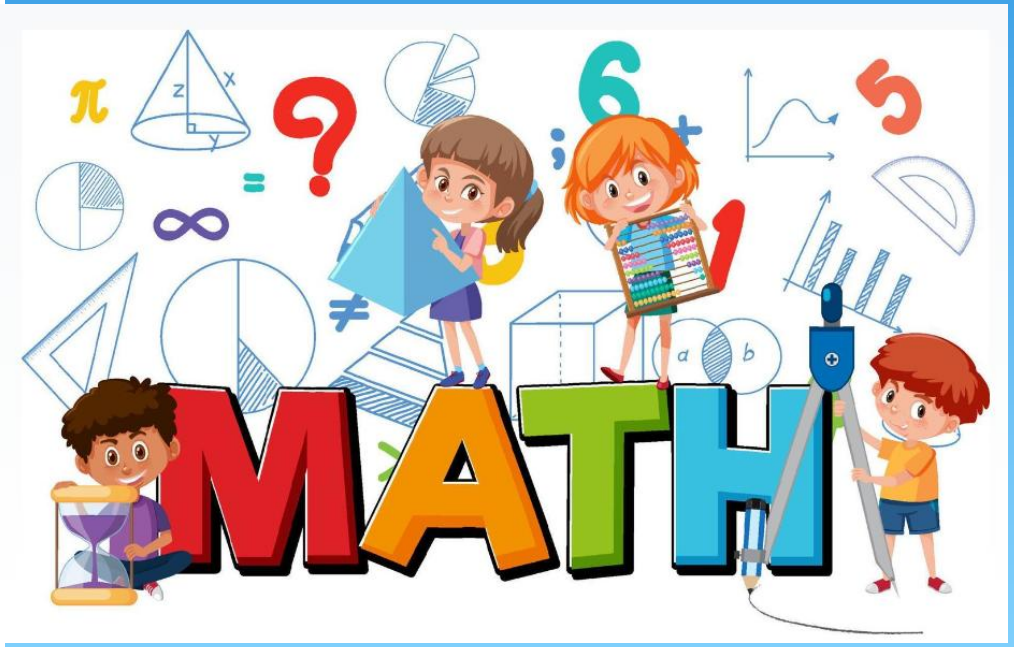
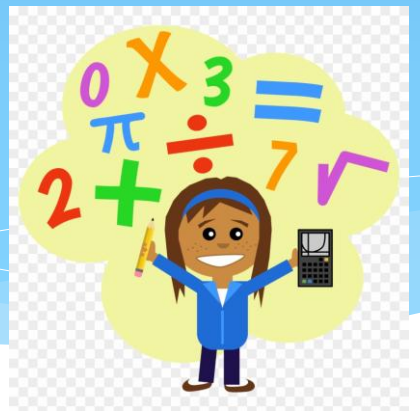
St Joseph's Catholic Primary School & Nursery



Welcome to our Maths workshop

Year 5 and Year 6



Our School Prayer

This is our school,

Let peace be found here.

Let the rooms be full of happiness.

Let love abide here,

Love for one another,

Love for God.

Let us remember,

That as many hands build a house,

So many hearts make a school.

Amen.

Session Aims

What does Maths look like in Year 3 and Year 4?

