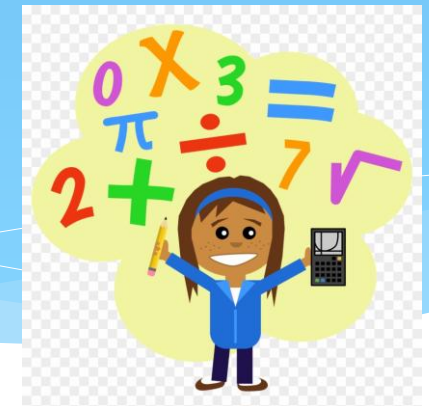# Welcome to our Maths workshop

Year 3 and Year 4

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

How is Maths taught at St Joseph's?

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

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

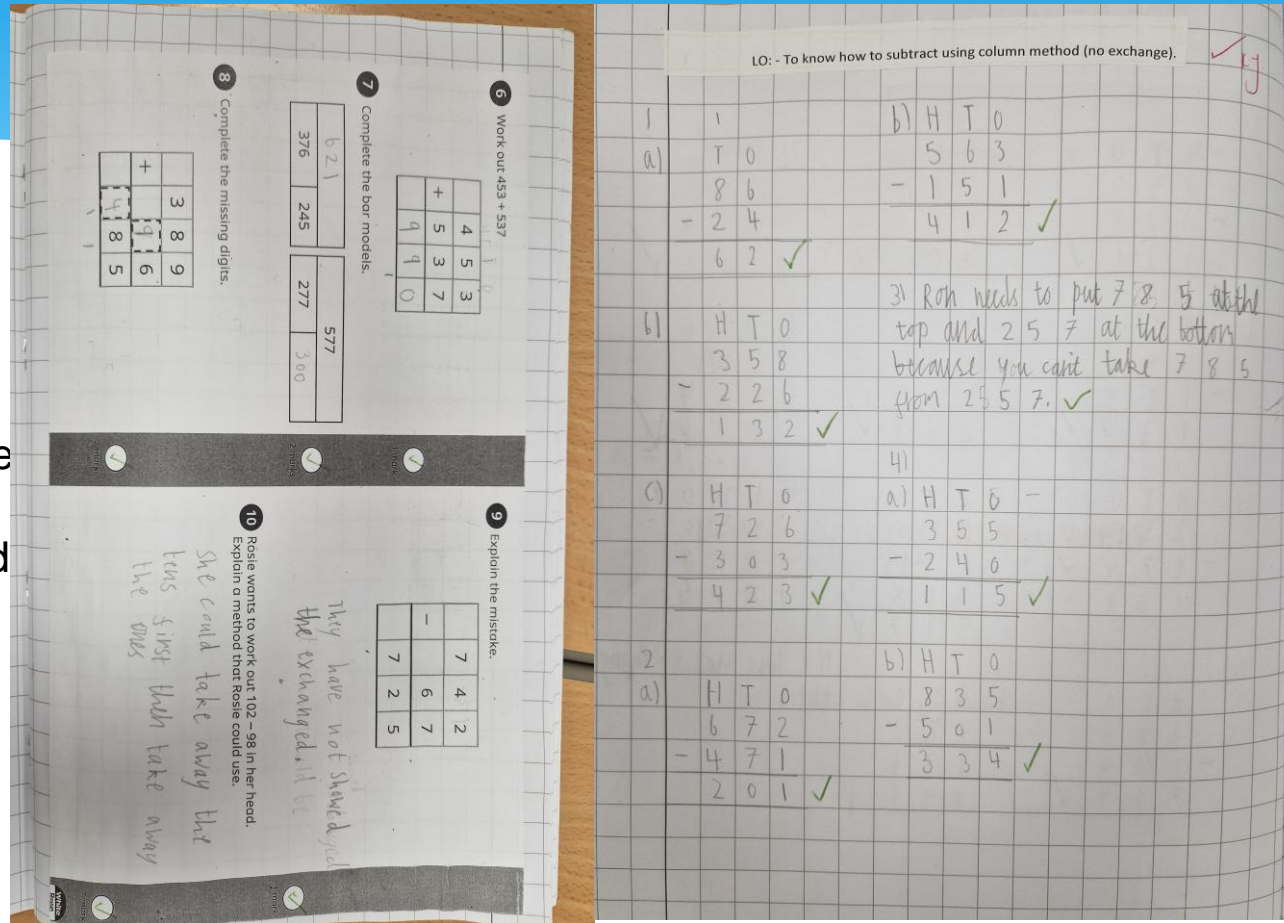To add and subtract mentally and scaling these by 10 e.g. 6 + 3 = 9, 60 + 30 = 90.

