



Manor Farm Community Infant School
'Inspire Maths' Information Evening
February 2018

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Since September 2017, Manor Farm Infants have introduced a new Maths scheme called Inspire Maths. We have already noticed the positive impact it has had on the children's engagement and enthusiasm for learning maths. This handout will provide more information about the changes to the way your child will be learning maths, and how to support them at home.

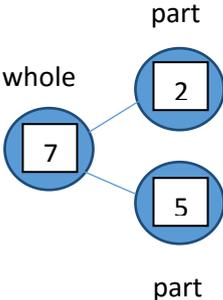
Background Information

Inspire Maths is a transformational, whole-school primary maths programme based on the leading Singapore Maths series, My Pals are Here, used in 100% of Singapore's state primary schools. Singapore being the number one in the world for maths. It comprises of :-

- Accessible pupil textbooks introduce concepts in a highly scaffolded way, enabling all children to develop critical thinking skills, make mathematical connections and become confident mathematicians
- Builds on a concrete - pictorial - abstract approach, ensuring secure foundations and deep understanding of mathematical concepts
- Uses a spiral progression to develop fluency, reasoning, and problem solving and conceptual understanding for mastery

The Concrete – Pictorial – Abstract (CPA) Approach

Inspire Maths uses the CPA approach to help children achieve secure number sense – that is, a sense of what numbers really represent and how to use them mathematically. This is done through a series of carefully structured representations to create a deep conceptual understanding.

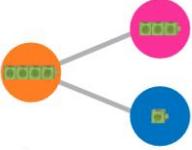
Representation	Description	Example
Concrete:	Physical objects, things you can pick up and move, for example cubes, dice, counters, shells, pebbles, straws.	
Pictorial:	A picture or diagram to represent mathematics (printed in books or drawn).	
Abstract:	Numbers (1,2,3,4, etc.) and symbols (+, -, x, ÷, =).	<p>$5 + 2 = 7$</p> <p>How many are there in each group?</p> <div style="text-align: center;">  </div> <p>2 and 5 make 7.</p>

Addition and Subtraction using the Part Whole Concept

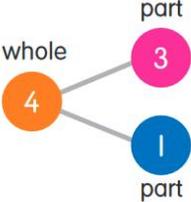
Here is the part whole concept used in Inspire Maths. It works on the idea that adding two or more numbers gives another number. Also, it works on the principle that if you know two numbers out of three in a calculation, you can calculate the missing value using addition or subtraction.

- I a** You will need .
Put the cubes into two groups.

Example

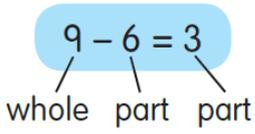


How many are there in each group?



3 and 1 make 4.

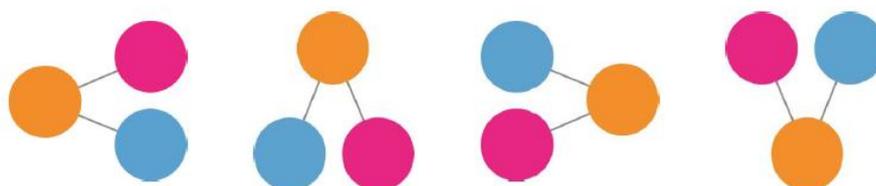
Subtracting is associated with the part-whole concept.



– is called **minus**.
It means **subtract**.



