



CanDoMaths

KPI Overview



CanDoMaths Key Performance Indicators

The CanDoMaths Key Performance Indicators are the essential learning that all children need to have a secure understanding of, in order to successfully progress to the next stage of learning and meet at least expected standards by the end of Key Stages 1 and 2.

There are 24 KPIs identified for Years 1 to 6 (see pages 4 to 9) representing all strands of mathematics but with an emphasis on Place Value, Number Facts, Calculation, Fractions, Decimals and Percentages. Not all terms have the same number of KPIs due to the design of the CanDoMaths Curriculum and end of Key Stage accountability for Years 2 and 6.

While we realise, mathematics provision is different in the Early Years, we have also included 24 'KPIs' for use in the Reception Class (see page 3)

Links with the DfE Mathematics Guidance

All the DfE Ready to Progress criteria can be linked to the CanDoMaths KPIs (see CanDoMaths Ready To Progress guidance) plus we have identified other important topics such as time, negative numbers, operating with fractions with different denominators and operating with decimals and percentages. These are critical for children to meet at least expected standards by the end of a Key Stage 2.


Please note: These DfE Ready to Progress are directly not linked to a KPI due to their broad nature. It is expected they will be taught during units

6 AS/MD1	Multiplicative and additive reasoning, including the use of 'If I know then I also know ...' thinking, are pedagogical drivers throughout Can-DoMaths Lessons and Meetings.
6AS/MD2	
3/4/5/6 NPV-1	Links can be made to the Place Value Units in Years 3, 4, 5 and 6

Supporting Resources



The CanDoMaths resources, Keep-uppls Workouts and ArithmeQuizzes, have been deliberately designed to help children practise and consolidate the KPIs during Maths Meetings.

