KS1
Maths Parents Workshop

Supporting your child in Maths

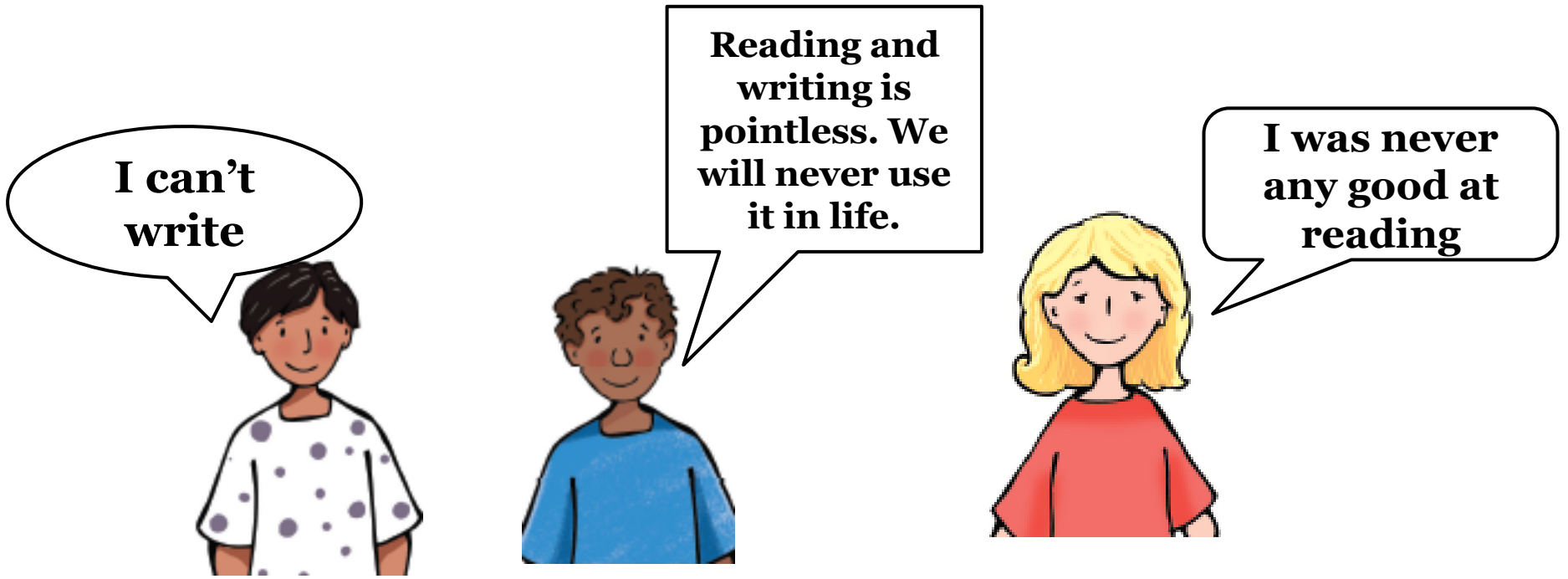
Tuesday 18th November

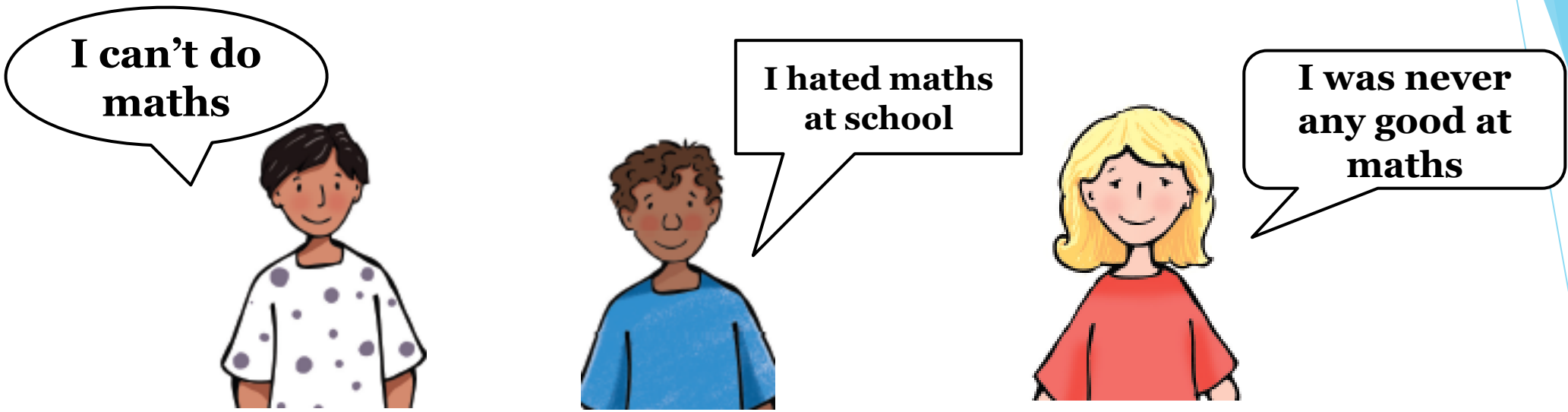
Please take some time to explore some of the physical resources on the tables whilst you wait for the workshop to begin. These are regularly used in all classrooms across the school.

