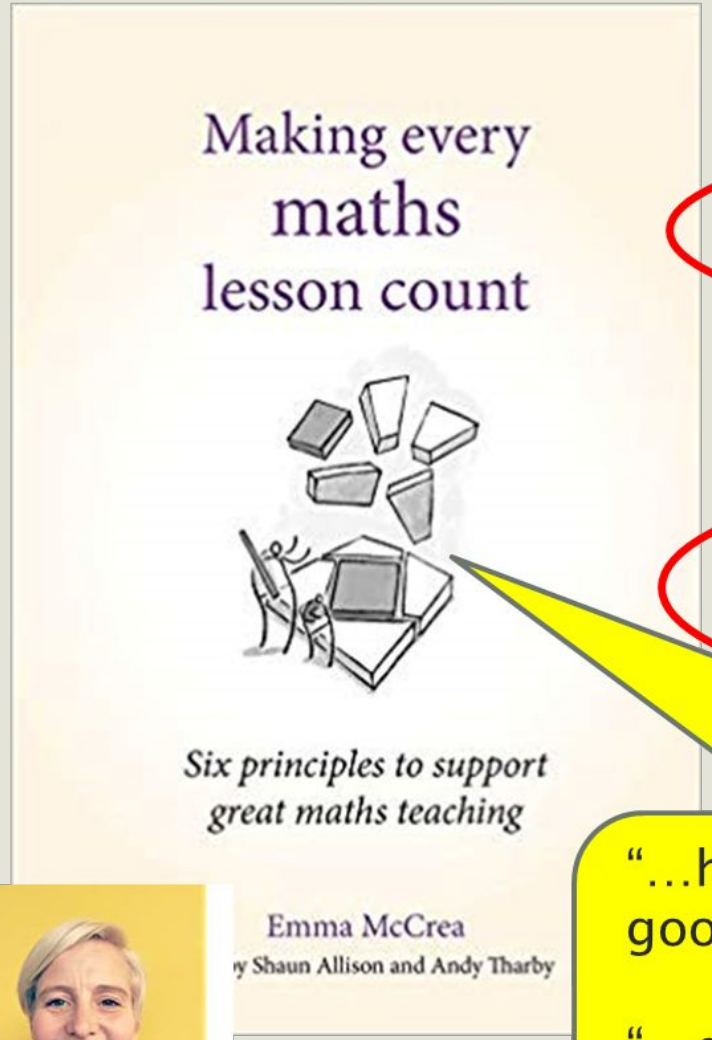
Employer/Organisation	Sector
IET (Institute of Engineering and Technology) **Replify** **NIE** **Intel**	Engineering and technology
Kainos	Information Technology
Liberty	Insurance
BDO	Accountancy
Bombardier	Aeronautical
BT plc	Telecommunications
Marks and Spencer (2nd March 2016)	Retail
Danske bank	Banking

Sector	Employer
Health	Health and Social Care Trusts Norbrook
Pharmaceuticals	Randox
Finance	Citi NYSE
Hospitality/Entrepreneur	Merchant Hotel
Transportation	Easyjet Wrightbus

The content may be different, but the skills of problem solving and logical thinking lead directly to work at Citi

J. Healy
Citi – Belfast

Why study Mathematics?



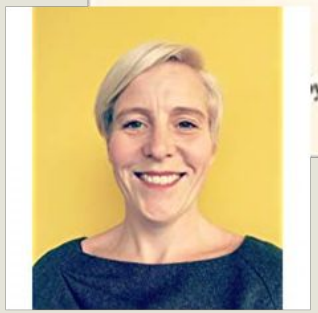
There is no doubt that learning maths and being numerate is important. There is a wealth of evidence about the personal and financial impact of poor numeracy to back this up. The Organisation for Economic Co-operation and Development (OECD) found that "high numeracy is particularly correlated with a higher likelihood of; having higher wages, having good to excellent health and being employed",[2] leading to the OECD's director for education and skills, Andreas Schleicher, to state that "good numeracy is the best protection against unemployment, low wages and poor health".[3]

A study by the Institute for Fiscal Studies calculated that students who are 'good' at maths are able to earn around an extra £2,100 per year,[4] and the government released a paper suggesting that getting five or more good GCSEs, including maths and English, would gain them an additional £100,000 over a lifetime.[5] Yet more than 20% of British adults have

"…high numeracy is correlated with…higher wages, good to excellent health and being employed"

"…earn around an extra £2,100 per year".

"…an additional £100,000 over a lifetime".



The degrees that earn the best salaries — and protect you from AI

Economics students are paid an average of £68,600 ten years after graduation — but which subjects offer high salaries as well as a tech-proof career?

https://www.thetimes.com/business-money/money/article/degrees-best-salaries-ai-proof-l8chbxqdg?utm_medium=Social&utm_source=Facebook&fbclid=IwQ0xDSwMPtk1leHRuA2FlbQIxMQABHj6y6EwEGPTJLBsPAsiXxPZ63sp-3dC70z5fa8e1sz3QFk_ATSRkc-4IwGxo_aem_1gxuK6MgkRWEo7bV_s_fyg#Echobox=1755196020

Graduates are also facing a tough jobs market and increasing competition from artificial intelligence (AI). So, here are the degrees that will make you rich — and those that are unlikely to be replaced by a computer any time soon.

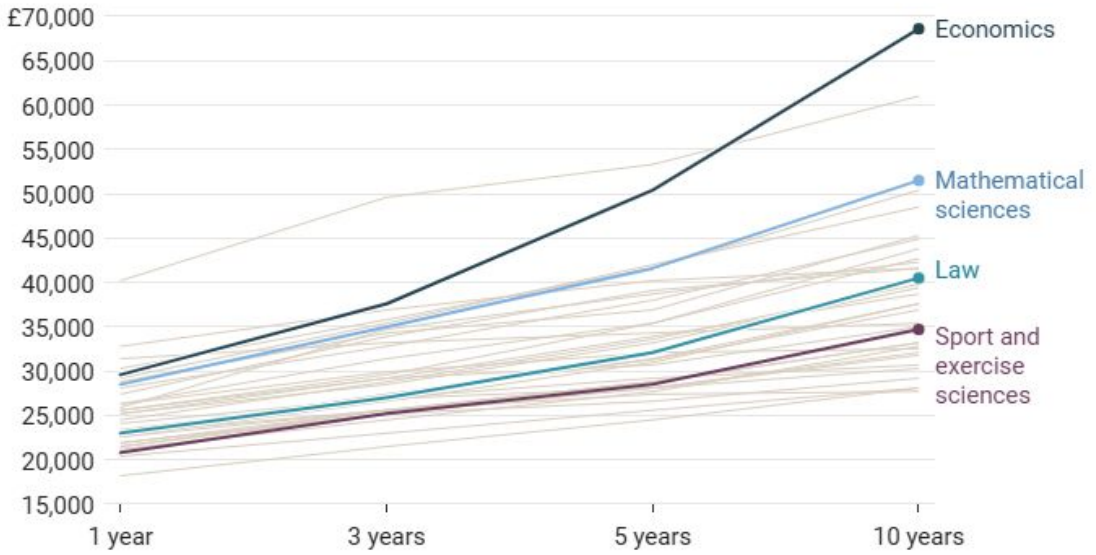
• The degrees that may not be worth the paper they're written on

Good with numbers

Statistics from the Department for Education show that graduates with economics degrees had the highest salaries ten years after graduating, with an average salary of £68,600. Medicine and dentistry were close behind at £61,000 and mathematical sciences was next at £51,500.

Room for improvement

Degrees that gave the highest average salary growth after ten years



2022-23 data

Chart: The Times and The Sunday Times • Source: Department for Education

Subject	1 year	10 years
Economics	£29,600	£68,600
Medicine and dentistry	£40,200	£61,000
Mathematical sciences	£28,500	£51,500
Engineering	£30,300	£50,400
Physics and astronomy	£29,200	£48,500
Architecture, building and planning	£28,800	£45,300
Computing	£28,100	£44,900
Politics	£25,600	£43,800
Chemistry	£26,300	£42,700
Medical sciences	£25,900	£42,300
Pharmacology, toxicology and pharmacy	£27,400	£41,600

2022-23 data

Table: The Times and The Sunday Times • Source: Department for Education

https://www.thetimes.com/business-money/money/article/degrees-best-salaries-ai-proof-l8chbxqdg?utm_medium=Social&utm_source=Facebook&fbclid=IwQ0xDSwMPtk1leHRuA2FlbQIxMQABHj6y6EwEGPTJLBsPAsiXxPZ63sp-3dC70z5fa8e1sz3QFk_ATSRkc-4IwGxo_aem_1gxuK6MgkRWEo7bV_s_fyg#Echobox=1755196020

Lots of career opportunities when you study Maths

London-based AI firm creates more than 100 jobs in Belfast

Napier AI's chief executive Greg Watson, Economy Minister Caoimhe Archibald and Invest NI chief executive Kieran Donoghue attended the announcement on Tuesday

Gráinne Connolly
BBC News NI

18 February 2025

Invest Northern Ireland

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Home / Media Centre / News / EY Northern Ireland to create 1,000 new jobs in the region over the next five years

EY Northern Ireland to create 1,000 new jobs in the region over the next five years

13 September, 2023

The Arkwright Scholarships Trust can support y ou to become a future leader in engineering, c omputing or technical design.

Arkwright Engineering Scholarships Winners

2014-2025

Where do maths graduates actually work?

The latest research

If you are considering taking a mathematics related degree, then make sure you read this article as it will help you understand your excellent potential job prospects once you graduate.

A new report published in 2015 by the Council for Mathematical Sciences (CMS) about the graduate destinations of mathematical sciences graduates has uncovered the following information:

1. The demand for mathematically qualified people has risen.

Between 2011 and 2013 the number of people working in jobs where mathematical sciences qualifications are **essential** rose by 20%. (The total UK workforce only rose by 2.3% in this time.) Almost 2,000,000 people now work in jobs where mathematical sciences qualifications are **essential**.

2. Jobs where mathematical skills are essential have good salaries.

Nationally around 50% of people who work in jobs where mathematical sciences qualifications are essential earn £29,000 or more. If instead you look at jobs where mathematical qualifications are irrelevant, then only 9% of people earn over £29,000.

In 2012/2013, just six months after graduation, the median salary for mathematical sciences graduates was £24,000. 19% of those graduates were already earning more than £30,000 and 7% were already earning £40,000 or more. These are excellent starting salaries for graduates who have only just left university.

3. Mathematical Sciences degrees lead to a wide range of interesting careers.

www.mathcareers.org.uk

Numeracy should be ‘alive’ and vibrant at every level!

Gender Imbalance

In the workplace, more males work in STEM related areas.

- 47.3% of women in NI are aged 16-64

•High level jobs in STEM related industries currently account for 11% of total employment.

• The ratio of male to females employed in STEM related industries is 3 to 1.