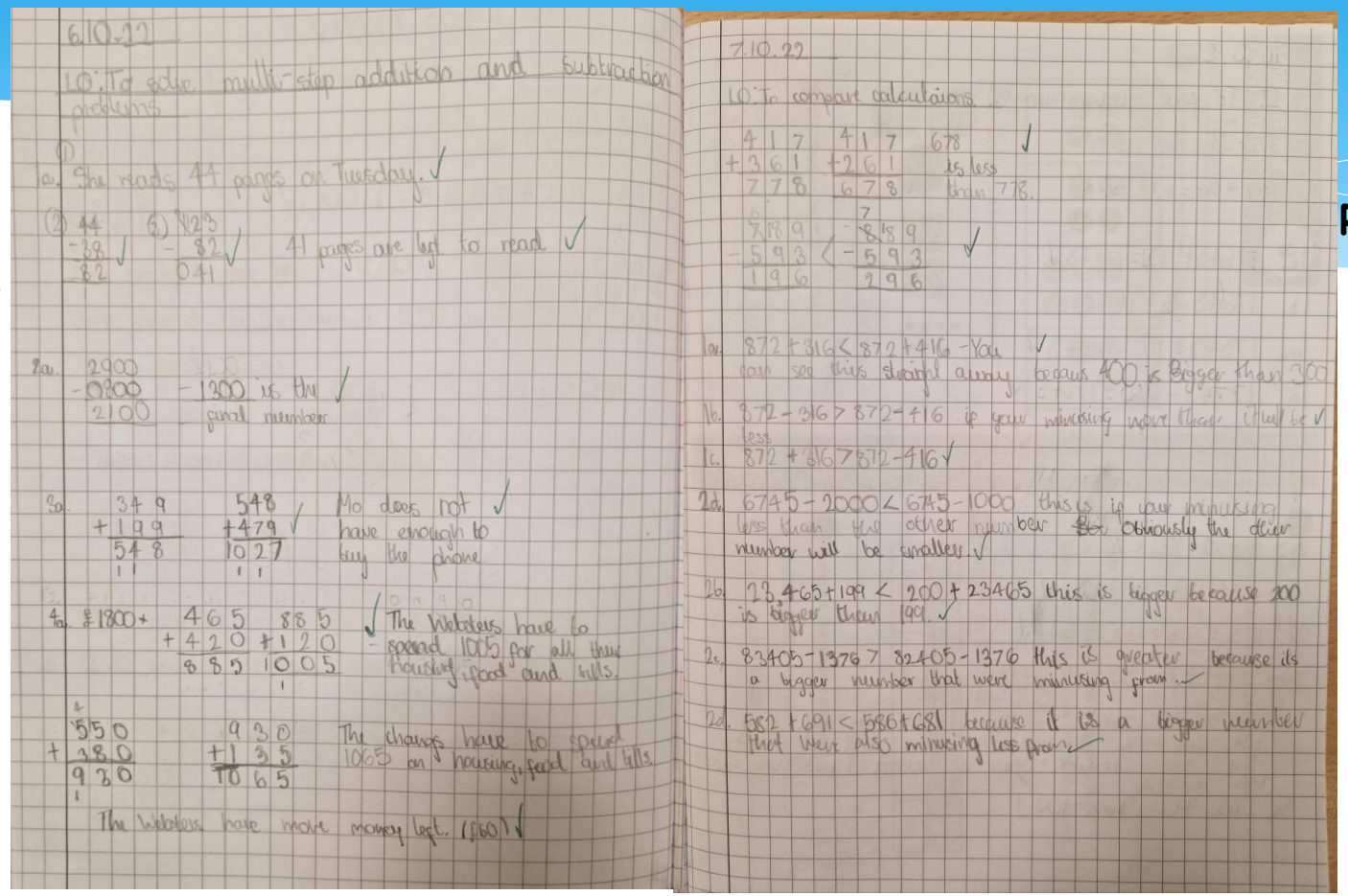
How is Maths taught at St Joseph's?

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)

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



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

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?

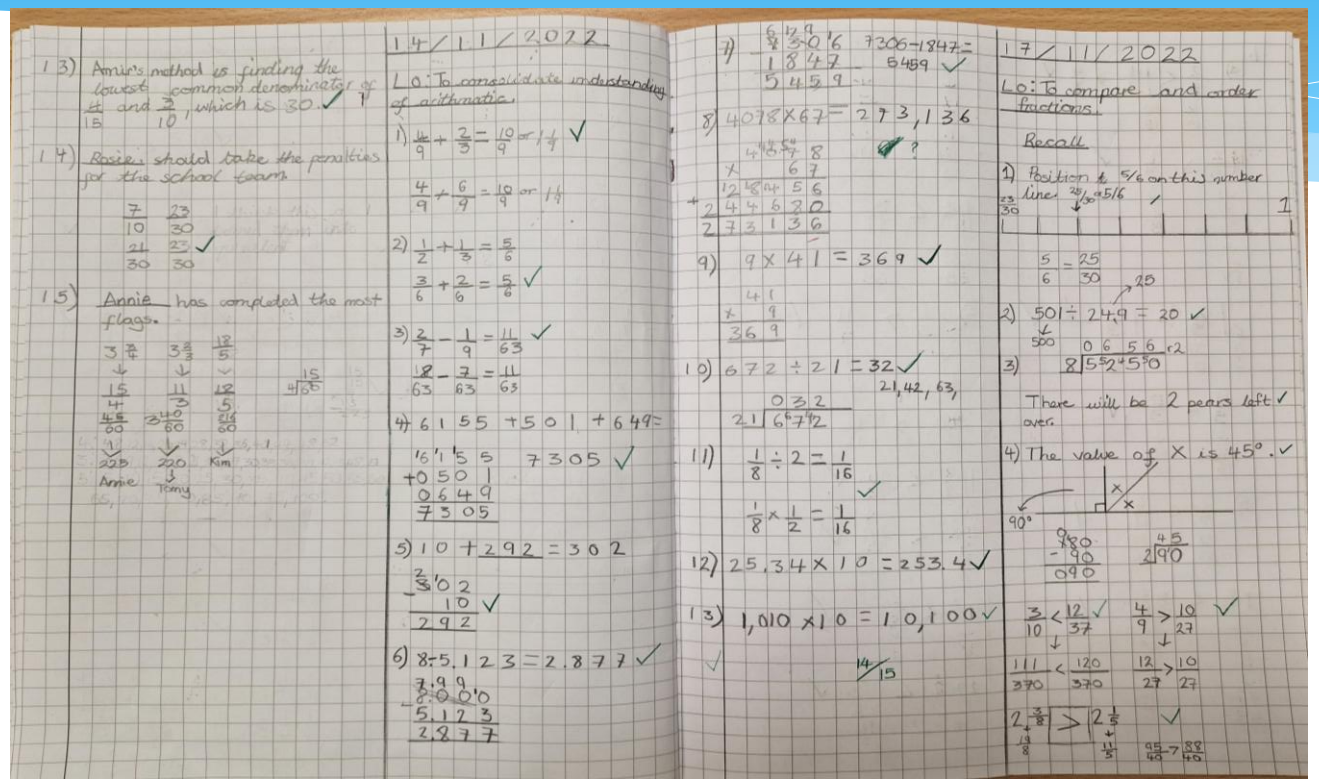
Rapid and accurate recall of **ALL** times tables

