YR & Y1
Maths Workshop
June 2023

- How we teach Maths at CCHT
- Key concepts covered in Reception Class & Year 1
- Times Tables
- How you can support at home

We teach a *Mastery Curriculum*

Teach less but go deep to build firm foundations - depth is simplicity, not complexity, so accessible for all

Whole class teaching – to maximise teacher input with additional pre teaching/intervention for those who need it

Focus on both arithmetic & reasoning (being able to explain why and how)

4/5 Maths lessons each week

Maths meetings

'Do Now'

Reception: Learning through play (adult & child led)

Year 1: Adult initiated

We follow National Curriculum objectives

These can be found on the school website along with Reading & Writing objective

https://www.ccht.rbkc.sch.uk/parents/

Calculation Policy

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**. https://www.ccht.rbkc.sch.uk/wp-content/uploads/2022/03/Calculation-Policy-for-website.pdf

CPA Approach

- At the heart of our Mastery Curriculum
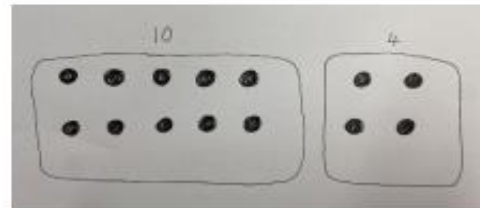- All year groups across all areas of Maths – not just Reception

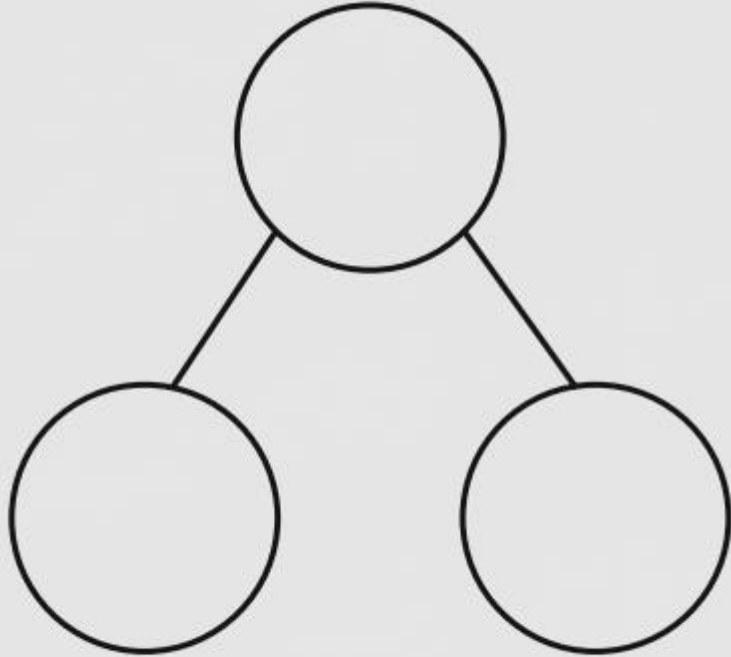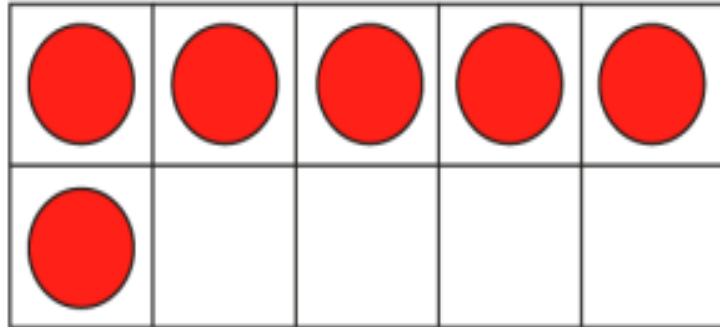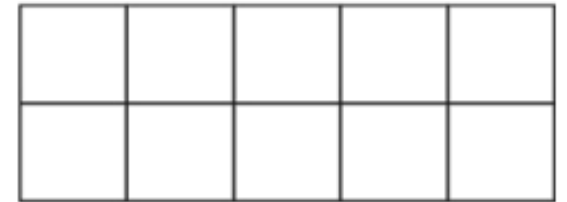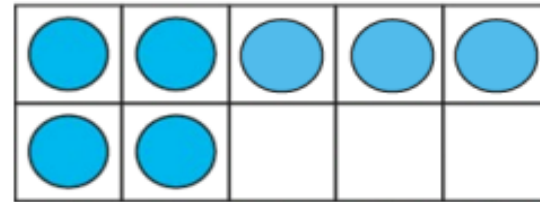| Concrete	Pictorial	Abstract
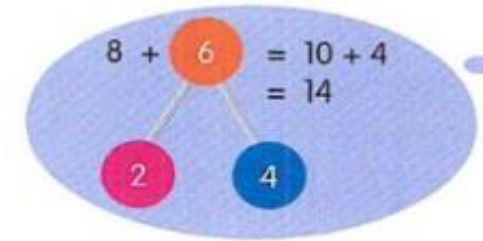
Key Representations
Part Part Whole Model

The part-whole model is the concept of how numbers can be split into parts. Children using this model will see the relationship between the whole number and the component parts. This helps learners make the connections between addition and subtraction.

