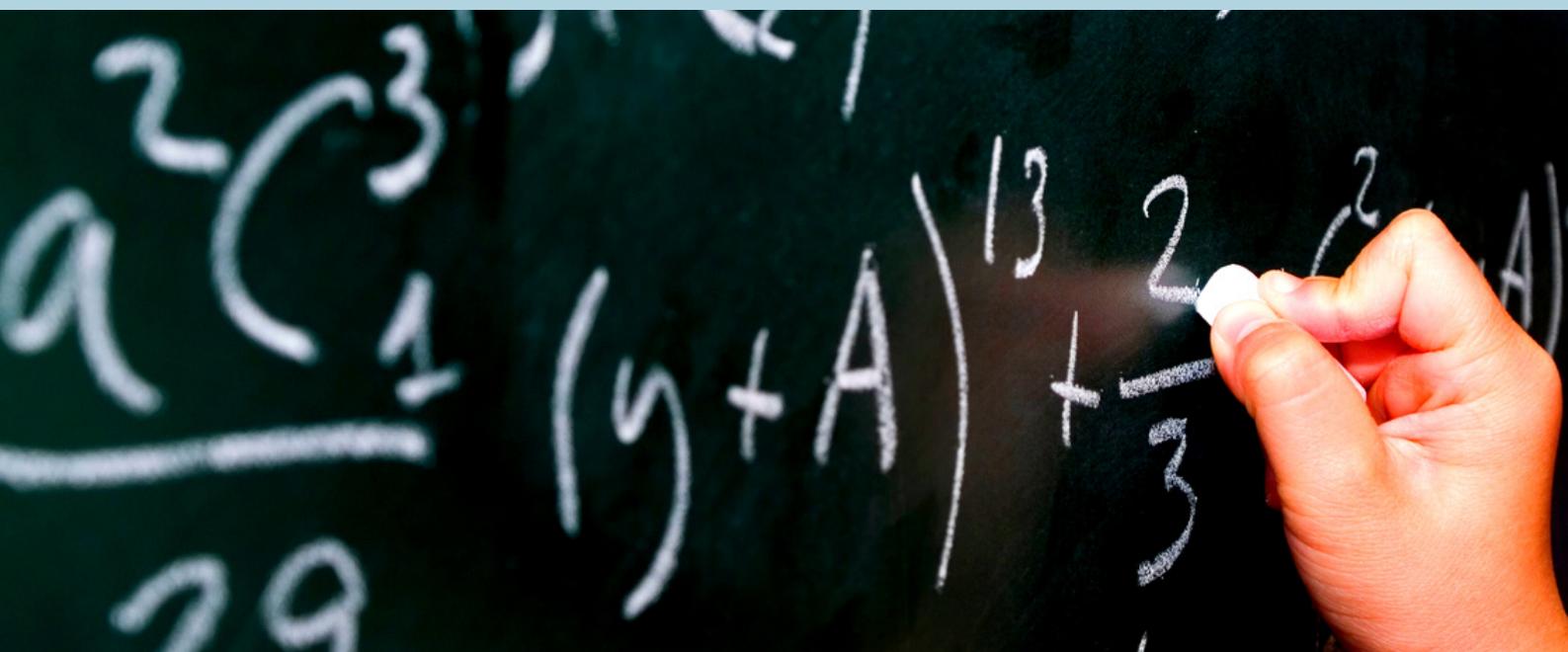


ST COLM'S HIGH SCHOOL



The official newsletter for the maths and numeracy department

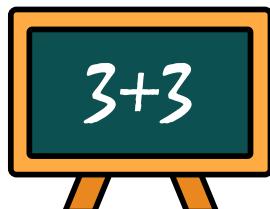


In this month's newsletter



- **Department news**
- **Classroom highlights**
- **Puzzle of the month**
- **Online learning**
- **Teaching times tables**

$f(x)$



Welcome!

Welcome back to the first mathematics newsletter of the year. We are delighted to see our pupils and staff return after a very enjoyable summer.

The hard work has already started in the maths department where our new year 8's begin their mathematical journey in learning new strategies and methods to help them progress in maths and throughout the school.

Our senior phase pupils also have started their relative courses for GCSE. A tough year lies ahead, but we are sure our pupils can endeavor in whatever lies ahead!

Have a look below for more department news, highlights, puzzles and more. We hope you enjoy this month's news!



DEPARTMENT NEWS



Mathematician of the Month

8S: Maurica L'S

8T: Leon F

8C: Jay B

8O: Caoimhin H

8L: Leah B

8M: Anton McK



9S: Ella-Louise W

9T: Nathan B

9C: Rhianna D

9O: Darragh M

9L: Jude B



Congratulations!

