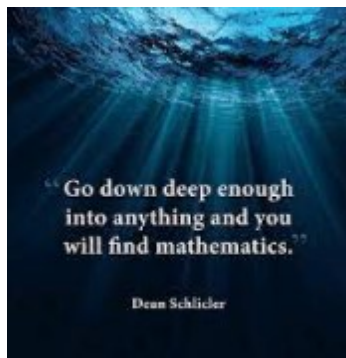


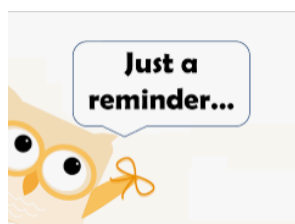
Welcome Back to School!



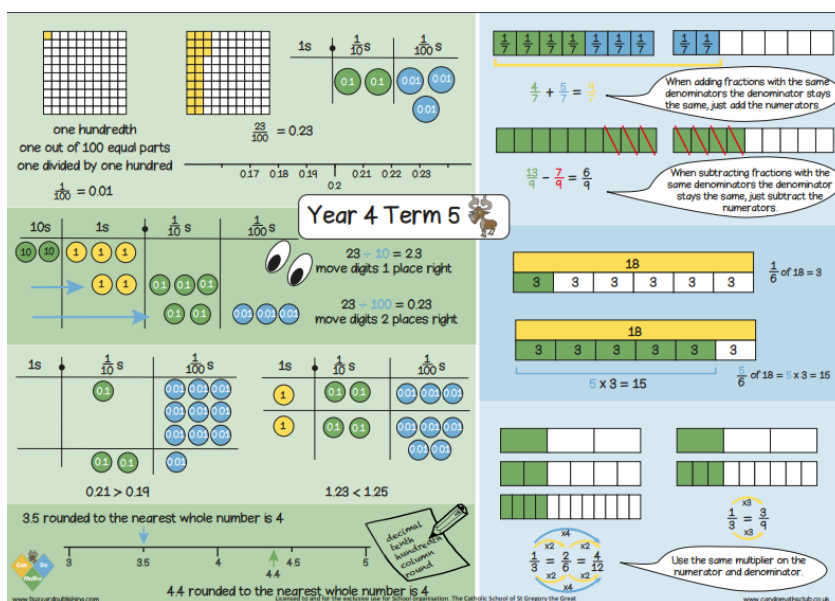
Everyone in the maths team hope that you and your families enjoyed an Easter break filled with moments of peace, hope and joy and are now settling into the new term. Spring is truly on its way, bringing with it vibrant colours, textures, floral aromas and beautiful scenery. The days are getting longer and warmer; life begins to re-emerge and the world begins to bloom.

The maths quote opposite reflects our belief that maths can indeed be found everywhere and touches all areas of life. We will bring you examples of maths from the world of nature and we would also like to invite you to send in your own interesting or unusual examples with the chance of winning prizes!

What the children are learning



...to head over to our website to see what your child is learning about in maths this term (years 1-6)). Just follow the link to the [Knowledge Organisers](#) which include great visual examples of the maths topics that will be taught in your children's classes, along with the vocabulary, representations and manipulatives that will be used to support their understanding. Year 4 Term 5 is shown below:



If you have a child in EYFS, you can see which maths concepts will be covered and how you can support at home by clicking the following link to our leaflet on the school website - [Maths In Reception: A Guide For Parents](#) . (Also available in [Polish](#))

The New Multiplication Masters



In our last newsletter, we introduced the concept of the new St Gregory's **Multiplication Masters** - an extension to the popular 99 times tables club. It is designed to challenge children who have successfully demonstrated (by becoming 99 club champions) that they are fluent in their times tables and related division facts up to 12×12 .

The new Multiplication Masters Challenge has 3 levels: **Bronze**, **Silver** and **Gold**. All still contain a fluency element which concentrates on the more difficult facts and includes missing boxes questions, e.g:

$7 = \square \div 4$

$24 \div 3 = \square$

$7 \times \square = 49$

$18 \div 6 = \square$

$7 \times \square = 42$

$84 = \square \times 12$

$27 = 3 \times \square$

$4 = 36 \div \square$

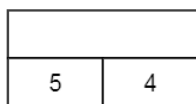
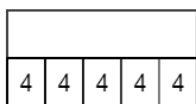
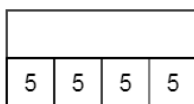
$54 \div \square = 9$

$\square = 12 \times 8$

(For more practice questions, you can follow this link to a [Fluency questions generator](#) - incidentally written by an ex-pupil of St Gregory's school!)