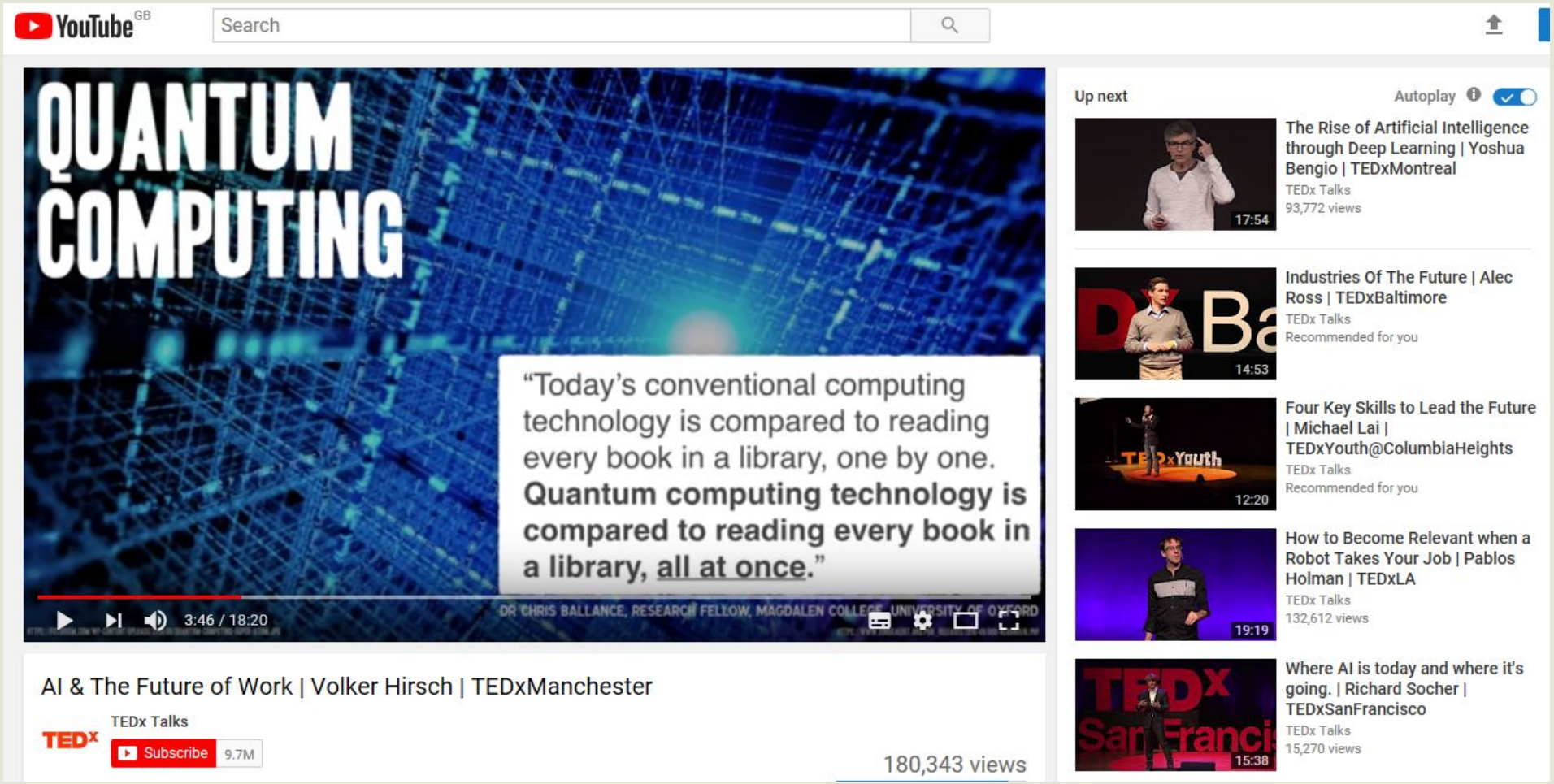
• Males currently outnumber females in the manufacturing sector by a ratio of 4 to 1.

- 15% of IT professionals are women
- 5.5% of Engineering professionals are women

Addressing the Gender Imbalance

- Subjects chosen at school
- Further and higher education choices
- Career choices
- Recruitment and retention within STEM related industries
- Career progression

‘Machine Learning’



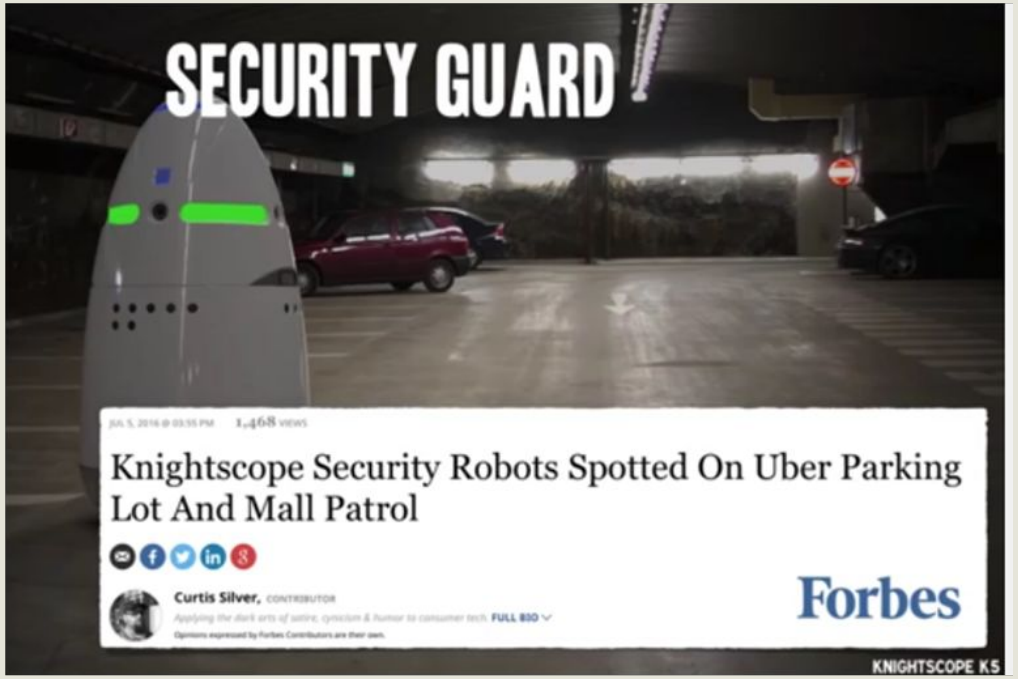
Volker, entrepreneur, has been at the forefront of mobile and digital media for a decade.

TED talk, Manchester, Feb 2017

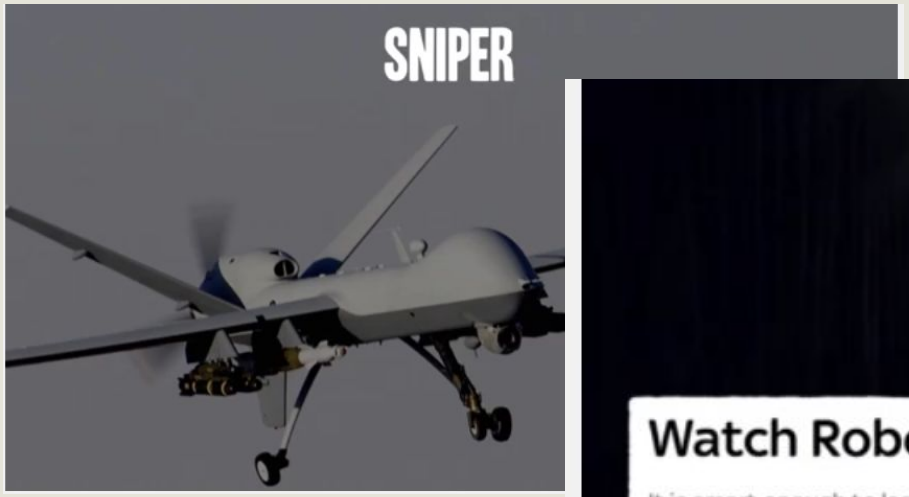

INDEPENDENT
Apple supplier Foxconn replaces 60,000 workers with robots at China factory
Employee numbers at the Foxconn factory in Kunshan were slashed from 110,000 to 50,000


SHIPPING LOGISTICS
KALMAR
KALMAR AUTOMATED VEHICLES, PORT OF LOS ANGELES, CALIFORNIA

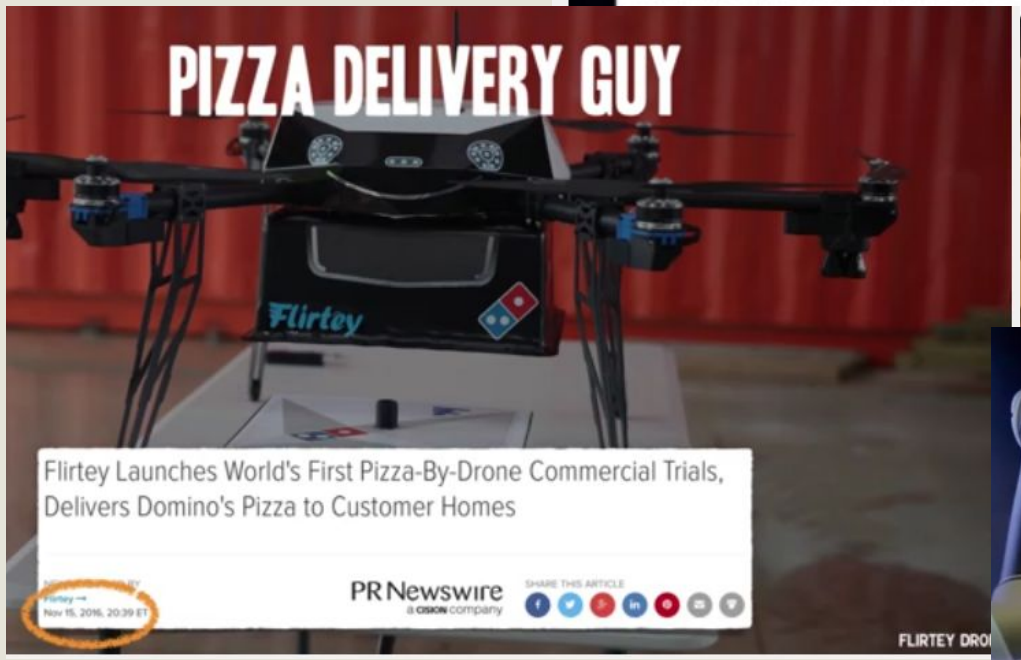

WAREHOUSE LOGISTICS
AMAZON AUTOMATED WAREHOUSE

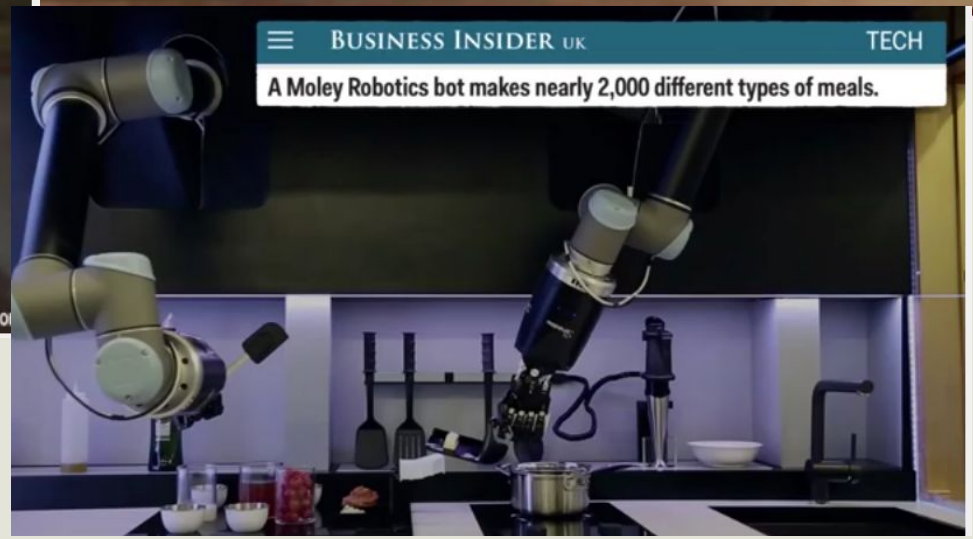

SECURITY GUARD
1,468 VIEWS
Knightscope Security Robots Spotted On Uber Parking Lot And Mall Patrol
Curtis Silver, CONTRIBUTOR
Forbes
KNIGHTSCOPE K5

