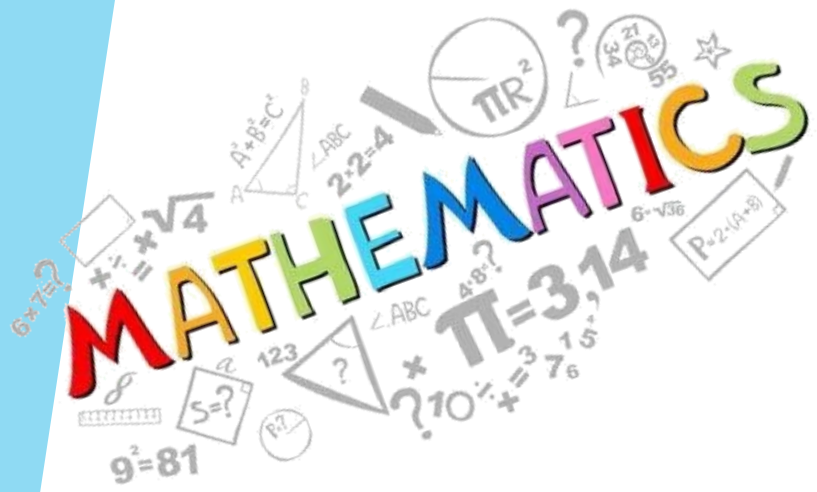


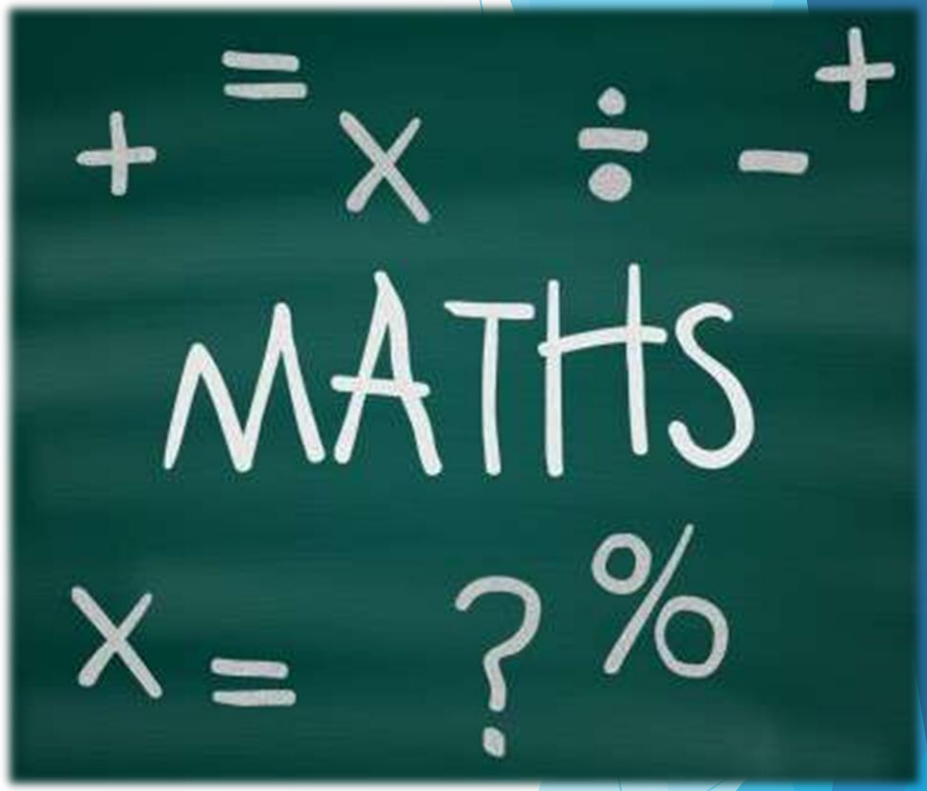
Key Stage 2: Years 3&4 Maths Parent Workshop

Our Approaches to Maths

woodstock
CE PRIMARY SCHOOL

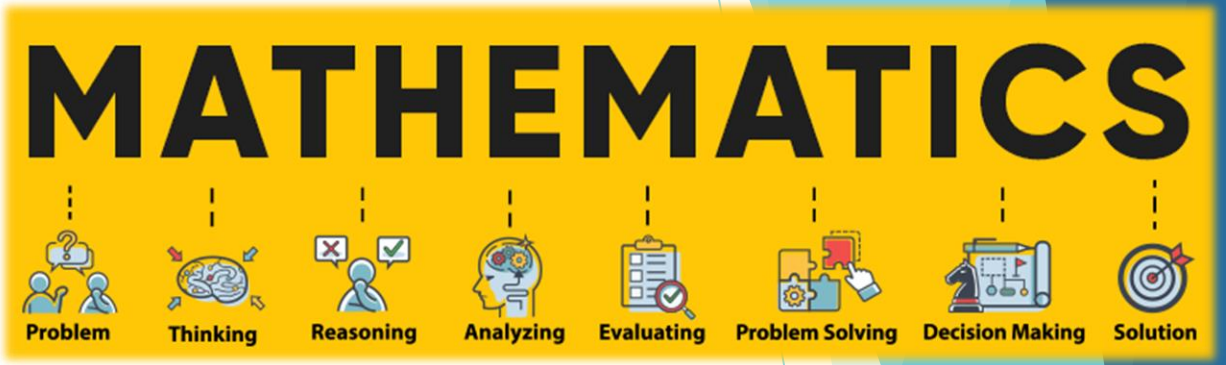
Aims of the Session

- Maths: What do the experts say?
- Engagement in Maths: Our Maths Culture
- How do we do it?
  - Mental Arithmetic
  - The Four Operations
  - Life Skills Maths
- Record Keeping and Assessment
- Supporting Learning at Home



Maths: What do they experts say?

