



St. Mary and St. Peter

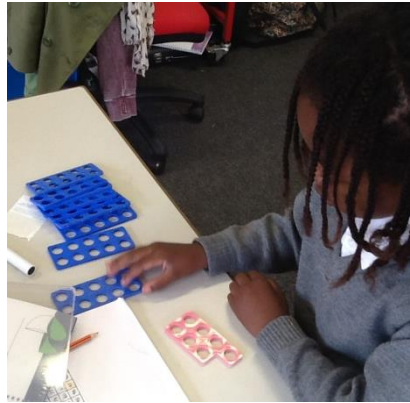
Year Four Calculation

Addition

Words we use...

more, plus, total, increase, how many more, add, addition, make, sum, altogether, double, equals, number bonds/pairs/facts, inverse

In Year Four these are some of the ways we explore addition

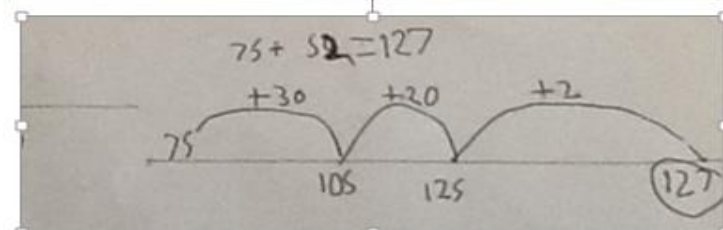
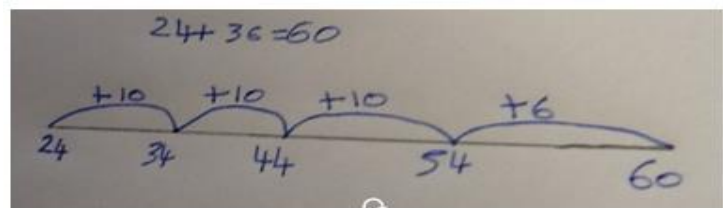
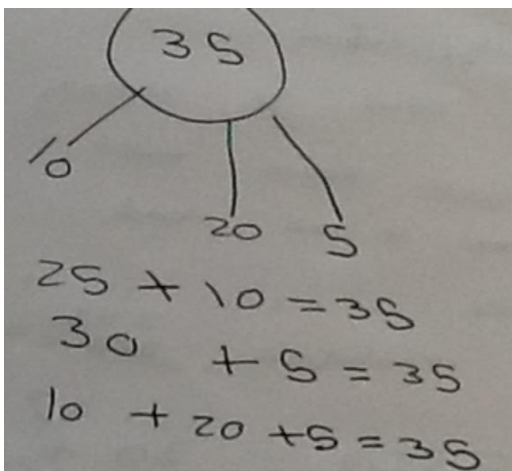


How Year Four learn Addition

In Year 4, pupils add numbers with up to 4 digits and use simple decimals in contexts such as money and measure. Children use their knowledge of place value and structured equipment, such as numicon, denes and bead strings to support their calculations. They split numbers up in various ways. Unmarked number lines are used extensively to support children in becoming confident in both written and mental calculations. Estimate and use inverse operations to check answers to a calculation.

Pupils solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.

In Year Four we use these jottings and methods to solve our additions on paper



Fluency – this is about building up an understanding of how numbers work. In Year 4 children are taught to think about which is the most efficient way to solve a problem.

For example:

Choose whether to solve these questions mentally or using written methods.

- | | | |
|-------------|------------|--------------|
| 54 + 46 | 540 + 460 | 34 + 69 + 26 |
| 298 + 342 | 566 + 931 | 999 + 999 |
| 1547 + 2742 | 1999 + 364 | |

Adults	
2452	538

2452	
Adults	538

538	
2452	Adults

There are 2452 people at a theme park. 538 are children, how many are adults? Sarah draws a diagram to help. Place a (✓) next to the correct diagram.

Use the correct diagram to help you solve the problem.

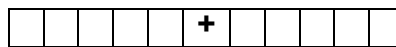
Problem Solving - importantly this is about working out ways to explore a problem. Children learn to work in a logical way and try out different ways to come to solutions. It is essential for problem solving that children are resilient and keep going even if they are finding the problem tricky. Here are some examples of addition problems for Year 4.

All of the digits below are either a 3 or a 9. Can you work out each digit?

$$7338 = \text{????} + \text{????}$$



A game to play for two people. The aim of the game is to get a number as close to 5000 as possible. Each child rolls a 1-6 die and chooses where to put the number on their grid or the other players. Once they have filled their grids then they add up their totals to see who has won.



Always, Sometimes, Never

If you add a 2 digit number to a 3 digit number, you get a 3 digit answer.

Reasoning – is about explaining thinking. Children are asked questions such as: “How do you know?”, “Can you convince me this is true?”, “What do you notice about these numbers?” and “Can you give another example?”

Which questions are exactly 1000?

- 453 + 447 =
- 831 + 279 =
- 493 + 507 =
- 643 + 357 =
- 299 + 801 =

Explain your reasons.

When I want to add 1021 to a number I add 1000 then subtract 21.



Do you agree? Explain why.

I estimate the answer to estimates the answer to 3568 + 509 ≈ 4000



Is this a good estimate? Can you explain your answer?