

Concrete - Pictorial - Abstract

Concrete: Things you can pick up and move, for example, dice, counters, shells, pebbles, straws...

Pictorial:

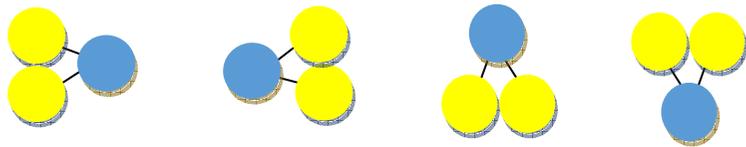
A picture to represent mathematics, such as a calculation (printed in books or drawn)

Abstract:

Numbers 1, 2, 3, 4 and symbols +, -, \times , \div , $<$, $>$, = etc.

Part whole model

If you know two values, you can always find the third.



Vocabulary

Find lots of words to say the same thing, e.g. add, more, increase, plus...

Problem solving

Problem solving usually involves the bar model.

Answer the question using full sentences.

Bar modelling

The bar model is usually used when solving problems. It is a new to most parents and children in the UK.

How you can help:

Ask your child what they know about a particular number...

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 one ten and two ones
- It is a two-digit number
- It is two more than ten and 3 fewer than 15
- The sum of 7 and 5 is 12...
- Five fewer than seventeen is twelve
- It has six 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 , 12×1
- The digital sum of 12 is 3, etc...

Encourage your child to answer word problems using full sentence.

Support your child finding missing number problems

Encourage your child to know that = is equivalent and not the answer?

Bar modelling

- Read the problem.
- Write a sentence for the answer leaving a gap where the answer will go.
- Think about what is being asked and which model supports the question.
- Draw the bars.
- Partition or chunk the bars and note which section represents the answer.
- Discuss the question and think about what is being asked.
- Write the answer in the sentence and check that the answer makes sense.
- Is there another way to draw the model and represent the question?
- What further questions could you ask using the model as a prompt?

Singapore approach to mathematics (Inspire Maths)



Some key points to remember from today's workshop

Using bigger numbers doesn't mean your child is better at maths.

We want your child to understand how numbers work and be flexible mathematicians.