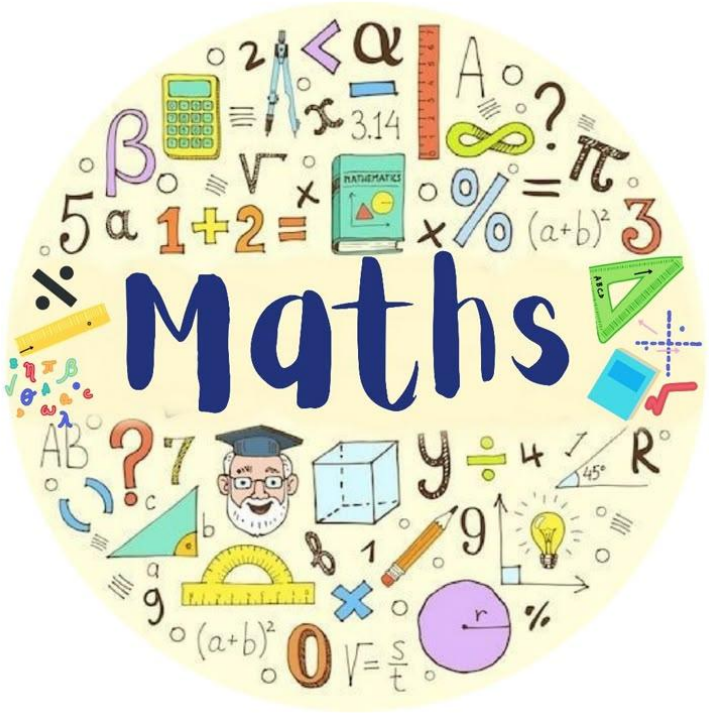
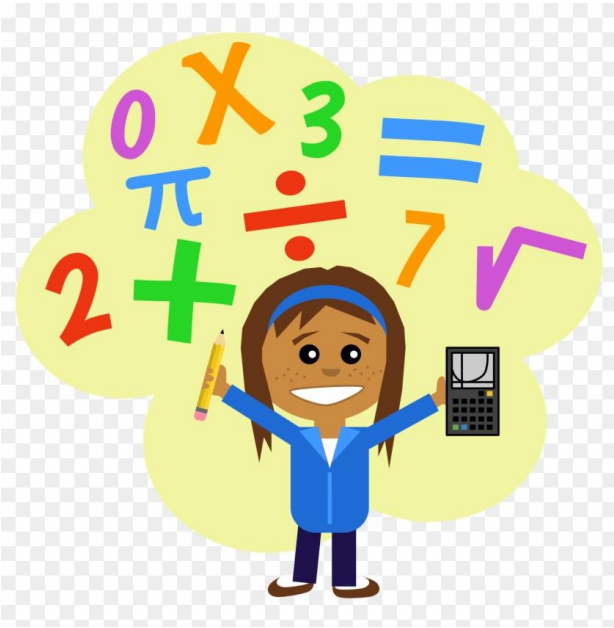
KS2 Maths Workshop for Parents

Thursday 13th November 2025

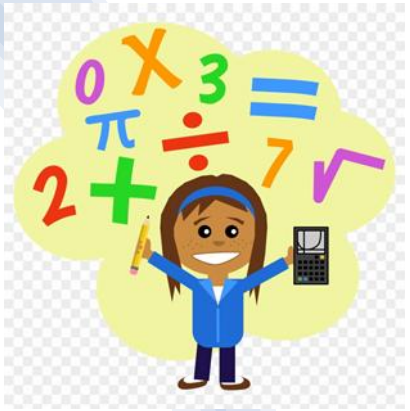




Session Aims

- What does maths look like in KS2?
- How is maths taught at Earlsmead?
- How can children be supported at home?

What does Maths learning look like at Earlsmead?



Our curriculum is based on the national curriculum and White Rose Maths and other materials that support the delivery of the curriculum (Classroom Secrets, Twinkl Mastery etc.).