INSIDER Physicist Breaks Down The S... Watch on YouTube



Video of the month

Good writing or actual physics? The Marvel Cinematic Universe (MCU) has taken the cinema world by storm where blockbuster after blockbuster have graced our screens over the last decade... However, is the science behind the screenplay accurate? Or is it all 'made up'?

In this video, Jim Kakalios take a closer look at the physics of the Marvel universe where he reacts to 10 memorable scenes from Marvel movies.

CLASSIC MISTAKE #4

THE DEADLY SINS OF MATHS



$$6 \div \frac{1}{2} = 3$$

A common misconception for pupils is that dividing by a half is the same as dividing by 2.

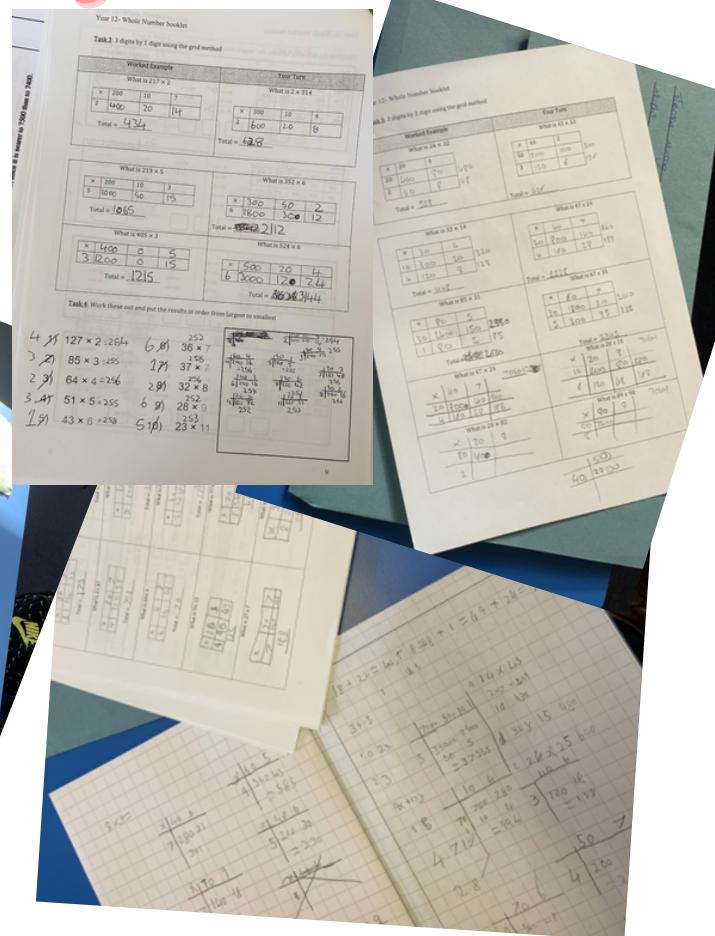
Always remember division is about 'sharing out'. For example, if you had 6 whole pizzas and gave 1 half of each pizza to a person... How many people would receive one half of a pizza?

CLASSROOM HIGHLIGHTS

TIMES TABLES



grid method



Congratulations to Mr. McKernan's year 11 class who achieved fantastic results in their first GCSE module last year. All pupils have put themselves into a great position for year 11, with some even achieving a C*. Amazing work and well done!

Puzzle of the Month

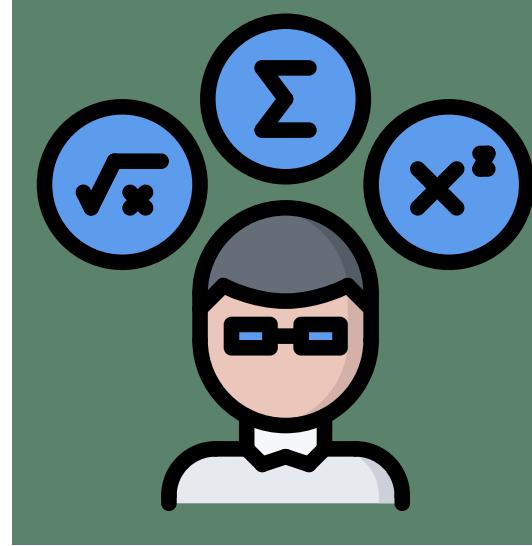
Something a bit different for this month's puzzle.

Like any newspaper, you will always find a crossword puzzle. With that, we thought you could try this crossnumber provided by the UKMT.

All solutions can be posted to Mr. Cooke and all correct entries will be entered for a prize. Ps... start with 10 and 13 down, then 14 across to get the hang of it.