The CanDoMaths Ready To Progress Tests have been designed to assess children's understanding of the KPIs.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Term 1	<ol style="list-style-type: none"> Count up to 30 Order numbers up to 30 Write and interpret mathematical statements +, - and = Recognise rectangle, square, triangle and circle 	<ol style="list-style-type: none"> Read and write 2-digit numbers Compare and order numbers up to 100 Recall and use addition facts to 10 Find 10 more or less than a 2-digit number Add two 2-digit numbers Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces 	<ol style="list-style-type: none"> Read and write 3-digit numbers Compare and order numbers up to 1000 Finding 10 or 100 more or less than a given number Recognise and count in tenths Recognise horizontal, vertical, perpendicular and parallel lines 	<ol style="list-style-type: none"> Read and write 4-digit numbers Compare and order numbers up to 10,000 Round any number up to 4-digits to the nearest 10, 100 or 1000 Classify quadrilaterals 	<ol style="list-style-type: none"> Read and write numbers up to 1,000,000 Compare and order numbers up to 1,000,000 Compare and order decimals with up to 3 decimal places Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000 Count forwards and backwards with positive and negative numbers 	<ol style="list-style-type: none"> Read, write and order numbers up to 10,000,000 Multiply and divide numbers by 10, 100 and 1000 Multiply numbers up to 4 digits by a 2-digit number choosing efficient methods Divide numbers up to 4 digits by a two-digit number choosing efficient methods and interpreting the remainders Calculate intervals across zero Describe and plot positions on a 2-D grid as coordinates in the four quadrants Reflect and translate shapes
Term 2	<ol style="list-style-type: none"> Write numbers to 100 in numerals Compare and order numbers to 100 Identify one more and one less than a given number Represent and use number bonds within 10 (addition facts) Represent and use number bonds within 10 (subtraction facts) Recognise cuboids, pyramids and spheres 	<ol style="list-style-type: none"> Know that addition is commutative and subtraction is not Subtract two 2-digit numbers Recall and use subtraction facts to 10 Understand how multiplication can be represented Know that multiplication is commutative and division is not Understand how division can be represented Describe turns using right angles 	<ol style="list-style-type: none"> Add numbers with up to 3-digits mentally Subtract numbers with up to 3-digits mentally Know and use multiplication facts for 3, 4 and 8 Know and use multiplication tables Know and use division facts for 3, 4 and 8 Multiplication tables 	<ol style="list-style-type: none"> Add and subtract numbers with up to 4-digits mentally Know and use multiplication facts for 6, 7 and 9 Know and use division facts for 6, 7 and 9 Multiplication tables 	<ol style="list-style-type: none"> Add and subtract whole numbers with more than 4 digits choosing efficient methods Add and subtract decimals with up to 3 decimal places choosing efficient methods Multiply and divide whole numbers and decimals by 10, 100 and 1000 Identify and use multiples, factors and prime numbers. 	<ol style="list-style-type: none"> Simplify fractions Compare and order fractions, including fractions > 1 Know and use simple fraction, decimal and percentage equivalents Compare and classify 2-D and 3-D shapes Know and use angle properties of straight lines, at a point and shapes Draw simple shapes using given lengths and angles
Term 3	<ol style="list-style-type: none"> Represent and use number bonds for 11 to 16 (addition facts) Represent and use number bonds for 11 to 16 (subtraction facts) Measure length and height 	<ol style="list-style-type: none"> Know and use multiplication facts for 2, 5 and 10 Know and use division facts for 2, 5 and 10 Read scales in divisions of 1, 2, 5 and 10 Use standard units to measure length, mass and height 	<ol style="list-style-type: none"> Compare and order fractions with same numerator or same denominator Add numbers with up to 3-digits using a formal written method Subtract numbers with up to 3-digits using a formal written method Choose efficient methods to add and subtract numbers up to 3-digits 	<ol style="list-style-type: none"> Add and subtract numbers with up to 4-digits using a formal written method Know and use multiplication facts for 11 and 12 Know and use division facts for 11 and 12 Choose efficient methods to add and subtract numbers up to 4-digits 	<ol style="list-style-type: none"> Multiply numbers up to 4-digits by 1 or 2-digits using a formal written method Divide numbers up to 4-digits by 1-digits using a formal written method of division Use known facts and place value to multiply a whole number by a decimal Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method 	<ol style="list-style-type: none"> Add and subtract fractions with denominators that are not multiples of each other Add and subtract mixed numbers Multiply simple pairs of proper fractions Divide proper fractions by a whole number
Term 4	<ol style="list-style-type: none"> Represent and use number bonds within 20 (addition facts) Represent and use number bonds within 20 (subtraction facts) Recognise and find one half Recognise and find one quarter Use the language position, direction and movement 	<ol style="list-style-type: none"> Recognise and find one third Recognise and find three quarters Tell the time to quarter to/past and 5 minute intervals Calculate change Combine coins to make amounts 	<ol style="list-style-type: none"> Multiply 2-digit by 1-digit numbers mentally Divide 2-digit by 1-digit numbers mentally Multiply 2-digit by 1-digit numbers using a formal written method 	<ol style="list-style-type: none"> Multiply 2-digit by a 1-digit using the distributive law Multiply 3-digit by a 1-digit using a formal written method Divide a 3-digit by a 1-digit number Use place value, known and derived facts to multiply and divide mentally Identify acute and obtuse angles 	<ol style="list-style-type: none"> Compare and order fractions whose denominators are all multiples of the same number Read and write decimal numbers (up to 3 decimal places) as fractions Understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100 Convert between adjacent units of metric measure 	<ol style="list-style-type: none"> Find percentages of an amount Use simple ratio to compare quantities Convert between different units of metric measure Calculate the area of triangles/parallelograms Calculate volumes of cuboids Use simple formulae expressed in words Find possible values in missing number problems involving one or two unknowns
Term 5	<ol style="list-style-type: none"> Add and subtract 1 and 2-digit numbers up to 20 Know the days of the week and months of the year Tell the time to the hour and half past 	<ol style="list-style-type: none"> Construct and interpret pictograms using 2s, 5s and 10s Recall factor-factor-product relationships for 2, 5 and 10 Multiplication tables 	<ol style="list-style-type: none"> Calculate fractions of amounts Add and subtract fractions with the same denominator Tell the time to the nearest minute Calculate durations of events 	<ol style="list-style-type: none"> Divide 1 and 2-digit numbers by 10 and 100 Add and subtract fractions with the same denominator beyond the whole Find families of equivalent fractions Recall factor-factor-product relationships for 6, 7, 9, 11 and 12 Multiplication tables 	<ol style="list-style-type: none"> Convert mixed numbers to improper fractions and vice versa Add mixed numbers and proper fractions with denominators that are the same and multiples of each other Subtract proper fractions from mixed numbers with denominators that are the same and multiples of each other Multiply fractions and mixed numbers by a whole number 	
Term 6	<ol style="list-style-type: none"> Represent multiplication using concrete objects and pictorial representations Represent division using concrete objects and pictorial representations Recognise and know the value of different denominations of coins and notes 		<ol style="list-style-type: none"> Measure the perimeter of shapes Identify angles in shapes Interpret bar charts Recall factor-factor-product relationships for 3, 4 and 8 Multiplication tables 	<ol style="list-style-type: none"> Add and subtract decimal numbers (up to 2 decimal places) including measures and money Find the area of rectilinear shapes by counting squares Describe and plot positions on a 2-D grid as coordinates in the first quadrant Convert between analogue and digital 12 and 24-hour clocks and other units of time 	<ol style="list-style-type: none"> Calculate the area of rectangles Draw given angles, and measure them, in degrees ($^{\circ}$) Interpret line graphs 	