- Maths is fundamental to education.
- Gives children a sense of curiosity and promotes talk.
- Maths is an interconnected subject that relates to most areas of the curriculum and real life!
- The National Curriculum is designed to take children on a journey of mathematical fluency, reasoning and confidence building which helps develop their understanding of number, operations, relationships between concepts, problem solving and beyond.
- Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment



Education Endowment Foundation

Department for Education

White Rose Maths

Engagement in Maths: Our Maths Curriculum & Culture

- Daily maths lessons.
- I do, we do, you do culture to support children's learning of mathematical concepts.
- Range of the most effective methods and strategies are taught including the use of games, problem solving tasks, outdoor learning, use of resources and manipulatives - the Maths Shop.
- Opportunities to use and apply learned skills.
- Maths Talk – mathematical vocabulary.

Mathematics Teaching is informed by:

- The National Curriculum (DfE Guidance)
- The White Rose
- The National Centre for Excellence in the Teaching of Mathematics
- Education Endowment Foundation
- Local Maths Hubs - mastery in mathematics

How do we do it? Mental Arithmetic

The development of instant recall of facts and mental calculation strategies:

- Taught daily as part of the main maths lesson.
- Regular opportunities to practice mental calculations throughout the week
- Misconceptions revised
- Ongoing practice and retrieval activities to help learning 'stick'
- Timestables
- Number bonds
- KIRFS

SUMMARY OF KIRFs (Key Instant Recall Facts) TERM-BY-TERM

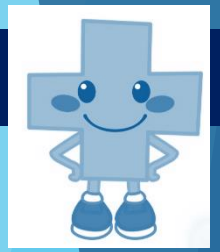
	RECEPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN TERM 1	Say the number names in order to 5.	Know all the number bonds for 5.	Know all number bonds for 10 and 20.	Know all number bonds for each number to 20.	Know all number bonds for 100.	Know all decimals that total 1 or 10 (1 decimal place)	Know all previous number bonds including decimals.
AUTUMN TERM 2	Say the numbers in order to 10	Know all number bonds for 10	Know multiplication and division facts for 2x table.	Know multiplication and division facts for 2x, 4x and 8x table.	Know multiplication and division facts for the 7x table.	Consolidate multiplication and division facts for all times tables.	Derive multiplication and division facts using decimal numbers (e.g. 8 x 0.7 = 5.6)
SPRING TERM 1	Be able to partition numbers to 5 into two groups	Know all number bonds for 20.	Know multiplication and division facts for 10x table.	Know doubles and halves of all whole numbers to 20	Know the decimal and percentage equivalents of the fractions ½, ¼, ¾, ⅕, ⅖, tenths and fifths	Know the doubles and halves of all two-digit numbers	Know doubles and halves of 2-digit decimals.
SPRING TERM 2	Count in 10s	Know all doubles and halves of even numbers to 20	Know the halves of 1,3,5,7 and 9 as a fraction	Know all number bonds for 100 using multiples of 5	Know all pairs of multiples of 50 with a total of 1000.	Know the prime numbers within 100	Know square numbers to 12 x 12.
SUMMER TERM 1	Count in 2s	Know all addition and subtraction facts for all numbers between 0 and 10.	Know all addition and subtraction facts for multiples of 10 to 100.	Know all multiplication and division facts for 3x, 6x and 9x table.	Know multiplication and division facts for the 11 and 12x table.	Know all pairs of factors of numbers up to 100.	Know the tests for divisibility for numbers up to 10
SUMMER TERM 2	Count in 5s	Count forward and backward in steps of 2, 5 and 10.	Know multiplication and division facts for 5x table.	Know multiplication and division facts for 2, 5 and 10x table	Know all number bonds for £1 using decimal notation	Know the decimal and percentage equivalents of the fractions ½, ¼, ¾, ⅕, ⅖, tenths and fifths	Know the square roots of square numbers to 15 x 15

How do we do it? The Four Operations

The Four Operations:

- Teaching formal and informal methods
- Developing mathematical vocabulary
- Links to real-life, problem solving and reasoning
- Using and applying in different contexts
- Apparatus to support understanding

How do we do it? Addition



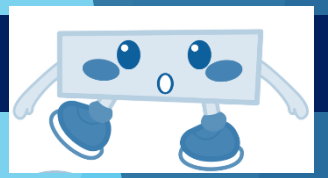
Column Addition (with and without crossing 10s boundaries):

