|  | YEAR 1 Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
|  | Place Value Wk 1-5 | Place Value Wk 1-3 | Place Value Wk 1 |
|  | 1.Sorting objects | 39.Count numbers to 20 in numerals and words | Recap count in 2 s \& 5s |
|  | 2.Counting objects (10) | 40. Numbers 11-20 | 73. Count in 10 |
|  | 3.Represent objects | 41. Tens and ones |  |
|  | 4.Count, read and write forwards (0-10) | 42. One more/One less (numbers to 20) | Multiplication and division Wk 1-3 |
|  | 5. Count, read and write backwards (0-10) | 43. Compare groups of objects | 74. Make equal groups |
|  | 6. One more | 44. Compare numbers to 20 | 75. Add equal groups |
|  | 7.One less | 45. Order groups of objects | 76. Make arrays |
|  | 8. One to One Correspondence | 46. Order Numbers | 77. Making doubles |
|  | 9. Comparing groups to 10 |  | 78. Make equal groups (grouping) |
|  | 10. Introduce symbols | Addition and subtraction Wk 4-6 | 79. Make equal groups (sharing) |
|  | 11 Comparing numbers | 47. Add by counting on |  |
|  | 12 Order Groups | 48.Find and make number bond | Fractions Wk 4-5 |
|  | 13 Order number | 49. Add by making 10 | 80. Find a half of shapes |
|  | 14 Ordinal numb | 50 Subtraction not crossing 10 | 81. Find half of an amoun |
|  | 15 The number lin | 51. Subtraction crossing 10 (1) | 82. Find a quarter of shapes |
|  | 16 Part Whole Model | 52. Subtraction crossing 10 (2) 53. Related facts | 83. Find a quarter of an amount |
|  | Addition \& Subtraction Wk 6-10 | 54. Compare number sentences | Geometry- Position and direction Wk 6 |
|  | 17.The addition symbol |  | 84. Describe turns |
|  | 18. Fact families | Place Value Wk 7-8 | 85. Describe position (1) |
|  | 19. Find number bonds (within 10) | 55. Numbers to 50 | 86. Describe position (2) |
|  | 21 Number bonds to 10 | 57. Represent numbers to 50 | Place value Wk 7-8 |
|  | 22 Comparing number bonds | 58. One more/one less (to 50) | 87. Counting to 100 |
|  | 23 Adding together | 59. Comparing objects within 50 | 88. Partitioning numbers |
|  | 24 Adding more | 60. Comparing numbers within 50 | 89. Comparing numbers (1) |
|  | 25 Finding a part | 61. Ordering numbers to 50 | 90. Comparing numbers (2) |
|  | 26 Subtraction (Taking away, crossing out | 62. Count in 2 s | 91. Ordering Numbers |
|  | 27. Introducing the subtraction symbol <br> 28. Finding a part/braking apart | 63. Count in 5 s | 92. One more, one less |
|  | 29. Fact Families (The 8 facts) | Length and height Wk 9 | Measurement- money Wk 9 |
|  | 30 Subtraction counting back | 64. Compare lengths and heights | 93. Recognising coins |
|  | 31 Subtraction finding the difference | 65. Measure lengths (1) | 94. Recognise notes |
|  | 32 Compare addition and subtraction statements 1 <br> 33. Compare addition and subtraction statements 2 | 66. Measure lengths (2) | 95. Counting in coins |
|  |  | Mass and volume Wk 10-11 | Measurement- time Wk 10-11 |
|  | Geometry Wk 11 | 67. Introduce weight and mass | 96. Before and after (time) |
|  | 34. Recognise and name 3D shapes | 68. Measure mass | 97. Dates |
|  | 35.Sort 3D shapes | 69. Compare mass | 98. Time to the hour |
|  | 36. Recognise and name 2D shapes | 70. Introduce capacity and volume | 99. Time to half an hour |
|  | 37. Sort 2D shapes | 71. Measure capacity | 100. Writing time |
|  | 38. Patterns with 2D and 3D Shapes | 72. Compare capacity | 101. Compare time |
|  | Wk 12 Consolidation | WK 12 Consolidation | Wk 12 Consolidation |
|  | Number Place Value (within 10) <br> Count to ten, forwards and backwards, beginning with 0 or 1 , or from any given number. <br> - Count, read and write numbers to 10 in numerals and words. <br> - Given a number, identify one more or one less. <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. <br> Number: Addition and Subtraction (within 10) <br> Represent and use number bonds and related subtraction facts within 10. <br> - Read, write and interpret mathematical statements involving addition ( + ), subtraction ( $(-)$ and equals ( $=$ ) signs. <br> - Add and subtract one digit numbers to 10 , including zero. <br> - Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems. <br> Geometry <br> Recognise and name