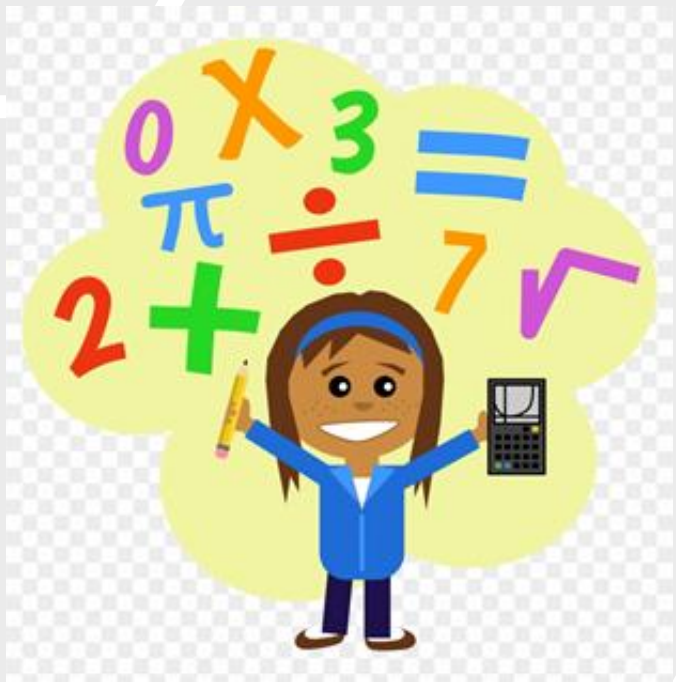
These are used across KS1 and KS2 allowing children to be exposed to a variety of different types of learning and to ensure coverage of fluency, problem solving and reasoning in different formats to ensure that our maths curriculum is rich and varied.

What are the National Curriculum Programmes of Study?

The link below will take you to the programmes of study for each year group. This shows you what your child will be learning when at school and what a child of that age is expected to achieve by the end of the year (Age Related Expectations).

National Curriculum Programmes of Study for Key Stage 1 and Key Stage 2

What does Maths learning look like in KS2?



Here are examples of children's work in KS2

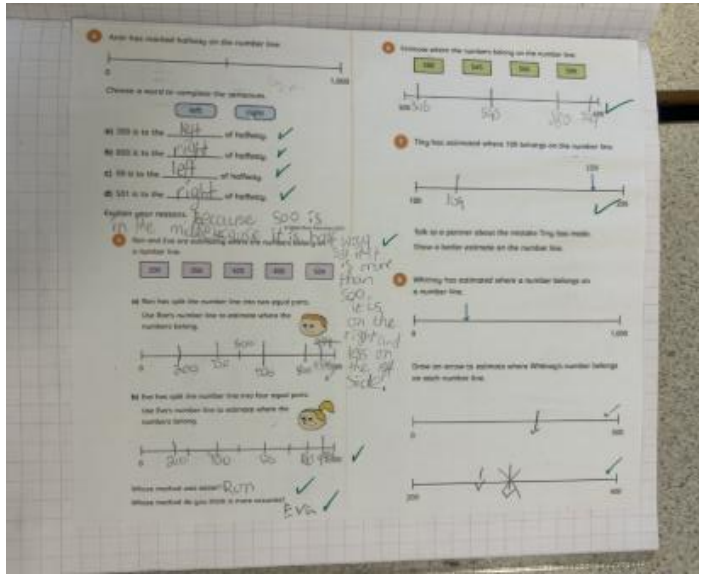
What does Maths look like in Year 3?

Consistently use the correct number formation (0-9).

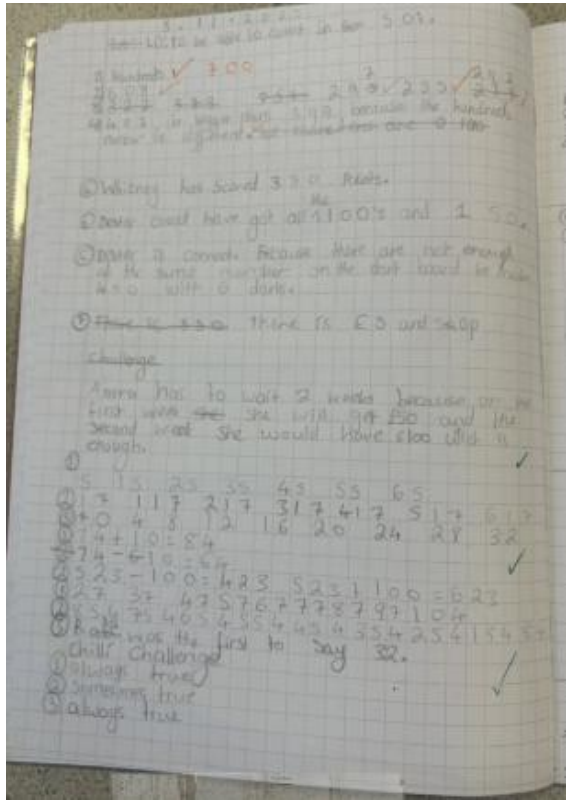
To recognise the place value of each digit in a three-digit number (hundreds, tens and ones).

