Maths at Witchampton C of E First School

Information Evening

MATHS NO PROBLEM!

WIMBORNE Academy Trust

Aims for this session

1. Understand our approach to teaching Maths.
2. Understand the format of a typical lesson.
3. How you can help at home.

National Curriculum

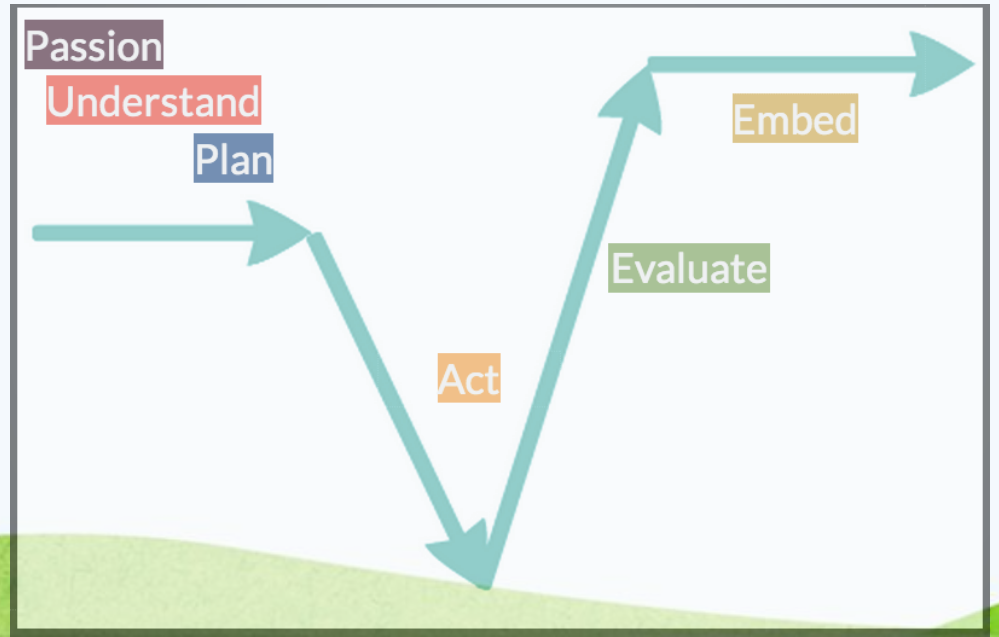
Mathematics programmes of study state that:

- Fluent
- Varied and frequent practice
- Recall and apply their knowledge rapidly and accurately
- Same pace
- Readiness to progress
- Rapid graspers – rich problems not accelerate through content
- Additional practice if needed

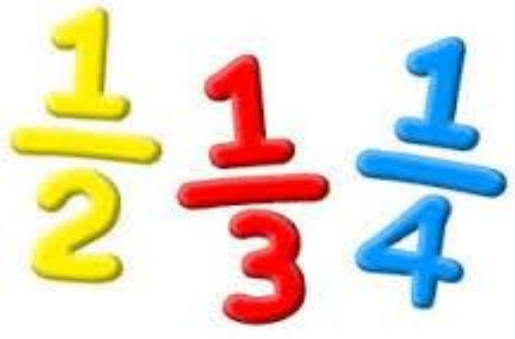
A Mastery Curriculum

It is better to solve 1 problem in 5 different ways, than solve 5 different problems the same way.

Developing positive attitudes to mathematics is an important goal of the school maths curriculum.