Miss R.Willmott, Mrs D. Waldron and Miss T. Sambi

Aims:

- Identify the impact of attitudes towards Maths
- Look at National Curriculum objectives for KS1
- Understand how Maths is taught at Cannon Lane
- Examine the importance of physical resources within lessons
- Exploring some of the strategies covered within school
- Exploring the ways to support your child in Maths at home


I can't write
Reading and writing is pointless. We will never use it in life.
I was never any good at reading


I can't do maths
I hated maths at school
I was never any good at maths
...it's ok to be rubbish at maths
...maths isn't important

National Curriculum

- The principal focus of mathematics teaching in key stage 1 is to ensure that pupils **develop confidence and mental fluency** with whole numbers, counting and place value.
- This should involve working with numerals, words and the four operations, including with **practical resources** [for example, concrete objects and measuring tools].
- At this stage, pupils should develop their ability **to recognise, describe, draw**, **compare and sort** different shapes and use the related vocabulary.
- By the end of year 2, pupils should **know the number bonds to 20** and be precise in using and understanding **place value**.
- An emphasis on practice at this early stage will aid fluency.
- Pupils should **read and spell mathematical vocabulary**, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

National Curriculum

Year 1	Year 2
Number and place value Addition and subtraction **Multiplication and division** **Fractions** Measurement Geometry – properties of shapes Geometry – position and direction	Number and place value Addition and subtraction Multiplication and division Fractions Measurement Geometry – properties of shapes Geometry – position and direction **Statistics**

Maths at Cannon Lane

- Our aim is to teach children the mathematical skills and knowledge so they are confident to go out and use these in real life contexts.

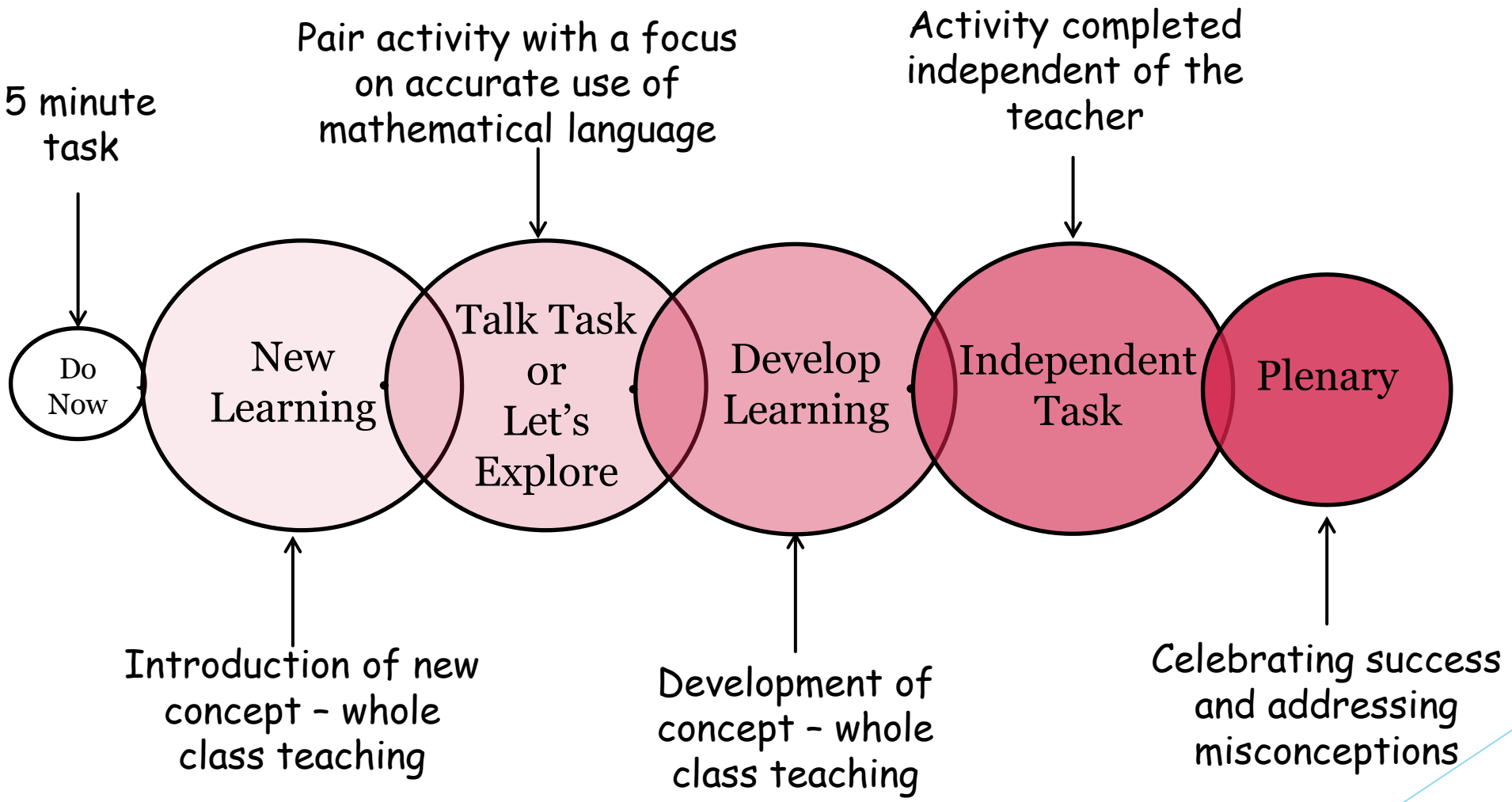
- Within each year group, we give the children the knowledge and skills needed for the next year group or phase of learning.

