

Maths Objectives – Multiplication and Division

Key Stage	Objective	Child Speak Target
KS 1 Y1	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	<i>I answer maths multiplication or division problems with help from an adult and using objects to see what the problem means.</i>
KS 1 Y1	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	<i>I answer maths multiplication or division problems with help from an adult and using objects to see what the problem means.</i>
KS 1 Y2	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.	<i>I know my 2 and 5 and 10 times tables by heart and can tell whether a number is odd or even.</i>
KS 1 Y2	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.	<i>I use multiplication (x), division (÷) and equals (=) signs when writing out my times tables.</i>
KS 1 Y2	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	<i>I know that the multiplication of two numbers can be done in any order, but that the division of numbers can only be done in one order.</i>
KS 1 Y2	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	<i>I can solve multiplication and division problems using times table facts and objects or pictures to help me.</i>
KS 2 Y3	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	<i>I know my 3, 4 and 8 times tables.</i>
KS 2 Y3	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.	<i>I can answer multiplication and division questions such as 16×5 or 45 divided by 9.</i>
KS 2 Y3	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	<i>I can solve more complex problems and missing number questions involving multiplication and division.</i>
KS 2 Y4	Recall multiplication and division facts for multiplication tables up to 12×12 .	<i>I know all my times table up to the 12 times tables.</i>
KS 2 Y4	Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1.	<i>I know what the outcome is when I multiply a number by 1 or by zero.</i>
KS 2 Y4	Use place value, known and derived facts to multiply and divide mentally, including: Dividing by 1.	<i>I know what the outcome is when I divide a number by 1.</i>
KS 2 Y4	Use place value, known and derived facts to multiply and divide mentally, including: multiplying together three numbers.	<i>I can multiply three numbers together, such as $3 \times 6 \times 9$.</i>
KS 2 Y4	Recognise and use factor pairs and commutativity in mental calculations.	<i>I know what factor pairs are how I can multiply numbers in any order and use my knowledge to work out questions in my head.</i>
KS 2 Y4	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.	<i>I can multiply a two-digit or a three-digit number by a one-digit number using written methods.</i>
KS 2 Y4	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	<i>I can solve maths problems such as - how many different outfits can I make from 3 hats and 4 coats.</i>
KS 2 Y5	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	<i>I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</i>
KS 2 Y5	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	<i>I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</i>
KS 2 Y5	Establish whether a number up to 100 is prime and recall prime numbers up to 19.	<i>I know whether a number up to 100 is prime and recall prime numbers up to 19.</i>
KS 2 Y5	Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	<i>I can multiply 4 digit numbers by a one- or two-digit number using a written method, including long multiplication for two-digit numbers.</i>
KS 2 Y5	Multiply and divide numbers mentally drawing upon known facts.	<i>I multiply and divide numbers mentally drawing upon my times table knowledge and other number facts.</i>

Key Stage	Objective	Child Speak Target
KS 2 Y5	Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.	<i>I can divide 4 digit numbers by a one-digit number using the written method of short division and find the remainder.</i>
KS 2 Y5	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	<i>I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</i>
KS 2 Y5	Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).	<i>I know what square numbers and cube numbers are, including the notation for squared (2) and cubed (3).</i>
KS 2 Y5	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	<i>I can solve multiplication and division problems using my knowledge of factors and multiples, squares and cubes.</i>
KS 2 Y5	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	<i>I can solve more difficult problems involving addition, subtraction, multiplication and division and a combination of these.</i>
KS 2 Y5	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	<i>I can solve problems including scaling by simple fractions and problems involving simple rates.</i>
KS 2 Y6	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	<i>I can multiply 4 digit numbers by a two-digit number (for example 4307×34) using the written method of long multiplication.</i>
KS 2 Y6	Divide numbers up to 4 digits by a two-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>I can divide 4 digit numbers by a two-digit number using the written method of long division - and tell you the remainder.</i>
KS 2 Y6	Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	<i>I can choose to divide 4 digit numbers by a two-digit number using the written method of short division if this is possible.</i>
KS 2 Y6	Perform mental calculations, including with mixed operations and large numbers.	<i>I can multiply, divide, add and subtract large numbers in my head.</i>
KS 2 Y6	Identify common factors, common multiples and prime numbers.	<i>I identify common factors, common multiples and prime numbers.</i>
KS 2 Y6	Use their knowledge of the order of operations to carry out calculations involving the four operations.	<i>I know that addition, subtraction, multiplication and division should be carried out in a specific order when looking at problems.</i>
KS 2 Y6	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	<i>I can solve addition and subtraction multi-step problems, deciding where to add or subtract.</i>
KS 2 Y6	Solve problems involving addition, subtraction, multiplication and division.	<i>I can solve problems involving addition, subtraction, multiplication and division.</i>
KS 2 Y6	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	<i>I always estimate my answer before I begin calculating - this helps me to check at the end to make sure I am correct.</i>
KS3	Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative.	
KS3	Recognise and use relationships between operations including inverse operations.	