CPA approach

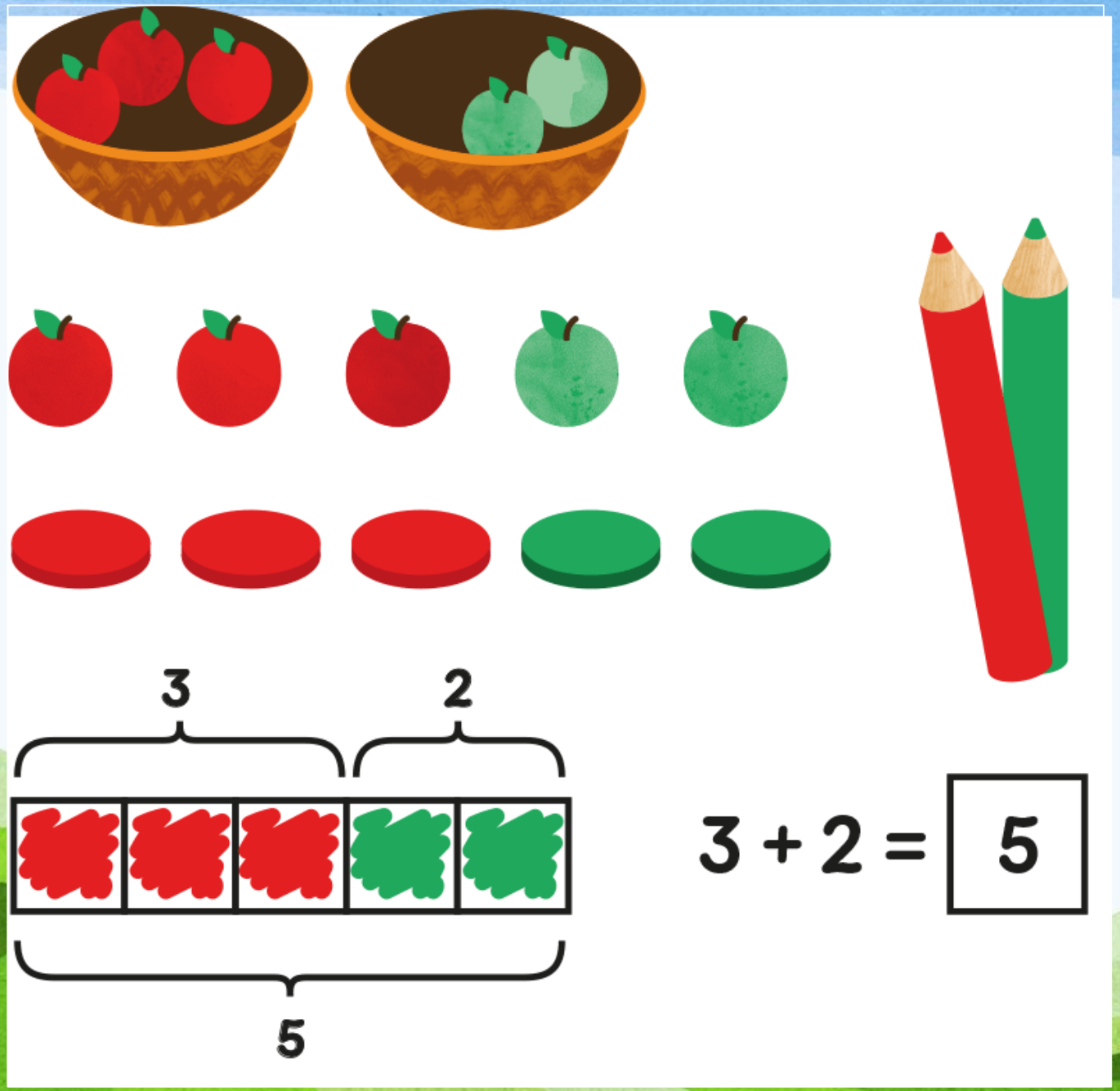


Concrete ➢ Pictorial ➢ Abstract

Video:

https://www.youtube.com/watch?v=c4qUoOMcmKI

CPA Approach Explained | Learn the Concrete, Pictorial, Abstract Method



Concrete experiences

Access to hands-on resources to manipulate in many ways to solve the problem.

Making Number Bonds

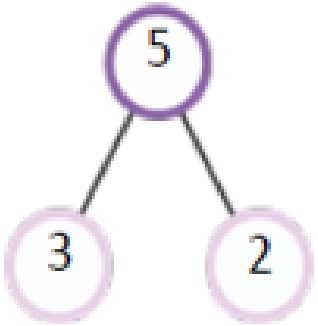
Lesson 1

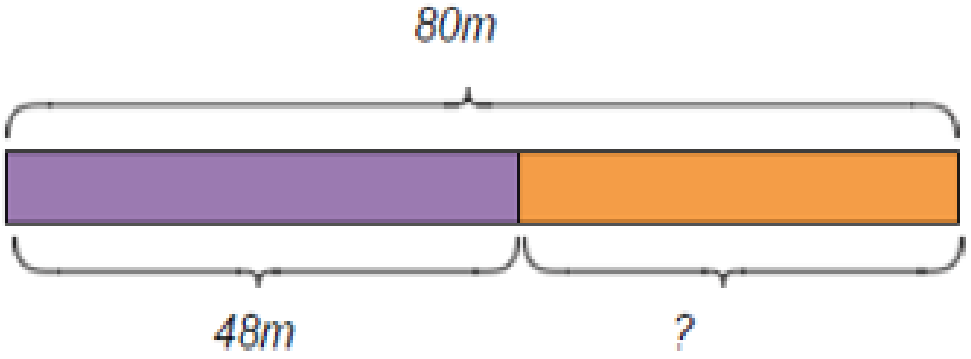
In Focus

How many cupcakes are there on each plate?
Is there another way to put the cupcakes on the two plates?