Good luck!

1		2		3		4		5
		6						
7					8	9		
			10		11			
12	13				14			
			15	16				
17		18			19		20	
			21					
22					23			

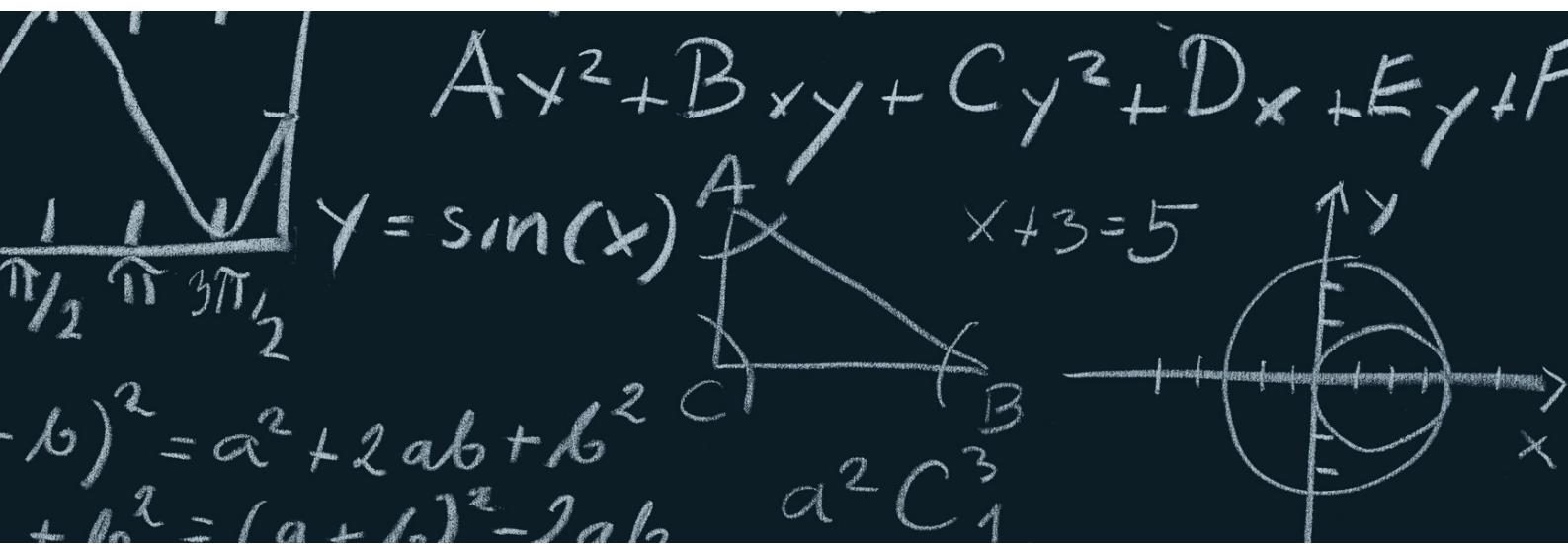


Across

1. The largest square number less than 21 across.
4. 4 down + 6 across – 21 across.
6. 4 down + 21 across minus 41.
7. The last 3 digits of 3 down but in a different order.
8. 13 down + 52.
10. 1 plus 14 across – 16 down.
12. 16 down + 400 – 8 across.
14. 35 squared + 10.
15. A palindrome.
17. One seventh of 9 down + 21 across

Down

1. One fifth of 14 across.
2. 95 + 10 across + twice 4 down.
3. The result of taking 575 away from 2 down + 5 times 9 down.
4. The number of days in 16 weeks.
5. 19 down – 1 across.
9. A cube number.
10. $2 \times 3 \times 37$.
11. The same as 15 across.
13. The total number of degrees in three angles of any triangle.
16. The first cube number with 4 digits + 2 dozen.



Online Learning

The maths department have invested in two of the most recent and highly regarded maths programmes on the market to support and help our students improve their numeracy and mathematical ability. All children in years 8 and 9 will be given access to one of these programmes once a week, where they will practice in school and then be given the opportunity to progress further if they engage in practice at home. Have a look at them below...



eduten



Proven Impact on Learning Results

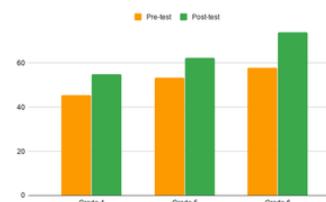
Up to 45% more improvement to learning results. Proven by 15 years of University research.



The Best Learning Analytics In The World

AI driven learning analytics help teachers understand students better with less effort.

