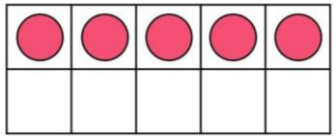
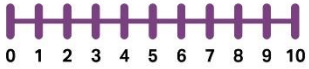
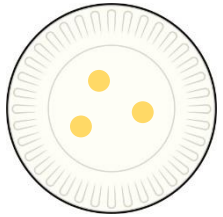
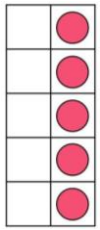
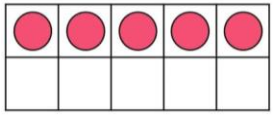
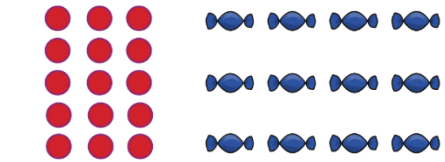
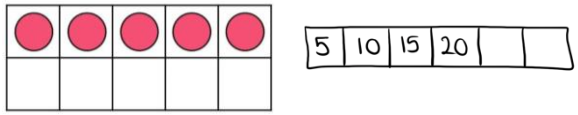
St. Paul's CE Primary School

Calculation Policy - Multiplication

Multiplication - EYFS		
Objectives Doubles to 10. Making equal groups.	Key Vocab find double make double groups of lots of	Example Questions What is double 2? What do you notice? How do you know? What is double ___?
Concrete Representation Songs, stories and nursery rhymes and children to physically make groups.    4  	Pictorial Representation Use pictures, songs and mark making to make groups.   	Abstract Representation

St. Paul's CE Primary School

Calculation Policy - Multiplication

Multiplication KS1 (Year 1 and 2)		
Objectives Count in 2s/10s/5s. Recognise equal groups. Add equal groups. Make arrays. Make doubles. Times tables: 2x, 5x and 10x	**Key Vocab** double equal	**Example Questions** There are ____ ladybirds. Each ladybird has _____ spots. There are _____ spots in total. How many rows are there? How many columns are there?
Concrete Representation Use counters and objects to count in groups of.   	**Pictorial Representation** Use mark making to represent arrays and number lines to count in groups. Children can use number tracks to count in multiples.   	**Abstract Representation** Children to write repeated additions to solve calculations and use the multiplication symbol. 2+2+2= 5+5+5= 10+10+10= □ x 2 = 18 18 = 2 x □ 3x5=15 5x3=15 3x5=5x3

St. Paul's CE Primary School

Calculation Policy - Multiplication

Multiplication Lower KS2 (Year 3 + 4)

Objectives

Multiply a 2-digit number by 1-digit number. (Y3)
Times tables: 3x, 4x and 8x

Multiply a 3-digit number by 1-digit number. (Y4)
Multiply by x1, x10 and x100.
Times table facts to 12 x 12.

Key Vocab

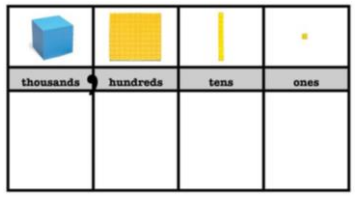
place value
inverse
exchange
repeated addition
fact pairs
lots of
multiples
multiply

Example Questions

8,465 x 1 =
32 x 10 =
32 x 100 =
34 x 4 =
127 x 6 =

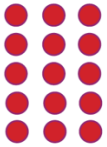
Concrete Representation

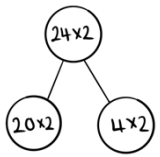
Continue using counters and place value grids to show repeated addition.

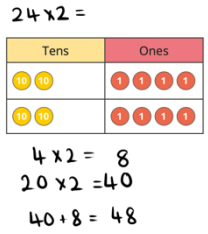


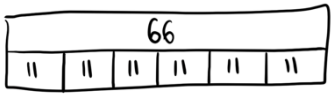
Pictorial Representation

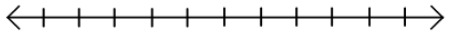
Children to use mark making to make arrays. Bar models are used to help with repeated additions. Part whole models and place value grids can be used to partition calculations.





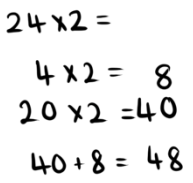


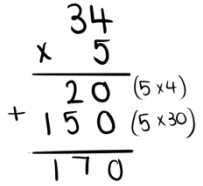




Abstract Representation

Children to partition calculations into tens and ones. Formal method is split into tens and ones.





St. Paul's CE Primary School

Calculation Policy - Multiplication

Multiplication Upper KS2 (Year 5 + 6)

Objectives

Multiply numbers up to 4-digit by a 2-digit number.
Multiply by 10, 100 and 1,000.
Square numbers and cube numbers.
Finding multiples and factors.

Multiply decimals by and integer. (Y6)

Key Vocab

repeated addition
multiples
factors
place holder

Example Questions

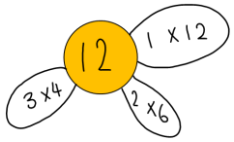
3,427 x 24 =

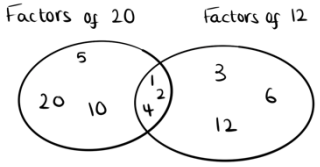
Concrete Representation

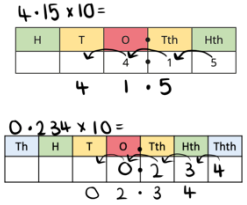
Children can use counters for repeated addition and multiplication squares to aid recall.

Pictorial Representation

Mark making is used for arrays. Factor flowers always start from one when finding factor pairs.







Abstract Representation

The formal method for multiplication in used with a two-step multiplication followed by an addition.