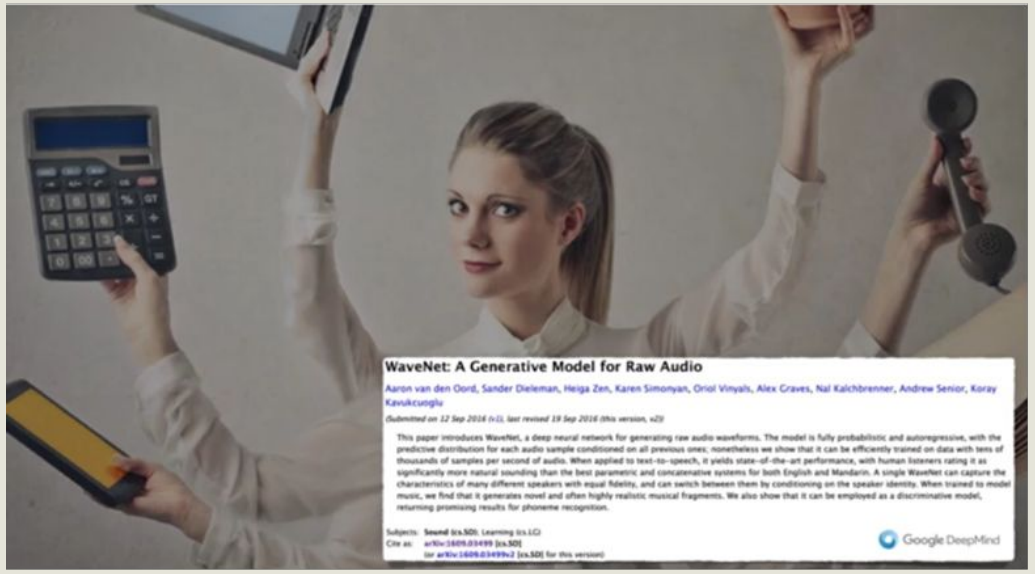

POLICEMAN
Cheetah Robot runs 28.3 mph; a bit faster than Usain Bolt
Boston Dynamics

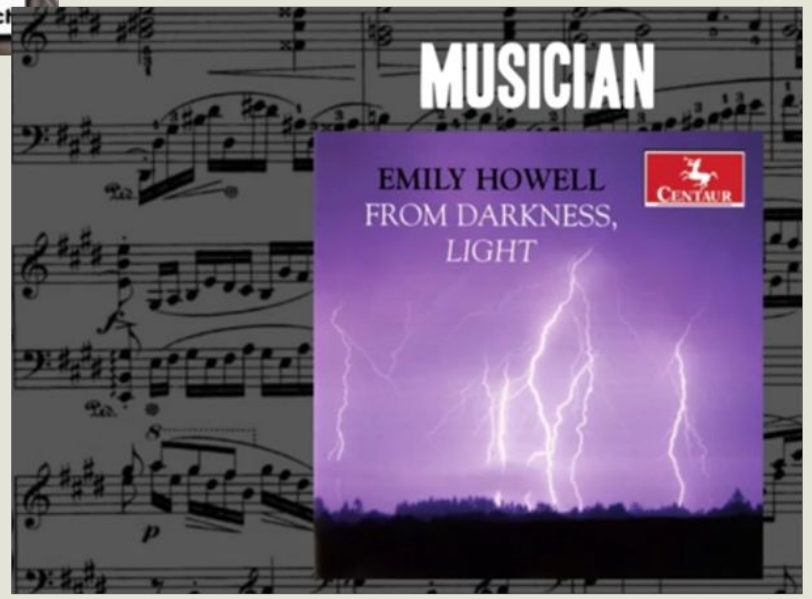

SNIPER


BUILDER
Watch Robot Builder Construct House In Two Days
It is smart enough to leave spaces in the brickwork for wiring and plumbing, and can even cut and shape bricks to size.
sky NEWS
10:22, UK, Friday 29 July 2016
HADRIAN X


PIZZA DELIVERY GUY
Flirtey
Flirtey Launches World's First Pizza-By-Drone Commercial Trials, Delivers Domino's Pizza to Customer Homes
PR Newswire
a CISION company

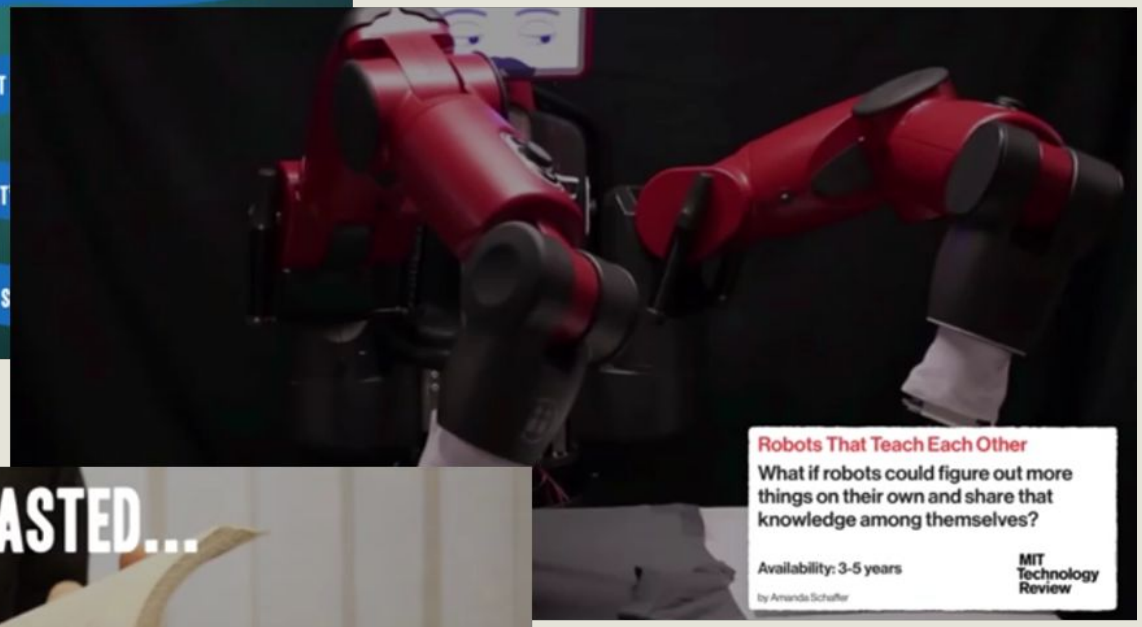

BUSINESS INSIDER UK
TECH
A Moley Robotics bot makes nearly 2,000 different types of meals.

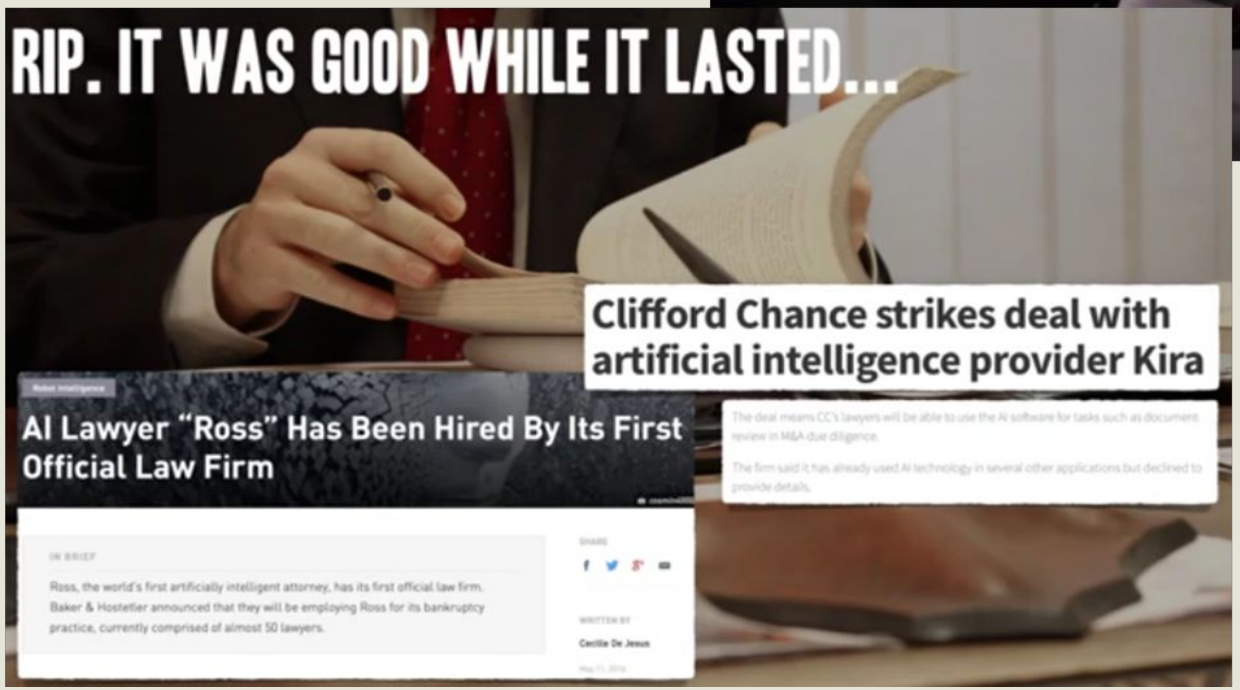




Emily Howell is an algorithm!

Dexter – the Robot that learns from you e.g. folding a shirt
Available in the next 3-5yrs





Coding coding coding – Maths department linking with ICT programming

```
namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            //ask the user for one side of a right angle triangle
            Console.WriteLine("What is the length of the first side of the right angle triangle?");
            //read in the first side as an integer(a)
            int first = int.Parse(Console.ReadLine());
            //ask the user for one side of a right angle triangle
            Console.WriteLine("What is the length of the second side of the right angle triangle?");
            //read in the second side as an integer
            int second = int.Parse(Console.ReadLine());

            //get the answer as a decimal for the hypotenuse
            double Answer = pythag(first, second);
            //display the answer
            Console.WriteLine("The hypotenus is " + Answer);

            //Area of a circle formula being called and used, answer being stored as a decimal
            double circle = CircleArea(3);
            Console.WriteLine("The area of the circle is " + circle);

            double positiveAnswer = quadpositive(2, -5, -6);
            double negativeAnswer = quadnegative(2, -5, -6);


            Console.WriteLine("x is either " + positiveAnswer + " or " + negativeAnswer);


            Console.ReadLine();
        }
```

```
public static double pythag(int a, int b)
        {
            double c = 0;
            //calculate C, or H, squared
            c = (a * a) + (b * b);
            //find the square root
            c = Math.Sqrt(c);
            //return your answer to the program
            return c;
        }

        public static double CircleArea(int r)
        {
            //area is PI R Squared
            double line = Math.PI * (r * r);

            //return answer to the main menthod
            return line;
        }

        public static double quadpositive(int a, int b, int c)
        {
            // x = -b +-squareroot bsquare -4ac
            //all over 2a
            double x = (0-b) + (Math.Sqrt((b*b)-(4*(a*c))));
            x = x / (2 * a);
            return x;

        }
        public static double quadnegative(int a, int b, int c)
        {
            // x = -b +-squareroot bsquare -4ac
            //all over 2a
            double x = (0 - b) - (Math.Sqrt((b * b) - (4 * (a * c))));
            x = x / (2 * a);
            return x;
```

Pythagoras Theorem

```
D:\ConsoleApplication1.exe
What is the length of the first side of the right angle triangle?
3
What is the length of the second side of the right angle triangle?
4
The hypotenus is 5
What is the radius of the circle?
3
The area of the circle is 28.2743338823081
Now solving a quardratic, enter the value for a
2
Now solving a quardratic, enter the value for b
-5
Now solving a quardratic, enter the value for c
-6
x is either 3.38600093632938 or -0.886000936329383
```

Area of a circle

Quadratic formula

Q: Do I expect Maths staff to programme in C+?