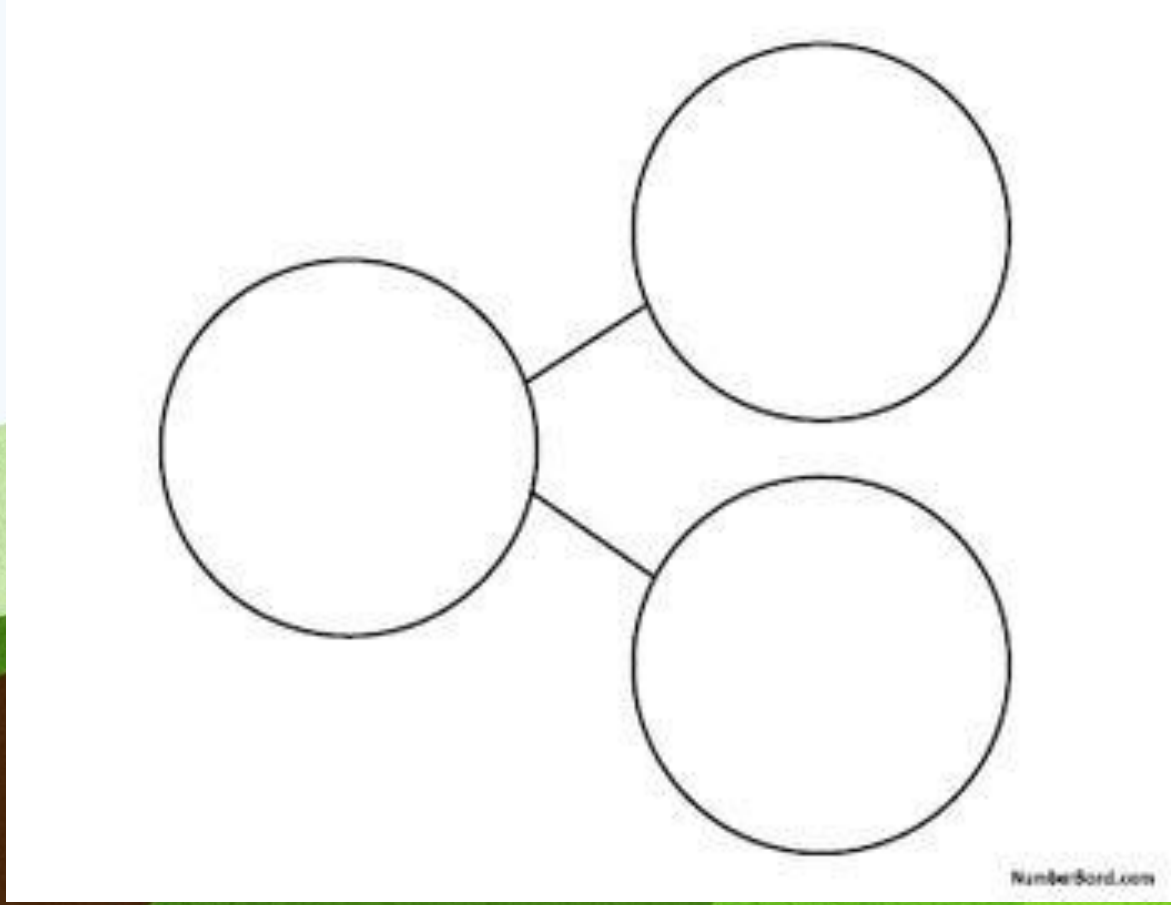
Pictorial representation

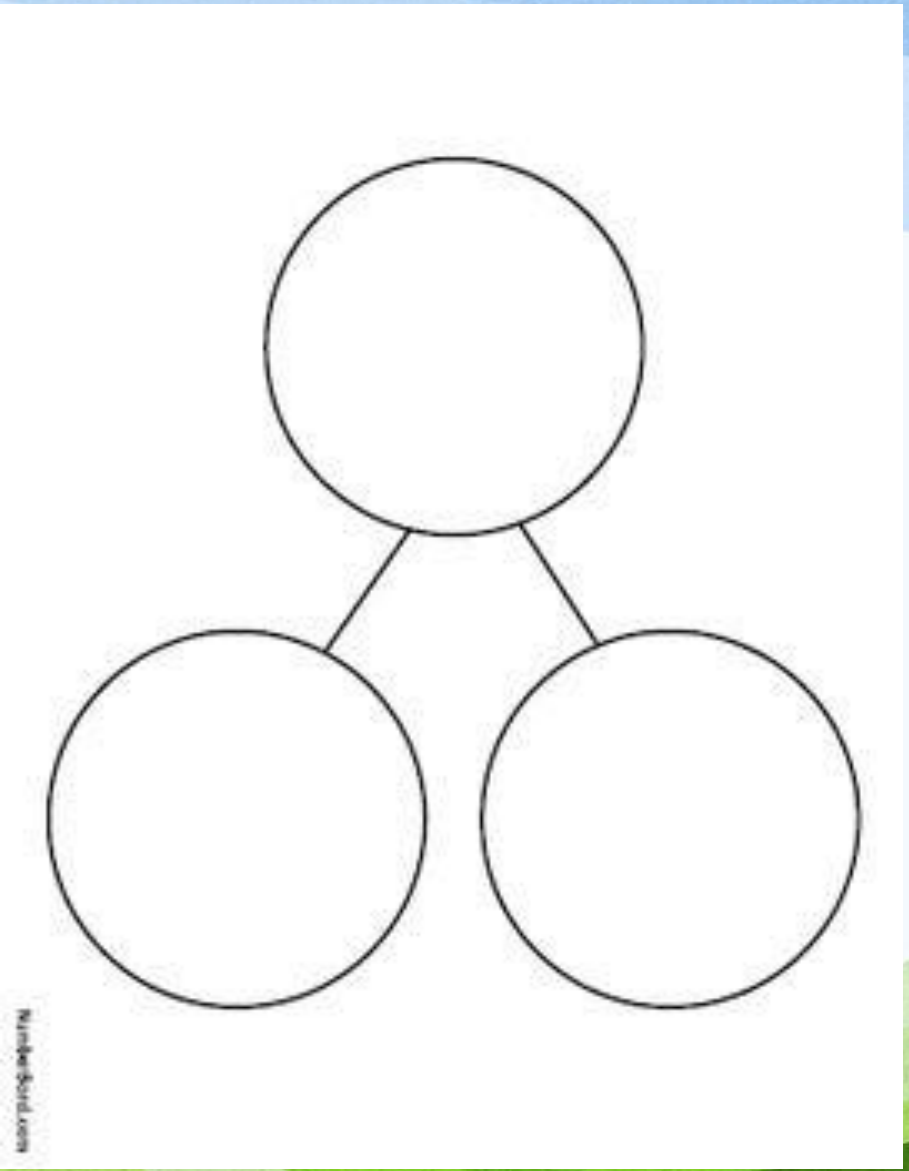
When a child has sufficiently understood the hands-on experiences performed and can now relate them to representations, such as a diagram or picture of the problem.





