Year 2 Mathematics Yearly Overview

|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| Week 1 | Unit 1 Place Value | Unit 5 Counting, Multiplication and Sorting | Unit 11 <br> Place Value | Unit 16 Length | Unit 21 <br> Place Value and Statistics | Unit 28 <br> Addition and Subtraction |
| Week 2 |  | Unit 6 Statistics | Unit 12 <br> Mass and Volume and Capacity | Unit 17 <br> Addition and Subtraction | Unit 22 <br> Addition and Subtraction | Unit 29 <br> Multiplication and Division |
| Week 3 | Unit 2 <br> Length and Mass | Unit 7 <br> Fractions | Unit 13 <br> Addition and Subtraction | Unit 18 <br> 2-D and 3-D Shape | Unit 23 <br> Capacity and Volume <br> Unit 24 <br> Temperature | Unit 30 <br> Statistics and Calculation |
| Week 4 | Unit 3 <br> Addition and Subtraction | Unit 8 <br> Capacity and Volume <br> Unit 9 <br> Money | Unit 14 Money | Unit 19 <br> Fractions and Position \& Direction | Unit 25 <br> Fractions | Unit 31 <br> Measurement |
| Week 5 |  | Unit 10 Time | Unit 15 <br> Multiplication and Division | Unit 20 Time | Unit 26 <br> Position \& Direction and Time | Assess and review then address significant gaps |
| Week 6 | Unit 4 <br> 2-D and 3-D Shape | Assess and review week |  | Assess and review week | Unit 27 <br> 2-D and 3-D Shape |  |

## Autumn 1-6 weeks

| Number and Place Value Weeks 1 and 2 |  |
| :---: | :---: |
| Lesson | Lesson Focus |
| 1 | Identify and make a two-digit number up to 50 using concrete materials (straws, base 10, arrow cards) - straightforward representations |
| 2 | Identify and make a two-digit number up to 100 using concrete materials (straws, base 10, arrow cards) - straightforward representations |
| 3 | Exchange 10 ones for 1 ten and vice versa Exchange 10 tens for 1 hundred and vice versa |
| 4 | Identify and make a two-digit number up to 100 using concrete materials (straws, base 10, arrow cards) <br> Greater variation built in -2 tens and 3 ones, 3 ones and 2 tens, 1 ten a 13 ones mixed positions of items <br> Different and same |
| 5 | Identify and make a two-digit number up to 100 using concrete materials (PV counters, abacus, arrow cards) <br> Greater variation built in -2 tens and 3 ones, 3 ones and 2 tens, 1 ten a 13 ones mixed positions of items <br> Different and same |
| 6 | Partition a two-digit number in different ways where one group is a multiple of 10 Different and same |
| 7 | 1 more and 1 less/fewer with bridging 10 more and 10 less/fewer with bridging |
| 8 | Compare two numbers Include numbers represented in block graphs and tables |
| 9 | Identify most/least, greatest/least value from a selection Include numbers represented in block graphs and tables |
| 10 | Identify the multiple of 10 either side of a number and which is closest |
| Length and Mass and Application of Number and Place Value Week 3 |  |
| Lesson | Lesson Focus |
| 1 | Measure and record length and height using standard units ( $\mathrm{cm}, \mathrm{m}$ ) |
| 2 | Measure and record length and height using standard units ( $\mathrm{cm}, \mathrm{m}$ ) |
| 3 | Measure and record mass using standard units ( $\mathrm{g}, \mathrm{kg}$ ) |
| 4 | Measure and record mass using standard units ( $\mathrm{g}, \mathrm{kg}$ ) |
| 5 | Compare the values of two lengths or masses |
| Addition and Subtraction Weeks 4 and 5 |  |
| Lesson | Lesson Focus |
| 1 | Add a one-digit number to a two-digit number (no bridging) - concrete and pictorial Part - part - whole |
| 2 | Subtract a one-digit number from a two-digit number (no bridging) - concrete and pictorial <br> Part - part - whole |
| 3 | Solve missing number problems using inverse and part - part - whole |
| 4 | Add a multiple of 10 to a two-digit number (two strategies: add tens and combine ones; conserve number and count on in tens) |
| 5 | Subtract a multiple of 10 from a two-digit number (two strategies: subtract tens and combine ones; conserve number and count back in tens) |
| 6 | Derive and reason about bonds to numbers within 10 If I know that $5+2=7$ then what is $15+2$ |
| 7 | Add TU + TU no bridging concrete and pictorial |
| 8 | Subtract TU - TU no bridging concrete and pictorial |