Each year 330,000 students enter University requiring some Maths at Post-16, but only 125,000 have studied it

Prof Tom Millar
QUB

Year 8 Mathematics Day

- Maths Quiz
- Engineering task
- Data Corner “Getting to Know You” survey
- Maths Treasure Hunt
- Happy Puzzle Company Board games
- Careers in Maths
- Past and current pupils
- Staff
- Friendships
- Prizes
- Fun!

Competitions, celebrations & support

Maths Week Ireland (October)

Mathematical Treasure Hunt (Easter)

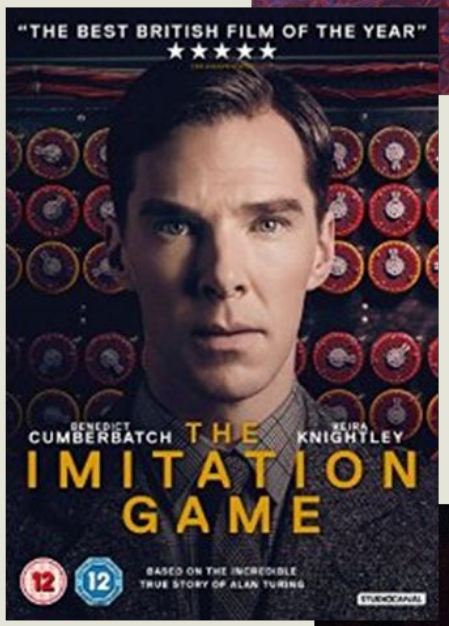
Maths Club (every Wednesday)

Celebrating Pi Day (14th March)

Dr Simon Singh

'Card Colm' Mulcahy

Cross Curricular Events



The Imitation Game

Based on the life of Alan Turing, the Enigma Machine & World War II

Salvador Dali & The Fourth Dimension

Professor Tom Banchoff, QUB

Example: Simultaneous Equations

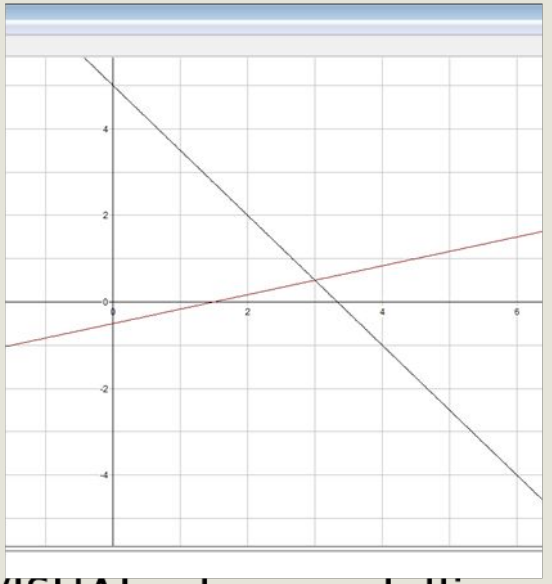
ABSTRACT

Solve the simultaneous equations $3x + 2y = 10$
$2x - 6y = 3$

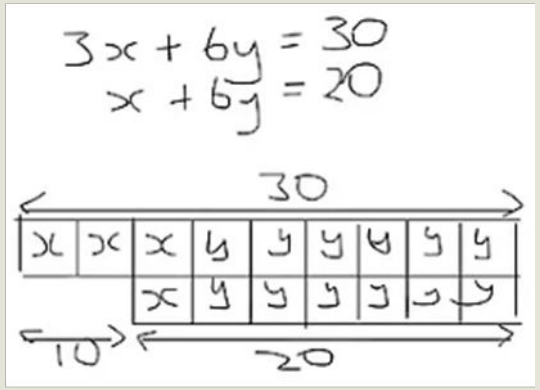
Show your working.
A solution by trial and improvement will not be accepted.

Answer $x =$ _____ , $y =$ _____ [3]

VISUAL – Omnigraph/ MyMaths



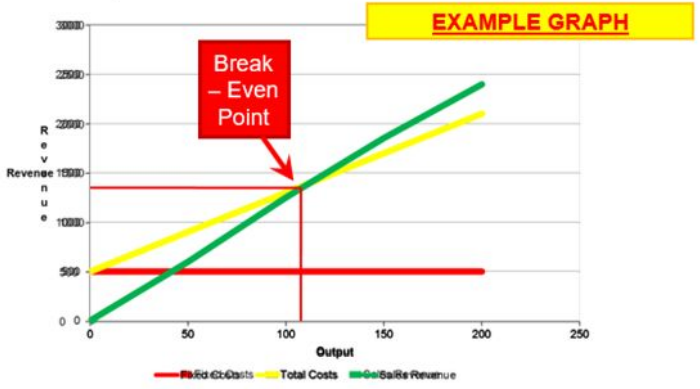
VISUAL – bar modelling



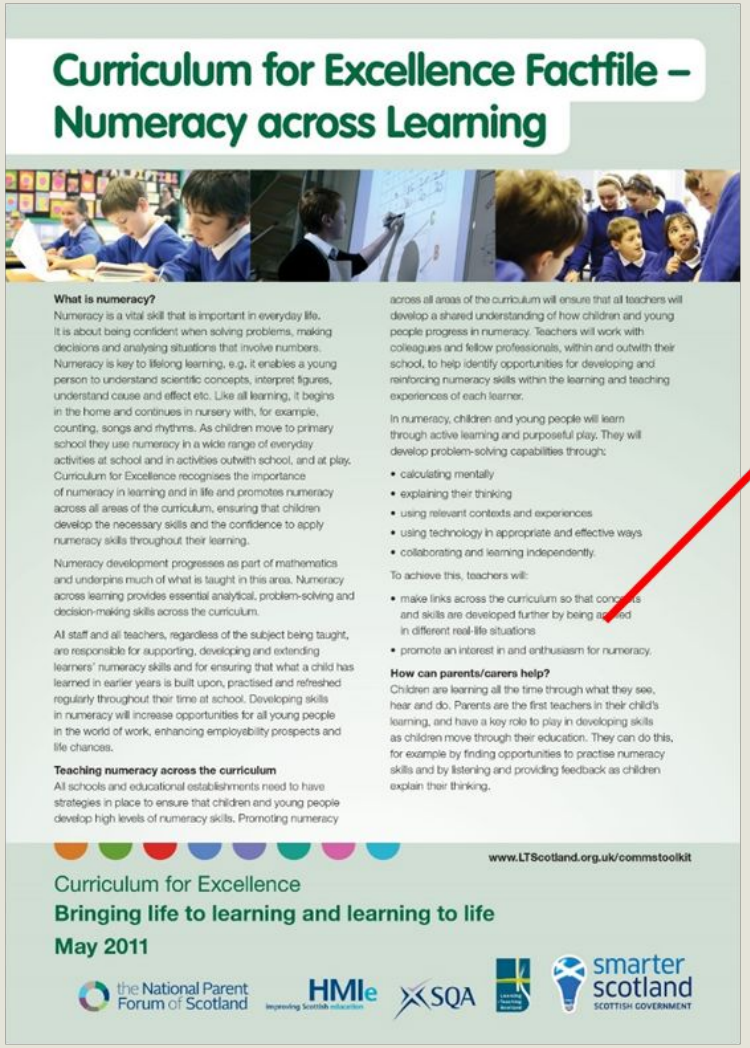
LINK THE LEARNING!

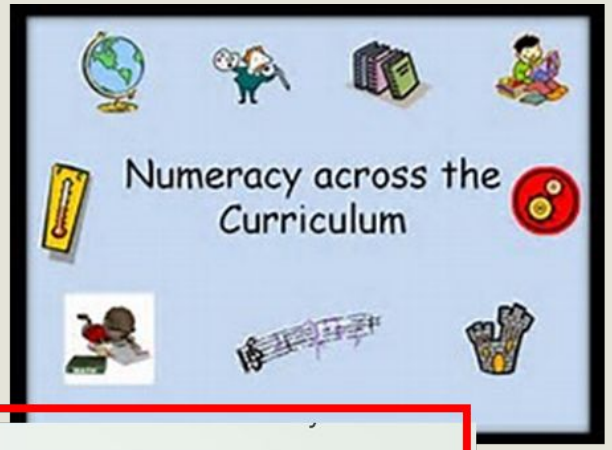
From GCSE Business Studies to Maths
"Creating Your Break-Even Graph"

The graph shows a company's revenue and costs at all possible levels of demand/output



CONTEXTUALISE/CHALLENGE
e.g Sam went to the shop and bought 3 pears and 2 apples e tc…





How can parents/carers help?

Children are learning all the time through what they see, hear and do. Parents are the first teachers in their child's learning, and have a key role to play in developing skills as children move through their education. They can do this, for example by finding opportunities to practise numeracy skills and by listening and providing feedback as children explain their thinking.

www.LTScotland.org.uk/commstoolkit

Connect the learning

Different teaching styles or terminology – same understanding, same skills required!

Encourage your daughter to see the similarities in the classroom and beyond! E.g. Physics, financial maths, shopping trolley, car…

Numeracy Outreach – Beyond St Dominic's

HE+ Consortium, Methodist College

Annual Maths Competition, QUB

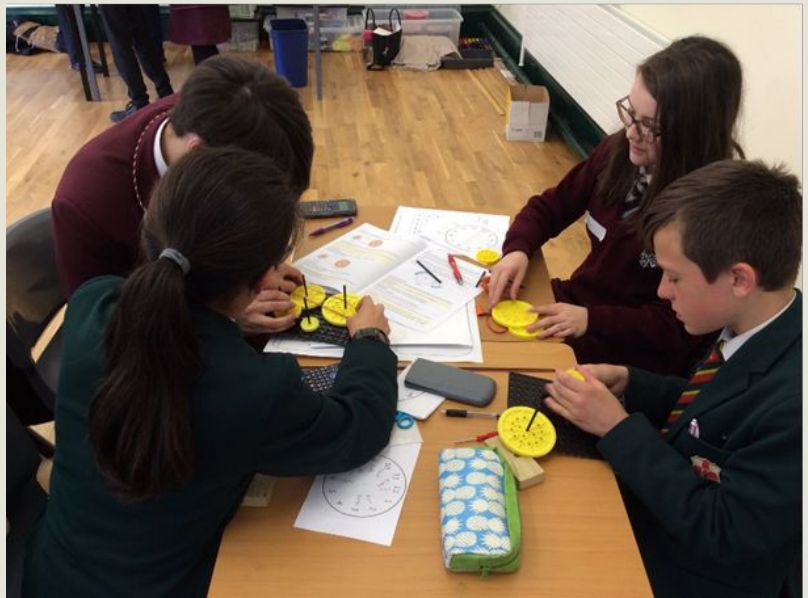
UKMT Team Challenge,

Prof E Van Dishoeck Mat hs in Astrochemistry, QUB

Coding Course, QUB

- Financial Maths Project
- Senior pupils
- SOWs
- Assessments
- TCN/observations
- Build on what they know already!
- Bridging Unit ALC target

Shared Education
Friends School Lisburn



Careers in Maths – CEIAG in St Dominic's

Latest research:

-Demand has risen
-Great Salaries
-Wide range of interesting careers
-Keeps your options open

Teaching?

e.g. Year 8 Research task – independent learner

Where do maths graduates actually work?

The latest research

If you are considering taking a mathematics related degree, then make sure you read this article as it will help you understand your excellent potential job prospects once you graduate.

A new report published in 2015 by the Council for Mathematical Sciences (CMS) about the graduate destinations of mathematical sciences graduates has uncovered the following information:

1. The demand for mathematically qualified people has risen.

Between 2011 and 2013 the number of people working in jobs where mathematical sciences qualifications are **essential** rose by 20%. (The total UK workforce only rose by 2.3% in this time.) Almost 2,000,000 people now work in jobs where mathematical sciences qualifications are **essential**.

2. Jobs where mathematical skills are essential have good salaries.

Nationally around 50% of people who work in jobs where mathematical sciences qualifications are essential earn £29,000 or more. If instead you look at jobs where mathematical qualifications are irrelevant, then only 9% of people earn over £29,000.