Eduten provides its platform to more than 500,000 students globally. So far, Eduten has been used in over 40 countries worldwide. It has proven impact on learning and is backed up with more than 15 years of University research on digital teaching and learning. Students gain learning improvements rapidly through gamified and varied tasks.

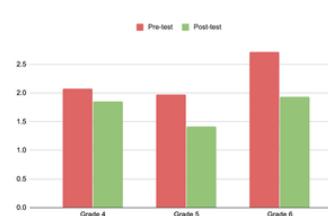


Mathematics fluency

+20.1%

Number of mistakes

-16.4%



4 UAE schools, 775 students, 1 weekly digital lesson, 6 weeks

UNIVERSITY OF TURKU
CENTRE FOR LEARNING ANALYTICS

Freckle

by Renaissance



Meets the needs of every student

Continuously adapts for student practice in math or ELA activities, allowing teachers to spend less time manually differentiating lessons and more time helping students develop and progress.



Keeps students engaged while learning

Incentives and age-appropriate designs provide a balance of fun and learning. Rewards for achievement recognize student growth in ways they think are fun. **Students will ask to practice in Freckle!**



Accelerates student growth

Increase student growth and proficiency through standards-based skill development in math and ELA, personalized goal setting, and mastery. Easily identify skill gaps to determine where to focus teaching and learning.

TIMES TABLES IN MATHS



Times tables are the fundamentals of all arithmetic and numeracy. For example, **fractions, short/long multiplication, division, ratio, integers and more**, all require these number facts. In fact, without times tables, future maths problems will elude young people, making it harder for them to access material required for their national qualifications.

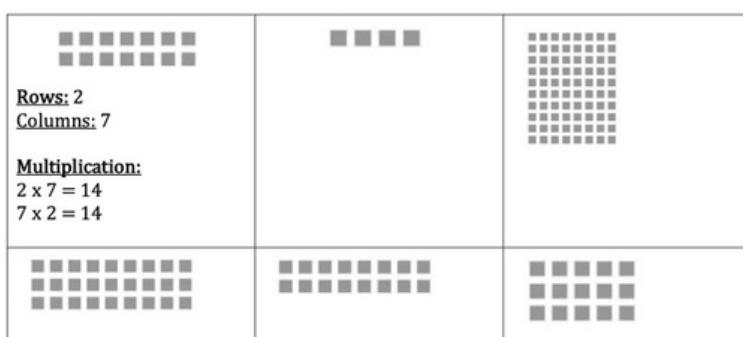
Times tables are therefore needed to raise attainment in maths and should be developed early for future maths topics. Unfortunately, this can take a lot of time for some pupils, but by emphasising the need for their development, it will allow pupils to free up working memory in the future, allowing them to develop important reasoning skills needed for GCSE. The mathematics department have been trialing a new piece of coursework for this development, one that focuses on repetition, rigour, and reasoning.

For example, 8o and 8c have been working hard on developing times tables using commutativity, number families and by thinking of multiplication as the opposite of division. Updates and success stories to come over the coming months!

Task 1:

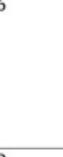
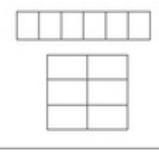
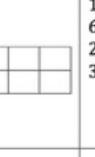
For each problem, write the number of rows and columns, and then write out a multiplication equation to describe the array.

The first has been done for you



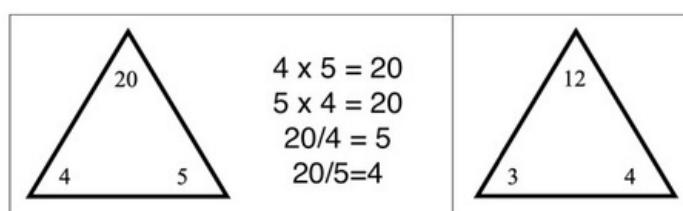
Task 3:

Using cubes/boxes/dots, how many arrays of each number can you create? Once you have created your arrays complete a list of factors of that number

Number	Arrays	Factors
6	  	1 x 6 6 x 1 2 x 3 3 x 2
8		
12		

Fill in the gaps (Thinking of multiplication as division)

Task 5: Complete each number family triangle



Question	Division Question	Associated Product
1	$40 \div 10 = \square$	$10 \times \square = 40$
2	$10 \div 5 = \square$	$5 \times \square = 10$
3	$21 \div 3 = \square$	$3 \times \square =$

Get counting and developing recall facts at home. This extra practice could make the difference for our young people. Have a look below in how you can help your child learn their times tables at home!

<https://thirdspacelearning.com/blog/how-to-help-your-child-learn-times-tables-at-home/>