| 9 | Derive and reason about bonds totalling 20 <br> $1 U+U$ with bridging using 10 frames |
| :---: | :--- |
| 10 | Add three single digit numbers |
| Geometry 2-D and 3-D Shape <br> Week 6 |  |
| Lesson | Lesson Focus |
| 1 | Identify and make (circles), triangles, square rectangles, oblong rectangles and introduce <br> quadrilaterals by counting their sides and vertices - different sizes, orientations, colours, <br> examples and non-examples <br> Different and same |
| 2 | Identify and make pentagons, hexagons and octagons by counting their sides and vertices <br> - different sizes, orientations, colours, examples and non-examples <br> Different and same |
| 3 | Know face, edge and vertex <br> Identify and name 3-D shapes with faces (flat surfaces): cube, cuboid, pyramid, triangular <br> prism by counting their faces and vertices and recognising the shape of their faces - <br> different sizes, orientations, colours, examples and non-examples <br> Different and same |
| 4 | Know face, edge and vertex <br> Identify and name 3-D shapes with faces and curved surfaces: sphere, cylinder, cone by <br> counting their surfaces and vertices and recognising the shape of their faces - different <br> sizes, orientations, colours, examples and non-examples <br> Different and same |

## Autumn 2-5 weeks

| Counting, Multiplication and Sorting (from this point on practise tables facts every day) <br> Week $\mathbf{1}$ |  |
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| Lesson | Lesson Focus |
| 1 | Represent adding the same number two or more times using concrete materials in equal <br> groups and then as an array. |
| 2 | Identify multiplication sentences from a given array (and vice versa), repeated addition <br> number sentence and understand the commutativity of multiplication. |
| 3 | Identify multiplication sentences from a given array (and vice versa), repeated addition <br> number sentence and understand the commutativity of multiplication. |
| 4 | Identify multiplication sentences from a given array (and vice versa), repeated addition <br> number sentence and understand the commutativity of multiplication. |
| 5 | Explore and reason about patterns and sequences counting in 2 s, 5 s and 10s - include <br> sorting |
| Statistics <br> Week $\mathbf{2}$ |  |
| Lesson | Lesson Focus |
| $\mathbf{1}$ | Interpret simple tables and answer questions which ask how many..., most/least <br> common/popular |
| 2 | Interpret simple block graphs and answer questions which ask how many..., most/least <br> common/popular, how many more/fewer..., how many altogether (use strategies covered <br> earlier in +/-) |
| 3 | Interpret simple pictograms (each symbol worth 1) and answer questions which ask how <br> many..., most/least common/popular, how many more/fewer..., how many altogether (use <br> strategies covered earlier in +/-) |
| 4 | Collect data using a tally chart and interpret tally charts |
| 5 | Transfer data from one form to another: table, block graph, pictogram, tally chart <br> (matching representations?) |


