

MATHS YEAR 2

National Curriculum Non-Negotiables

Number and Place Value

Demonstrate an understanding of place value supported by the use of apparatus if required e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 has a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as $35 < 53$ and $42 > 36$.

I can say how much numbers are worth in a bigger number with support.

Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward.

I can count forward and backwards in jumps of 2, 3 and 5 from 0 and in 10s from any number.

Recognise the place value of each digit in a two-digit number (tens, ones).

I can find the place value of each digit of a number with tens and units.

Identify, represent and estimate numbers using different representations, including the number line.

I can find and show numbers using different equipment such as number lines and number squares.

Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.

I can compare and order numbers from 0 to 100 using $<$, $>$ and $=$.

Read and write numbers up to at least 100 in numerals.

I can read and write numbers up to 100 in numbers.

Read and write numbers up to at least 100 in words.

I can read and write numbers up to 100 in words.

Use place value and number facts to solve problems.

I can use place value and number facts to answer questions.

Partition two-digit numbers into different combinations of tens and ones using apparatus if needed e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones.

I can partition two-digit numbers into different combinations of tens and ones using apparatus.

Use reasoning within addition e.g. reason that the sum of 3 odd numbers will always be odd.

I can use reasoning within addition.

Recall the multiples of 10 below and above any given 2 digit number e.g. say that for 67 the multiples are 60 and 70.

I can recall the multiples of 10 below and above any 2 digit number.

Addition and Subtraction

Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.

I can solve problems with addition and subtraction, including those involving numbers, quantities and measures by using objects or pictures.

Solve problems with addition and subtraction, applying his/her increasing knowledge of written methods and mental methods where regrouping may be required.

I can answer simple addition and subtraction questions in my head as well as by writing them down.

Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.

I can use addition and subtraction facts to 20 quickly and work out similar facts to 100.

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones.

I can add and subtract a two digit number and a one digit number mentally and when using objects, number lines and pictures.

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and tens.

I can add and subtract a two digit number and tens mentally and when using objects, number lines and pictures.

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including two two-digit numbers.

I can add and subtract 2 two digit numbers mentally and when using objects, number lines and pictures.

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers.

I can add and subtract 3 one digit numbers mentally and when using objects, number lines and pictures.

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.

I can show that adding 2 numbers can be done in any order but subtraction cannot.

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

I can show that subtraction is the opposite of addition and use this to check my work.

Recall doubles and halves to 20 e.g. knowing that double 2 is 4, double 5 is 10 and half of 18 is 9.

I can remember doubles and halves up to 20.

Use estimation to check that his/her answers to a calculation are reasonable e.g. knowing that $48 + 35$ will be less than 100.

I can use estimation to check that my answers to a calculation make sense.

Solve missing number problems using addition and subtraction.

I can solve missing number problems using addition and subtraction.

Multiplication and Division

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.

I can remember and use multiplication and division facts for the 2, 5 and 10 times tables and recognise odd and even numbers.

Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.

I can answer multiplication and division problems within the tables using \times , \div and $=$.

Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.

I can show that multiplying 2 numbers can be done in any order but division cannot.

Solve problems involving multiplication and division, using concrete materials and mental methods.

I can answer questions involving multiplication and division mentally and with objects.

Solve problems involving multiplication and division using arrays, repeated addition and multiplication and division facts, including problems in contexts e.g. knowing that $2 \times 7 = 14$ and $2 \times 8 = 16$, explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left.

I can answer questions involving multiplication and division using arrays and repeated addition.

Use multiplication facts to make deductions outside known multiplication facts e.g. know that multiples of 5 have one digit of 0 or 5 and use this to reason that 18×5 cannot be 92 as it is not a multiple of 5.

I can use multiplication facts to make deductions outside known multiplication facts.

Solve word problems involving multiplication and division with more than one step e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet.

I can solve multiplication and division word problems with more than one step.

Recognise the relationships between addition and subtraction and rewrite addition statements as simplified multiplication statements e.g. $10 + 10 + 10 + 5 + 5 = 3 \times 10 + 2 \times 5 = 4 \times 10$.

I can rewrite addition statements as simplified multiplication statements.

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Properties of Shape

Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.

I can notice and explain the properties of 2-D shapes e.g. the number of sides and line symmetry.

Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.

I can notice and explain the properties of 3-D shapes e.g. the number of edges, vertices and faces.

Identify 2-D shapes on the surface of 3-D shapes e.g. a circle on a cylinder and a triangle on a pyramid.

I can spot 2-D shapes on the surface of 3-D shapes such as a circle on a cylinder and a triangle on a pyramid.

Compare and sort common 2-D and 3-D shapes and everyday objects describing similarities and differences e.g. find 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices and describe what is different about them.

I can compare and sort common 2-D and 3-D shapes and everyday objects.

Position and Direction

Order and arrange combinations of mathematical objects in patterns and sequences.

I can order mathematical objects in patterns and sequences.

Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

I can use mathematical vocabulary to describe position, direction and movement. This could include movement in a straight line.

Statistics

Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.

I can read and draw simple pictograms, tally charts, block diagrams and simple tables.

Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.

I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.

Ask and answer questions about totalling and comparing categorical data.

I can ask and answer questions about totalling and comparing grouped data.

Fractions

Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity and demonstrate understanding that all parts must be equal parts of the whole.

I can find, name and write fractions of a length, shape, set of objects or amount, including $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$.

Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.

I can write simple fractions facts such as $\frac{1}{2}$ of 6 = 3 and $\frac{2}{4} = \frac{1}{2}$.

Measurement

Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml), to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.

I can choose the right units to measure length, height, mass, temperature or capacity. I can read to the nearest unit and do this on rulers or scales.

Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$.

I can compare amounts using these signs: $>$, $<$ or $=$.

Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.

I can use the £ sign and p sign. I can use notes and coins to make a particular amount.

Find different combinations of coins that equal the same amounts of money.

I can find different ways for coins to add up to an amount.

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

I can add and subtract money and give change.

Compare and sequence intervals of time.

I can put different events in order and compare them.

Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.

I can tell the time to 5 minutes. I can tell when it is quarter past or quarter to an hour. I can draw these on a clock.

Remember the number of minutes in an hour and the number of hours in a day.

I can tell you how many minutes are in an hour and how many hours are in a day.

Read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given e.g. read the temperature on a thermometer or measure capacities using a measuring jug.

I can read scales in divisions of ones, twos, fives and tens.

Read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given e.g. a number line with missing labels.

I can read scales in divisions of ones, twos, fives and tens when some numbers are missing.

Read the time on a clock to the nearest 15 minutes.

I can read the time on a clock to the nearest quarter of an hour.

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