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

Solve problems involving ratio relationships

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

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



Working with numbers beyond 6 and 7 digits

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

Algebra

Find equivalent fractions, decimals and percentages

Solve multi-step word problems

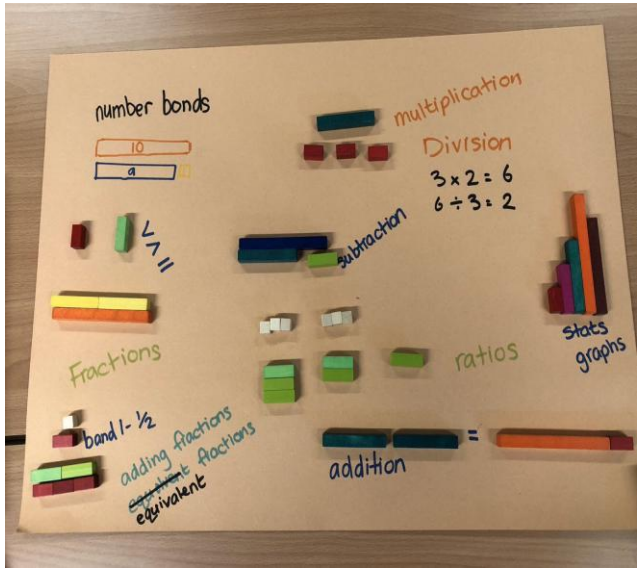
Use common factors and multiples to simplify fractions. To securely use all four operations when calculating with fractions (+ - x ÷)

Maths Mastery - What is it?

What is mastery?

- All children of all ages are capable of succeeding at mathematics
- Deep, long-term, secure and adaptable understanding of the subject
- Solid understanding that enables pupils to move on to more advanced material

Concrete → Pictorial → Abstract



1 Work out the additions.

Use the bar models to help you.