- Mathematics Mastery by Ark Curriculum Plus
  - Whole school approach – Reception to Year 6
  - Success for all - 'We need to believe all pupils can learn maths and we need to help them do so."

Maths at Cannon Lane

- Lessons aims to provide children with a deeper knowledge and understanding
  - Six-part structure
- Support is given within the lesson, to children who need help to grasp new concepts and children who need more challenge.
- Maths is taught daily throughout the school
- Children use a variety of resources and pictures to support their deeper understanding.
- We want our children to learn in a safe environment, where they are resilient and not afraid to make mistakes.

Lesson Structure



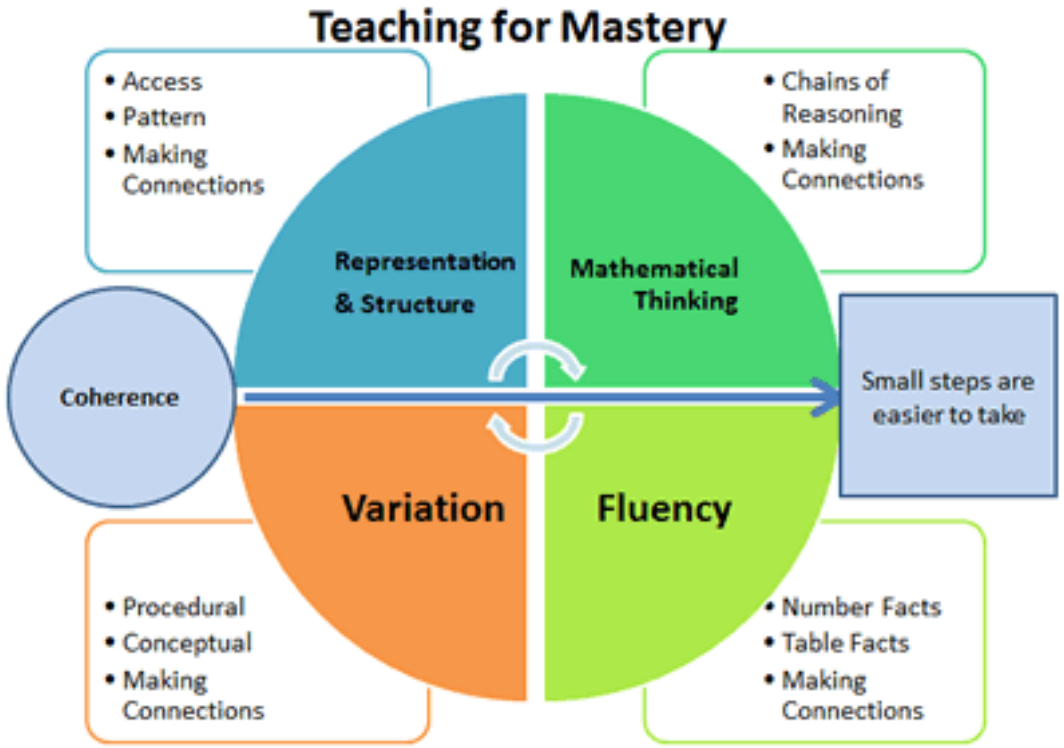
Maths at Cannon Lane

Year Group	Autumn Term	Spring Term	Summer Term
EYFS	**Number**: Early mathematical experiences **Number Patterns**: Pattern and early number **Number**: Numbers within 6 **Number:** Addition and Subtraction within 6 **Measurement** **Geometry**: Shape and sorting	**Number**: Numbers within 10 **Measurement**: Calendar and Time **Number:** Addition and subtraction within 10 **Number:** Grouping and sharing **Number patterns** within 15 **Number:** Doubling and halving **Geometry**: Shape and pattern	**Number:** Securing addition and subtraction facts **Number patterns** within 20 **Number:** Numbers beyond 20 **Measurement:** Money **Measurement** **Number patterns**: Exploration of patterns within number
Year 1	**Number and Place Value**: Numbers to 10 **Addition and subtraction** within 10 **Geometry**: Shapes and patterns **Number and Place Value:** Numbers to 20 **Addition and subtraction** within 20	**Measurement**: Time Exploring calculation strategies within 20 **Number and Place Value**: Numbers to 50 **Addition and subtraction** within 20 **Fractions** **Measurement**: Length and mass	**Number and Place Value**: Numbers 50 to 100 beyond **Addition and subtraction** **Measurement:** Money **Multiplication and division** **Measurement:** Capacity and volume
Year 2	**Number and Place Value**: Numbers within 100 **Addition and subtraction** of 2-digit numbers **Addition and subtraction** word problems **Measurement**: Length **Statistics:** Graphs **Multiplication and division**	**Measurement:** Time **Fractions** **Addition and subtraction** of 2-digit numbers **Measurement**: Money **Geometry**: Face, shapes and patterns; lines and turns	**Number and Place Value**: Numbers within 1000 **Measurement:** Capacity and volume **Measurement**: Mass **Addition and subtraction:** Exploring calculation strategies **Multiplication and division:** Exploring multiplication thinking