The remaining questions delve deeper into the patterns, relationships and engine of multiplication and division. Pupils are asked, for instance, to correctly match representations to calculations, spot mistakes, interpret and solve word problems, e.g:

Which bar models show 4×5 (tick 2)

☐☐☐

Which of the following are equivalent (the same value) as 5×14 ? (Tick all that apply)

- ☐ $14 + 14 + 14 + 14 + 14$
- ☐ 60
- ☐ 5 tens and 5 fours
- ☐ 50 and 20
- ☐ 70

The Multiplication Masters were trialled with some KS2 year classes at the end of the last academic year and were received very positively. As a result, they were rolled out to the whole of KS2 in September and so far seem to be a great success. We have been extremely impressed with the children's engagement and genuine desire to challenge themselves by moving on to the Multiplication Masters club. This attitude demonstrates a deeper and more intrinsic motivation than receiving the 99 club medal, as it is directly related to the desire to further succeed in maths. There is an impressive level of excitement about the new challenges and the children are extremely proud when they tell us that they have moved on in their steps to become Multiplication Masters! This is incredible learning behaviour and a clear demonstration of the effect of success on motivation! A total of 84 children (or a whopping 20% of all our pupils), the majority of whom are in years 4-6, are now working towards becoming Multiplication Masters—amazing! Another learning behaviour that is part of the St Gregory's Learner Profile, is asking for help, and Mrs Winter is planning to restart a lunchtime club to help pupils in their quest to becoming Multiplication Masters.

What our children are saying about the Multiplication Masters

"It asks for different pieces of knowledge that you don't use in 99 club, e.g. word problems, number lines, bar models; helps you do calculations in different ways."

"Models make it better for seeing the times tables. Makes you think a bit more as there are missing boxes."

"On 99 it's just the numbers and symbols – more pictures in bronze helps you see the times tables"

"99 club is just repetitive but it's quite good that there's another thing above 99 as it gets boring; I've done the same sheet over and over again since year 2."

"It shows it in a bit more fun way."

"Before bronze.. we just did 99 club every time. Just got very boring. Since bronze came I'm very happy. It's different to the 99 one. People who passed 99 club get to do the new ones and it shows others I've passed! "

"I like it because 99 club is just number x number or division, but the new sheets have different formats and it shows you what to do...there are more interesting questions."

"I think it's more something you look forward to; it's exciting and there are different types of questions like number lines, arrays, and also I like it because even though there are some quick ones, some questions you have to think harder about so there are fewer questions whereas in 99 club I just know it, this one I have to think more"

"I find it quite fun because I've been doing rapid times tables questions for a long time so I found this quite challenging which makes you think more and helps you learn more and makes you smarter. "



What's your favourite Number and why?

It's the turn of Mrs Jewer in Reception class to tell us about her favourite number. Here she is holding it up in lots of different ways.... the number 22 !



"It's my favourite number because it's my birth date and an even number! It's also a song by Taylor Swift!"

Thanks Mrs Jewer. I expect she was extremely excited when it was the 22nd of February this year, which could be written like this : 22.2.22!

Other fun facts about 22: it's double 11, it's the number of football players on a pitch during a game (assuming no one's been sent off!) and it's the length of a cricket pitch in yards!

If you'd like to tell us your favourite number and the reason you like it, we'll print it in a future issue of the newsletter!

Year 4 MTC

For all parents of children in year 4 :

The **Multiplication Tables Check (MTC)** is a statutory (has to be done!) assessment taken by pupils in state primary schools towards the end of year 4 (in June). The purpose of the MTC is to make sure the times tables knowledge is at the expected level. The MTC is an online test where the pupils are asked 25 questions on times tables 2 to 12. For every question there are 6 seconds to answer with a 3 second rest between questions. Questions about the 6,7,8,9 and 12 times tables come up more often. The questions are generated randomly based on the rules of the MTC.

A good way to prepare is to build a daily routine practising the times tables. Little and often is the key. With regular practise your child will learn all the questions and gain confidence. Times tables knowledge benefits many other areas of maths and impacts positively on efficiency, accuracy, speed, confidence and capacity to handle more complex problems.

Head over to [Timestables.co.uk](https://www.timestables.co.uk) for tips on effective practice plus a platform to have a go at sample tests, improve speed, play games etc.

The year 4 Multiplication Tables Check trial run on [Timestables.co.uk](https://www.timestables.co.uk) will help pupils to become more comfortable with reading and answering on a screen.



For more information on the assessment framework check [this](https://www.gov.uk/government/news/multiplication-tables-check) government website.