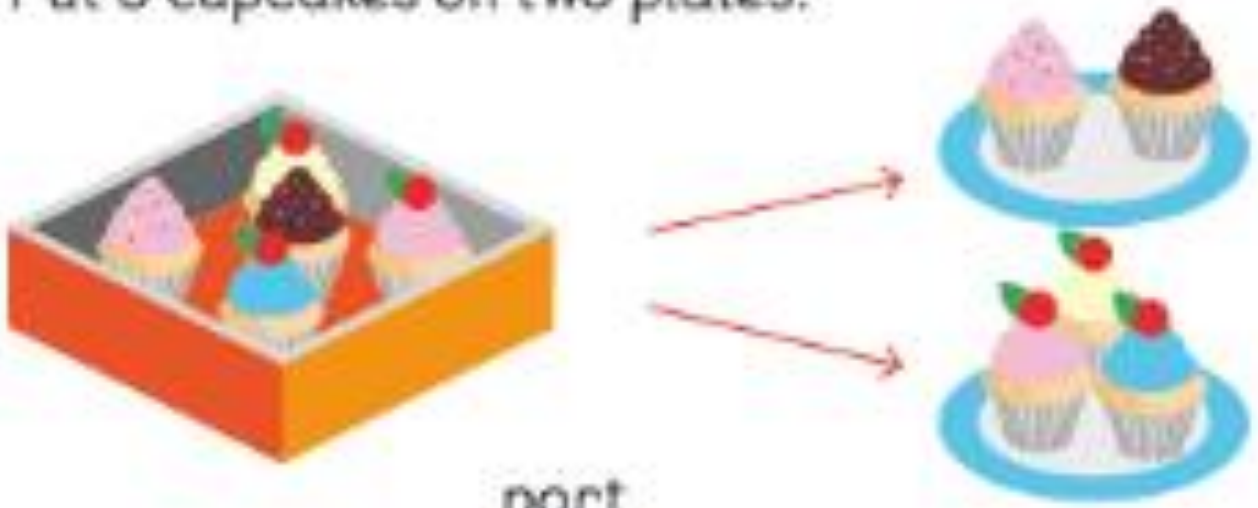
Part-part whole

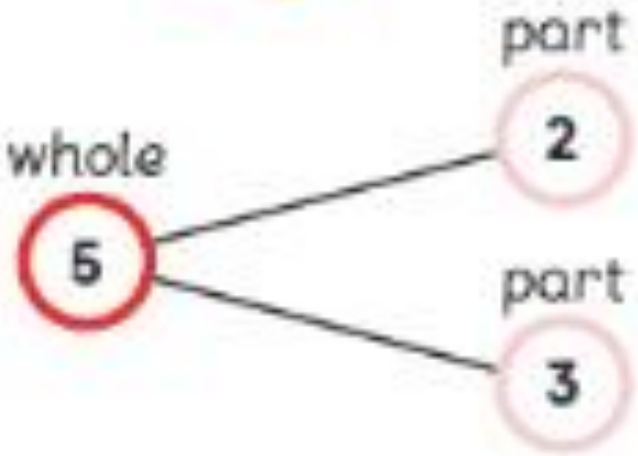




Let's Learn

1 Put 5 cupcakes on two plates.

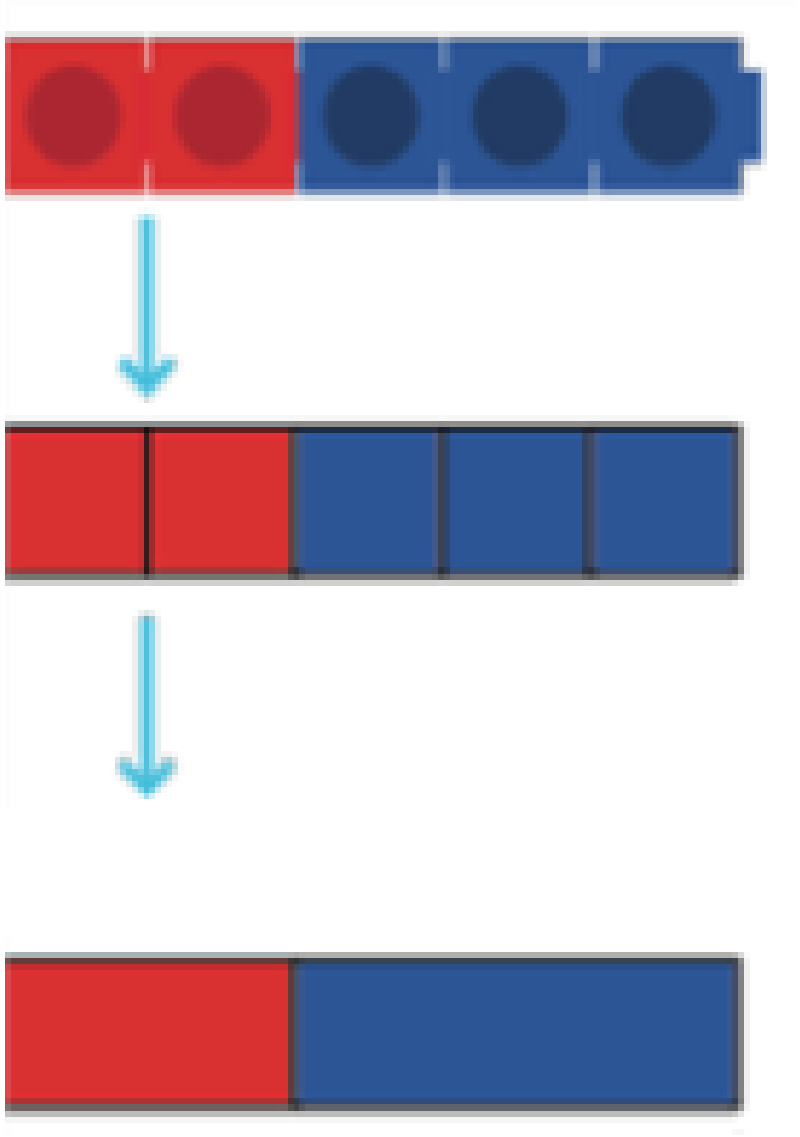




2 and 3 make 5.

This is a number bond.