CanDoMaths Key Performance Indicators

	Year R KPIs		
1	Recite the number sequence,		
2	Count to and from different numbers, forwards		
3	Count to and from different numbers, backwards		
4	Count objects accurately		
5	Subitise		
6	Select a numeral to represent a quantity in a group		
7	Find the group that has more or less		
8	Compare two numbers saying which is larger or smaller		
9	Order numbers		
10	Identify something longer or shorter than something else		
11	Continue or create a repeating pattern		
12	Identify similarities and differences between 3D shapes		
13	Combine two quantities to add		
14	Count on to add		
15	Find one more		
16	Take away and say what is left		
17	Find one less		
18	Partition numbers into two parts		
19	Partition numbers into more than two parts		
20	Say how many are hidden in a known number of items		
21	Find something heavier or lighter than something else		
22	Use positional language		
23	Identify similarities and differences between 2D shapes		
24	Order events		





CanDoMaths Key Performance Indicators

	Year 1 KPIs		
1	Count up to 30		
2	Order numbers up to 30		
3	Write and interpret mathematical statements +, - and =		
4	Recognise rectangle, square, triangle and circle		
5	Write numbers to 100 in numerals		
6	Compare and order numbers to 100		
7	Identify one more and one less than a given number		
8	Represent and use number bonds within 10 (addition facts)		
9	Represent and use number bonds within 10 (subtraction facts)		
10	Recognise cuboids, pyramids and spheres		
11	Represent and use number bonds for 11 to 16 (addition facts)		
12	Represent and use number bonds for 11 to 16 (subtraction facts)		
13	Measure length and height		
14	Represent and use number bonds within 20 (addition facts)		
15	Represent and use number bonds within 20 (subtraction facts)		
16	Recognise and find one half		
17	Recognise and find one quarter		
18	Use the language of position, direction and movement		
19	Add and subtract 1 and 2-digit numbers up to 20		
20	Know the days of the week and months of the year		
21	Tell the time to the hour and half past		
22	Represent multiplication using concrete objects and pictorial representations		
23	Represent division using concrete objects and pictorial representations		
24	Recognise and know the value of different denominations of coins and notes		





CanDoMaths Key Performance Indicators

	Year 2 KPIs		
1	Read and write 2-digit numbers		
2	Compare and order numbers up to 100		
3	Recall and use addition facts to 10		
4	Find 10 more or less than a 2-digit number		
5	Add two 2-digit numbers		
6	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces		
7	Know that addition is commutative and subtraction is not		
8	Subtract two 2-digit numbers		
9	Recall and use subtraction facts to 10		
10	Understand how multiplication can be represented		
11	Know that multiplication is commutative and division is not		
12	Understand how division can be represented		
13	Describe turns using right angles		
14	Know and use multiplication facts for 2, 5 and 10 multiplication tables		
15	Know and use division facts for 2, 5 and 10 multiplication tables		
16	Read scales in divisions of 1, 2, 5 and 10		
17	Use standard units to measure length, mass and height		
18	Recognise and find one third		
19	Recognise and find three quarters		
20	Tell the time to quarter to/past and 5 minute intervals		
21	Calculate change		
22	Combine coins to make amounts		
23	Construct and interpret pictograms using 2s, 5s and 10s		
24	Recall factor-factor-product relationships for 2, 5 and 10 multiplication tables		





CanDoMaths Key Performance Indicators

	Year 3 KPIs		
1	Read and write 3-digit numbers		
2	Compare and order numbers up to 1000		
3	Finding 10 or 100 more or less than a given number		
4	Recognise and count in tenths		
5	Recognise horizontal, vertical, perpendicular and parallel lines		
6	Add numbers with up to 3-digits mentally		
7	Subtract numbers with up to 3-digits mentally		
8	Know and use multiplication facts for 3, 4 and 8 multiplication tables		
9	Know and use division facts for 3, 4 and 8 multiplication tables		
10	Compare and order fractions with same numerator or same denominator		
11	Add numbers with up to 3-digits using a formal written method		
12	Subtract numbers with up to 3-digits using a formal written method		
13	Choose efficient methods to add and subtract numbers up to 3-digits		
14	Multiply 2-digit by 1-digit numbers mentally		
15	Divide 2-digit by 1-digit numbers mentally		
16	Multiply 2-digit by 1-digit numbers using a formal written method		
17	Calculate fractions of amounts		
18	Add and subtract fractions with the same denominator		
19	Tell the time to the nearest minute		
20	Calculate durations of events		
21	Measure the perimeter of shapes		
22	Identify angles in shapes		
23	Interpret bar charts		
24	Recall factor-factor-product relationships for 3, 4 and 8 multiplication tables		