| Fractions Week 3 |  |
| :---: | :---: |
| Lesson | Lesson Focus |
| 1 | Recap what one half means. Model one half using shapes and objects. <br> Relate to one quarter to understand denominator, numerator and what a fraction is Split the same shape or object into different numbers of equal parts and compare the sizes of the denominators e.g. a half and a quarter. <br> Use language of whole and part accurately |
| 2 | Split the same set of objects into different numbers of equal parts and compare the sizes of the answers <br> Use equations to represent the fractions of amounts being calculated $1 / 4$ of $8=2$ Use language of whole and part accurately |
| 3 | Find a quarter of a set of objects <br> Use equations to represent the fractions of amounts being calculated $1 / 4$ of $8=2$ Use language of whole and part accurately |
| 4 | Recognise that $2 / 4$ is the same as one half Use equations to represent the fractions of amounts being calculated $1 / 4$ of $8=2$ Use language of whole and part accurately |
| 5 | Find fractions of amounts, match images to calculations, include non-examples, different and same |
| Capacity and Volume Week 4 |  |
| Lesson | Lesson Focus |
| 1 | Measure and record volume/capacity using standard units (ml, I) |
| 2 | Measure, record and compare volume/capacity using standard units (ml, I) |
| Money Week 4 |  |
| Lesson | Lesson Focus |
| 1 | Exchange the correct number of 1 p coins for $2 p, 5 p, 10 p$ and $20 p$ Exchange the correct number of 10 p coins for 20 p, 50 p, $£ 1$ and $£ 2$ |
| 2 | Add two prices together to find the total cost - addition strategies without bridging |
| 3 | Add two prices together to find the total cost - addition strategies with bridging |
| Time Week 5 |  |
| Lesson | Lesson Focus |
| 1 | Recap telling the time to the hour and half past |
| 2 | Tell the time to quarter past the hour and draw hands on the clock to show the time (hour hand will be slightly past) |
| 3 | Tell the time to quarter to the hour and draw hands on the clock to show the time (hour hand will be slightly before) |
| 4 | Tell the time to quarter to the hour and draw hands on the clock to show the time (hour hand will be slightly before) |
| 5 | Solve simple problems involving time |
| Learning Check Up To This Point |  |

Spring 1-6 weeks

| Number and Place Value Week 1 |  |
| :---: | :---: |
| Lesson | Lesson Focus |
| 1 | Identify what changes and stays the same when 10 is added to or removed from a twodigit number <br> Describe the rule in a number sequence that counts on or back in tens |
| 2 | Order three or more two-digit numbers when represented using the same equipment |
| 3 | Identify numbers on a beadstring and link to the number line Correctly place a two-digit number on a number line with multiples of 10 labelled |
| 4 | Correctly place a two-digit number on a number line with multiples of 10 labelled |
| 5 | Round a two-digit number to the nearest 10, including understanding that exactly halfway, the number rounds up |
| Mass, Volume and Capacity <br> Week 2 |  |
| Lesson | Lesson Focus |
| 1 | Choose and use the correct equipment to measure mass e.g. balance scales, kitchen scales (with appropriate scale) |
| 2 | Order the values of three or more masses |
| 3 | Choose and use the correct equipment to measure volume/capacity e.g. measuring cylinders / jugs with appropriate scales |
| 4 | Order the values of three or more volumes / capacities |
| 5 | Solve simple problems in a practical context involving addition and subtraction of measures |
| Addition and Subtraction Week 3 |  |
| Lesson | Lesson Focus |
| 1 | Addition with exchange concrete equipment |
| 2 | Subtraction with exchange concrete equipment |
| 3 | Subtraction with exchange concrete equipment |
| 4 | Model subtraction as difference using concrete materials and count between numbers to find the difference |
| 5 | Recognise that $?+3=11$ can be solved by calculating $11-3=$ ? because 11 is the whole which is made of two parts one of which is 3 <br> Recognise that ? - $5=9$ can be solved by calculating $9+5=$ ? because two parts which are 9 and 5 go together to create the whole |
| Money (use pand $£$ symbols correctly throughout this unit) Week 4 |  |
| Lesson | Lesson Focus |
| 1 | Exchange different coins for other coins of the same value |
| 2 | Recognise that amounts of money can be partitioned in different ways (using coins) e.g. 50 p can be 30 p and 20 p or 15 p and 35 p |
| 3 | For a given value identify how much more can be spent following the purchase of one item (finding change) e.g. $38 p+$ ? $=50$ p |
| 4 | Identify combinations which can be bought for a specific amount of money e.g. what two or more items can I buy for exactly 70p? |
| 5 | Solve problems involving addition and subtraction of money |
| Multiplication and Division Weeks 5 and 6 |  |
| Lesson | Lesson Focus |
| 1 | Write two different number sentences to represent a repeated addition situation and an array e.g. $5+5+5=15$ or $5 \times 3=15$ |
| 2 | Recall and use doubles of all multiples of 10 up to 100 |
| 3 | Use the previously identified relationship to recall and use halves of all multiples of 10 up to 100 with an even tens digit |


