

Supporting your Child in Maths



Welcome

Introductions

Purpose of today:

End of year expectations

Concrete, Pictorial, Abstract approach

How to support your child at home

Big Maths

Singapore Maths

Reception– end of year expectations

Number (including calculations)

- Children count reliably with numbers from 1 to 20.
- They place them in order.
- They say which number is one more or one less than a given number.
- Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.
- They solve problems, including doubling, halving and sharing.

Shape, Space and Measure

- Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.
- They recognise, create and describe patterns.
- They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Year 1 – end of year expectations

Number (including calculations)

- Count in 2s, 5s and 10s
- Read and write numerals to 100
- Read and write numbers to 20 in words.
- Add and subtract in tens and ones using practical resources
- Addition and subtraction facts to 20
- Multiply and divide using concrete objects and pictorial representations
- Find halves and quarters.

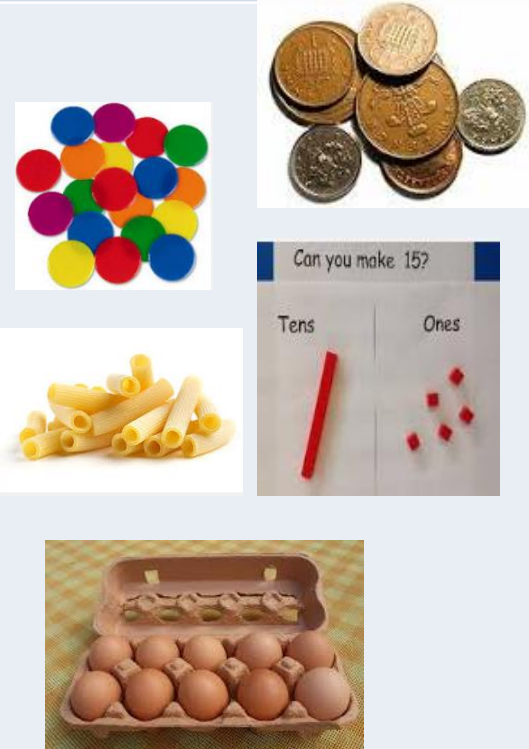




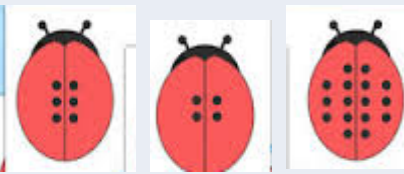
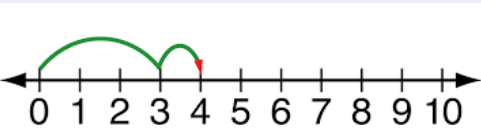
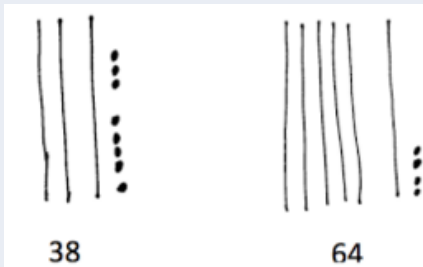


Shape, Space and Measure

- Compare, describe, measure and record weight, height, capacity and time.
- Read and write the time on an analogue clock (half past and o'clock).
- Use language relating to dates and sequence events.
- Recognise coins and notes.
- Recognise and name common 2D and 3D shapes.

Problem Solving

- Solve problems involving numbers, money and measures using concrete apparatus.

CPA approach

Concrete	Pictorial	Abstract				
<p>Enactive stage- Children have hands-on experiences with real objects.</p>	<p>Iconic stage – Children use representations, such as diagrams or pictures.</p>	<p>Symbolic stage – Children visualise ideas and represent problems by using mathematical symbols.</p>				
 <p>Can you make 15?</p> <table border="1"><tr><td>Tens</td><td>Ones</td></tr><tr><td></td><td></td></tr></table>	Tens	Ones			   <p>38 64</p>	<p>$3 + 7 = 10$</p> <p>$7 + 3 = 10$</p> <p>$15 - 6 = 9$</p> <p>$20 \div 4 = 5$</p> <p>$80p + 20p = \text{£}1$</p>
Tens	Ones					
						

How to support your child at home

- Counting
- Numbers
- 4 calculations (addition, subtraction, multiplication & division)
- Shape, space and measure
- Problem solving

Counting

Different Approaches

- Count by rote
- Use physical objects
- Move objects while counting one at a time

- Encourage your children organise their object (in a line, in groups...)
- When confident point without moving
- Count on and count back from any number

Counting

How can you practise with your child at home?