To read and write numbers up to 1,000

To add and subtract mentally and scaling these by 10 e.g. 6 + 3 = 9, 60 + 30 = 90.



To understand the inverse relationship between add and subtract



To solve number and practical problems, including reasoning using my number knowledge.

To choose strategies to help me answer questions such as partitioning, number lines, counting on, counting back, bar models and eventually formal methods such as the column method.

To identify angles greater than or less than a right angle

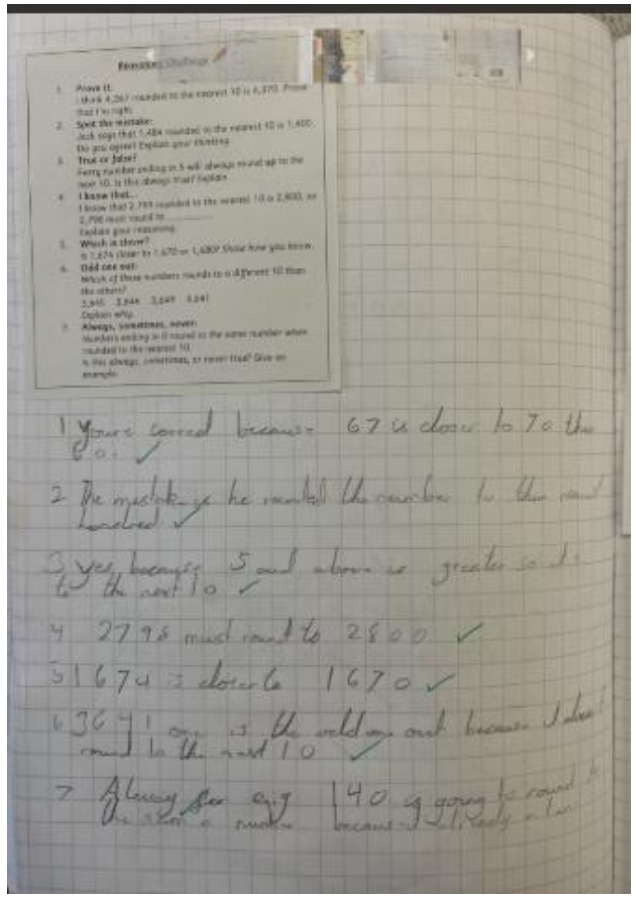
To recall my 2, 5, 10s, 3, 4 and 8 times tables and related division facts.

What does Maths look like in Year 4?

Find the perimeter of regular and irregular polygons

Begin to use expanded formal methods for addition and subtraction.

Have a secure understanding of number: confidently identifying the value of each digit in a 4 digit number E.g. 2378 the 3 represents 300.



Convert mixed numbers to improper fractions and vice versa

Solve addition and subtraction two-step problems deciding which operations and methods to use and why

Recognise common groups of equivalent fractions and finding the corresponding decimal.

To solve practical and number problems using reasoning to justify answers.