Bar Model



$2 + 3 = 5$

Bar Model

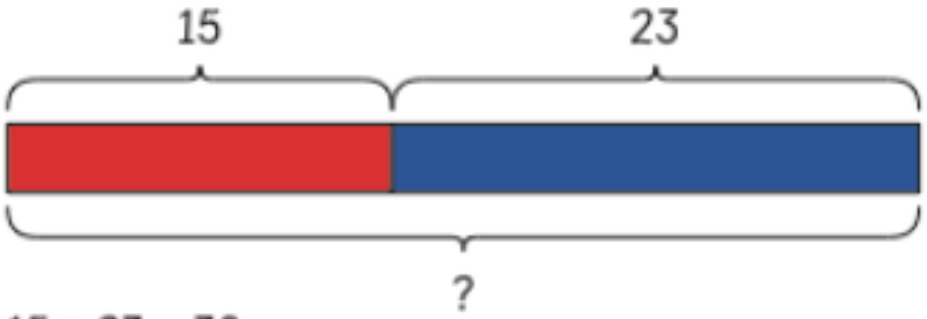
Transition to the bar model

2

has 15 pencils.

has 23 pencils.

How many pencils do they have altogether?



15 + 23 = 38

They have 38 pencils altogether.

	T	O
	1	5
+	2	3
	3	8

Abstract representation

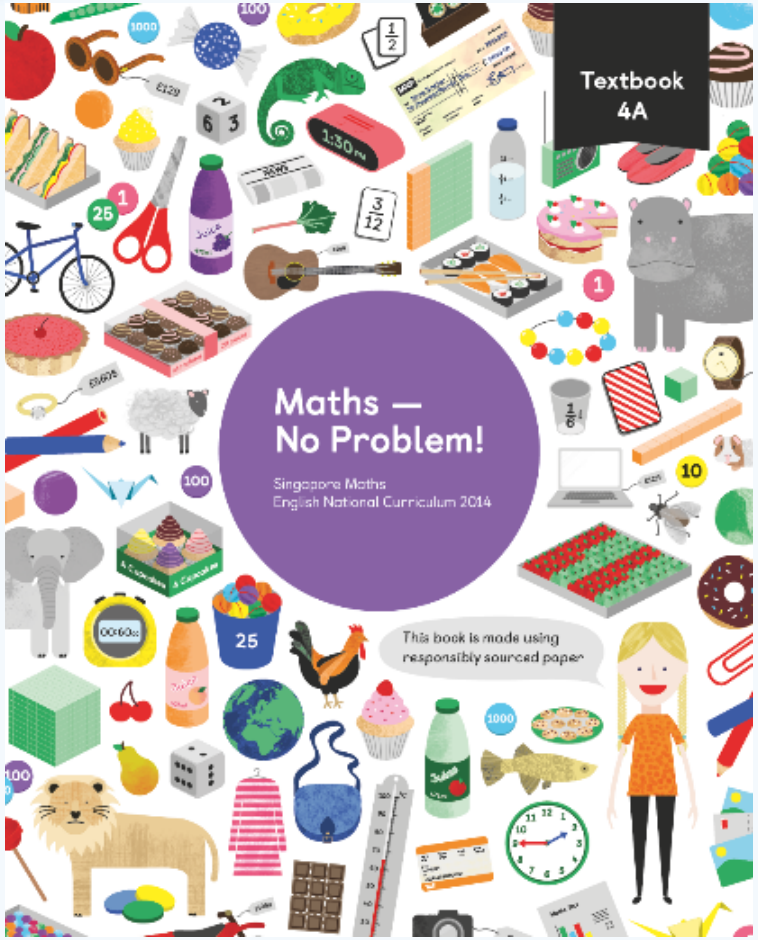
Abstract refers to symbolic representations such as numbers or letters that the child writes or interprets to demonstrate understanding of a task. Writing mathematical language in words and in symbols.