|  | Use partitioning to halve simple two-digit even numbers (numbers in which the tens are <br> even) |
| :---: | :--- |
| 4 | In real life contexts share an amount equally across sets where there is no remainder and <br> where there is <br> Model division number sentences using concrete materials |
| 5 | In real life contexts share an amount equally across sets where there is no remainder and <br> where there is <br> Model division number sentence using concrete materials <br> Recognise that in practical situations the division of one number by another cannot be <br> done in any order because they give different answers |
| 6 | Make equal sized groups from an amount where there is no remainder <br> Use concrete materials to represent division as grouping by creating equal sized groups <br> of a given size from an amount <br> Write a number sentence to represent the amount being grouped, the number in each <br> group and how many groups are created e.g. 20 $\div 5=4$ |
| 7 | Using an array, show how many groups of a given size can be made from the total (using <br> rows and columns) <br> Write a number sentence to represent the total and the groups of a given size e.g. $20 \div 5$ <br> $=$ ? understanding this as how many groups of 5 can be made out of 20 |
| 8 | Represent and solve multiplication and division problems using concrete materials |
| 9 | Represent and solve multiplication and division problems using pictorial representations <br> and arrays |

## Learning Check Up To This Point

## Spring 2-5 weeks

| Length Week 1 |  |
| :---: | :---: |
| Lesson | Lesson Focus |
| 1 | Choose and use the correct equipment to measure length and height in centimetres e.g. ruler, metre rule, tape measure |
| 2 | Choose and use the correct equipment to measure length and height in metres e.g. metre rule, tape measure, trundle wheel |
| 3 | Order the values of three or more lengths or heights |
| 4 | Solve simple problems in a practical context involving addition and subtraction of measures (identifying operation required from vocabulary used represent as bar model) |
| 5 | Solve simple problems in a practical context involving addition and subtraction of measures (identifying operation required from vocabulary used represent as bar model) |
| Addition and Subtraction Week 2 |  |
| Lesson | Lesson Focus |
| 1 | Addition with exchange using jottings from concrete |
| 2 | Subtraction with exchange jottings from concrete |
| 3 | Subtraction with exchange jottings from concrete |
| 4 | Subtraction with exchange jottings from concrete |
| 5 | Represent and solve addition and subtraction problems using bar modelling (length context) |
| 2-D and 3-D Shape Week 3 |  |
| Lesson | Lesson Focus |
| 1 | Describe 2-D shapes according to the number of sides and vertices, and whether any of the sides or vertices are the same size as each other, e.g. oblong rectangle and regular hexagon |
| 2 | Describe 2-D shapes according to the number of sides and vertices, and whether any of the sides or vertices are the same size as each other, e.g. oblong rectangle and regular hexagon Include sorting shapes |


