



St. Mary and St. Peter

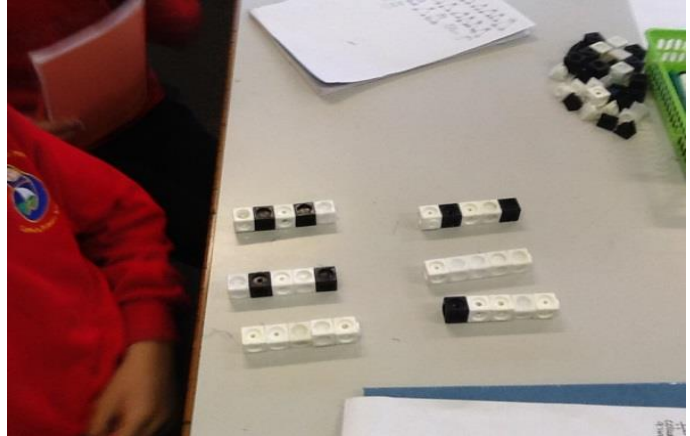
**Year Four Calculation**

# **Division**

## **Words we use...**

dividing, divide, divided by, divided into, left, left over, remainder, grouping, share, share equally, group in pairs, threes ... tens

**In Year Four these are some of the ways we explore division**



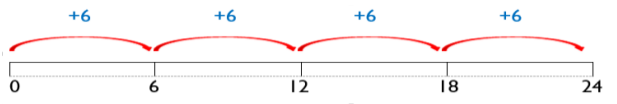
## **How Year Four learn divide**

In Year Four children use structured equipment such as bead strings, and numicon to count in various patterns. They use what they learn about multiplication tables to support their knowledge and understanding of division.

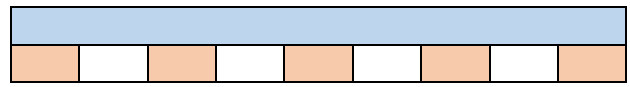
Children get opportunities to explore how arrays relate to division and partition numbers in a variety of ways to aid division problems. They use structured equipment, drawings and numberlines to solve problems that they cannot solve mentally.

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

**Fluency** – this is about building up an understanding of how numbers work. In year 4 we look for children multiplication facts to help solve division problems and can partition numbers in a variety of ways to support solving problems. For example:



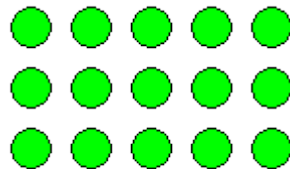
What division statements could you write using this number line.



If the blue bar is worth 54 what is the little bars worth?

**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 division problems for Year 4.

I am thinking of 2 secret numbers where the sum of the numbers is 16 and the product is 48. What are my secret numbers? Can you make up 2 secret numbers and tell somebody what the sum and product are?



How many different ways could you share these counters into equal groups?

The school has a singing group of more than 12 singers but less than 32. They sing together in different ways. Sometimes they sing in pairs and sometimes in groups of 3, 4 or 6. Whatever size groups they are in, no one is left out and everyone is singing. How many singers are there in the school choir?



**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?

$$\square \div \square = 5$$

I know that 2035 divides exactly by 5.



Is he correct? Explain your reasoning.

When you divide an even number by 3 you always get one left over.



What do you think?

Convince me!