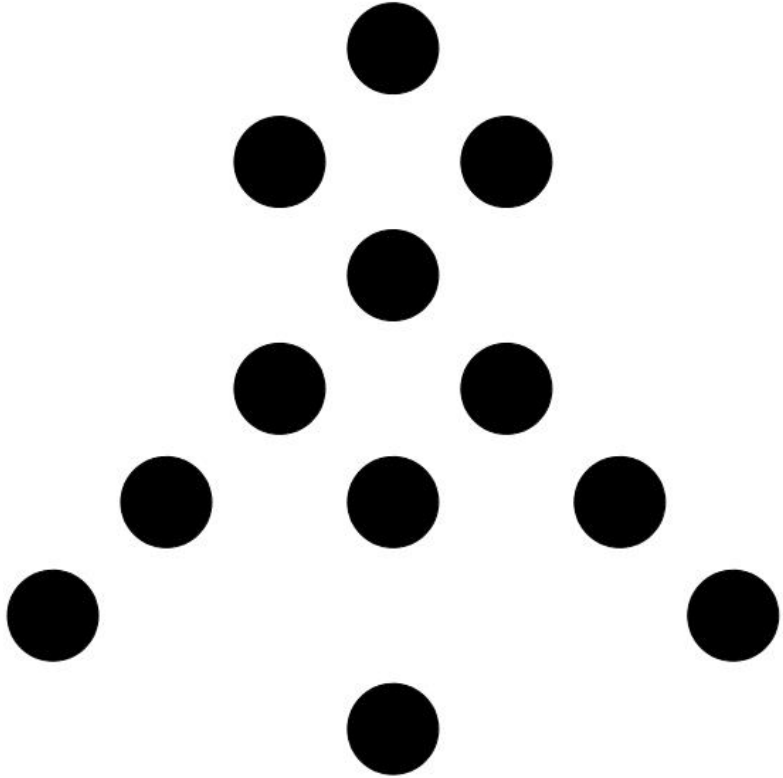# Key Representations
Ten Frame

$$6 + 1 = 7$$

$$7 + 5 = 7 + 3 + 2 = 10 + 2$$

A ten frame is a simple graphic tool that allows people to "see" numbers. Understanding that numbers are composed of tens and ones is an important. foundational concept, setting the stage for work with larger numbers. A strong sense of "ten" is a prerequisite for understanding place-value.

Your Turn

How many number sentences can you make?

You can have as many parts as you like.

The whole is **12**

'By giving our students practice in *talking with others*, we give them frames for *thinking on their own*.'

Vygotsky, L. (1978)

Times Tables

Expectations for times tables for each year group:	
Year 1	Count in multiples of 2, 5 and 10. Recall and use all doubles to 10 and corresponding halves.
Year 2	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
Year 3	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Year 4	Recall and use multiplication and division facts for multiplication tables up to 12x12.
Year 5	Revision of all times tables and division facts up to 12x12.
Year 6	Revision of all times tables and division facts up to 12x12.

Bronze: 2x 5x 10x (Year 2)

Silver: 3x 4x 8x (Year 3)
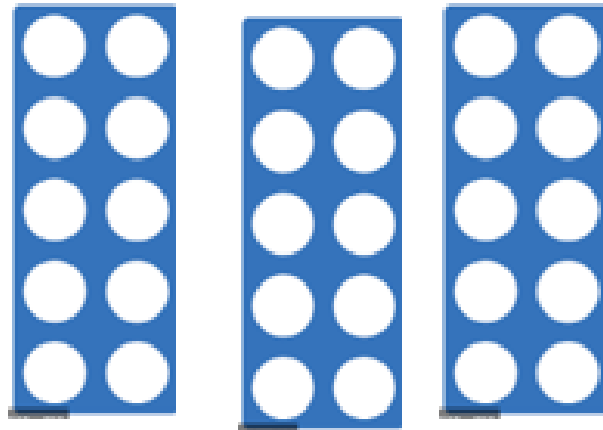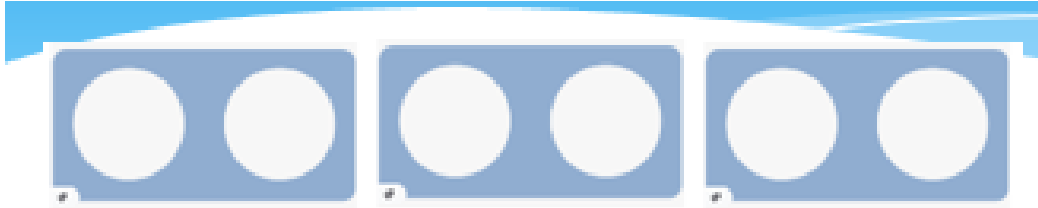
Gold: 6x 7x 9x 11x 12x (Year 4)

Recall out of order – 6 seconds for each questions

Year 4 Multiplication Check (25 questions) - June

Times Tables

Reception & Year 1: Step Counting

Times Tables - Arrays

What times tables can you write for these arrays?