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.

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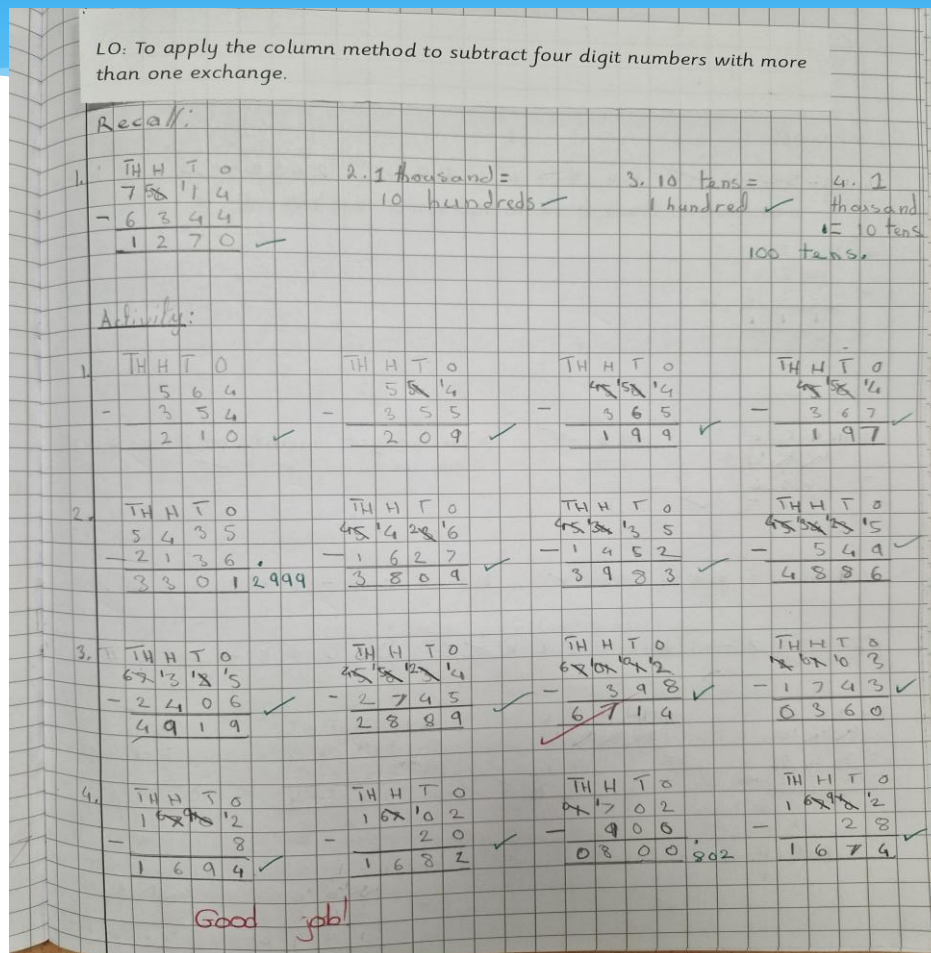
To confidently and securely know times tables facts, including the inverse up to 12x12

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.

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
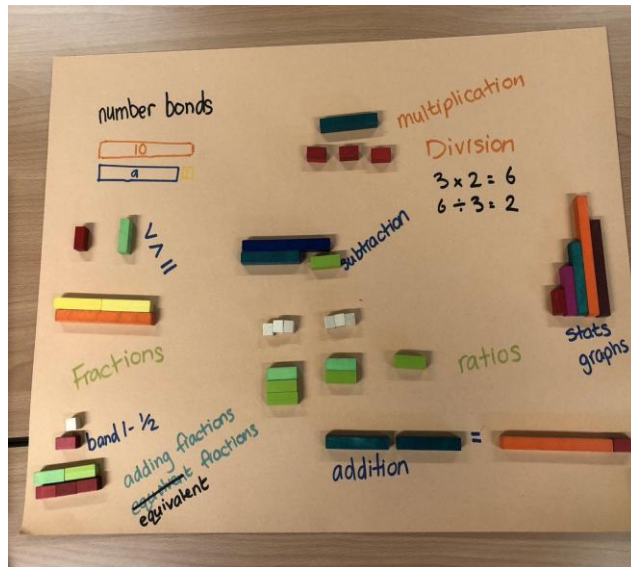
Concrete → Pictorial → Abstract