Multiply two-digit and three-digit numbers by a one-digit number using formal written layout

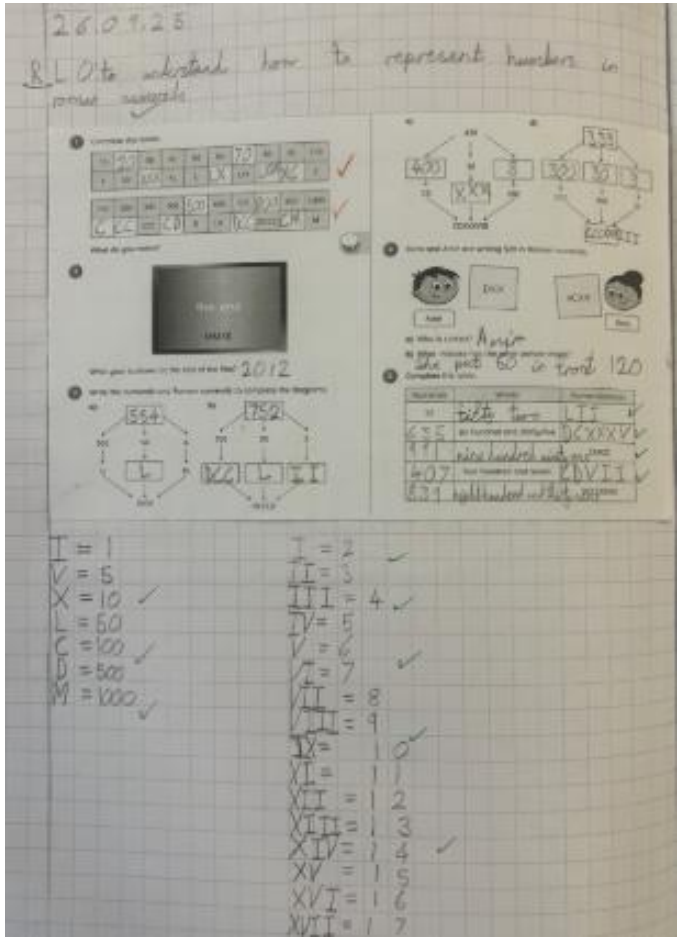
To confidently and securely know times tables facts, including the inverse up to 12x12

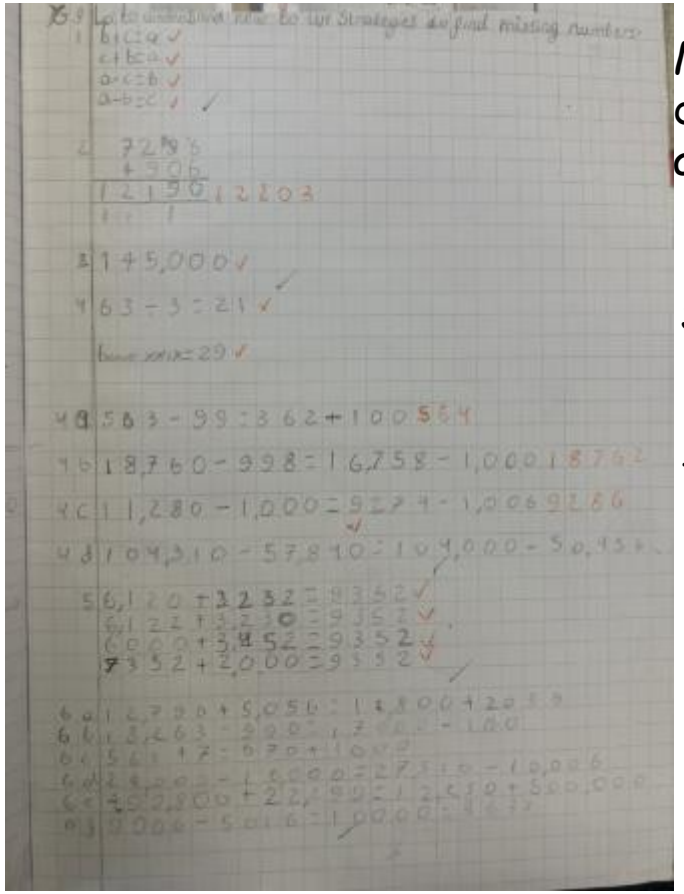
What does Maths look like in Year 5?

Recognise the place value of each digit in numbers with up to 2 decimal places

To use the formal written methods for all four operations (addition, subtraction, division and multiplication)

Rapid and accurate recall of **ALL** times tables and related division facts





Measure angles in degrees (°) and draw angles of a given size.

