



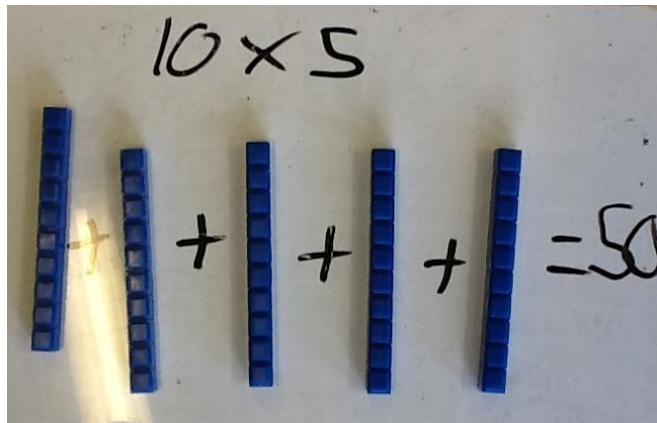
# St. Mary and St. Peter

## Year Two Calculation

# Multiplication

**Words we use...** lots of, array, group of, set, count, multiply, multiplication, repeated addition, pattern, multiple, multiplied by, times, once, twice, three times ... ten times

In Year Two these are some of the ways we explore multiplication



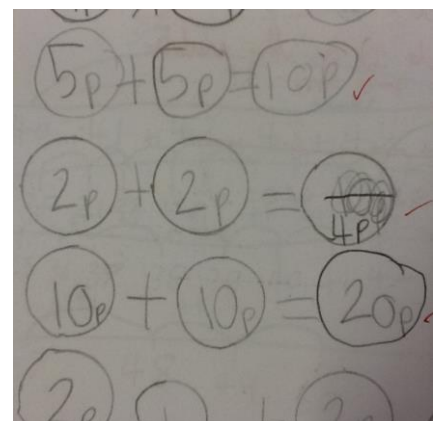
## How Year Two learn multiply

In Year Two children use structured equipment such as bead strings, and numicon to count in various patterns. They also use arrays, repeated addition and pictures to support the learning of the 2, 5 and 10 times tables. They start to explore some of the patterns made from the 3 and 4 times tables. Using the 2 times tables they become confident in recognising odd and even numbers.

While the children are encouraged to chant and know table facts we also seek to support them in an understanding of what multiplication is.

In Year Two we use these jottings and methods to solve our multiplications on paper

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



**Fluency** – this is about building up an understanding of how numbers work. In year 2 we look for children who can recognise multiplication can be done in any order and use known facts to help with discovering unknown times tables. For example:

I know  $2 \times 4 = 8$

How can you work out

$4 \times 4 =$

What did you do?

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?		?		?		?	
?	?	?	?	?	?	?	?

What times tables could you work out from this bar model?

**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 Multiplication problems for Year Two.

Aliens have 3 legs each.

How many shoes would I need for 5 aliens?



What about other number of aliens?



Can you write the number sentence for this array?

What if you added two more rows of 4, how many would you have now?



Cupcakes come in boxes of 3.

How many boxes would we need for all the children in the class?

If each box cost £2 how much would it cost for the whole class to have a cup cake?

**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?”

### Odd one out

Which of these numbers is the odd one out?

50, 52, 25, 35, 20

Why?

When you multiply any number by 1 the answer is always the number you started with



Do you agree? Explain why.

It does not matter which way round the numbers go in a multiplication, the answer is the same.



What do you think? Can you explain your answer?