CanDoMaths Key Performance Indicators

	Year 4 KPIs		
1	Read and write 4-digit numbers		
2	Compare and order numbers up to 10,000		
3	Round any number up to 4-digits to the nearest 10, 100 or 1000		
4	Classify quadrilaterals		
5	Add and subtract numbers with up to 4-digits mentally		
6	Know and use multiplication facts for 6, 7 and 9 multiplication tables		
7	Know and use division facts for 6, 7 and 9 multiplication tables		
8	Add and subtract numbers with up to 4-digits using a formal written method		
9	Know and use multiplication facts for 11 and 12 multiplication tables		
10	Know and use division facts for 11 and 12 multiplication tables		
11	Choose efficient methods to add and subtract numbers up to 4-digits		
12	Multiply 2-digit by a 1-digit using the distributive law		
13	Multiply 3-digit by a 1-digit using a formal written method		
14	Divide a 3-digit by a 1-digit number		
15	Use place value, known and derived facts to multiply and divide mentally		
16	Identify acute and obtuse angles		
17	Divide 1 and 2-digit numbers by 10 and 100		
18	Add and subtract fractions with the same denominator beyond the whole		
19	Find families of equivalent fractions		
20	Recall factor-factor-product relationships for 6,7,9,11 and 12 multiplication tables		
21	Add and subtract decimal numbers (up to 2 decimal places) including measures and money)		
22	Find the area of rectilinear shapes by counting squares		
23	Describe and plot positions on a 2-D grid as coordinates in the first quadrant		
24	Convert between analogue and digital 12 and 24-hour clocks and other units of time		





CanDoMaths Key Performance Indicators

Year 5 KPIs			
1	Read and write numbers up to 1,000,000		
2	Compare and order numbers up to 1,000,000		
3	Compare and order decimals with up to 3 decimal places		
4	Round numbers to 1 decimal place, nearest whole number and 10, 100, 1000, 10000		
5	Count forwards and backwards with positive and negative numbers		
6	Add and subtract whole numbers with more than 4 digits choosing efficient methods		
7	Add and subtract decimals with up to 3 decimal places choosing efficient method		
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000		
9	Identify and use multiples, factors and prime numbers		
10	Multiply numbers up to 4-digits by 1 or 2-digits using a formal written method		
11	Divide numbers up to 4-digits by 1-digits using a formal written method of division		
12	Use known facts and place value to multiply a whole number by a decimal		
13	Multiply decimal numbers (1 or 2 decimal places) by 1-digit using a formal written method		
14	Compare and order fractions whose denominators are all multiples of the same number		
15	Read and write decimal numbers (up to 3 decimal places) as fractions		
16	Understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100		
17	Convert between adjacent units of metric measure		
18	Convert mixed numbers to improper fractions and vice versa		
19	Add mixed numbers and proper fractions with denominators that are the same and multiples of each other		
20	Subtract proper fractions from mixed numbers with denominators that are the same and multiples of each other		
21	Multiply fractions and mixed numbers by a whole number		
22	Calculate the area of rectangles		
23	Draw given angles, and measure them, in degrees (°)		
24	Interpret line graphs		



CanDoMaths Key Performance Indicators

	Year 6 KPIs		
1	Read, write and order numbers up to 10,000,000		
2	Multiply and divide numbers by 10, 100 and 1000		
3	Multiply numbers up to 4 digits by a 2-digit number choosing efficient methods		
4	Divide numbers up to 4 digits by a two-digit number choosing efficient methods and interpreting the remainders		
5	Calculate intervals across zero		
6	Describe and plot positions on a 2-D grid as coordinates in the four quadrants		
7	Reflect and translate shapes		
8	Simplify fractions		
9	Compare and order fractions, including fractions > 1		
10	Know and use simple fraction, decimal and percentage equivalents		
11	Compare and classify 2-D and 3-D shapes		
12	Know and use angle properties of straight lines, at a point and shapes		
13	Draw simple shapes using given lengths and angles		
14	Add and subtract fractions with denominators that are not multiples of each other		
15	Add and subtract mixed numbers		
16	Multiply simple pairs of proper fractions		
17	Divide proper fractions by a whole number		
18	Find percentages of an amount		
19	Use simple ratio to compare quantities		
20	Convert between different units of metric measure		
21	Calculate the area of triangles and parallelograms		
22	Calculate volumes of cuboids		
23	Use simple formulae expressed in words		
24	Find possible values in missing number problems involving one or two unknowns		