Secure understanding of fractions including simplifying, equivalent fractions and calculating with fractions (+ - and x by integers)

Convert between units of measure e.g. grams to kilograms

Draw upon a variety of mental maths strategies to support arithmetic skills

To solve number problems using reasoning to justify my answers and to prove and disprove.

Find non-unit fractions of quantities.

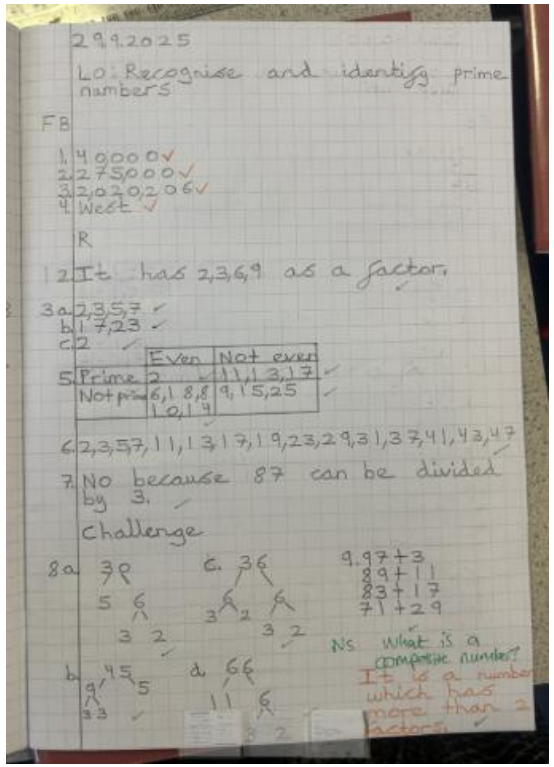
What does Maths look like in Year 6?

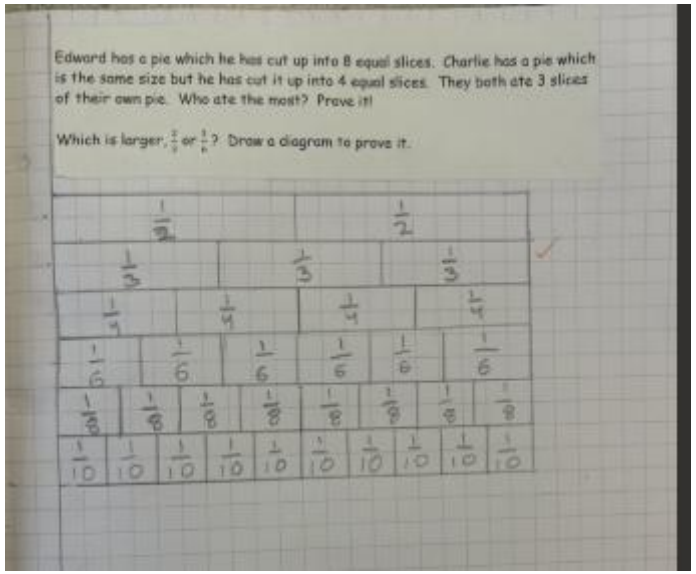
Rapid and accurate recall of **ALL** times tables

Draw, compose and decompose shapes according to given properties, including dimensions, angles and area

Find equivalent fractions, decimals and percentages

Solve problems involving ratio relationships





Solve multi-step word problems

Recognise the place value of each digit in numbers up to 10 million, including decimal fractions

Algebra

To consolidate the formal written methods and use alongside efficient mental strategies

