

Arithmetic Progression Overview 2025-2026

(amended from progression maps of the National Centre for Excellence in the Teaching of Mathematics)

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
ADDITION						
Say and use number names in familiar contexts. Know that numbers identify how many objects in a set. Count reliably up to 10 everyday objects. Estimate how many objects they see & check by counting. Count aloud in ones, twos, fives or tens. Use 'more' or 'less' to compare two numbers. Use ordinal numbers in context.	Represent and use number bonds within 20 Add 1-digit and 2-digit numbers to 20, including zero Read, write and interpret mathematical statements involving addition (+) and equals (=) signs solve one-step addition problems using concrete objects and pictorial representations, and missing number problems such as $7 = * + 2$ Say 1 more than any number to 100 Use related addition facts to 20	Recall and use addition facts to 20 fluently and derive and use related facts up to 100 Add using concrete objects/pictorial representations and mentally for a 2-digit number and ones (e.g. $12+3$) Add using concrete objects/pictorial representations and mentally for a 2-digit number and a tens number (e.g. $12+20$) Add using concrete objects/pictorial representations and mentally for a 2-digit number and another 2-digit number (e.g. $23+42$) Add using concrete objects/pictorial representations and mentally for three 1-	Find 1, 100 or 1000 more than number Mentally add a 3 digit number and ones/tens/hundreds Add numbers with up to 3-digits using the formal written method of columnar addition Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value and more complex addition	Add numbers with up to 4 digits using formal written methods of column addition Count forwards with positive and negative whole numbers, including through zero Add larger numbers mentally Estimate and use inverse operations to check answers to a calculation Solve two-step problems in contexts, deciding which operations and methods to use and why	Count forwards in steps of powers of 10 for any given number up to 10,000 Add negative numbers in context (including temperature), and calculate intervals across zero Perform mental calculations involving addition, including with mixed operations and large numbers Add whole numbers with more than 4-digits, including using formal written methods (columnar addition) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Count forwards in steps of powers of 10 for any given number up to 10,000 Add negative numbers in context (including temperature), and calculate intervals across zero Perform mental calculations, including with mixed operations and large numbers Use knowledge of the order of operations (BODMAS) to carry out calculations involving the four operations Use estimation to check answers to calculations and determine, in the

Recognise numerals 1 to 9.	Recall and use addition facts to 10 fluently (number bonds) Add mentally a 2-digit number and ones (e.g. $12+3$) (SUM)	digit numbers (e.g. $3+4+7$) Show that addition of two numbers can be done in any order (commutative). Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems Solve simple problems in a practical context (eg money and giving change)			Solve multi-step problems in contexts, deciding which operations and methods to use and why	context of a problem, levels of accuracy Solve multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
SUBTRACTION						
Observe number relationships and patterns in the environment and use these to derive facts. Find one more or one less than a number from 1 to 10. Select two groups of objects to make a given total of objects.	Represent and use number bonds and related subtraction facts within 20 Subtract 1-digit and 2-digit numbers to 20, including zero Read, write and interpret mathematical statements involving subtraction (-) and equals (=) signs Say 1 less than any number to 100 Use related subtraction facts to 20 Recall and use subtraction facts to 10 fluently Subtract mentally a 2-digit number and ones (e.g. 12-3) (SUM)	Recall and subtraction facts to 20 fluently Subtract using concrete objects/pictorial representations for a 2-digit number and ones (e.g. 15 - 6) Subtract mentally a 2-digit number and ones (e.g. 12-3) Subtract using concrete objects/pictorial representations for a 2-digit number and a tens number (e.g. 56-20) Subtract mentally a 2-digit number and a tens number (e.g. 34 - 20) Subtract using concrete objects/pictorial representations for a 2-digit number and another 2-digit number (e.g. 53-42) Show that subtraction of two numbers cannot be done in any order (is not commutative)	Find 10, 100 or 1000 less than a number Mentally subtract a 3 digit number and ones/tens and hundreds Subtract numbers with up to three digits, using the formal written method of columnar subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value and more complex subtraction	Count backwards through zero to include negative numbers Count backwards with positive and negative whole numbers, including through zero Subtract numbers with up to 4 digits using formal written methods of column subtraction Estimate and use inverse operations to check answers to a calculation Solve two-step problems in contexts, deciding which operations and methods to use and why	Count backwards in steps of powers of 10 for any given number up to 10,000 Subtract larger numbers mentally Subtract negative numbers in context (including temperature), and calculate intervals across zero Perform mental calculations involving subtraction, including with mixed operations and large numbers Subtract whole numbers with more than 4-digits, including using formal written methods (columnar subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Count backwards in steps of powers of 10 for any given number up to 10,000 Subtract larger numbers mentally Subtract negative numbers in context (including temperature), and calculate intervals across zero Perform mental calculations, including with mixed operations and large numbers Use knowledge of the order of operations (BODMAS) to carry out calculations involving the four operations Use estimation to check answers to calculations and determine, in the context of a

		Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems Solve simple problems in a practical context (eg money and giving change)			Solve multi-step problems in contexts, deciding which operations and methods to use and why	problem, levels of accuracy Solve multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
MULTIPLICATION						
Count repeated groups of the same size. Share objects into equal groups and count how many in each group.	Count in multiples of 2, 5 and 10 Double numbers to 10 Solve one-step problems involving multiplication, by calculating the answer using concrete objects, pictorial representations and arrays with support	Recall and use multiplication facts for the 2, 5 and 10x tables including recognising odd and even numbers Doubles of all numbers to 20, e.g. double 13, and corresponding halves Doubles of multiples of 10 to 50, e.g. double 40, and corresponding halves Halve any multiple of 10 up to 100, e.g. halve 90 Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward or backward Show that multiplication of two numbers can be done in any order (it is commutative) Calculate mathematical statements for multiplication within the multiplication tables and write them using	Count from 0 in multiples of 4, 8, 50 and 100. Connect 4 and 8 to doubling Multiply whole numbers by 10, 100 and 1,000 Recall and use multiplication facts for 3, 4 and 8 x tables Multiply a 2-digit number by a 1-digit using a mental method (grid method) Multiply a 2-digit number by a 1-digit using a formal written method (short multiplication) Solve missing number problems involving multiplication Multiply together three numbers	Count in multiples of 6, 7, 9, 25 and 1,000 Multiply whole numbers and those involving decimals by 10, 100 and 1000 Rapidly recall multiplication facts up to 12x12 Use place value, known and derived facts to multiply mentally, including multiplying by 0 and 1 and multiplying together three numbers Multiply numbers up to 4 digits by a 1-digit using a formal written method Multiply 2-digit numbers by a 2-digit number using formal written layout (long multiplication) Recognise and use factor pairs and	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 Recognise and use squared and cubed numbers and their notation Multiply mentally using known facts Multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places 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 Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Perform mental calculations, including with mixed operations and large numbers Multiply multi-digit numbers up to 4 digits by a 2 digit whole number using the formal written method of long multiplication Multiply 1-digit numbers with up to 2 decimal places by whole numbers Use knowledge of the order of operations (BODMAS) to carry out calculations involving the four operations Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy

		the multiplication (x) and equals (=) signs Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication facts, including problems in context		commutativity in mental calculations 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	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Solve problems involving addition, subtraction, multiplication and division Identify common multiples, common factors and prime numbers Use common factors to simplify fractions Use common multiples to express fractions in the same denomination
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DIVISION						
	Share multiples of 2,5 and 10 into groups (concrete objects) Solve one-step problems involving division, by calculating the answer using concrete objects, pictorial representations and arrays with support	Recall and use multiplication facts for the 2, 5 and 10x tables including recognising odd and even numbers Show that division of two numbers cannot be done in any order (it is not commutative) Calculate mathematical statements for division within the multiplication tables and write them using the division ($\div$) and equals (=) signs Solve problems involving division, using materials, arrays, mental methods, and division facts, including problems in context	Recall and use division facts for 3,4 and 8 x tables Divide whole numbers by 10 and 100 Solve missing number problems involving division	Recall division facts up to 12x12 Use place value, known and derived facts to divide mentally, dividing by 1 Divide whole numbers and those involving decimals by 10, 100 and 1000 giving answers up to 3 decimal Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division	Divide mentally using known facts Divide numbers up to 4 digits by a 1 digit number using the formal written method of short division and interpret remainders appropriately for the context Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Perform mental calculations involving division, including with mixed operations and large numbers Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context 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 Associate a fraction with division and calculate decimal fraction equivalents

						for simple fractions eg. $\frac{1}{4} = 0.25$ Use written division methods in cases where the answer has up to 2 decimal places Interpret remainders by rounding Use knowledge of the order of operations (BODMAS) to carry out calculations involving the four operations Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy Solve problems involving addition, subtraction, multiplication and division
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
FRACTIONS (including decimals and percentages)						
	Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Write simple fractions ($\frac{1}{2}$, $\frac{1}{4}$) Recognise, find, name and write fractions $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a shape/set of objects or quantity/of a length Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	Recognise, find and write fractions of a discrete set of objects (unit and non-unit fractions) Add and subtract fractions with the same denominator within one whole Begin to find fractions of amounts Count up and down in tenths Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Compare and order unit fractions, and fractions with the same denominators	Add and subtract fractions with denominators that are multiples of the same number Count up and down in hundredths Find fractions of amounts Write percentages as a fraction and decimal Compare numbers with the same number of decimal places up to two decimal places Round decimals with one decimal place to the nearest whole number Recognise and show, using diagrams, families of common equivalent fractions Recognise and write decimal equivalents of any number of tenths or hundredths	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Use common factors to simplify fractions and use common multiples to express fractions in the same denomination Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Compare and order fractions whose denominators are all multiples of the same number	Multiply simple pairs of proper fractions, writing the answer in the simplest form Divide proper fractions by whole numbers Solve problems involving the calculation of percentages Compare and order fractions, including fractions >1 Identify the value of each digit in numbers given to three decimal places Solve problems which require answers to be rounded to specified degrees of accuracy Use common factors to simplify fractions; use

			Recognise and show, using diagrams, equivalent fractions with small denominators Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) Solve problems that involve all of the above	Recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Solve simple measure and money problems involving fractions and decimals to two decimal places.	Read, write, order and compare numbers with up to three decimal places Round decimals with two decimal places to the nearest whole number and to one decimal place Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with	common multiples to express fractions in the same denomination Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply one-digit numbers with up to two decimal places by whole numbers Multiply one-digit numbers with up to
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					denominator 100 as a decimal fraction Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$) Solve problems involving numbers up to three decimal places Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.	two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$) Use written division methods in cases where the answer has up to two decimal places
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