Mastery

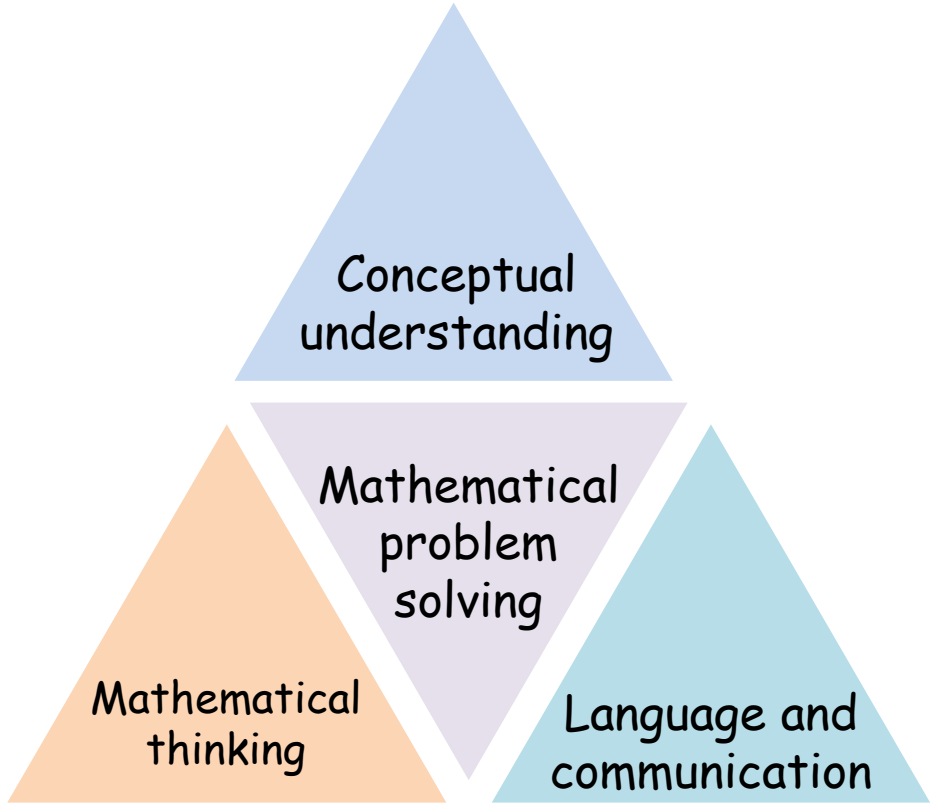
The focus is on depth – **not acceleration**, so that all children have the chance to embed their learning.

It is really important that learning is not superficial. A child might be able to 'do' a particular method, but can they explain how it works and why it is efficient?



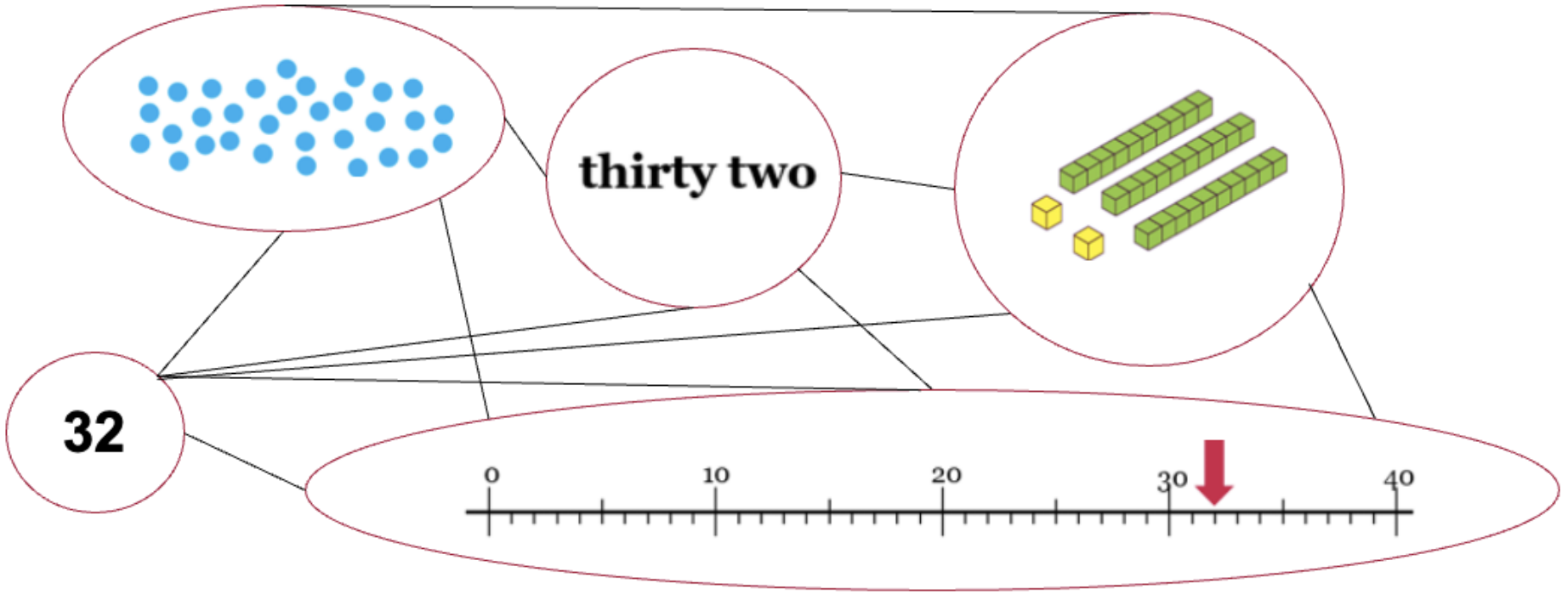
Dimensions of Depth.

- *Focused on four aspects called the 'Dimensions of Depth'.*



Conceptual Understanding

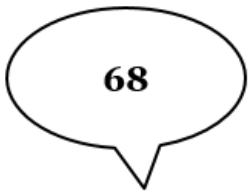
- Representing a concept in different ways
- Making connections between each way to deepen their understanding.