Counting in 1s

- Steps
- Objects the kitchen
- Toys
- Food in the cupboard
- People
- Cars of particular colours
- Books
- 1p or £1 coins

Counting in groups

- Pairs of socks (2s)
- Count sets of hand, feet, fingers (2s, 5s, 10s)
- Group objects in cups, pots, elastic bands
- Count 2p, 5p, 10p coins
- Sing it, clap it, make it rhythmical
- Take turns saying one number each
- Use different sounds/actions for each multiple



Numbers

!! 12 20
Fifteen thirteen
-ty -teen

Reading and Writing Numbers

Remember: there are numbers everywhere!



Practise writing numbers



role play



Numbers

Understanding Place Value

Partitioning numbers into tens and units.



12p

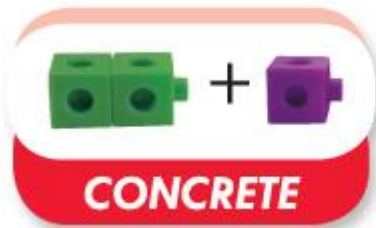


24p



Calculations - Addition

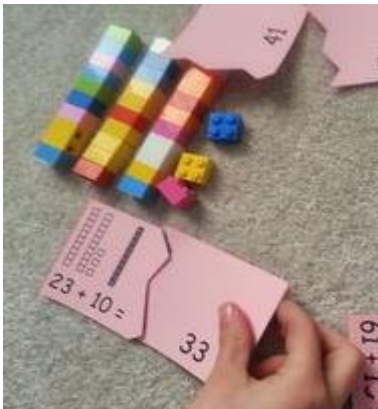
- Stories about adding
- Counting in 1s
- Number lines
- Counting on from the biggest number
- Counting the tens and then the units
- Using known number facts (2+3=5 so 20 +30=50)
- Vocabulary : add, and, more, altogether



Calculations - Addition

How can you practise with your child at home?

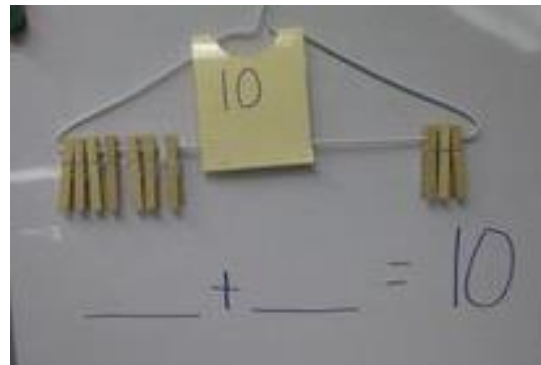
altogether



add



How many more?



and

Calculations - Subtraction

- Subtraction stories
- Take away objects, then count how many are left
- Cross out pictures, then count how many are left
- Number lines
- Counting backwards
- Take away from the units and then add on the tens

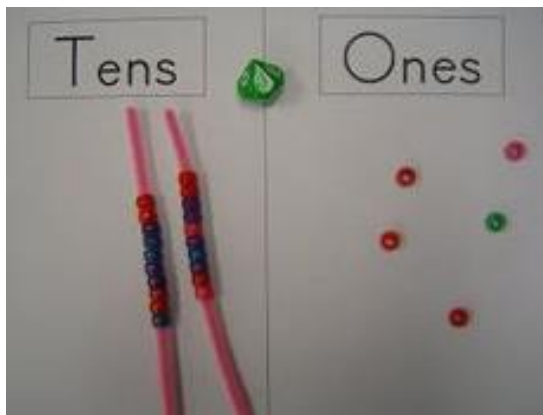
$$\begin{array}{r} 25 - 14 \\ \hline 20 \quad 5 \quad 10 \quad 4 \end{array} \quad \begin{array}{l} 20 - 10 = 10 \quad 5 - 4 = 1 \\ 10 + 1 = 11 \end{array}$$

- Use known addition facts e.g. $9 + 1 = 10$, so $10 - 9 = 1$
- Vocabulary : take away, subtract, minus, less ,how many left