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).
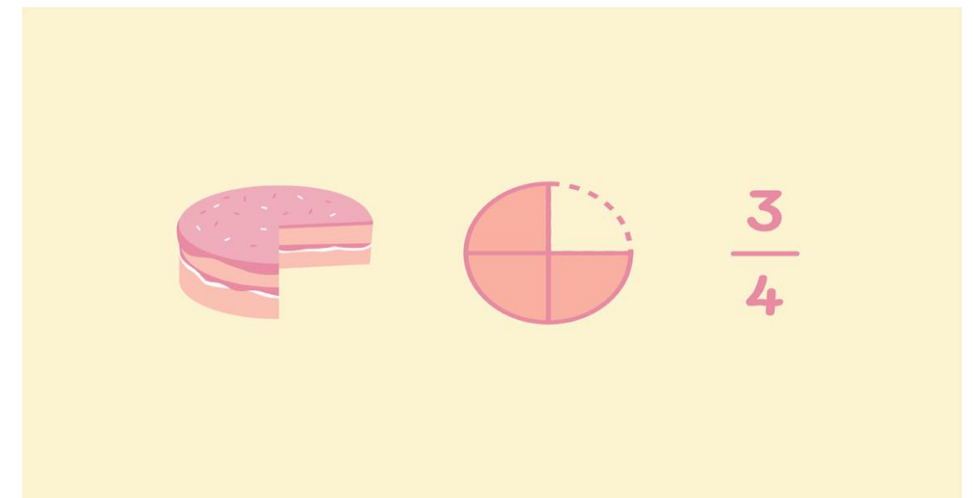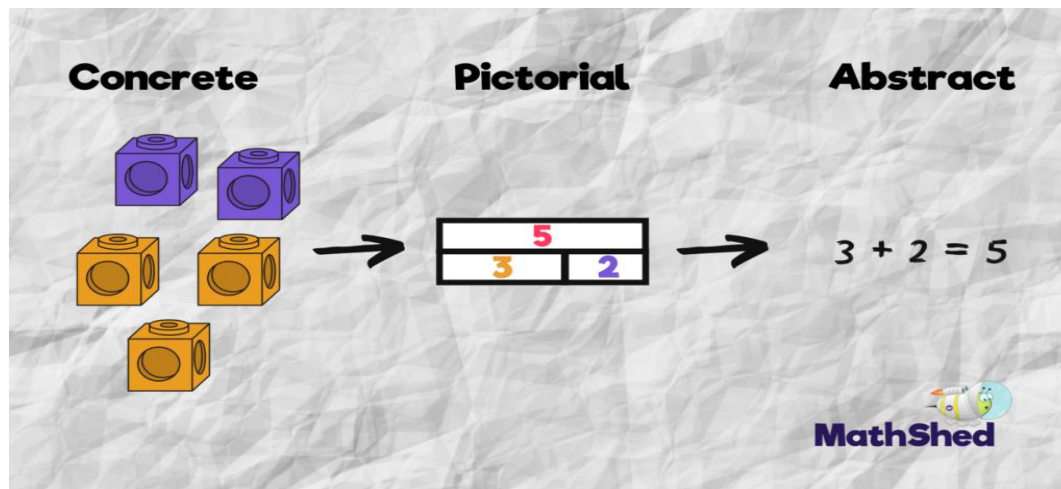
Questioning Children

Good questions, and equally important, good listening, can help children make sense of Mathematics, build their confidence, and encourage mathematical thinking and communication. A good question opens up a problem and supports different ways of thinking about it. Some questions to try while helping a child might include:

☐ What do you already know about this?
☐ What do you need to find out?
☐ How might you begin?
☐ How can you organise your information?
☐ Can you draw a picture to explain your thinking?
☐ Are there other possibilities?
☐ What would happen if …?
☐ What do you need to do next?
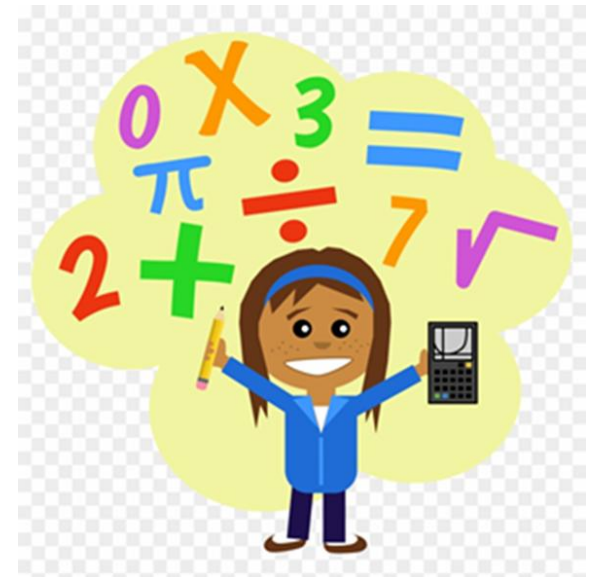
Reasoning and Problem Solving

- What is 'reasoning?'
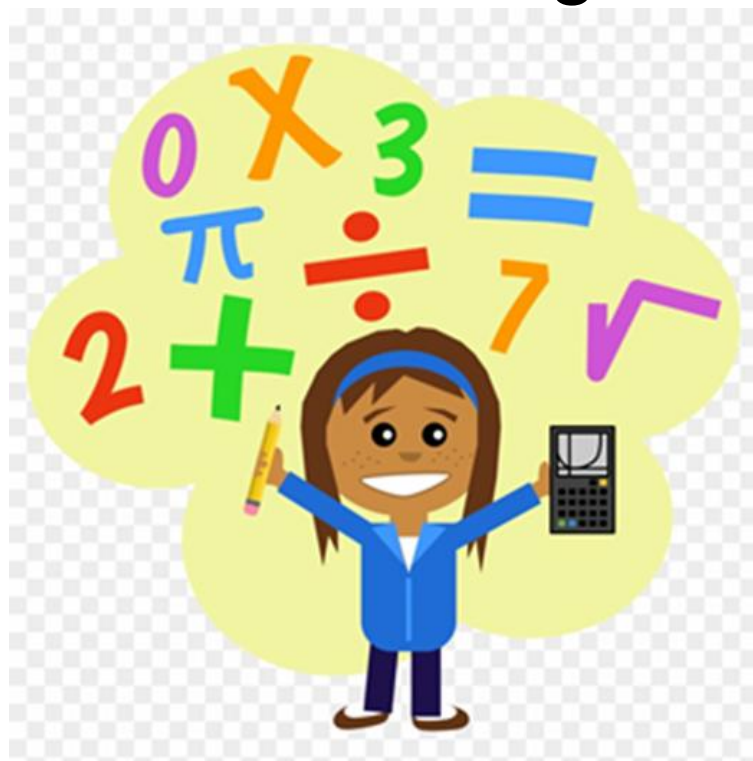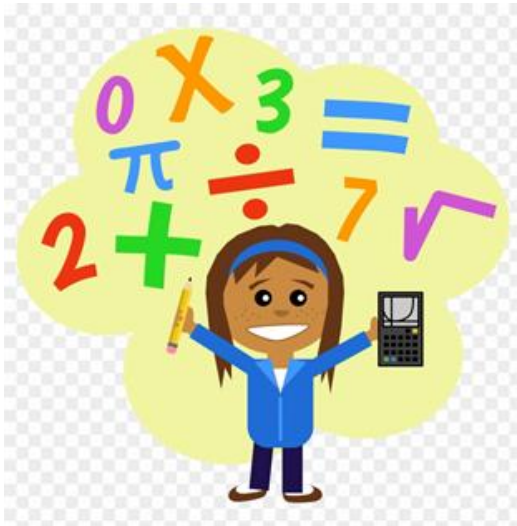
Reasoning is…The action of thinking about something in a logical, sensible way.

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 – TT Rockstars, MTC check, YouTube songs

- Number Bonds – Numbots, how do you form 10?

- Handling money

- Practising telling the time (analogue, digital, 24 hours)

- Recognising equivalencies – ½ is the same as 2/4

- Recognise basic 2D & 3D shapes.

- Key Instant Recall Facts – school website

Thank you for listening.
Any questions?

We hope that you enjoy the lessons this morning!
If there are any questions about Maths, Miss Duffy & Mr Drumm will be available in this hall at 10am.