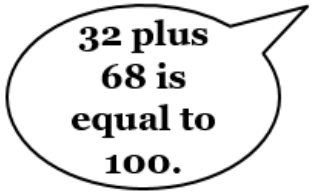


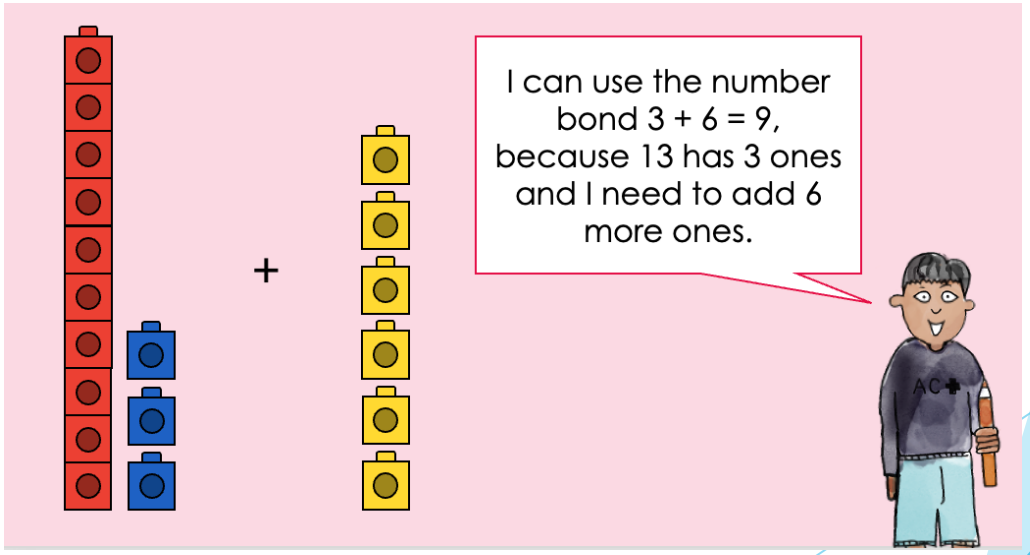
Language and Communication

- Key vocabulary is shared at the beginning of the lesson and it is used consistently throughout the lesson by all adults.
- Language should be modelled in full sentences and pupils should always respond using full sentences.

"What is added to 32 to make 100?"







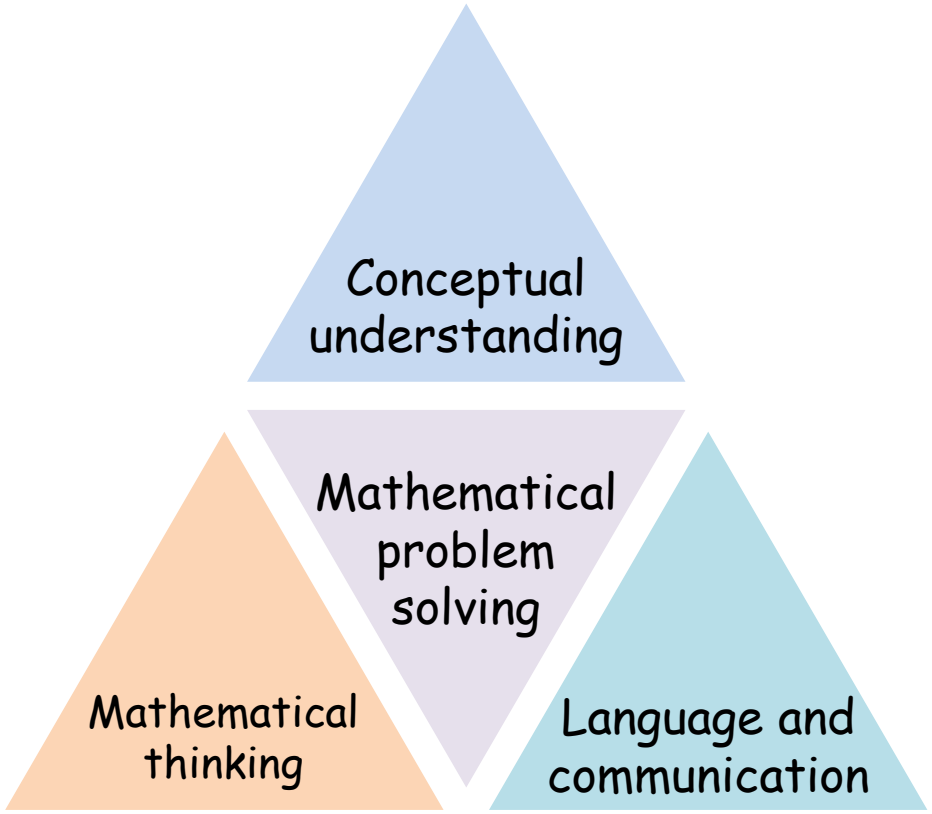
https://primarysite-prod-sorted.s3.amazonaws.com/cannon-lane-primary/UploadedDocument/7cf8cd93-f60c-4f34-a730-fc3588d462c6/progression-of-vocabulary.pdf