| 3 | Identify a vertical line of symmetry in a 2-D shape |
| :---: | :---: |
| 4 | Describe 3-D shapes according to the number and shape of the faces, the number of edges and vertices and whether any of the faces are the same size as each other |
| 5 | Describe 3-D shapes according to the number and shape of the faces, the number of edges and vertices and whether any of the faces are the same size as each other Include sorting shapes |
| Fractions  <br> Week 4 Position and Direction |  |
| Lesson | Lesson Focus |
| 1 | Recognise, name and find one quarter, two quarters, three quarters and four quarters of a shape and object |
| 2 | Recognise, name and find one quarter, two quarters, three quarters and four quarters of a length (represent using bar model) |
| 3 | Recognise, name and find one quarter, two quarters, three quarters and four quarters of a quantity |
| 4 | Recognise, name and find one quarter, two quarters, three quarters and four quarters of a quantity |
| 5 | Know that a quarter turn is the same as a turn through one right angle Know that a half turn is the same as a turn through two right angles Know that a full turn is the same as a turn through four right angles Plate spinner modelling |
| Time Week 5 |  |
| Lesson | Lesson Focus |
| 1 | Recap telling the time to the hour, half past, quarter past and quarter to the hour |
| 2 | Count in fives clockwise starting at 12 (for zero) to 6 (for thirty) progressing to counting in times, e.g. 5 minutes past, 10 minutes past, 15 minutes past (quarter past), 20 minutes past etc. |
| 3 | Tell the time to the nearest five minutes past the hour (up to 25 minutes past) |
| 4 | Tell the time to the nearest five minutes past the hour (up to 25 minutes past) |
| 5 | Solve simple problems involving time language focus |
| Learning Check Up To This Point |  |

## Summer 1-6 weeks

| Number and Place Value Week 1 |  | Statistics |
| :---: | :---: | :---: |
| Lesson | Lesson Focus |  |
| 1 | Recap partitioning a two-digit number into a multiple of 10 and another number Partition a two-digit number in different ways and reason about how the parts change |  |
| 2 | Use the <, > and = signs when comparing one and two-digit numbers, particularly when the numbers have the same digits e.g. 34 and 43 |  |
| 3 | Order the amounts for each category in a data set |  |
| 4 | Correctly place a number from 1-100 on a number line with multiples of 10 marked but not labelled |  |
| 5 | Correctly place a number from 1-100 on a number line with multiples of 10 marked but not labelled |  |
| Addition and Subtraction Week 2 |  |  |
| Lesson | Lesson Focus |  |
| 1 | Extend number sequences counting on and back in twos, fives and tens from any number |  |
| 2 | Addition with exchange using jottings |  |
| 3 | Subtraction with exchange jottings |  |
| 4 | Mixed addition and subtraction with exchange jottings |  |
| 5 | Represent and solve addition and subtraction problems using bar modelling |  |
| Capacity and Volume Week 3 |  |  |
| Lesson | Lesson Focus |  |
| 1 | Know common points of reference for volume / capacity such as teaspoon / medicine spoon 5 ml , and large bottle of fizzy drink is 2 litres <br> Use common points of reference they know to estimate the volume in / capacity of other vessels |  |
| 2 | Read scales to measure the volume of liquid including pictures |  |
| 3 | Use <, > and = to compare volumes and capacities |  |
| Temperature Week 3 |  |  |
| Lesson | Lesson Focus |  |
| 1 | Know that temperature is the measure of how hot or cold something is Know that temperature is measured in degrees Celsius and is measured using a thermometer Read the temperature on a thermometer |  |
| 2 | Know that the average room temperature is between 18 and 20 degrees Celsius Compare different temperatures saying whether they are hotter or colder than room temperature <br> Read the temperature on a thermometer |  |
| Fractions Week 4 |  |  |
| Lesson | Lesson Focus |  |
| 1 | Recognise and name one third as any one of three equal parts of a shape or object and write the fraction one third |  |
| 2 | Find one third of a shape, object, set of objects/quantity or length |  |
| 3 | Find different fractions of shapes, objects, quantities and lengths |  |
| 4 | Find different fractions of shapes, objects, quantities and lengths |  |
| 5 | Count in steps of $1 / 4$ changing the counting sequence to simplest form |  |