a) $\frac{1}{3} + \frac{1}{3}$

b) $\frac{1}{5} + \frac{1}{5}$

c) $\frac{1}{5} + \frac{2}{5}$

d) $\frac{1}{5} + \frac{3}{5}$

7 Work out the additions.

a) $\frac{3}{8} + \frac{4}{8}$

b) $\frac{3}{9} + \frac{4}{9}$

c) $\frac{3}{29} + \frac{4}{29}$

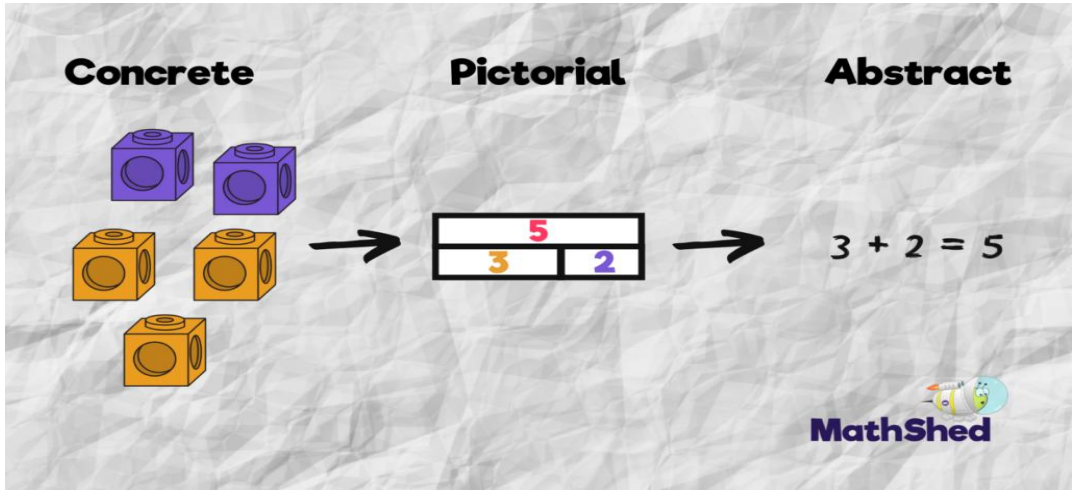
d) $\frac{3}{103} + \frac{4}{103}$

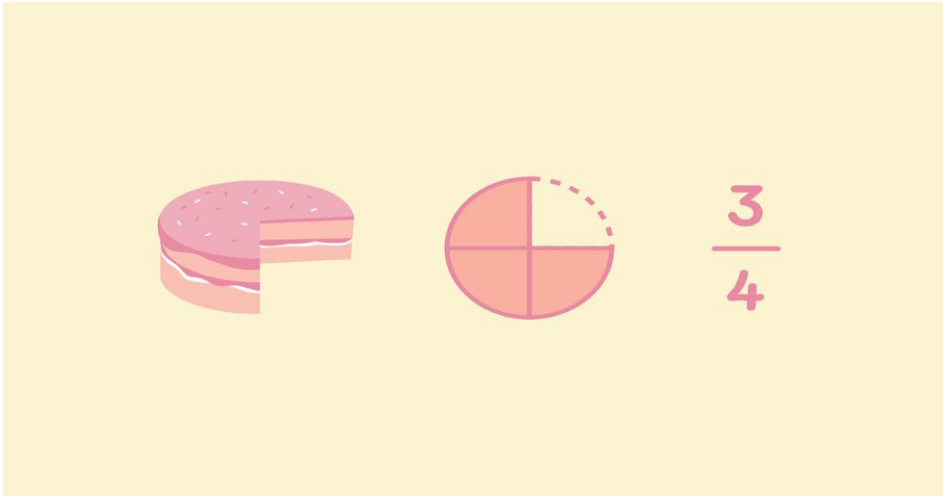
e) $\frac{5}{31} + \frac{9}{31}$

f) $\frac{17}{111} + \frac{33}{111}$

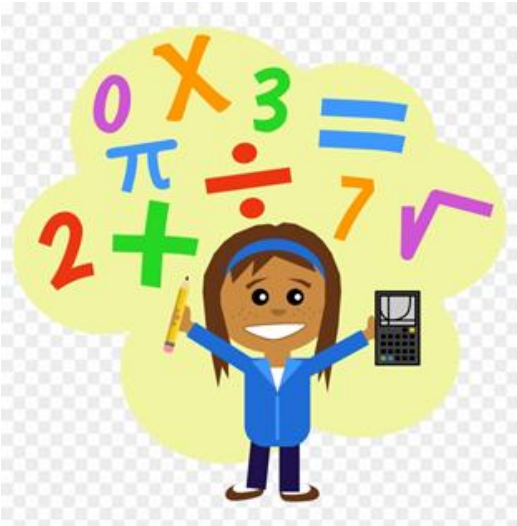
Concrete, Pictorial & Abstract

The Concrete Pictorial Abstract (CPA) approach is a system of learning that uses physical and visual aids to build a child's understanding of abstract topics. Pupils are introduced to a new mathematical concept through the use of concrete resources (e.g. fruit, Dienes blocks etc).





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)

How to help at home

- Times tables understanding – ensure Year 5 pupils do not stop practising now that they've completed their tests.
- Take a Key Instant Recall Facts booklet.
- Practising telling the time (analogue, digital, 24 hours)
- Be able to calculate how long a journey is, or how long a TV programme lasts using a timetable.
- Recognising equivalencies in fractions, decimals and percentages – ½ = 0.5 = 50%
- To convert between metric measures – 1kg = 1000g, 1l = 100cl = 1000ml
- MathsBot – practise arithmetic papers.

Thank you for listening.

We hope that you enjoy the lessons this morning!

We will meet in the hall around 10am and if there are any questions, we can discuss.