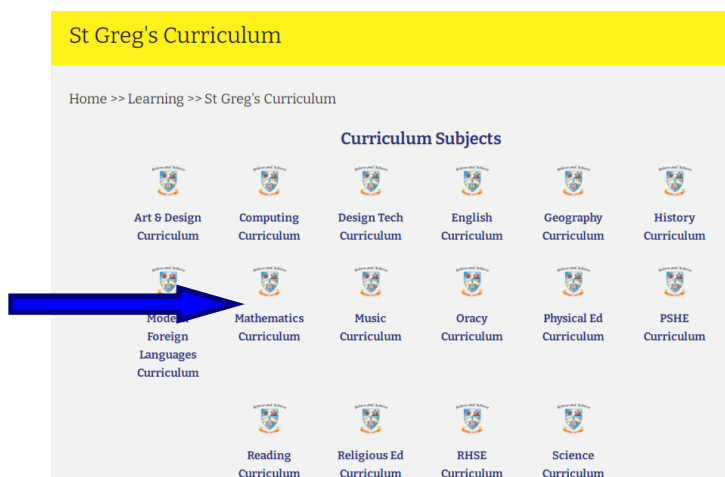
And for parent information click the following:

**Multiplication tables check:
information for parents**



Maths Website Spotlight

The Maths area of our school website has a wealth of useful material which you may not have accessed yet! You can find this on our school website from our homepage by clicking on the **'Learning'** tab > click on **'St Greg's Curriculum'** > then scroll down to the **'Mathematics Curriculum'** button.



Alternatively, you can search by the website address: <https://www.st-gregorygreat.gloucs.sch.uk/mathematics-curriculum/>

This main Mathematics page explains our subject intent and implementation, which can be explored further in the **'Maths vision 2022'** hyperlink.

Towards the bottom of this page are hyperlinks to further pages:

EYFS - this gives an overview of the Maths curriculum in our Early Years Foundation Stage, including a hyperlink to a Maths Guide for EYFS Parents available in English and Polish.

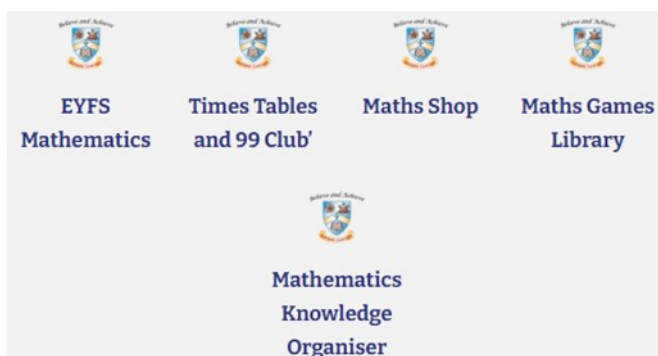
Times Tables and 99 Club - this gives an overview of the importance of learning times tables and ways to make these connections. It also explains the 99 Club and Multiplication Masters challenges which are introduced

the January of Y1. Hyperlinks to example sheets can also be found here (please note, these are PDF files so you will need the correct software to open these).

Maths Shop - this gives an overview of items, which are used in our everyday practice at school, that are available to be bought to support learning at home. Information on how to order (through the office, at pop ups in the playground, at Parent Teacher Review meetings or through the online ParentPay system)

Maths Games Library - this explains how it works and reasons to borrow a game.

Mathematics Knowledge Organiser - these capture the key learning, manipulatives and vocabulary for each term for each year group. Hyperlinks to the whole year (e.g. Year 1 Knowledge Organisers) are found here.





Maths Website Spotlight cont'd...

At the bottom of the webpage page are a collection of useful links:

Whole school calculation policy - this details calculation methods, representations and manipulatives which are used to solve different problems in different areas of Maths

Calculation strategies - this goes through ways our children are taught to add, subtract, multiply and divide in each year group. There are dedicated taught sessions for each of these strategies.

Fraction policy - this details what National Curriculum objectives and models/images used for each year group.

Our Maths Vision - this outlines our intent for Maths, implementation and impact for Mathematics at Saint Gregory's

National Curriculum Aims for Mathematics - statutory objectives covered in each year group. Also useful as a reference point for what has previously been taught and what will be taught in future year groups.

We are going to be updating the maths section of the website further so please keep looking at our page to find out more about maths at St Gregs! If you have anything you would like to see on our maths page or something that you think would be useful to you as a parent, please let us know by emailing us at parent@st-gregorygreat.gloucs.sch.uk.

Maths homework survey

<https://www.surveymonkey.co.uk/r/GJTRQGW>



If you haven't already done so, today is the deadline for filling in our 2-minute Maths homework survey to collect views on our current Maths homework platform - Mathletics. Many thanks for your continued support.