35 + 24

57 + 26

368 + 94

How do we do it? Subtraction



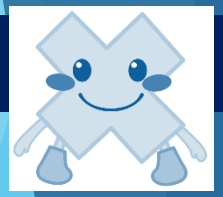
Column Subtraction (with and without exchanging):

76 - 43

52 - 36

104 - 87

How do we do it? Multiplication



Column Short Multiplication:

12 x 4

56 x 5

153 x 6

How do we do it? Division

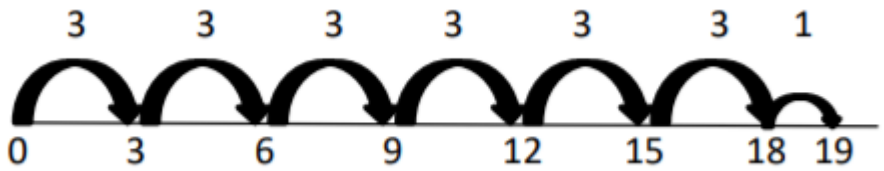
Short Division (bus stop method):

36 ÷ 3

325 ÷ 5

149 ÷ 6

19 ÷ 3

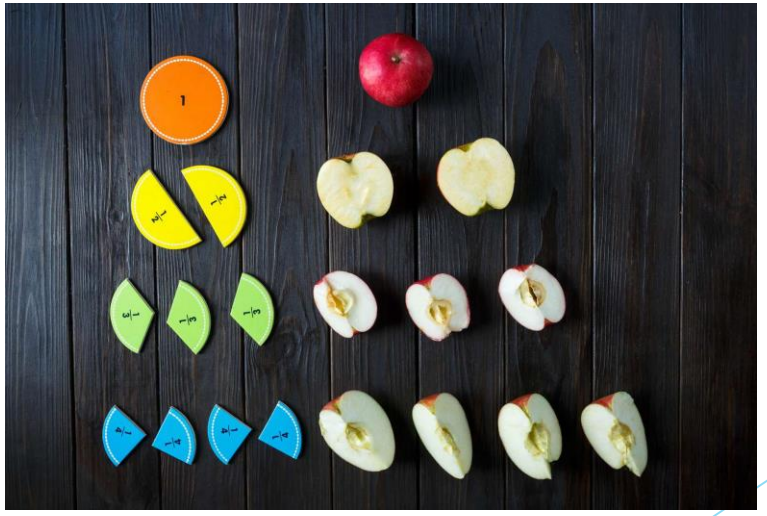


= 6 r 1

How many threes are there in 19? 6 jumps and 1 remainder.

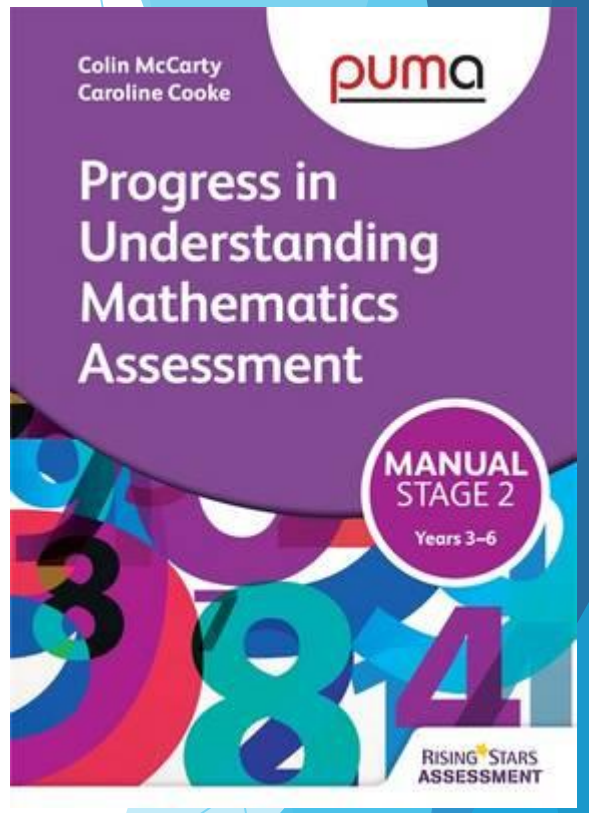
Life Skills: in school and at home

Regular practise of telling the time, measures, shape work, fractions and food, distance or time of a journey... etc.



Record Keeping & Assessment

- Teachers assess children against the NC content for their year group
- Unit target sheets for children to reflect on their understanding and confidence levels
- End of unit assessments to identify gaps for future teaching and learning opportunities
- PUMA end of term assessment (standardised score)



Supporting Learning at Home

- ☆ Regular practice of KIRFs and times tables facts and times table target (instant recall)
- ☆ Real-life experiences in a context e.g. telling the time, using money, measures etc.
- ☆ Mathletics - supporting set tasks and activities
- ☆ Times Tables Rockstars

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Thank you for supporting your children's learning

Regular, little and often practise will really help children's mathematical development… counting in the car, times tables whilst cooking dinner – every little helps!