Working with numbers beyond 6 and 7 digits

Systematic and methodical workings

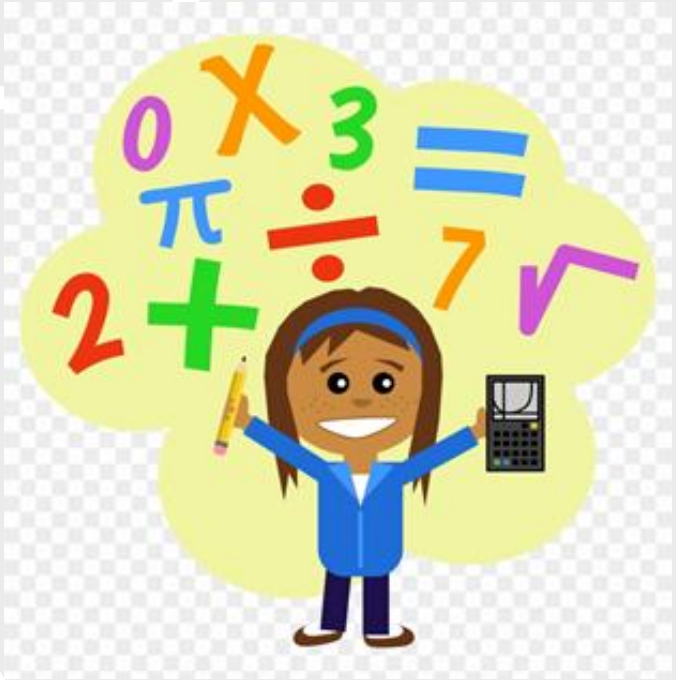
Draw upon a variety of mental maths strategies to support arithmetic skills

Use common factors and multiples to simplify fractions. To securely use all four operations when calculating with fractions (+ - x ÷)

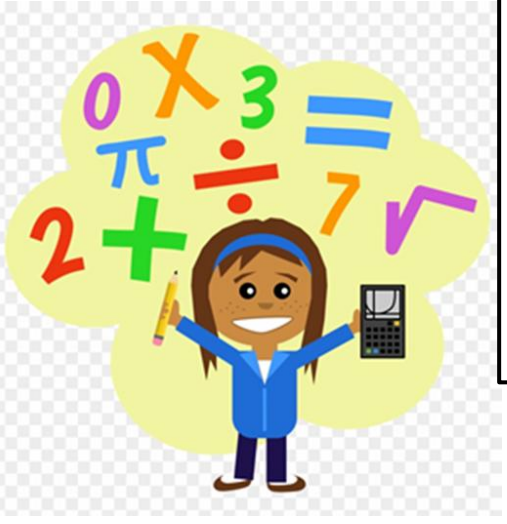
Calculation Policy

Our calculation policy is in line with the programmes of study taken from the National Curriculum for Mathematics (2014). It is designed to be challenging, focussing on essential core subject knowledge and skills. This document guides you through the **appropriate calculation methods within each year group** and the **progression** of skills **throughout the school**.

The content of this document is set out in year group blocks under the following headings: **addition, subtraction, multiplication and division**.



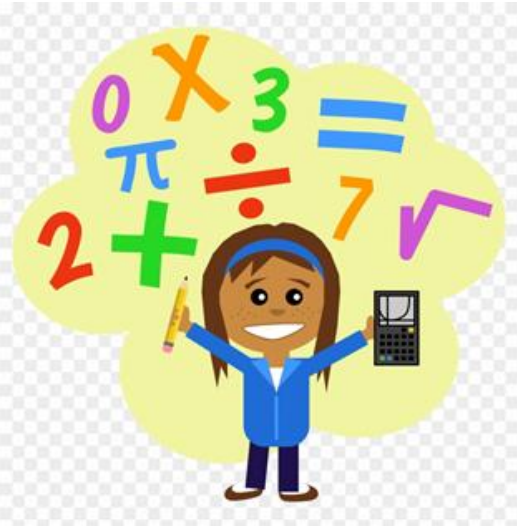
Reasoning and Problem Solving



The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Progression in Reasoning



Describing	Simply tells what they did
Explaining	Offers some reasons for what they did (may or may not be correct)
Convincing	Confident that their chain for reasoning is right (inductive reasoning)
Justifying	A correct logical argument that has a complete chain of reasoning
Proving	A watertight argument that is mathematically sound (deductive reasoning)

NRICH (2014)