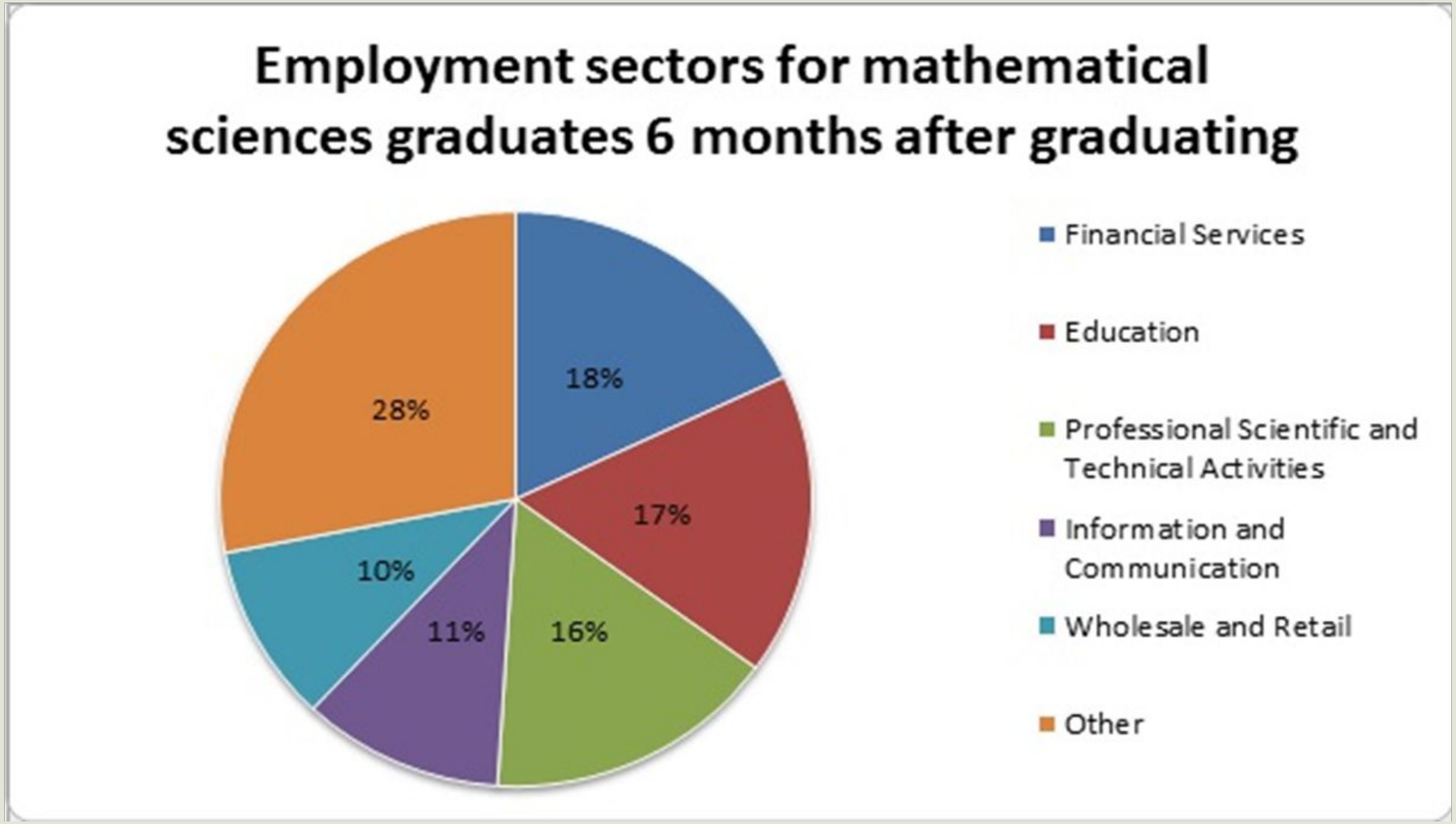
In 2012/2013, just six months after graduation, the median salary for mathematical sciences graduates was £24,000. 19% of those graduates were already earning more than £30,000 and 7% were already earning £40,000 or more. These are excellent starting salaries for graduates who have only just left university.

3. Mathematical Sciences degrees lead to a wide range of interesting careers.

CEIAG in St Dominic's

www.mathscareers.org.uk

(eg Operational Research)



QUEEN'S UNIVERSITY BELFAST | FACULTY OF ENGINEERING AND PHYSICAL SCIENCES

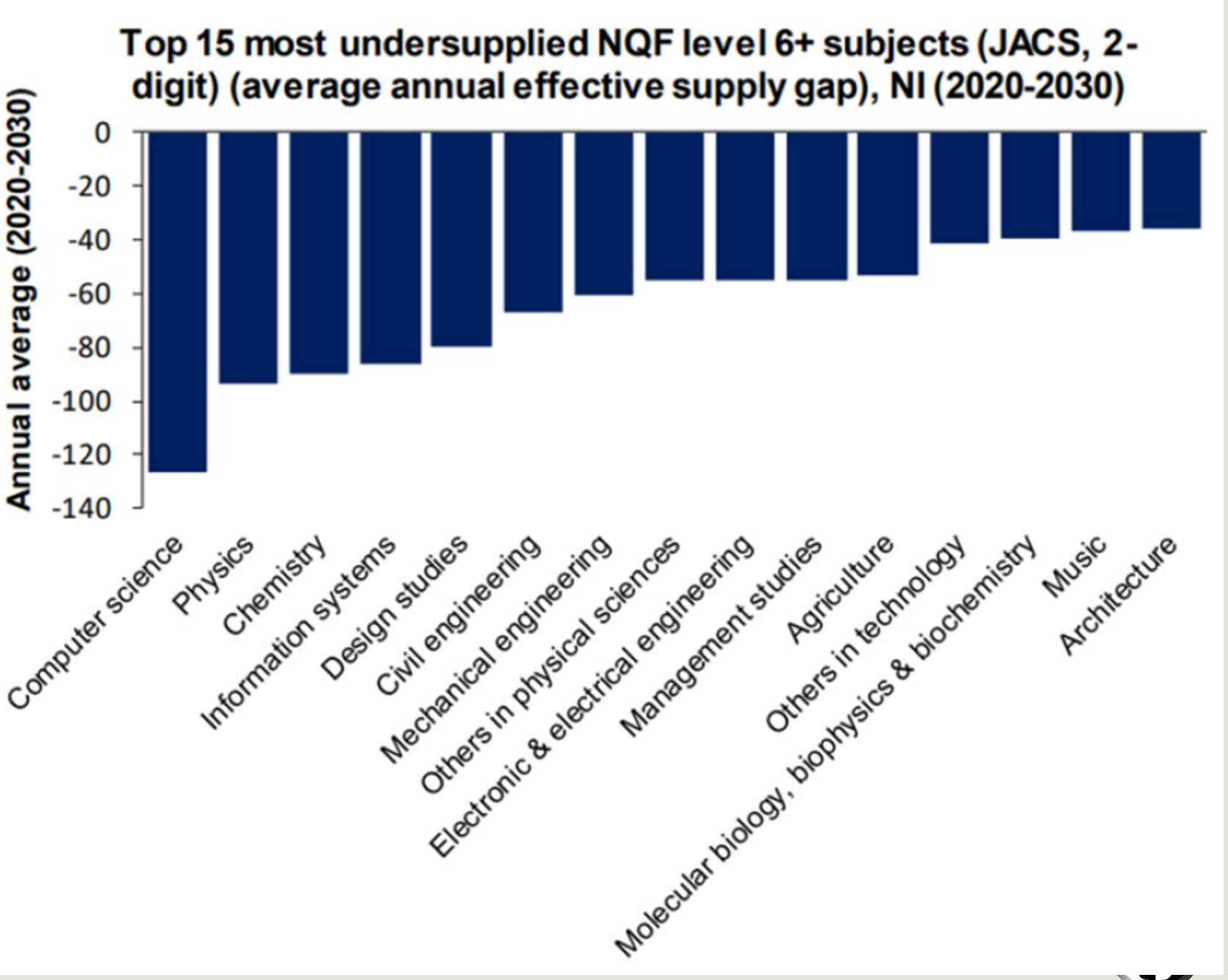
Faculty of Engineering and Physical Sciences

STEM Teacher Conference

**STEM Teacher Conference – Queens University Belfast*

The importance of STEM:
How *we* can help NI
make tomorrow better

QUEEN'S UNIVERSITY BELFAST



Latest Information/Updates from Queens

Skills lacking as students begin university:

- Resilience
- Effectively working as part of a group
- Ability to learn independently
- Ability to take risks
- Confidence in personal ability

Course Update:

- BSc Psychology now requires a B grade at GCSE Mathematics

Expectations and Goals

- High expectations
- 6 periods of Maths per week
- Homework each night – traditional hard sums: some revision, some new/challenge…but also research, musical maths, reading, bath/walk etc…
- Assessments/Maths Folder (EOT, RC, EOY)
- My Maths support/online assessments
- Focus on independent learning & growth mindset
- Build
  - Confidence (initially hard, understanding is not instant)
  - Awareness (career opportunities)
  - Application (across the curriculum and real life)
  - Enjoyment
- Parent support/communication–front page EoT

How can you support your daughter?

Topic title	Learning Outcomes	Textbook references	MyMaths references (Click the links in order)
Negative Numbers	• Understand place value in decimals • Compare the size of decimals and put them in order • Multiply and divide decimals by 10, 100, 0.1 and 0.01 • Combine positive and negative numbers in different ways	Chapter1 1a-c pg2-7	Number – Decimals Number – Counting and Place Value - Negative Numbers 2

Maths Links 7C

eBook

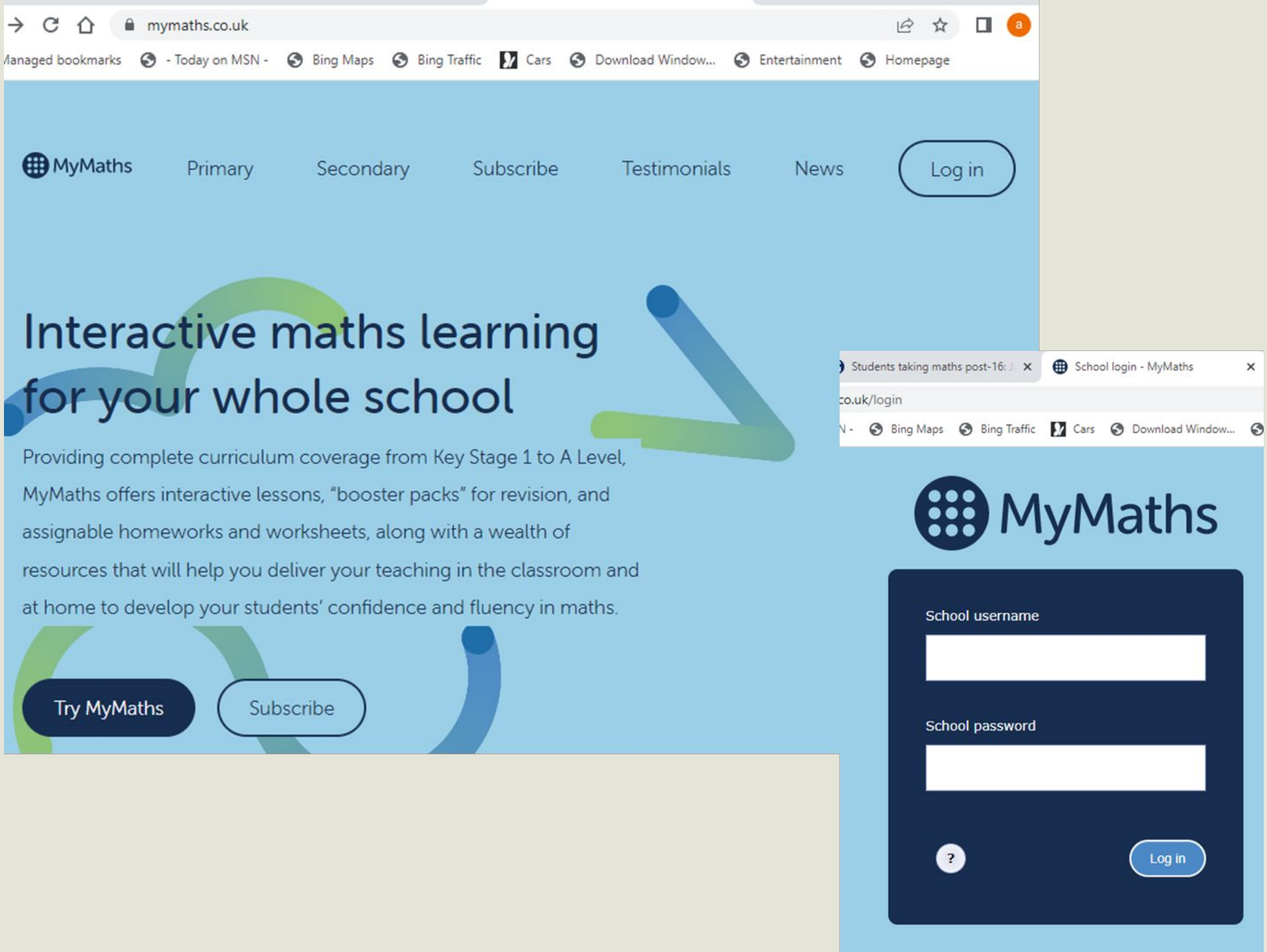
These are the pages from the
MathsLinks Student Book 7C
in pdf format.
Navigate using the table of contents
or the arrow buttons.