common 2-D shapes, including: <br> (e.g. rectangles (including squares), circles and triangles). <br> - Recognise and name common 3-D shapes, including: (e.g. cuboids (including cubes), pyramids and spheres) | Number Place Value (within 20) <br> Count to twenty, forwards and backwards, beginning with 0 or 1 , from any given number. <br> - Count, read and write numbers to 20 in numerals and words. <br> - Given a number, identify one more or one less. <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. <br> Number: Addition and Subtraction <br> Represent and use number bonds and related subtraction facts within 20. <br> - Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. <br> - Add and subtract one-digit and two-digit numbers to 20, including zero. <br> - Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7= ஏ-9. <br> Number Place Value (within 50) (including multiples of of 2, 5 and 10) <br> Count to 50 forwards and backwards, beginning with 0 or 1, or from any number. <br> - Count, read and write numbers to 50 in numerals. <br> - Given a number, identify one more or one less. <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. <br> - Count in multiples of twos, fives and tens. <br> Measurement (length and height) <br> Measurement: Length and Height Measure and begin to record lengths and heights. <br> - Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half). <br> Measurement (weight and volume) <br> Measurement: Weight and Volume Measure and begin to record mass/weight, capacity and volume. <br> - Compare, describe and solve practical problems for mass/weight:[for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]. | Number: Multiplication and (including multiples of 2, 5 and <br> 10) <br> Count in multiples of twos, fives and tens. <br> - 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. <br> Number: Fractions <br> Recognise, find and name a half as one of two equal parts of an object, shape or quantity. <br> - Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. <br> - Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) <br> - Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]. <br> Geometry: Position and Direction <br> Describe position, direction and movement, including whole, half, quarter and three quarter turns <br> Number: Place Value (within 100) <br> Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number. <br> - Count, read and write numbers to 100 in numerals. <br> - Given a number, identify one more and one less. <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than, most, least. <br> Measurement: Money <br> Recognise and know the value of different denominations of coins and notes. <br> Measurement: Time <br> Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. <br> - Recognise and use language relating to dates, including days of the week, weeks, months and years. <br> - Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. <br> - Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later]. <br> - Measure and begin to record time (hours, minutes, seconds). |
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| YEAR 2 Autumn |  |
| :---: | :---: |
| Place value Wk 1-4 |  |
| 1. | Counting to 100 |
| 2. | Reading and writing numbers to 100 |
|  | Representing numbers to 100 |
| 4. | Tens and ones- Part whole model |
|  | Tens and ones using addition |
| 6. | Place value chart |
| 7. | Compare objects |
|  | Compare numbers |
| 9. | Order numbers |
|  | $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s |
| 11. | Counting in 3 s |
| Addition and subtraction Wk 5-9 |  |
|  | Fact families (bonds to 20) |
|  | Check calculations |
|  | Compare number sentences |
|  | Related facts |
|  | Number bonds to 100 (10s) |
|  | Add and subtract 1s |
|  | 10 more/ 10 less |
| 19. | Add and subtract 10s |
|  | Add two digits and 1 digit crossing 10s |
|  | Subtract 1 digit from 2 digits crossing 10s |
|  | Add two 2-digit numbers (not crossing 10s) |
|  | Add two 2 -digit numbers- crossing 10 |
|  | Subtract two 2-digit numbers- not crossing 10 |
|  | Subtract two 2-digit numbers- crossing 10 |
|  | Number bonds to 100 (tens and ones) |
|  | Adding three 1 digit numbers |