| Time <br> Week $\mathbf{5}$ |  |
| :---: | :--- | :--- |
| Lesson | Lesson Focus |
| 1 | Compare different units of time, converting between units where appropriate e.g. half an <br> hour is 30 minutes |
| 2 | Tell the time to the nearest 5 minutes to the hour including draw hands on the clock |
| 3 | Tell the time to the nearest 5 minutes including draw hands on the clock |
| 4 | Understand language of clockwise and anticlockwise when turning: quarter, half, three <br> quarter and full turns <br> Starting point North/up |
| 5 | Understand language of clockwise and anticlockwise when turning: quarter, half, three <br> quarter and full turns <br> Different starting points |
| 2-D and <br> Week $\mathbf{3}$ |  |
| Lesson Shape | Lesson Focus |
| 1 | From a set of shapes identify those with a vertical line of symmetry and those without |
| 2 | Sort and reason about shapes using the properties learned |
| 3 | Sort and reason about shapes using the properties learned |
| 4 | Order and arrange a combination of mathematical objects in patterns / sequences |

Learning Check Up To This Point

## Summer 2-4 weeks

| Addition and Subtraction Week 1 |  |
| :---: | :---: |
| Lesson | Lesson Focus |
| 1 | Add numbers by bridging through a multiple of 10 efficiently e.g. $48+6$ becomes $48+2$ $+4$ |
| 2 | Subtract numbers by bridging through a multiple of 10 efficiently e.g. $43-6$ becomes 43 -3-3 |
| 3 | Add 9 and 19 by rounding and compensating e.g. $46+9$ becomes $46+10-1$ using a number line |
| 4 | Subtract 9 and 19 by rounding and compensating e.g. 46-9 becomes 46-10+1 using a number line |
| 5 | Mixed addition and subtraction - select the operation and the strategy |
| Multiplication and Division Week 2 |  |
| Lesson | Lesson Focus |
| 1 | Recap multiplication as repeated addition, arrays including problem solving and commutativity |
| 2 | Recap division as grouping: make equal sized groups including where there is a remainder |
| 3 | Understand the remainder in the context of a grouping division problem |
| 4 | Recap division as sharing |
| 5 | Problems solving with division, selecting grouping or sharing strategy appropriate for the context |
| Statistics and Calculation Week 3 |  |
| Lesson | Lesson Focus |
| 1 | Ask and answer questions about statistics presented in tables, block graphs, pictograms (where the symbol is worth 1 ) and tally charts |
| 2 | Interpret and construct pictograms where the symbol is worth 5 |
| 3 | Interpret and construct pictograms where the symbol is worth 2 or 10 (including partial symbols) |
| 4 | Sort objects, shapes and numbers in different ways |
| 5 | Identify the property / properties by which a set has been sorted |

Measurement
Week 4

| Lesson | Lesson Focus |
| :---: | :--- |
| 1 | Know common points of reference for length and height such as ruler 30 cm , door height <br> 2 m <br> Use common points of reference they know to estimate the length and height of different <br> objects <br> Measure the length and height of different objects |
| 2 | Use <, > and = to compare lengths and heights |
| 3 | Know common points of reference for mass such as small packet of crisps between 25 g <br> and 30 g and a bag of sugar 1kg <br> Use common points of reference they know to estimate the mass of different objects <br> Measure the mass of different objects |
| 4 | Use <, > and = to compare masses |
| 5 | Solve mixed measurement problems |
| Learning Check Up To This Point |  |

## Starter Notes

Exchange up and down regularly
Bonds to 10
Bonds of numbers within 10
Multiplication tables facts for $10 \mathrm{~s}, 5 \mathrm{~s}$ and 2 s
Numbers in words
Find 1 or 10 more or less than a given number
Round numbers to the nearest 10
Choose appropriate calculation strategies
Arithmetic test prep
Recall addition and subtraction facts fluently (to 20 and multiples of 10 to 100 and multiples of 5 to 60)
Missing number problems
Odd and even numbers and tables facts
Doubling and halving of simple two-digit numbers
Fraction language - denominator, numerator
Recognise and name fractions
Patterns and sequences
Sorting numbers, shapes and objects
Money - coins to make the same amount
Time equivalences - 60 mins 1 hour, 24 hours 1 day