Enter

To view pdf files your computer must have
Adobe Acrobat® Reader® installed.
If you do not have this software installed,
you can download it from Adobe
at www.adobe.com.

OXFORD

- www.mymaths.co.uk


mymaths.co.uk
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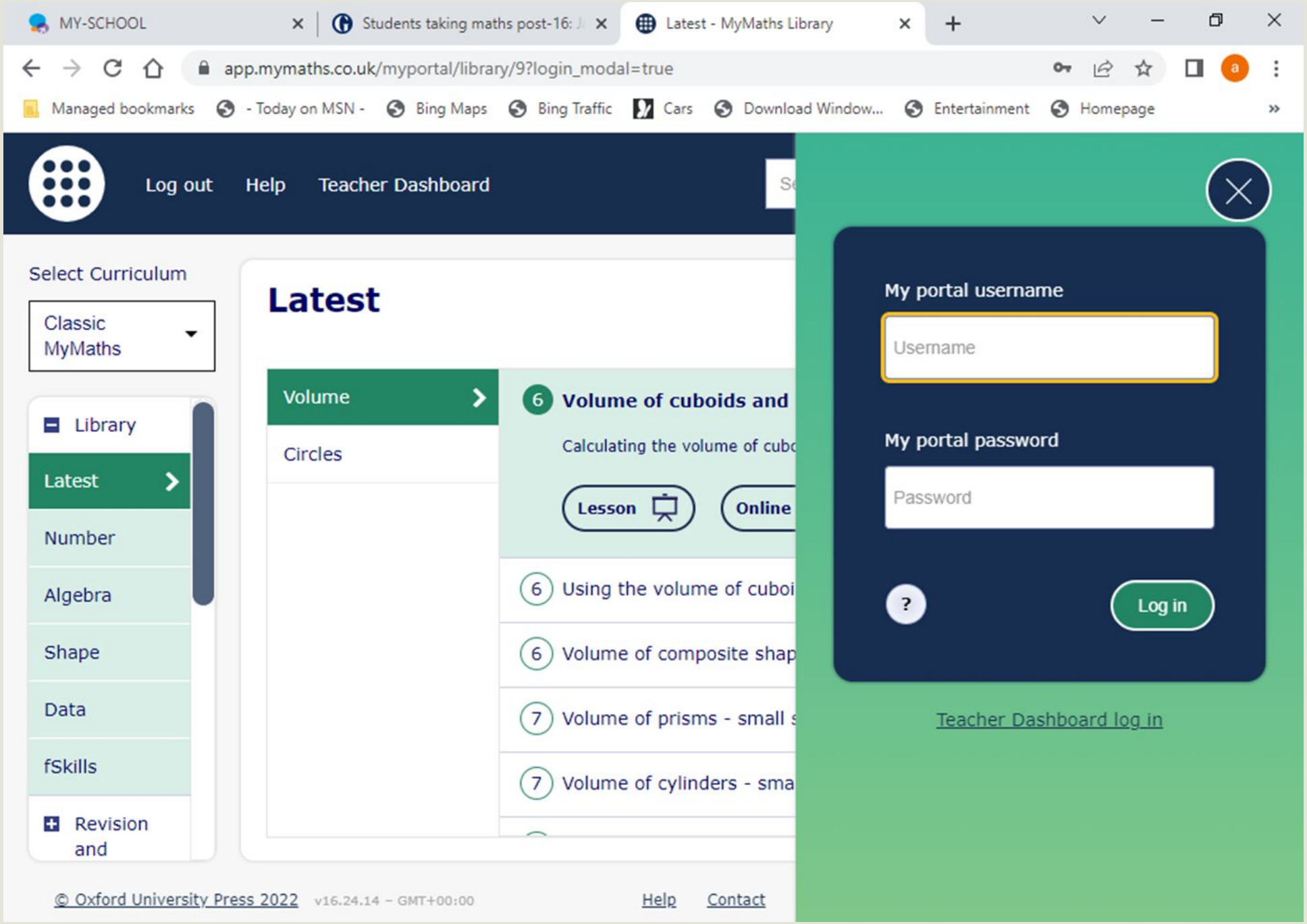
- Today on MSN -
Bing Maps
Bing Traffic
Cars
Download Window...
Entertainment
Homepage
MyMaths
Primary
Secondary
Subscribe
Testimonials
News
Log in
Interactive maths learning for your whole school
Providing complete curriculum coverage from Key Stage 1 to A Level, MyMaths offers interactive lessons, "booster packs" for revision, and assignable homeworks and worksheets, along with a wealth of resources that will help you deliver your teaching in the classroom and at home to develop your students' confidence and fluency in maths.
Try MyMaths
Subscribe
Students taking maths post-16:
School login - MyMaths
co.uk/login
Bing Maps
Bing Traffic
Cars
Download Window...
MyMaths
School username
School password
?
Log in


MY-SCHOOL
Students taking maths post-16:
Latest - MyMaths Library
app.mymaths.co.uk/myportal/library/9?login_modal=true
Managed bookmarks
- Today on MSN -
Bing Maps
Bing Traffic
Cars
Download Window...
Entertainment
Homepage
Log out
Help
Teacher Dashboard
Select Curriculum
Classic MyMaths
Library
Latest
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6 Volume of cuboids and
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Online
6 Using the volume of cuboi
6 Volume of composite shap
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7 Volume of cylinders - sma
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Username
My portal password
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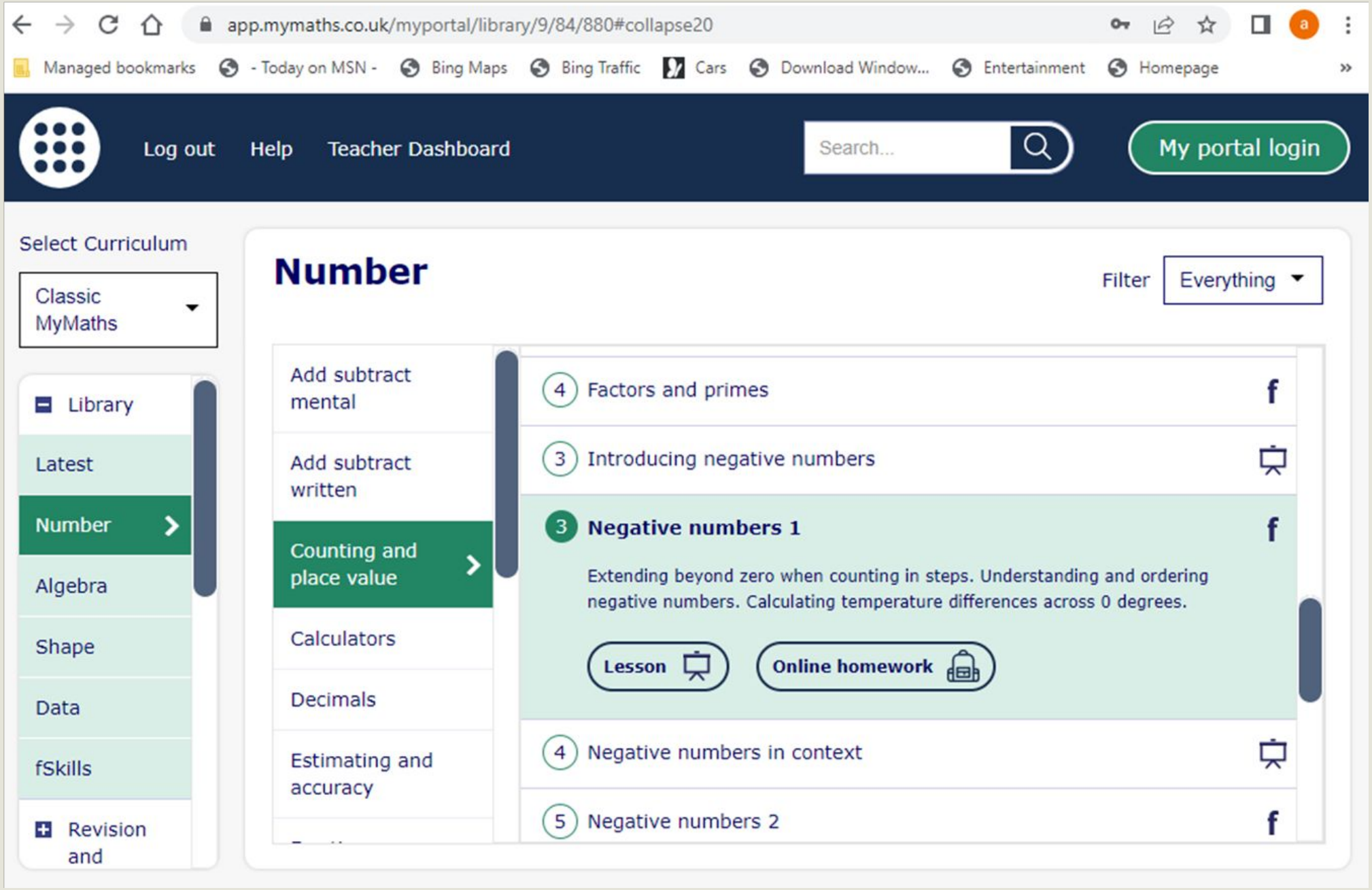
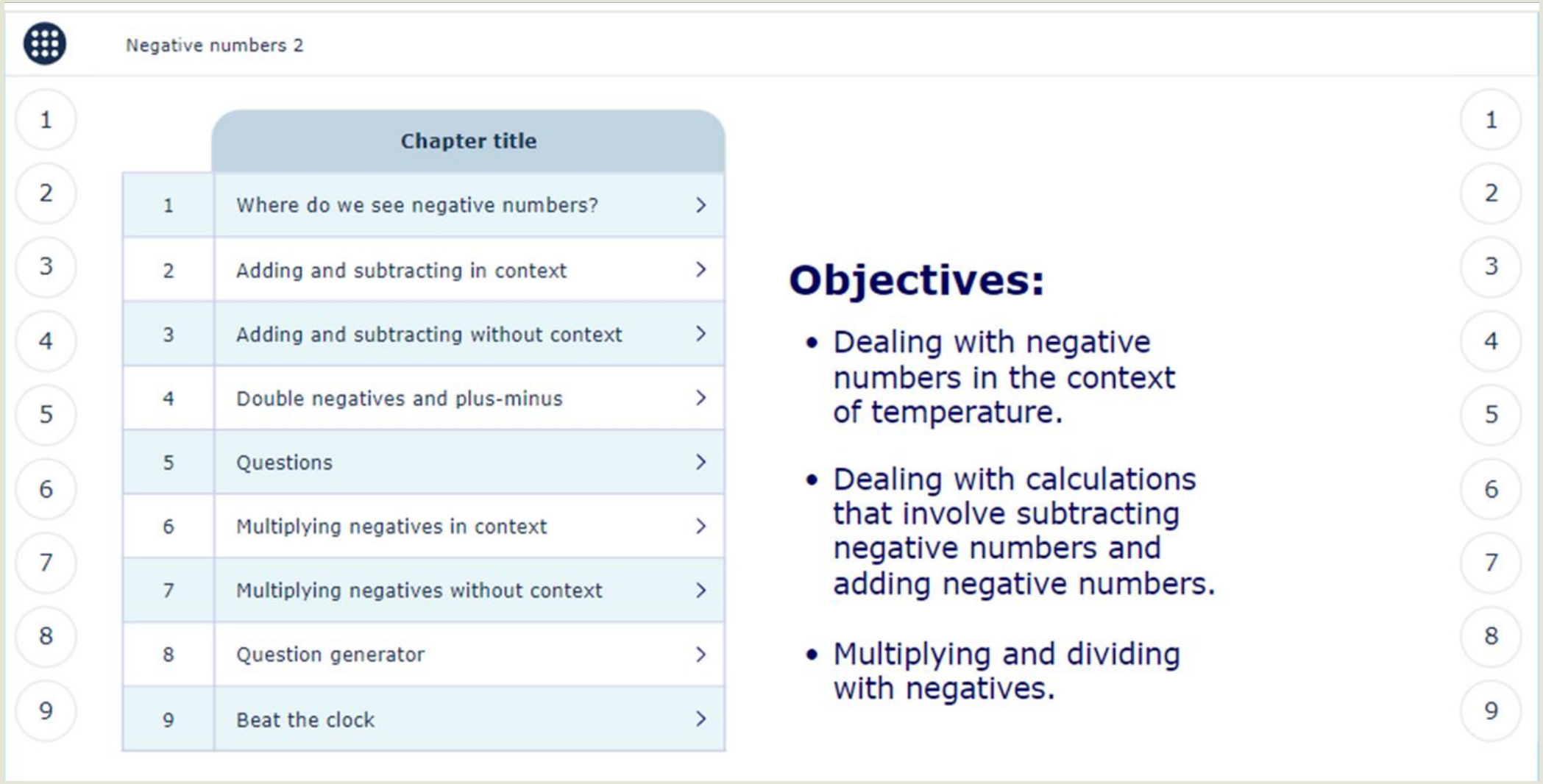
v16.24.14 – GMT+00:00
Help
Contact