Mathematical Thinking

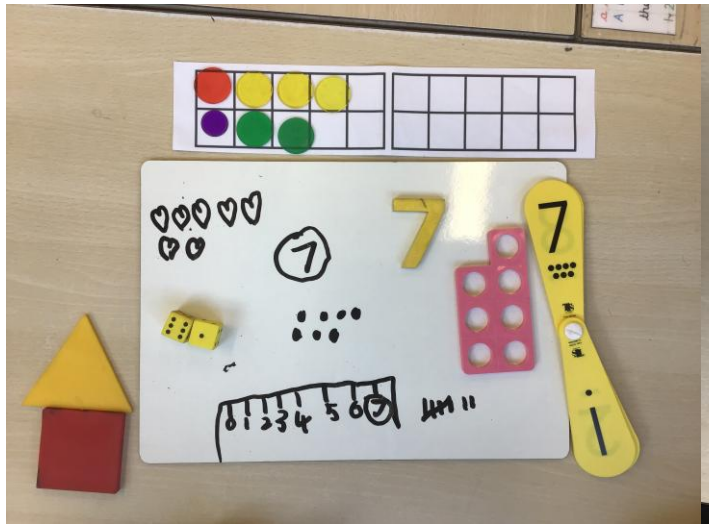
Questioning stems:

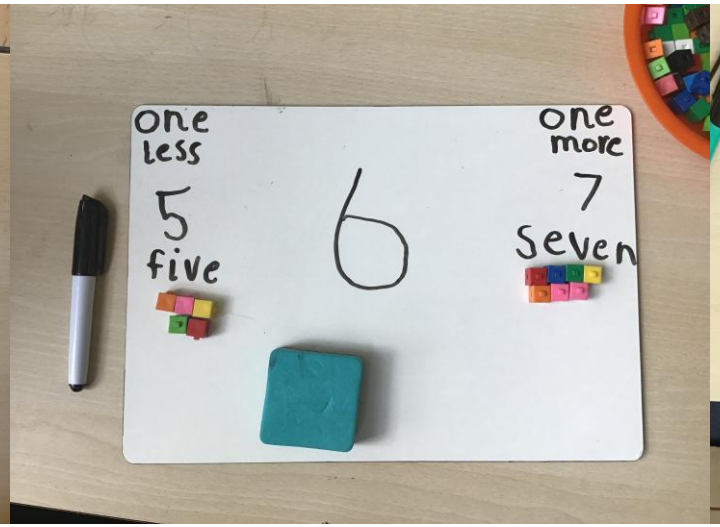
- Tell me what is wrong with…
- Is it always, sometimes, never true?
- Explain why…?
- What if … I changed this number…
- What if … I did it this way…
- How do you know? Tell me… Show me…
- Does this always happen?

