Multiplication & Division

Lowercroft Primary School

White Rose Maths

Reception
Summer
- I can share items into two equal groups I understand that the term double, means twice as many

Year 1
Summer
- I solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of my teacher

Year 2
- I recall and use multiplication and division facts for the 2, 5 and 10 tables, including recognising odd and even numbers
- I understand that multiplication of two numbers can be one in any order (commutative) and division of one number by another cannot
- I calculate the mathematical statements for multiplication and division within the multiplication tables and write them using the x ÷ and = signs.
- I recognise that division is the inverse of multiplication and use to check calculations

Year 3
Autumn
- I recall and use the multiplication and division facts for the 3, 4 and 8 tables
- I write and calculate mathematical statements for multiplication using known multiplication tables, including 2- digit x 1-digit, using mental and progressing to formal written methods

Spring
- I write and calculate mathematical statements for division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods
- I practise written methods of multiplication and division, including a high focus on reasoning

Year 4
Autumn
- I use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; multiplying three numbers together

Spring
- I recall multiplication and division facts for tables up to 12x12
- I recognise and use factor pairs and commutativity in mental calculations
- I multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout
- I divide 2-digit and 3-digit numbers by a 1-digit number using formal written layout with no remainder

Year 5
Autumn
- I identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19
- I recognise and use square numbers and cube numbers, and the notation for squared and cubed
- I multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- I solve problems involving multiplication and division using knowledge of factors and multiples, squares and cubes

Spring
- I multiply and divide numbers mentally drawing upon known facts I multiply numbers up to 4-digits by a 1-digit or 2- digit number
- I divide numbers up to 4-digits by a 1-digit number appropriately for the context
- I solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding of the equals' sign
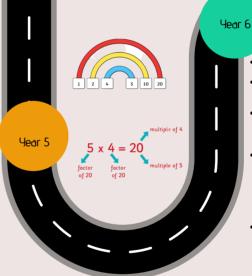
Year 6
Autumn
- I identify common factors, common multiples and prime numbers
- I perform mental calculations, including with mixed numbers and large numbers
- I multiply multi-digit numbers up to 4-digits by a 2- digit whole number using the formal written method of long multiplication
- I divide numbers up to 4-digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- I divide numbers up to 4-digits by a 2-digit number using the formal written method of short division, where appropriate, interpreting remainders according to the context
- I solve multiplication and division multi-step problems in contexts, deciding which operations and methods to use and why
- I use knowledge of the order of operations to carry out calculations involving the four operations.

Summer
- I solve problems involving addition, subtraction, multiplication & division

$5 \times 4 = 20$

multiple of 4
factor of 20
factor of 20
multiple of 5