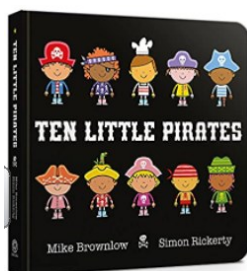
Book Recommendations

This is one of our favourite sections of the newsletter because story books provide a rich opportunity to build both **literacy skills** AND **mathematical thinking** all in one go! So here are our recommendations for books this issue:

For young children:

[Ten Little Series by Mike Brownlow](#)

Recommended by our very own Mrs Cross.



Amazon Blurb... *Count along with the Ten Little Pirates, in this action-packed, counting rhyme adventure! In a sturdy board book, perfect for little hands to hold.*

The Ten Little Pirates are sailing out to sea ... But what will the Ten Little Pirates do when they meet a singing mermaid? And a whooshing hurricane? And a HUNGRY shark? Part traditional counting rhyme, part fun-filled story, Ten Little Pirates is perfect for sharing together. Read the bouncy rhyming story.

Count from ten to one and back again, as the Little Pirates disappear then reappear.

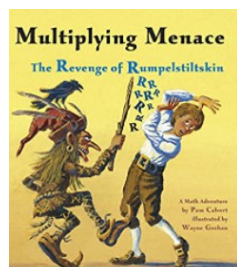
Spot and count the details on each page. And join in with all the great sound-words!

The Ten Little series has sold over a million copies worldwide, and Ten Little Bookworms is a 2019 World Book Day pick.

'Traditional counting rhyme given a jaunty pirate twist that kids will love... a rollicking read with an easy rhythm and jaunty illustrations... excellent.'

Guardian

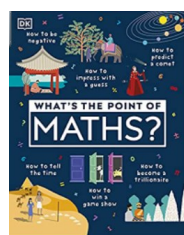
For children aged around 6-9: [Multiplying Menace: The Revenge of Rumpelstiltskin](#) by Pam Calvert



Amazon Blurb... *Readers will put their multiplication skills to use in this clever math adaptation starring the fairy-tale favorite, Rumpelstiltskin.*

It's been 10 years since the queen defeated Rumpelstiltskin and now he's back to collect his payment from years before. He causes a stir in the kingdom by making mischief with his multiplying stick and threatens to do far worse if the debt is not repaid. It's up to Peter, the young prince, to take possession of the Rumpelstiltskin's magical multiplying stick and learn how to use it--and multiply both whole numbers and fractions-- in order to restore peace to the kingdom. A perfect mix of math, fairy-tale, and fun, The Multiplying Menace will get STEM/STEAM readers excited to solve the adventure one number at a time.

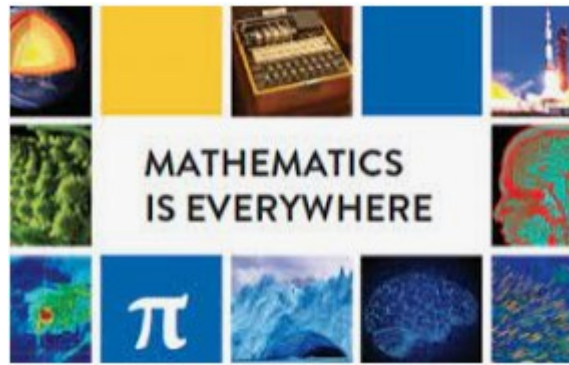
For older children and mums and dads: [What's the Point of Maths?](#) A DK book.



Amazon blurb... *Maths makes the world go around. An educational book that will give you surprising answers to everyday maths challenges.*

This book unpacks how maths is an essential part of our everyday life in ways that you never thought of. Crazy facts, magic tricks, mathematical brainteasers and beautiful illustrations show you that maths is interesting, fun, and unintimidating! Ever wondered where maths originated from? This fantastic educational book unpacks all the curious questions that your

child has about mathematics including intriguing historical stories that explore the often-surprising origins of maths that we use in our daily lives.



Maths really is everywhere! In the last issue of the newsletter, we asked the question “*Can Animals Count?*” and the surprising evidence shows that perhaps they really can! In this issue we’re going to look at maths in other areas of nature.

The Fibonacci Sequence

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...

The Fibonacci Sequence: Named after the famous mathematician, Leonardo Fibonacci, this sequence is a simple but profound pattern and remarkably is found in many areas of nature. The sequence begins with the numbers 0 and 1, and each subsequent number is found by adding the two previous numbers. So after 0 and 1, the next number is 1 (0+1), then next number is 2 (1+1), the next is 3 (1+2), the next 5 (2+3) and so on.

A few examples of this pattern in nature is the number of spirals in a pine cone, pineapple or seeds in a sunflower, or the number of petals on a flower. The numbers in this sequence also form a unique shape known as a Fibonacci spiral, which is seen in nature in the form of shells and the shape of hurricanes and even galaxies!

Send or bring in your own examples of maths in unusual places for the chance to win some prizes!



With every good wish from the Maths Team.