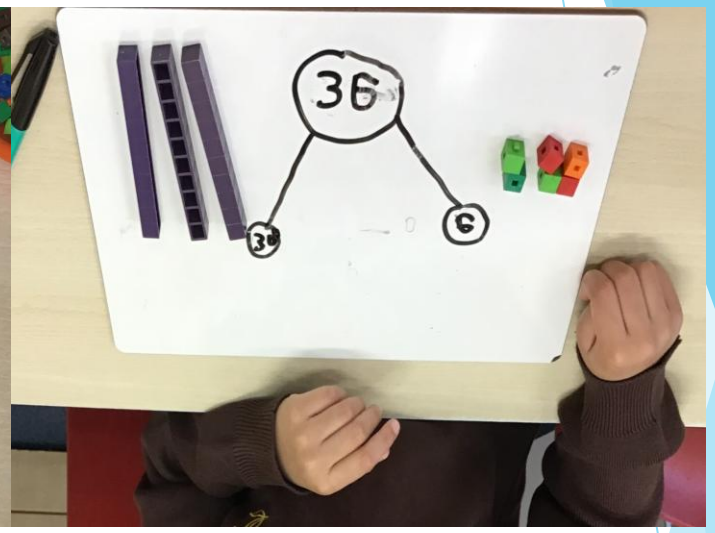
Deep Dive into Mathematics Mastery

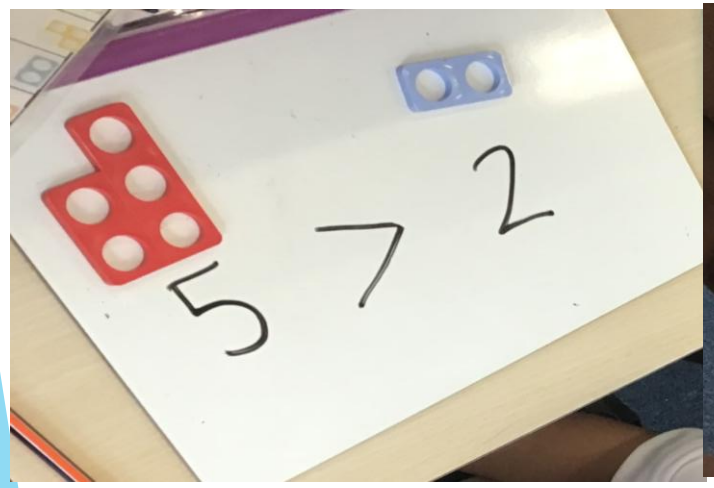


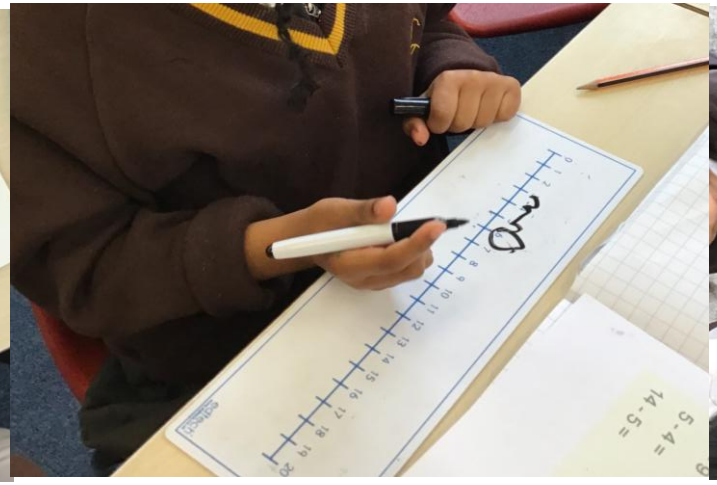
Examples of learning









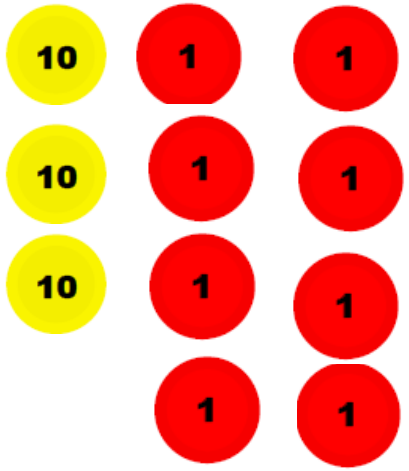




How many different ways can you represent the following number?

38

How many different ways can you represent the following number?

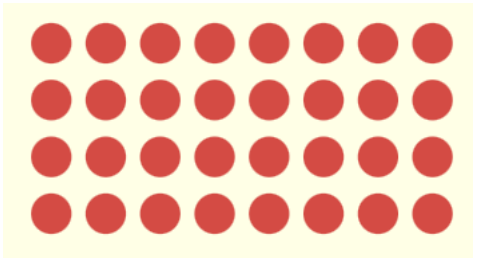




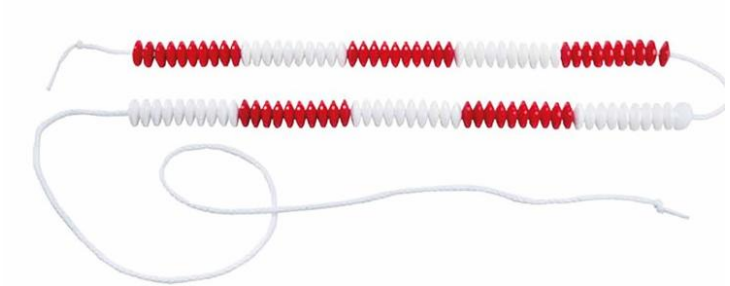
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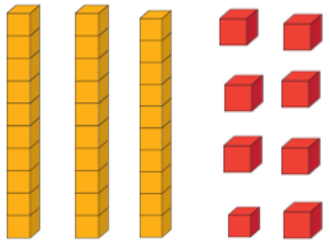
Thirty-eight