3 x 4

knowing the answer is 12 without understanding why

knowing the answer is 12 because three groups of four is 12.

CPA approach

Repeated Addition/ Repeated Grouping

There are 3 groups. Each group has 2 cubes.

$2 + 2 + 2 = 6$

3 twos = 6

3 groups of 2 = 6

There are 6 cubes altogether

Children to represent the cubes pictorially. Circles can be drawn around the groups to help.
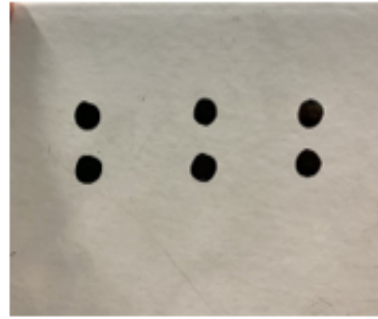
$3 \times 2 = 6$

$2 + 2 + 2 = 6$

Children can count in twos to solve or use times table facts.

Can you draw 3 x 5?

Commutativity

Multiplication Commutativity

There are 4 groups of 3.
There are 12 cubes altogether.

There are 3 groups of 4.
There are 12 cubes altogether.

4 groups of 3 = 12

3 groups of 4 = 12

$4 \times 3 = 12$
$4 + 4 + 4 = 12$

$3 \times 4 = 12$
$3 + 3 + 3 = 12$

Maths at Home

NB These should not replace the understanding of what times tables are and the relationships between numbers.

- Hit the button
- Times table Rockstars (school subscription)

Single Player

Garage – the questions will only come from the times tables the teacher has set for the week. As pupils start to answer questions, TT Rock Stars works out which facts they take longer on and will give them more of these questions to answer. The Garage is best for getting quicker at a few facts. Players get 10 coins per question.

Studio - the questions in the Studio can be anything from 2x2 up to 12x12.
TT Rock Stars calculates each the mean speed from their last 10 games in the Studio and translates into a Rock Status:
Under 1 second per question to become a Rock God
Under 2 seconds per question to become a Rock Legend
Under 3 seconds per question to become a Rock Star
Over 3 seconds is a Busker
They earn 1 coin per question and the Studio is the place for them to set their best time across all the tables.

Multiplayer

Rock Arena - The Arena allows players to compete against all other members of their Band (their Bandmates would need to join the same game in order to compete together). A new Arena game starts every 15 seconds and once the clock starts they race to answer more questions than the others. In the Arena, questions will only come from the times tables the teacher has set for the week, similar to the Garage. They earn 1 coin per correct answer.

Top Tips

- Children can always count on from a known timetable e.g. if they know how to find 5 x 8 = 40 then in order to find 6 x 8 then you must add another 8.

- For 9x table, children can do 10x table and take away one of the number.

- When asking children times tables, get them to repeat the question with answer

- Rather than asking your child different times table questions, ask related ones, for example:

- What is 4 x 6?
- How can you use this to find 8 x 6 (double the answer)
- How can you use this to find 2 x 6 (half the answer)
- What is 6 x 4?
- What would 4 x 60 be?

After your child is confident:

- Related division facts
- Using known facts to solve for others e.g.

If you know that 3 x 12 = 36 then you can double it to find out 3 x 24.

If you know that 5 x 6 = 30 then what would 50 x 6 be?(300) What about 0.5 x 6? (3)

General Maths Resources

- CBeebies have lots of fun and interactive games and activities to help get our younger children excited about Maths
- Numbots - is all about every child achieving the "triple win" of understanding, recall and fluency in mental addition and subtraction, so that they move from counting to calculating. (school subscription)
- Numberblocks - Learn how much fun counting can be with the Numberblocks - a fun-loving group of numbers who work together to solve problems big and small.
- I See Maths – a useful site with a plethora of ideas for fun games that all the family
- Primary Games Arena - It is a free website that encourages children to play online maths games linked to their home learning. It breaks the games down into concepts which is really helpful.
- Hit the Button – children love this game as it helps to increase confidence through practising times tables and number bonds.
- Maths Zone – this site is jam-packed with fun ways to learn more about maths.
- BBC Bitesize – lots of information alongside short videos help to make the learning enjoyable and accessible for all children.