"Number / Counting and place value / Negative numbers"



MyMaths – Negative Numbers 2 online 'Lesson'



app.mymaths.co.uk/48-lesson/negative-numbers-2

Managed bookmarks - Today on MSN - Bing Maps Bing Traffic Cars Download Window... Entertainment Homepage

Negative numbers 2

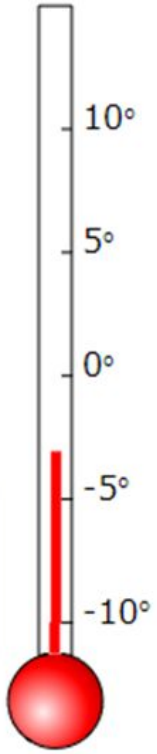
Adding and subtracting in context

1 2 3 4 5 6 7 8 9

It is –3°C.
The temperature goes up by 11°C.
What is the new temperature?

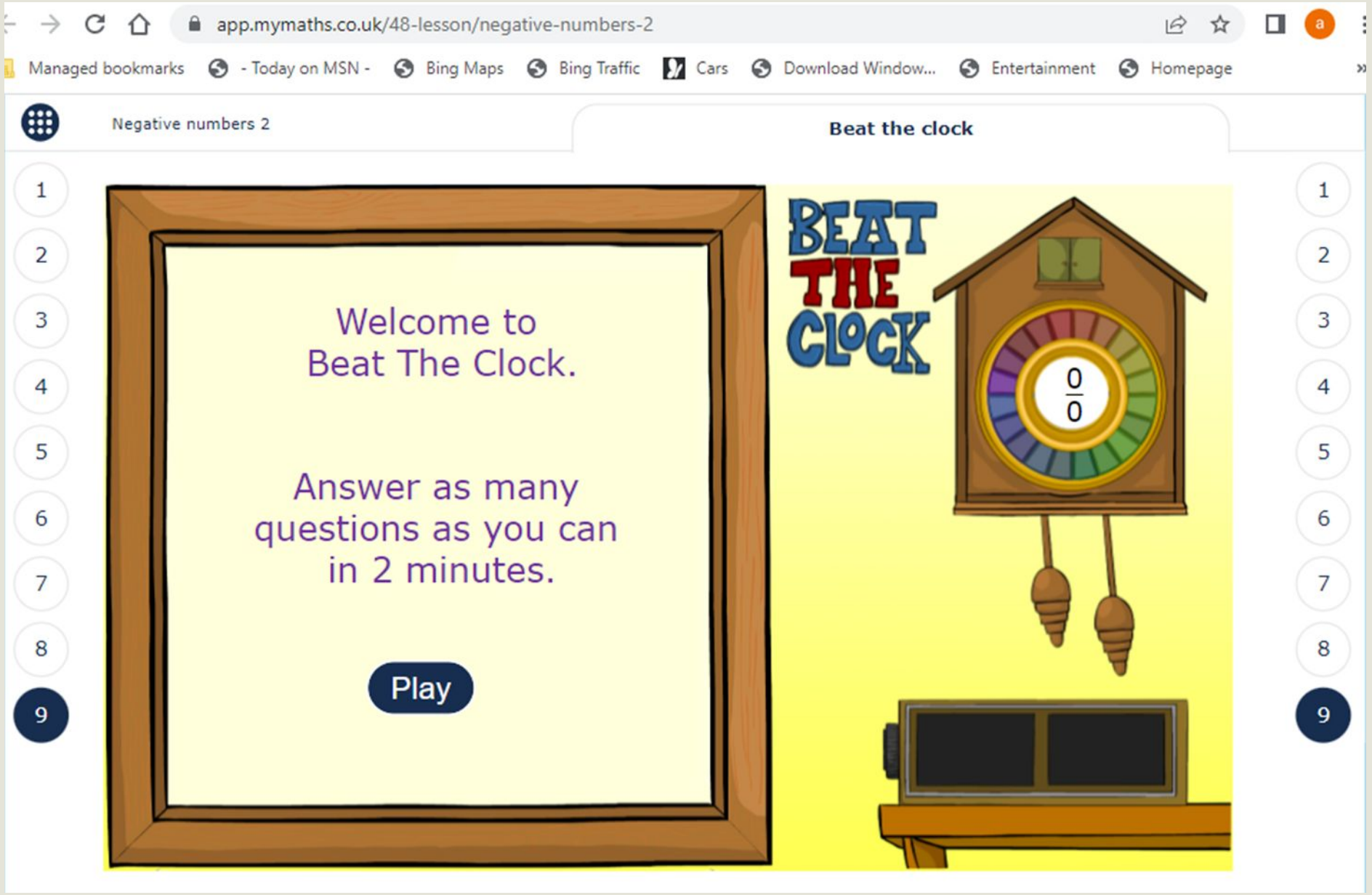
This gives us the calculation:

$-3°C + 11°C = \square °C$



Use the thermometer to help you visualise the problem.

Mark it

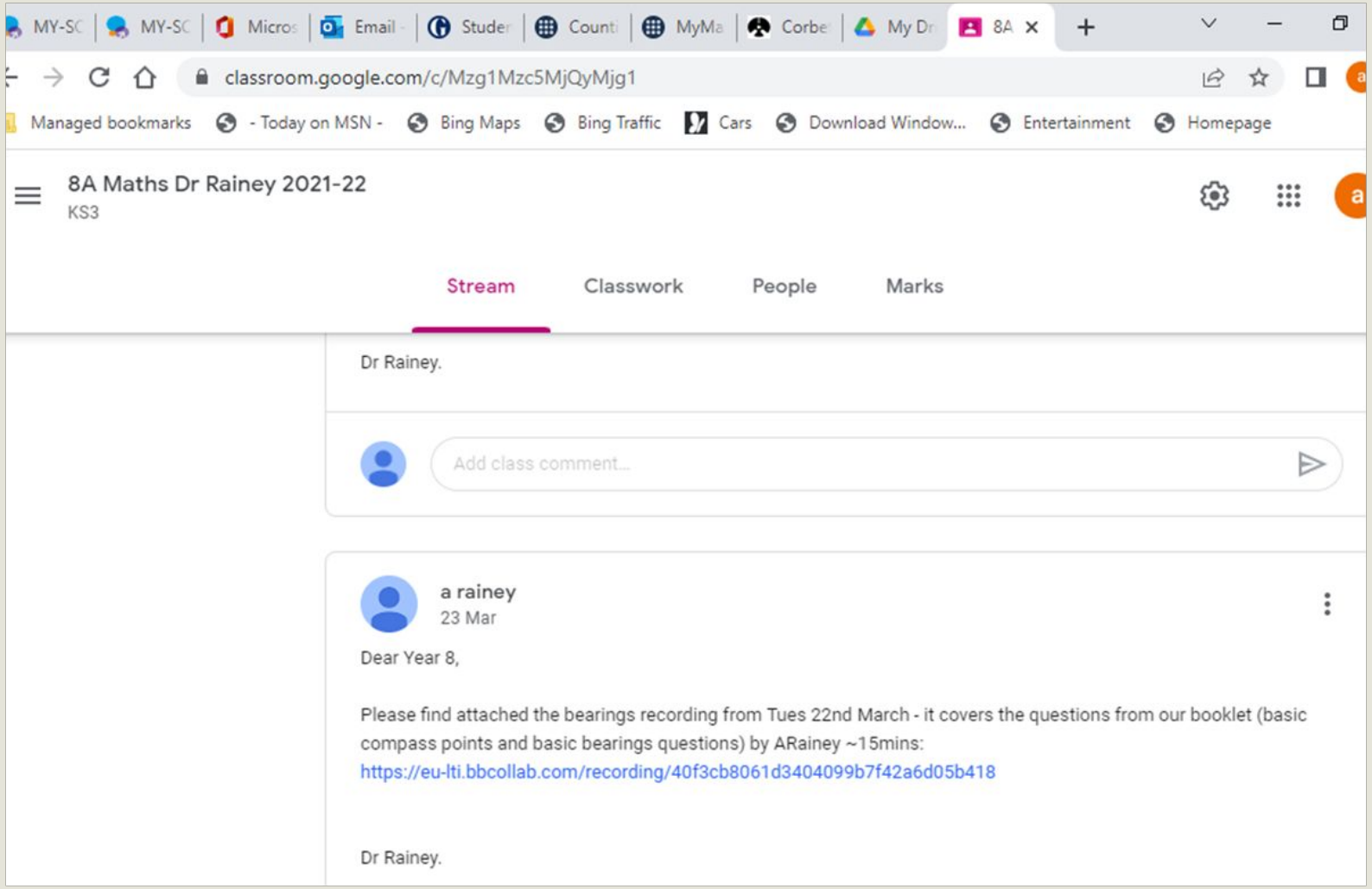

app.mymaths.co.uk/48-lesson/negative-numbers-2
Managed bookmarks
- Today on MSN -
Bing Maps
Bing Traffic
Cars
Download Window...
Entertainment
Homepage
Negative numbers 2
Beat the clock
1
2
3
4
5
6
7
8
9
Welcome to
Beat The Clock.
Answer as many
questions as you can
in 2 minutes.
Play
BEAT
THE
CLOCK
0
0

