St. Mary and St. Peter

## Year Two Calculation

Addition

In Year Two these are some of the ways we explore addition
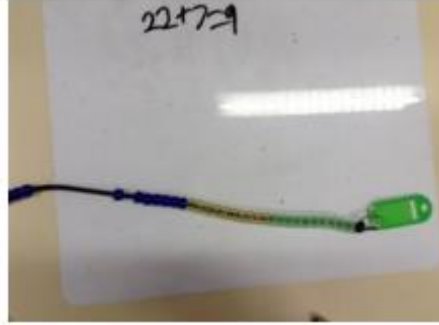
How Year Two learn Addition

In Year Two we recall and use addition and subtraction facts to 20 fluently, work out and use related facts up to 100. We explore how addition of two numbers can be done in any order. We use structured equipment such as numicon and bead strings to help us, as well as drawing pictures, using numberlines and working in our heads. We learn to add a two digit number and ones; a two digit number and tens; two, two digit numbers and adding three one digit numbers. We learn how to check our additions by using the inverse operation (subtraction). We use what we know to solve problems including those with money and measure.

In Year Two we use these jottings and methods to solve our additions on paper
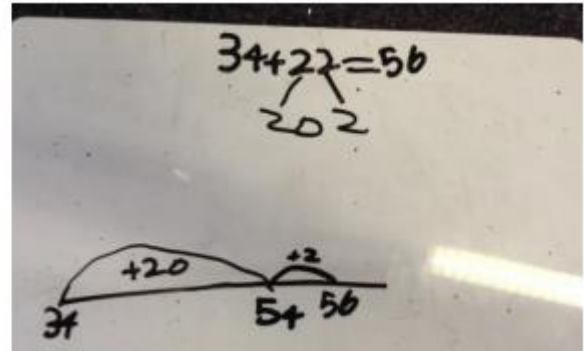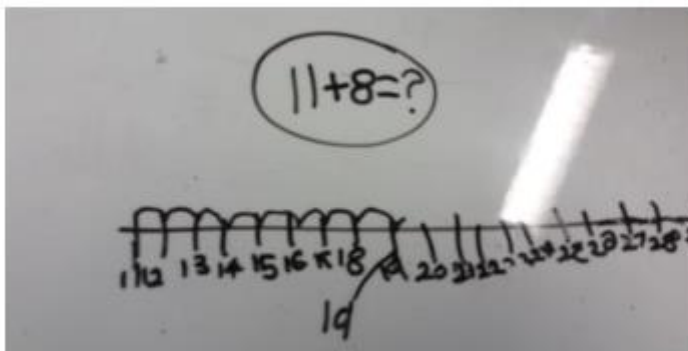
Fluency – this is about building up an understanding of how numbers work. It is great in year two if your child can know their number bonds (to 20) and use these to find bonds to 100, but alongside this we encourage the children to be able to use the knowledge of what they know to work out unknown bonds. For example:

What number is hiding?

16 + 🙂 = 20   20 - 🙂 = 16   80 + 🙂 = 100

100 - 🙂 = 80   🙂 + 60 = 100   100 – 2 0 = 🙂

Use the bar model below to write 2 additions and 2 subtractions.

100	
63	37
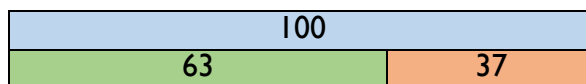
Problem Solving - importantly this is about working out ways to explore a problem. Children learn to work in a logical way and try out different ways to come to solutions. It is essential for problem solving that children are resilient and keep going even if they are finding the problem tricky. Here are some examples of addition problems for Year One.

A   B   C

Dog A and B weigh 7kg.
Dog B and C weigh8kg.
Dog A and C weigh 11kg.

What does each dog weigh?

3   7   4   10

Use the number cards below to make as many additions and subtractions as you can? How many can you make?

Take five coins: 1p, 2p, 5p, 10p, 20p. Put them in a row using these clues. The total of the first three coins is 27p. The total of the last three coins is 31p. The last coin is double the value of the first coin.

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?"

True or False?

When you add two odd numbers together you always get an even number.

Convince me.

When I add 11 to a number I add 10 then take away 1.

Do you agree? Explain why.

I am thinking of a two digit number, if I add ones to it, I will only need to change the ones digit.

What do you think? Can you explain your answer?