Reasoning: The action of thinking about something in a logical, sensible way

240	42	60	45

- All of the numbers…
- Some of the numbers…
- None of the numbers…

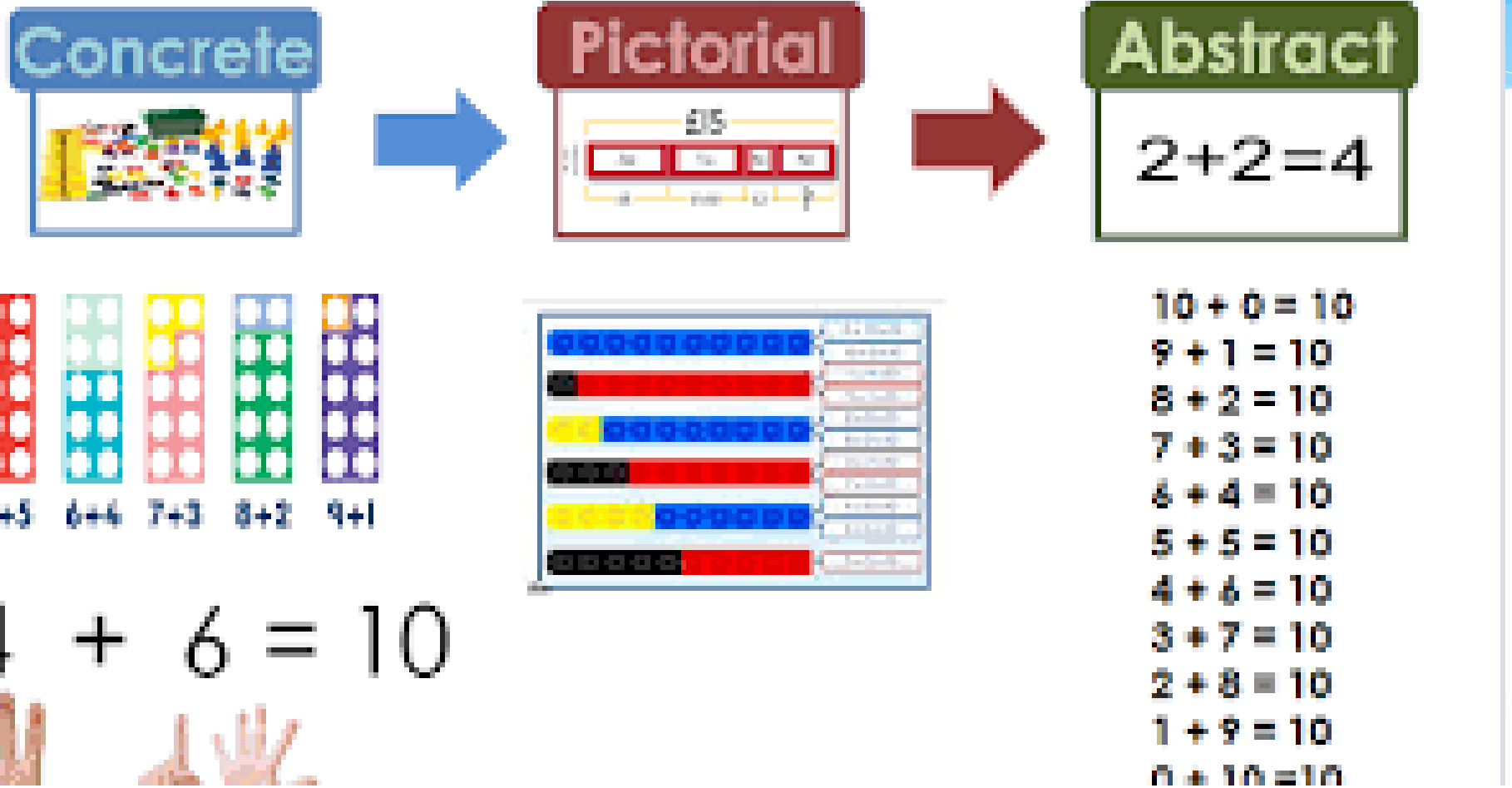
Importance of Resources

Resources can be powerful tools to support sense making, mathematical thinking and reasoning skills.

They help our children to be able to practically engage with new learning and to support their ability to visualise new concepts and knowledge.

We apply a CPA approach to Maths learning which embeds the importance of using physical resources to support learning opportunities.

CPA Approach



What is CPA?

C is for concrete. New concepts are introduced through the use of physical objects or practical equipment. These can be physically handled, enabling children to explore different mathematical concepts. These are sometimes referred to as maths manipulatives and can include ordinary household items such as straws or dice, or specific mathematical resources such as dienes or Numicon.

