Maths No Problem, A Mastery Approach.

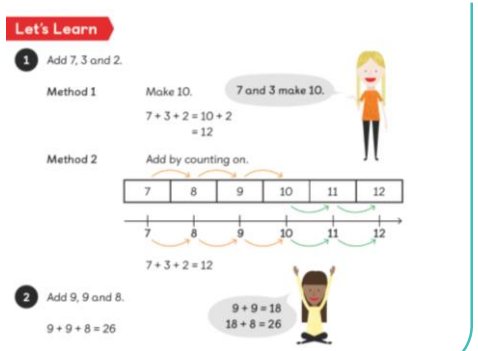
A guide to what Maths looks like at Marshside.

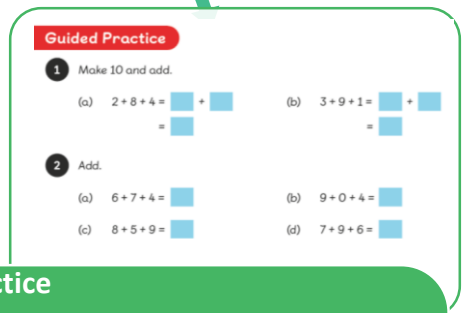
In Focus

Each lesson begins with an 'In Focus' task (with real life application where appropriate). Children often work in groups using concrete materials to solve the problem. The teacher then leads a discussion, using questioning to challenge and move learning forward.

Lets Learn

The class use 'Lets Learn' to look at various methods in more detail to solve the problem. The questions and examples are carefully varied by expert authors to encourage pupils to think about the maths. The examples are designed to deepen pupils' understanding and reveal misconceptions.





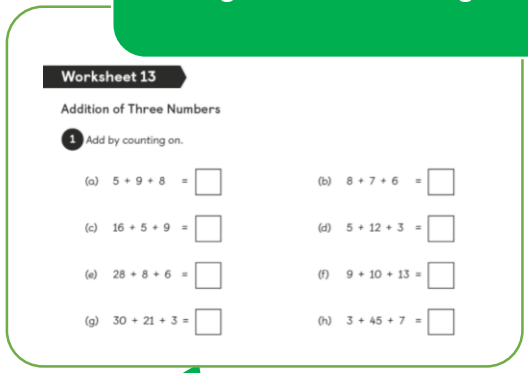
Guided Practice

An opportunity for children to work through strategies learnt in the previous parts of the lesson with support where needed. Children are to move to using a pictorial and abstract approach when ready. Recording in Math's Journals when appropriate. Concrete Pictorial Abstract (CPA) Approachmeans pupils learn new concepts initially using concrete examples, such as counters, then progress to drawing pictorial representations before finally using more abstract symbols, such as the equals sign.

Workbook

Children complete their workbook tasks independently.

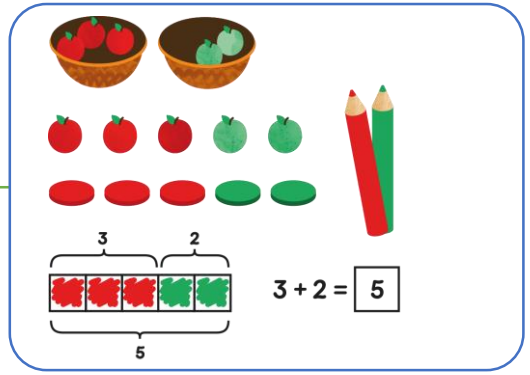
For advanced learners, the workbooks contain non-routine questions for pupils to develop their higher-order thinking skills.



Lesson Structure

Key Components

Concrete, pictorial, abstract approach

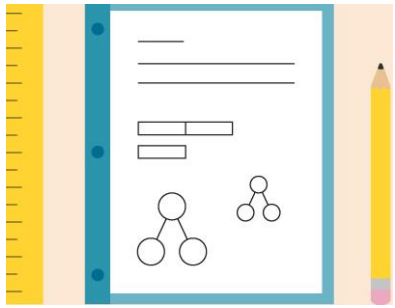


The CPA approach builds on children's existing knowledge by introducing abstract concepts in a concrete and tangible way. It involves moving from concrete materials, to pictorial representations, to abstract symbols and problems.

Paired / Group Talk

Children are provided with the opportunity to talk in every lesson. This is to develop their mathematical vocabulary, reasoning and justifying skills. Paired and group discussions allow time to explore concepts, share ideas and learn from each other.

Journaling



Children use maths journals to record their mathematical responses using pictures, diagrams, and writing. Expressing themselves like this develops their mathematical language and helps them verbalise their thinking. They can start to make deep connections between areas of learning.

Challenge

Questioning for depth:

What is the same / different?

Can you group these [ ] in some way?

Can you see a pattern? How can it help you find an answer?

What do you think comes next? And why?

What would happen if…?

Is there another way?

All children have key strengths in maths. Our teaching is adapted to meet those strengths on a lesson by lesson basis. Challenge is achieved via depth of thinking through solving new problems, adapting to new situations, finding patterns and modelling real-life situations.