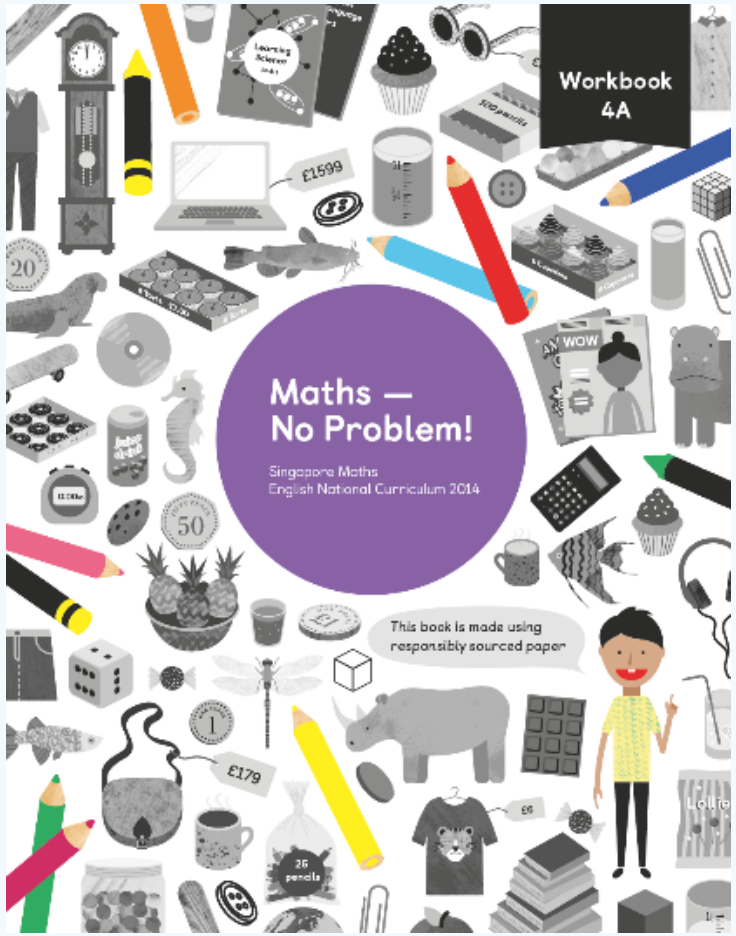
2 + 3 = 5
4 + 1 = 5
0 + 5 = 5

(c)

	3	2	3	7
+	4	5	2	8

MATHS NO PROBLEM!





How lessons are taught

FLUENCY of previously learnt content / skills

Concepts merge from one chapter to the next. Chapters are broken down into chunks called lessons.

Lessons are typically broken into three parts and can last one or more days.

Pupils master topics before moving on.

The Three Parts

1. **<u>In Focus</u>**

The entire class spends a long time on one problem guided by the teacher.

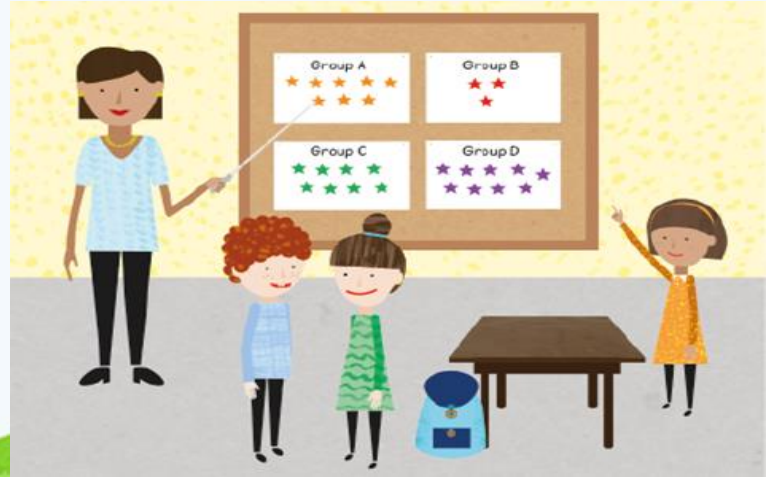
1. **<u>Guided Practice</u>**

Practise new ideas in groups guided by the teacher.

Smaller steps are easier to take!

1. **<u>Independent Practice</u>**

Practise on your own.



Number Bonds

Chapter 2

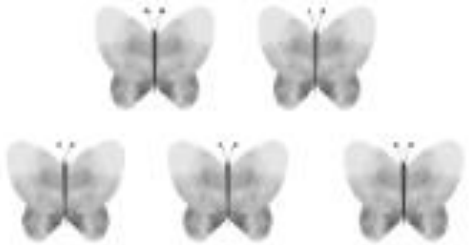
Name: _____ Class: _____ Date: _____

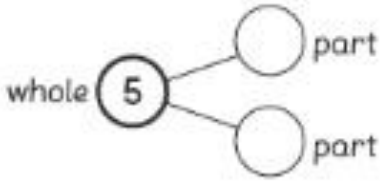
Worksheet 1

Making Number Bonds

1 Complete the number bonds.
Fill in the blanks.

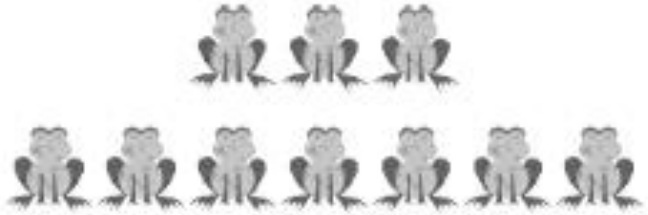
(a)

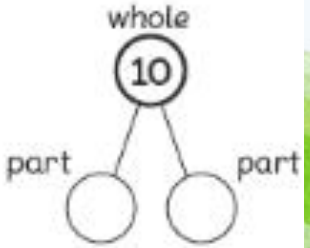




☐ and ☐ make 5.