P is for pictorial. Once children are confident with a concept using concrete resources, they progress to pictorial representations. By doing this, they are no longer manipulating the physical resources, but still benefit from the visual support the resources provides.

A is for abstract. Once children have a secure understanding of the concept through the use of concrete resources and visual images, they are then able to move on to the abstract stage. Here, children are using symbols to solve problems. To be able to access this stage effectively, children need access to the previous two stages alongside it.

How can you help your child with Maths at home?

* Take away their fear.
* Reassure and praise whenever possible. Positive mindset!
* Let them see you using Maths in your everyday routines – portioning meals between the family, chopping vegetables into halves and quarters etc.
* Play with numbers and shapes through games.
* Seeing mistakes as an opportunity to learn and using them as a discussion point.
* Recognising the **importance** and value of Maths in our everyday lives e.g. managing money and telling the time.

A quick guide to everyday Maths opportunities for your child

* Practise spotting and recognising numbers in the environment. Add/multiply/subtract/divide door numbers, numbers on car registration plates, road signs and at the shop.
* Flicking through the TV guide? Ask your child to calculate the length of their favourite programmes. How long is it until the next programme?
* Use food packaging to discuss 2D and 3D shapes. What are the properties of these shapes e.g. how many faces, sides, vertices? Flatten the packaging out to find the net of the 3D shape too.
* Measuring up for new furniture? Want to make sure the Christmas tree will fit in your living room? These are really good opportunities to encourage your child to see the value of careful measuring skills in everyday life.
* Practise telling the time with your child. Can they read both the digital and analogue clock? Can they readily convert between the two and use the 24 hour clock? Can they also recognise Roman Numeral representations of the time too?
* Board Games supply endless opportunities for Maths – Snakes and Ladders, Monopoly, Bingo, Connect Four, Battle Ships etc

Alternatives to maths resources

Counters

or you could use……

Smarties

3D shapes

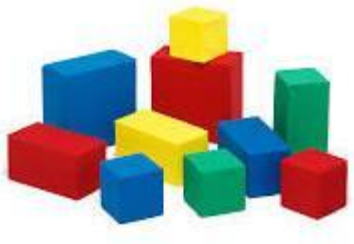
or you could use……

groceries

Counting Bears

or you could use……

anything you have a lot of!



You can use anything you have around the house

Pasta for counting

Cards for number recognition and counting

Chewits for counting

Magnetic numbers for number recognition

Toys to put in size order

Don't Forget Outside!

Numbers are all around us!

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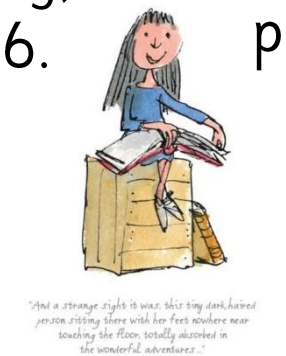
Times Table Rockstars (Y2+)

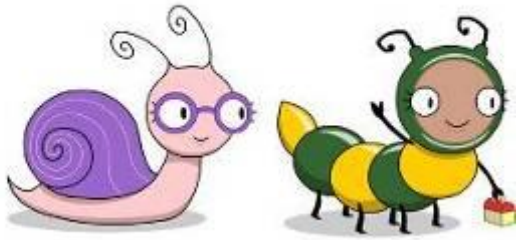
Another way to support your children is by using

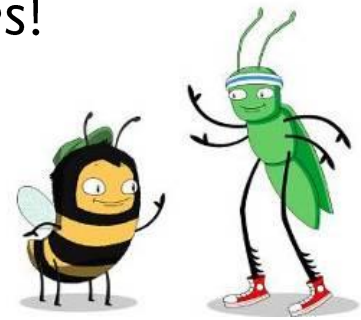
When it comes to times tables, speed AND accuracy are important — the more facts your child remembers, the easier it is for them to do harder calculations. Times Table Rock Stars is a fun and challenging programme designed to help students master the times tables. World Famous musicians need to practice and so do children with their tables!

Y4 MTC

Monday, June 1, 2026, to Friday, June 12, 2026.







Thank you for listening.

We hope the workshop helps you understand how you can support your child at home.