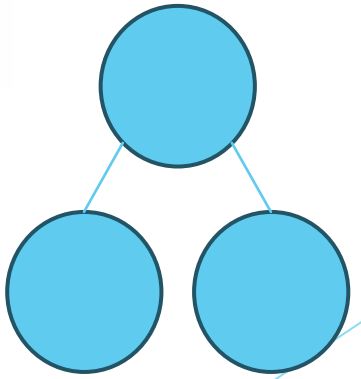




Tens	One
3	8

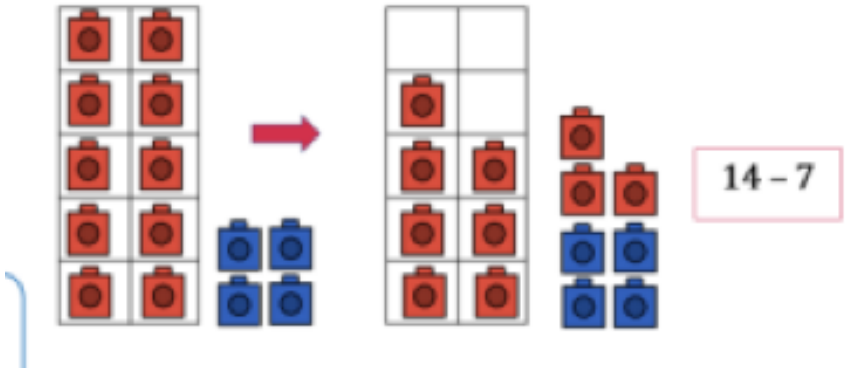


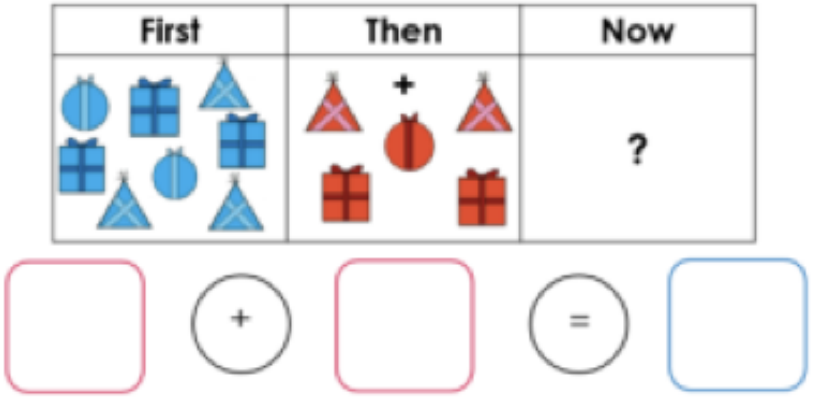




Strategies used within the classroom

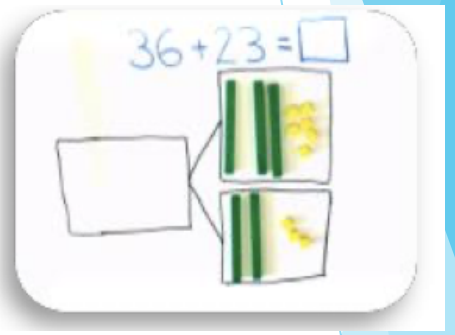
Year 1

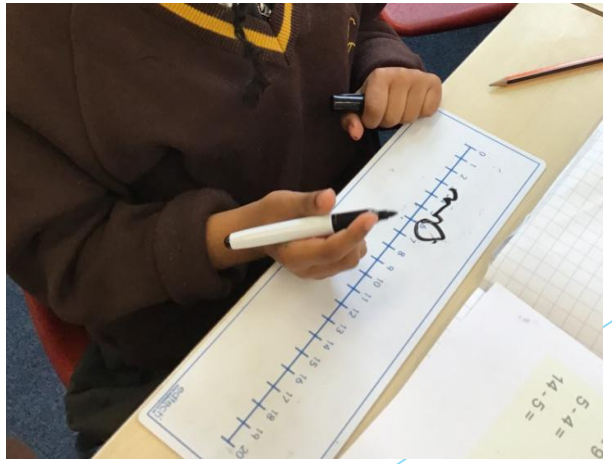




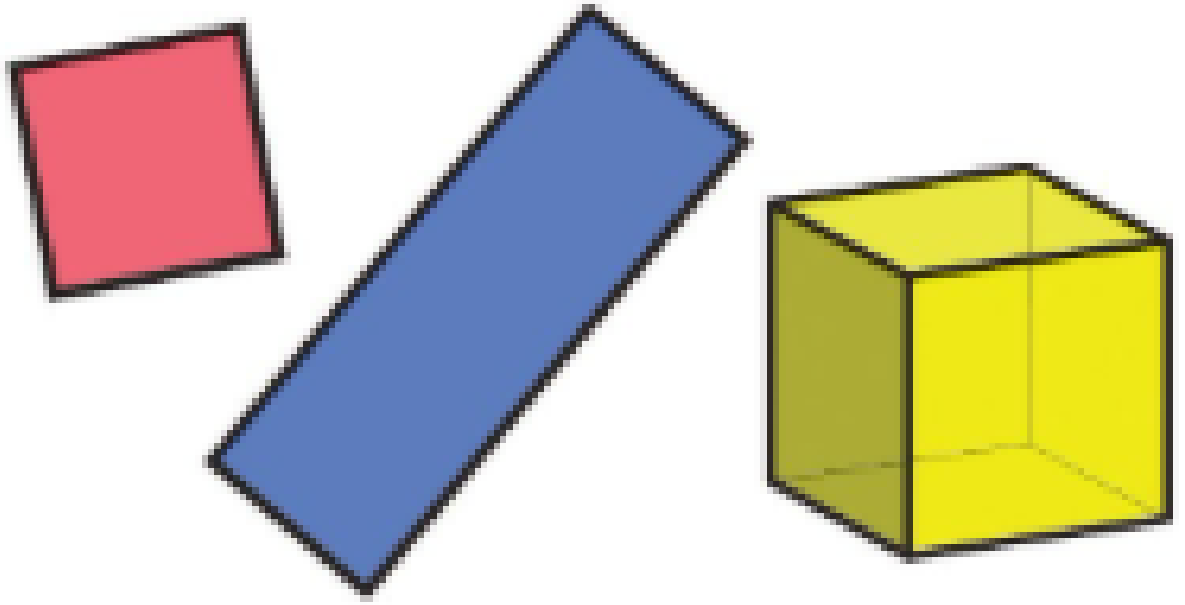
Year 2

"I will partition 36 into 30 and 6. I will partition 23 into 20 and 3. I will use my number bonds to help me."





How would you solve 63 + 18?



Ways to help at home

Make sure it's fun.

Give lots of encouragement.

Discuss strategies used at home – remember calculations maybe different from when you remember them.

Cook together to help read scale

Turn over 2 playing cards and ask your child to multiply, add, subtract or divide the numbers.

Play bingo for any topic.

Apps and Websites

Cannon Lane Website

https://www.cannonlaneprimary.org/rolling-numbers/

Useful websites:

http://www.familymathstoolkit.org.uk/

https://www.lgfl.net/learning-resources/summary-page/maths-at-home

http://www.mad4maths.com/parents/

http://www.bbc.co.uk/bitesize/ks2/maths/

https://www.youtube.com/watch?v=AuX7nPBqDts

https://parentsintouch.co.uk/Maths-word-problems

Apps:

Maths Roxx – fun way to learn times tables

Mr Thorne's Times table terra

Mr Thorne's divide and conquer

Thinking blocks – Singapore maths model

Let's do mental maths – won the innovation award

RIGHTS RESPECTING SCHOOLS
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CANNON LANE PRIMARY SCHOOL


Any Questions

Thank you for listening and participating!

MATHEMATICS
is not about
numbers, equations,
computations, or
algorithms:
it is about
UNDERSTANDING.

Please complete the evaluation forms on your tables.