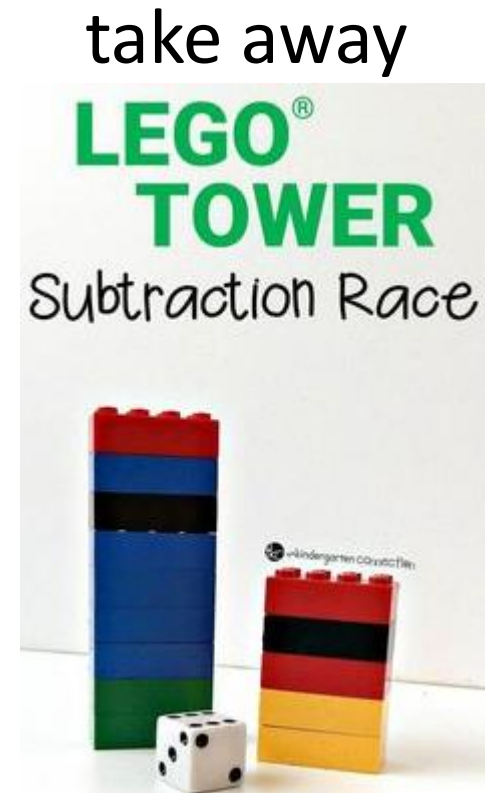
Calculations - Subtraction

What concrete resources can you use?

How many less ?



subtract



minus



PLAY DOUGH
SUBTRACTION SMASH



Activity Time !



Mathematical skills:

- Counting
- Problem solving
- Addition
- Doubles
- Number bonds
- Related addition and subtraction facts

Calculations - Division

- Stories about sharing objects
- Emphasise that the objects need to be shared equally
- Share objects one at a time

Fractions

- Cut or fold shapes in halves or quarters
- Emphasise that each piece must be the same size

Calculations - Division

divide

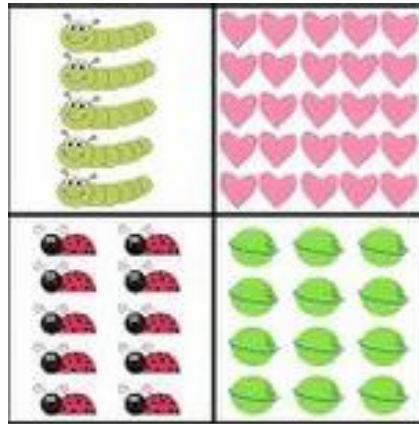


share



Calculations - Multiplication

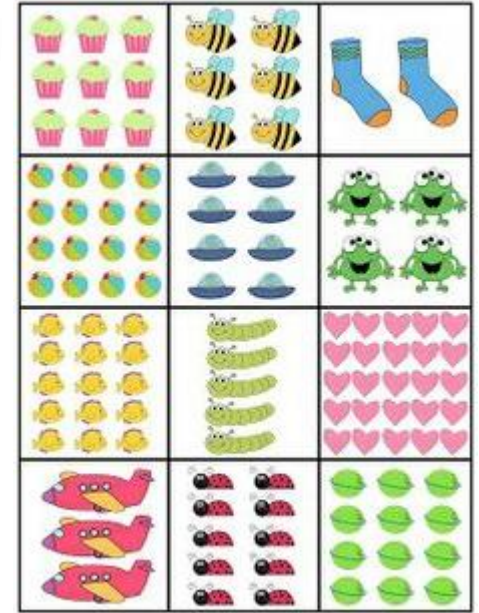
- Stories involving multiplication.
- Create groups of 2, 5 or 10 objects
- Count how many altogether
- Count in 2s, 5s, 10s
- Make arrays



- Vocabulary: Groups of, lots of, packets of, rows of

Calculations - Multiplication

groups of



sets of



lots of



rows of

Shape, Space and Measure

- Talk about time, look at clocks and calendars, discuss what happened yesterday
- Go on shape hunts
- Look at money and prices in shops
- Bake together – weigh out ingredients
- Compare weights, heights, lengths and capacity
- Play with water/sand and different sized cups and containers.



