St. Mary and St. Peter

Year Three Calculation

Multiplication

## In Year Three these are some of the ways we explore multiplication

How Year Three learn multiply

In Year Three children use structured equipment such as bead strings, and numicon to count in various patterns. They also use arrays, repeated addition, pictures and number lines to support the learning of the 3, 4 and 8 times tables.

While the children are encouraged to chant and know table facts we also seek to support them in an understanding of what multiplication is. They use multiplication to solve problems and record their understanding in pictures, on number lines and using mathematical statements.

In Year Three we use these jottings and methods to solve our multiplications on paper
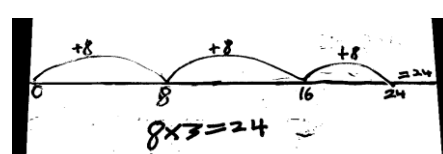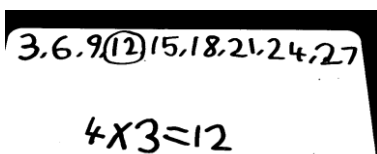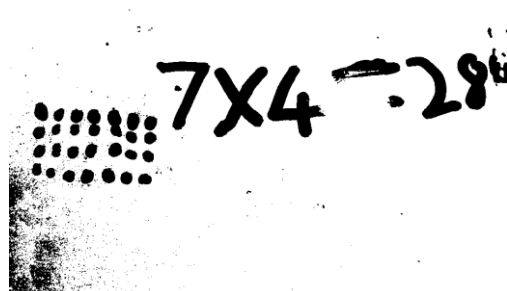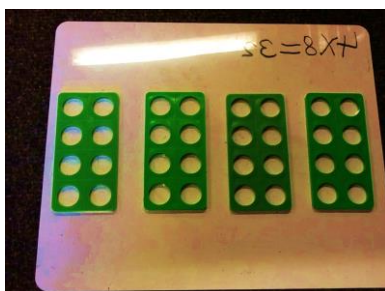
Fluency – this is about building up an understanding of how numbers work. In year 3 we look for children who can recognise multiplication can be done in any order and use known facts to help with discovering unknown times tables. For example:

I know 4x5=20

How can you work out

8x5=

What did you do?

32			
?	?	?	?

?	?	?	?	?	?	?	?

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 Three.
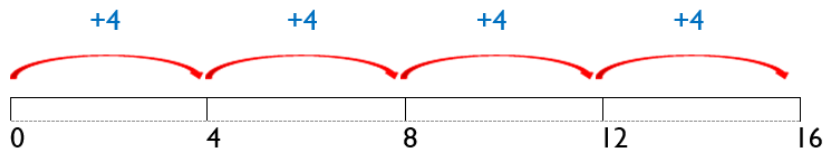
Here is a jumping pattern of 4. Can you continue it? What do you notice about the ones digits?

Can you make a jumping pattern of 8. What numbers are the same in the 4 pattern and the 8 pattern?

Sally has baked some buns. She counted her buns in 4's and had 3 left over. She counted them in fives and had four left over. How many buns has Sally got?

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?"

What pair of numbers could be written in the boxes?

$$\square \ X \ \square = 24$$

I am working out

54 x 3

I think I need to know

3 x 5 to solve it.

Do you agree? Explain why.

I can use my 4 times table to help me work out my 8 times table.

What do you think?

Convince me!