Corbett Maths – free!
www.corbettmaths.com

Excellent resources

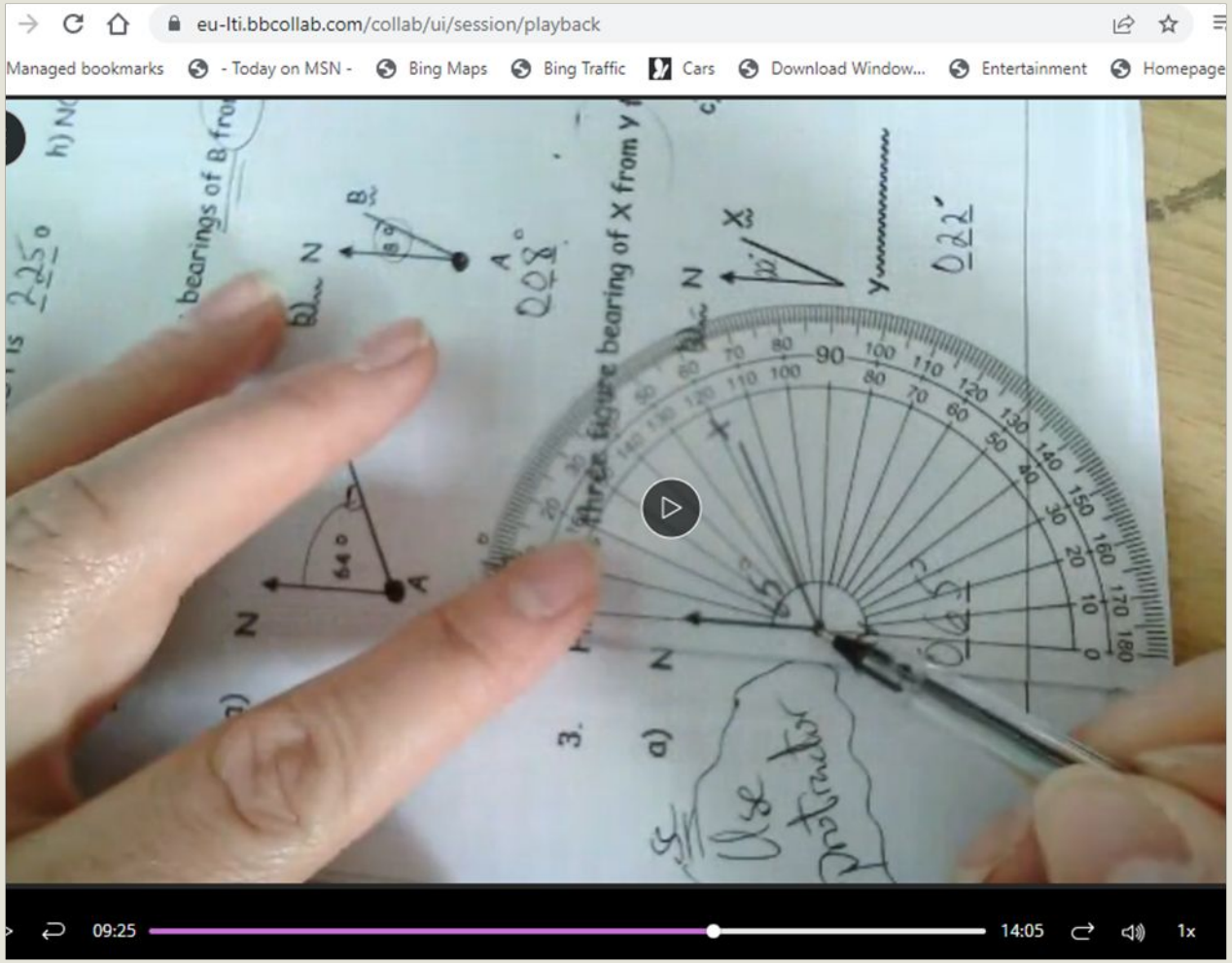
- Every GCSE topic covered
- Example PPQs with answers
- Support videos demonstrating every GCSE topic/ skill required

Teacher Support – *silver linings of a pandemic!*



Virtual classrooms e.g. Google Classroom or Microsoft Teams

Staff recordings…



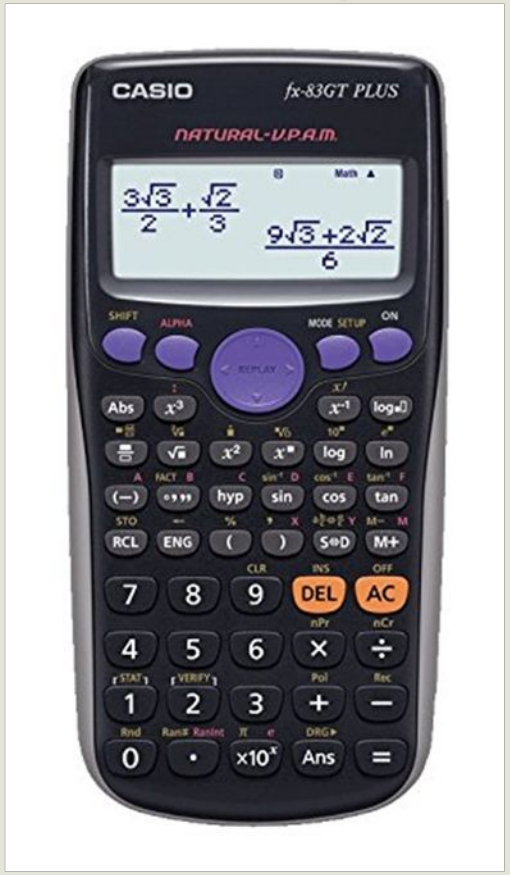
Year 8 pupils last year were finding the topic of ‘bearings’ a little tricky – we ma de a short fifteen minute video demonstrating and recapping some of the key sk ills and sample questions.

Pupils can watch at home. Try again themselves. Re-watch – sometimes hearing a second time helps or a different teacher/voice might help it ‘click’.

Maths Club

- Takes place each Wednesday 3.15 – 4.15pm
- Pupils of all year groups take part
- Led by staff, past pupils and sixth form pupils
- Pupils can access extra help with work they have found challenging, recent assessments, try some extra material etc

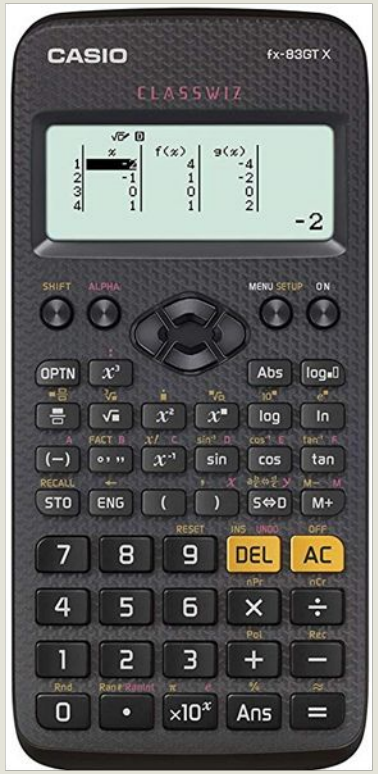
Remind parents about calculators…



- Old model

Casio fx-83GT

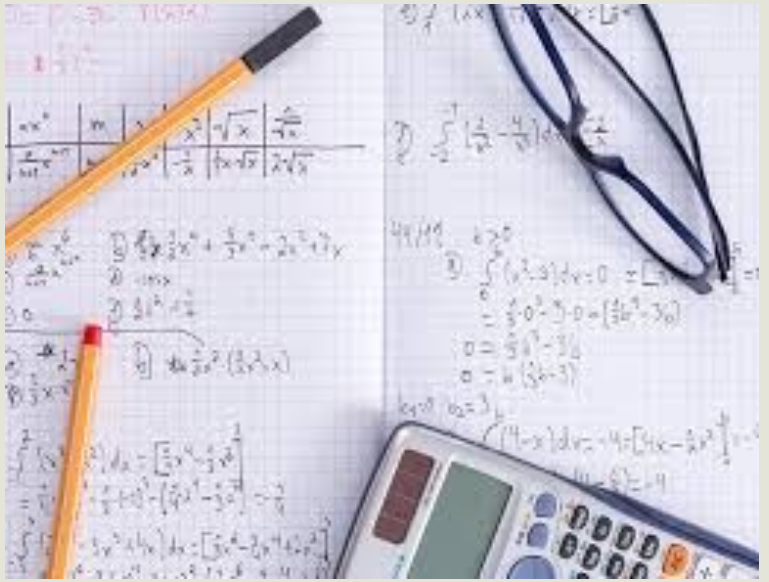
No rush, put it on the Santa /chores list!



- NEW model

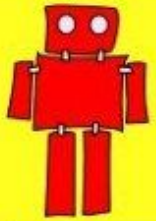
Casio fx-83GTX

- **For abstract concepts:**
- Use building blocks, Lego, or counters to model problems and help visualize abstract principles like addition and subtraction.



- **Drawing and Diagrams:**
- Encourage your child to draw diagrams or create visual models to explain their thinking process when solving problems.

NUMERACY TIPS



MENTAL ARITHMETIC

Encourage children to do basic maths in their head.

For example: Your bedtime is 9 O'clock. It's 7:30 now, how long 'til bed time?

BUDGETING

Giving pocket money can be a very effective way to help children appreciate the value of money and to plan for future purchases.

GET ONLINE

The BBC has excellent interactive videos & resources to get to grips with numbers, calculations, percentages, measuring, shapes and graphs.

www.bbc.co.uk/skillswise/maths

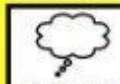
TOYS AND GAMES

Monopoly, Risk!, Yahtzee, Chess, Card games, Lego

PROGRAMMING

Make cool computer games using Scratch!

http://scratch.mit.edu



ESTIMATION

Ask: How long will it take to... How far is it to... How much will I need to...

SHOPPING

Using real daily events to practise numeracy skills is very important.

Go Compare! Get your children to mentally calculate the difference in price between products. Bring 'size' and 'quality' into the discussions about what to purchase.

PUZZLES

Wordsearches, Crosswords and Suduko are great ways to encourage problem solving skills. Puzzles are great for journeys. Why not find puzzles and challenge each other?

COMPUTER GAMES

Develop problem-solving skills and spatial awareness with age-appropriate games. Agree an acceptable "gaming time" limit! E.g.:"The Sims" – a modelling program that involves short-term and longer-term goals. Brain Training, Worms Armageddon strategy game, Rollercoaster Tycoon or similar)

Step out of your comfort zone and face your fears. Growth takes place when you are challenged, not when you are comfortable.

THANK YOU

- Mindset is everything – be positive!
- High numeracy skills lead to better well being and finances over a lifetime
- Problem solving is an essential skill for future employment
- Many great career opportunities with Maths/ STEM subjects in NI and worldwide
- Maths at St Dominic's will be challenging but fun!!
- We are here to support you as parents – just ask for help and use the resources available (e.g. 'MyMaths' and Corbett Maths etc)

ST. DOMINIC'S
VERITAS
FOUNDED 1870
GRAMMAR SCHOOL
FOR GIRLS

Mathematics at St Dominic's

Leah Hunt – Head of Mathematics

lhunt620@c2ken.net

Dr A Rainey (Senior Teacher)
Ms B Magenis
Ms M Cassidy (Head of Numeracy)
Ms E McDonnell
Ms L McNicholl
Ms L McCurdy
Ms R Mervyn
Mr G Sheehan (Numeracy Support – GCSE)

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