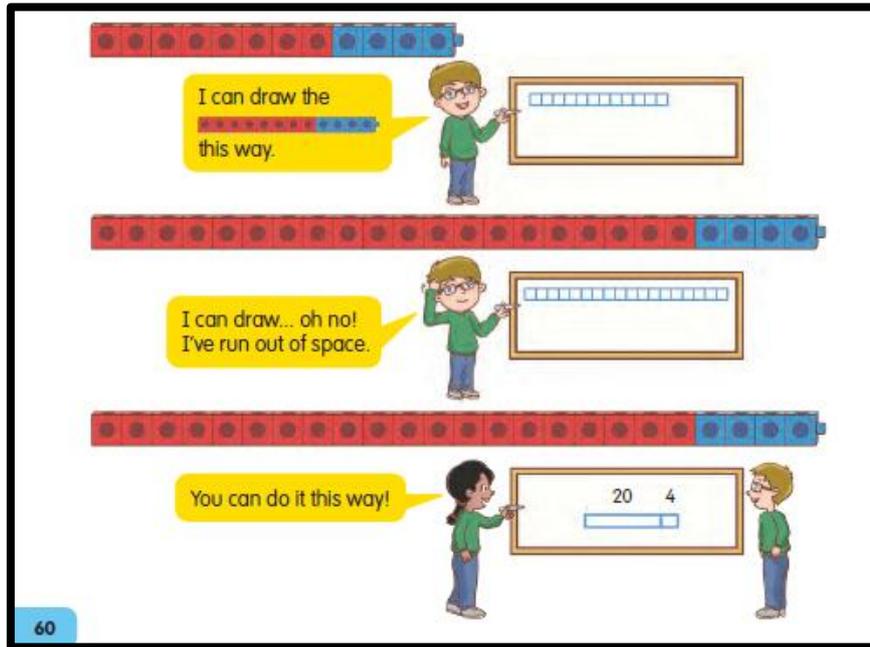
$9 - 6 = 3$ is a **subtraction sentence**.
It says **nine minus six equals three**.



The part whole model can be orientated differently for both addition and subtraction problems.

Bar Modelling and Problem Solving

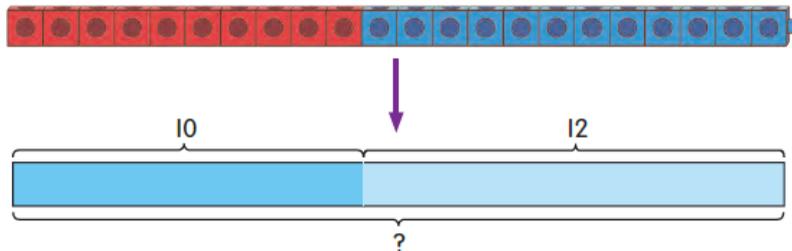
Bar modelling is a valuable problem solving tool. The bar model is a step-by-step method that helps children to understand and extract the information within a calculation or word problem into a picture. The approach helps children process the information given in the problem, visualise the structure, make connections and solve the problem.



Simple word problems (I)

Adding sets of objects

- 1 Omar bakes 10 biscuits.
Ruby bakes 12 biscuits.
How many biscuits do they bake altogether?



$$10 + 12 = 22$$

They bake 22 biscuits altogether.

How you can help your child - Language and Communication

Encourage mathematical conversations at home to apply mathematical concepts to daily life. Use everyday situations, such as a shopping trip or a trip to the park, as opportunities to talk about maths and develop your child's mathematical language.

When completing homework, encourage your child to explain their mathematical thinking using full sentences and correct mathematical vocabulary. They can even draw pictures and models to answer questions.

Encourage them to find lots of different words to say the same thing. For example, ask your child what they know about a particular number.

Here are some facts about 12:

- It is an even number.
- It comes after 11 and before 13.
- I can write it in numbers and words.
- I can make it using 1 ten and 2 ones.
- It is a 2-digit number.
- It is 2 more than 10 and 3 fewer than 15.
- The sum of 7 and 5 is 12.
- It has 6 factors.
- It is half of 24, a third of 36, a quarter of 48, a tenth of 120.
- It is double 6.
- It is the product of: 3×4 , 4×3 , 2×6 , 6×2 , 1×12 and 12×1 .
- The sum of the digits in 12 is 3.

Oxford Owl Maths - help for parents supporting their children with mathematics

The link below is from Oxford Owl Maths and free for parents to access.

<https://www.oxfordowl.co.uk/for-home/advice-for-parents/maths-at-home/>

These resources are designed to support you with your children's maths throughout their primary years. You'll find a whole host of activities, simple ideas, top tips and eBooks to help your child with their maths at home.

There are lots of ways to help to build your child's confidence in maths. There are many fun games and activities you can do with your child that practise maths skills. Most children love playing games and it's an easy way to support their learning.

On Oxford Owl Maths, you'll also find advice from educational experts on what your child is learning at school and how to make maths fun at home.



Please come and speak to your child's teacher if you have any further questions or would like to know more.