(b)





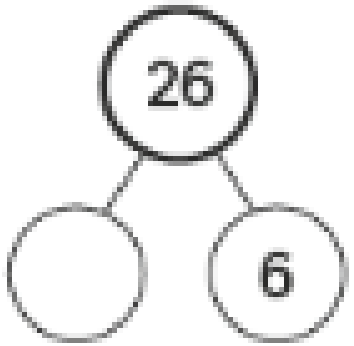
☐ and ☐ make 10.

(b)

Year 2

5 Complete the number bonds.

(a)



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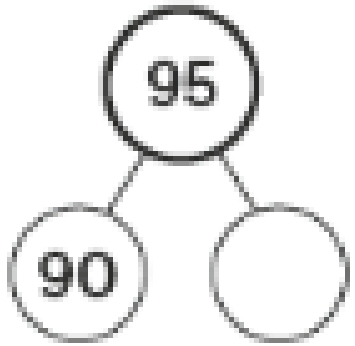

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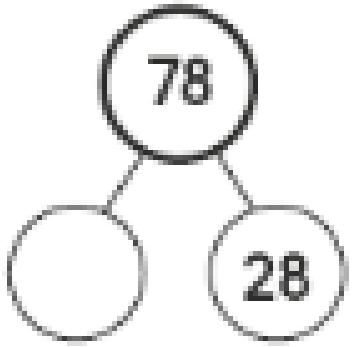
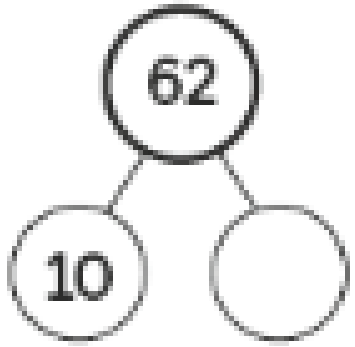
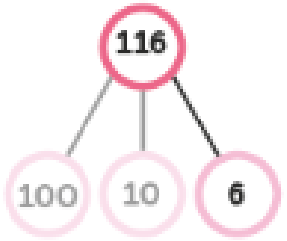


(d)



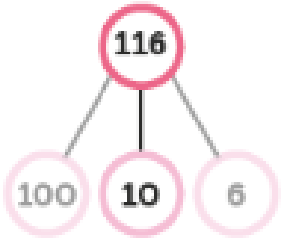
Year 4

2 116 × 6 = ☐



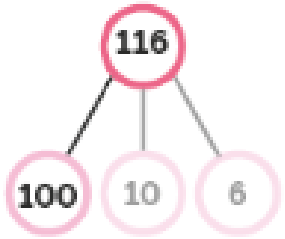
	1	3 1	6
×			6
			6

36
3 tens 6



1 ten × 6 = 6 tens
6 tens + 3 tens = 9 tens

	1	3 1	6
×			6
		9	6



	1	3 1	6
×			6
	6	9	6

1 hundred × 6
= 6 hundreds

116 × 6 = 696

Struggling learners

In each lesson we think about the children who find it more difficult to learn in Maths.

We give them many opportunities to work with resources, (e.g. counters, dienes, place value counters etc.), time to talk and discuss and guided adult Support. Peer to peer support.

Modelled mathematical language.

Children need time and space to accommodate learning.

Fluency

Deeper learning (advanced)

In each lesson we challenge children who learn more quickly and may already know the learning. We deepen the learning through challenging the children to explain, orally and pictorially, finding various different possibilities, justifying and giving reasons.

This develops their **metacognition**; an ability to articulate their learning and reflect on mathematical concepts. We are developing an approach which illustrates it is less useful to have a large amount of content but more useful to **deepen thinking**.

Historically, we have accelerated learning by moving children on to larger numbers and given new content. The curriculum is now an enrichment model to develop metacognition.

Challenges.

Impact

- All classes are receiving a practical and well-pitched curriculum;
- Practice is consistent across year groups;
- Children are confident to explain their answers.
- Knowledge is embedded through deeper learning
- Children make connections so easier to learn new concepts
- Children take ownership of their own learning
- Learning from each other

How can you help at home?

- Be positive about maths
- Practise times tables
- Practise number Bonds (10, 20, 50, 100)
- Use maths with your child in daily life (numbers, amounts, money, shape, time, measures, patterns, fractions)

Further Information and Help at Home

- A series of parent videos are available which explain the way in which we teach key concepts.

https://mathsnoproblem.com/en/parent-videos/

A Thought to Finish…

Good mathematics is not about how many answers you know…

It's how you behave when you don't know.

~ Author unknown

Thank you for your time.

Feel free to have a look through the books and resources at the back and talk to teachers.