Problem solving

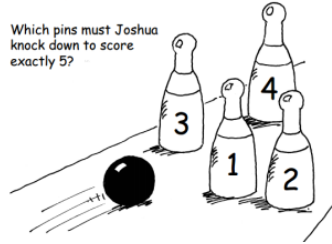
Strategies

- Making lists
- Sorting and organising information (e.g.in tables)
- Spotting patterns
- Trial and improvement
- Making models

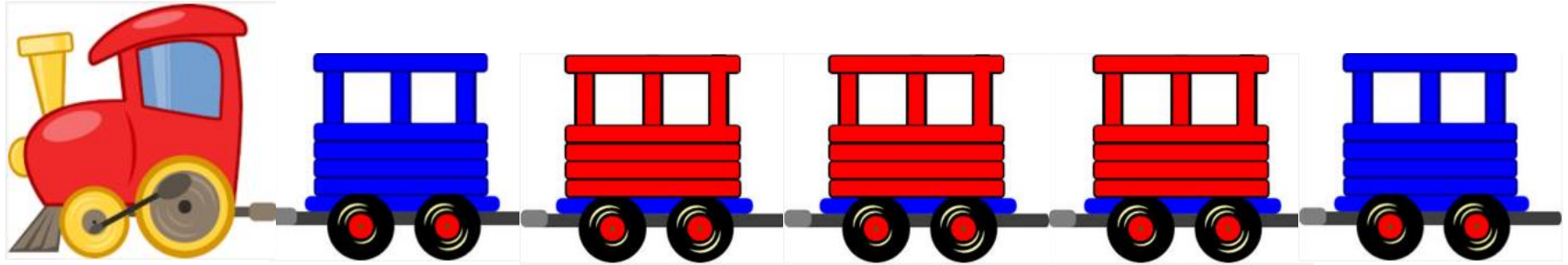


Four-pin bowling

Which pins must Joshua knock down to score exactly 5?



Activity Time !



The Express has 5 carriages. 2 are blue and 3 are red. Can you find all the different ways the carriages can be arranged?

BIG MATHS

BEAT THAT tests



Steps 2, 3 & 4

Name:

Class:

Date:

Step 2

$5 + 5 =$

$3 + 3 =$

$4 + 4 =$

Step 3

$2 + 3 =$

$2 + 1 =$

Step 4

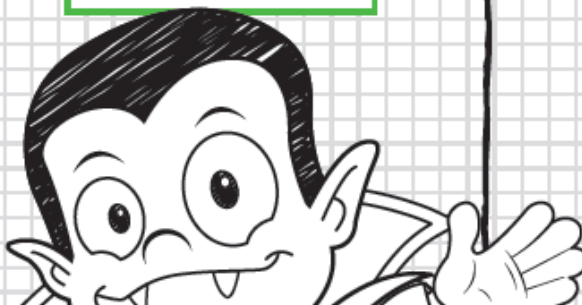
$5 + 5 =$

$9 + 1 =$

$3 + 7 =$

$4 + 6 =$

$2 + 8 =$



BIG MATHS

CLIC tests



Note: Multiple copies of this CLIC Challenge are not provided since all scores arise through teacher assessment.

CLIC 3

Name:

Class:


Date:

1 "1, 2, 3, 4,
5.....20"

2 **11**
13 15

3 17
20 18

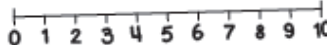
4 How Many?



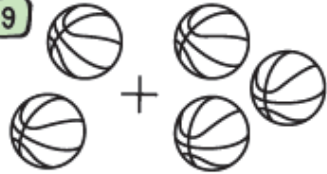
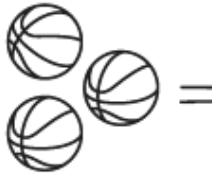
5 I can count out up to 10 objects from a pile


6 "10, 9, 8, 7,
6, 5, 4, 3, 2, 1,
Zero"

7 What is 3 more than 4?



8 "10, 20, 30,
40, 50, 60, 70
80, 90, 100"

9  +  =

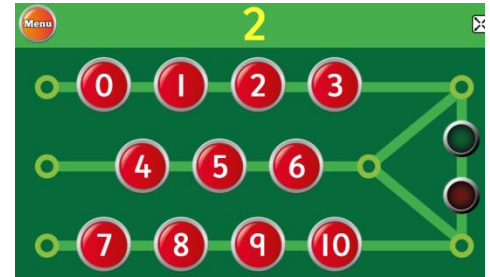
10  Take away 4, how many are left?



BIG MATHS

How to practise *Learn It's*

- Repetition
- Songs
- Number bonds ping pong
- Online games (e.g. Hit the Button)
- Make a poster
- Make flash cards



Encourage your children to use the number facts they know to solve calculations.

Singapore Maths



<https://www.youtube.com/watch?v=ekvAE7K3mmA>

Key features of Singapore Maths:

- CPA approach → supports visualisation
- Low entry point, high ceiling
- Consistency
- Extension through different methods, not higher numbers
- Emphasis on problem - solving