## Shape Wk 10-12

59. Recognise 2D and 3D shapes
60. Count the sides on 2D shapes
61. Count the vertices on $2 D$ shapes
62. Draw 2 D shapes
63. Lines of symmetry
64. Sort 2D shapes
65. Make patterns with 2 D shapes
66. Count faces on 3D shapes
67. Count edges on 3D shapes
68. Sort 3D shapes
69. Make patterns with 3D shapes

Place Value

- Read and write numbers to at least 100 in numerals and in words.
- Recognise the place value of each digit in a two-digit number (tens, ones) Identify, represent, and estimate numbers using different representations including the number line. Compare and order numbers from 0 up to 100; use and = signs.
- Use place value and number facts to solve problems.
- Count in steps of 2, 3 and 5 from 0 , and in tens from any number, forward and backward.
Addition and Subtraction
- Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.
- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.
- Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Shape
- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.
- Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.
- Identify 2-D shapes on the surface of 3-D shapes, [fo example, a circle on a cylinder and a triangle on a pyramid].
- Compare and sort common 2-D and 3-D shapes and everyday objects.


## Spring

28 Count money ( 1-2
29. Count money (pounds)
30. Count money (notes and coins
31. Select money
31. Select money
32. Make the same amount of money
33. Compare money
34. Find the total of the money
35. Find the difference between the money
37. Two-step problems with money

Multiplication and division Wk 3-7
38. Recognise equal groups
39. Make equal groups
40. Add equal groups
41. Multiplication sentences using the x symbol
42. Multiplication sentences from pictures
43. Using arrays for multiplication
44. 2 times table
45. 5 times table
46. 10 times table
47. Make equal groups (sharing)
48. Make equal groups (grouping)
49. Divide by 2
50. Odd and even numbers
51. Divide by 5
52. Divide by 10

## Measurement-Length and height Wk 8-9

83. Measure lengths (cm)
84. Measure lengths ( m )
85. Compare length
86. Order lengths
87. Measure length four operation

Measurement- Mass, capacity, and temperature Wk 10-12
98. Compare mass
99. Measure mass
100. Compare volume
101. Millilitres
102. Litres
103. Temperature
oney
Recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value.

- Find different combinations of coins that equal the same amounts of money.
- Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.


## Multiplication and Divisio

- Recall and use multiplication and division facts for the 2,5 and 10 times tables, including recognising odd and even numbers.
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the
multiplication ( x ), division $(\div$ ) and equals ( $=$ ) sign.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
- Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Recall and use multiplication and division facts for the 2,5 and 10
times tables, including recognising 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.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
- Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.


## Measurement-Length and height

- Choose and use appropriate standard units to estimate and measure length $/$ height in any direction $(\mathrm{m} / \mathrm{cm})$; mass $(\mathrm{kg} / \mathrm{g})$; temperature $\left({ }^{\circ} \mathrm{C}\right)$; capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.
- Compare and order lengths, mass, volume/capacity and record the results using $>$, < and $=$.
Measurement- Mass, capacity, and temperature
- Choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature $\left({ }^{\circ} \mathrm{C}\right)$ capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.
- Compare and order lengths, mass, volume/capacity and record the results using $>$, < and $=$.

Summer
Fractions Wk 1-3
71. Make equal parts
73. Find a half
74. Recognise a quarter
75. Find a quarter
76. Recognise a third
77. Find a third
78. Unit fractions
79. non-unit fractions
80. Equivalence of half and 2 quarters
81. Find three quarters
82. Count in fractions

## Measurement- Time Wk 4-6

92. O'clock and half past
93. Quarter past and quarter to
94.Telling the time to five minutes
94. Hours and days
95. Find durations of time
96. Compare durations of time

Statistics Wk 7-8
53. Make tally charts
54. Draw pictograms (1-1)
55. Interpret pictograms (1-1)
56. Draw pictograms ( 2,5 and 10 )
57. Interpret pictograms ( 2,5 and 10 )
58. Block diagrams

## Geometry- Position and direction Wk9-10

88. Describing movement
89. Describing turns
90. Describing movement
91. Making patterns with shapes

## Consolidation

Statistics
Interpret and construct 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
- Ask and answer questions about totalling and comparing categorical data.
Fractions
- Recognise, find, name and write fractions 13 , 14, 24 and 34 of a length, shape, set of objects or quantity.
- Write simple fractions for example, 12 of $6=$ 3 and recognise the equivalence of 24 and 1 2.


## Geometry-Position and Direction

- 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 anticlockwise).
- Order and arrange combinations of mathematical objects in patterns and sequences.


## Measurement- Time

- 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.
- Know the number of minutes in an hour and the number of hours in a day.
- Compare and sequence intervals of time.



| Year 4 Autumn | Spring | Summer |
| :---: | :---: | :---: |
| Place Value Wk 1-4 | Multiplication and division Wk1-3 | Decimals Wk1-2 |
| 1. Rounding to the nearest $10 / 100$ | 39. 11 times table | 75. Making a whole |
| 2. Count in 1000s | 40.12 times table | 76. Write decimals |
| 3. 1000s, 100s, 10 s and 1 s | 41. Multiply three numbers | 77. Compare decimals |
| 4. Partitioning 4-digit numbers | 42. Factor pairs | 78. Order decimals |
| 5. Number line to 10,000 | 43. Efficient multiplication | 79. Rounding decimals |
| 6. $1000 \mathrm{more} / 1000$ less | 44. Multiplication written methods | 80. Halves and quarters as decimals |

7. Compare 4-digit numbers
8. Order 4-digit numbers
9. Round to 1,000
10. Count in 25 s
11. Negative numbers
12. Roman numerals (100)

## Addition and Subtraction Wk 5-7

13. Add and subtract $1 \mathrm{~s}, 10 \mathrm{~s}, 100 \mathrm{~s}, 1000$ s
14. Add two 4-digit numbers with no exchange
15. Add two 4 -digit numbers with 1 exchange
16. Add two 4 -digit numbers with more than 1 exchange.
17. Subtract two 4-digit numbers- no exchange
18. Subtract two 4 -digit numbers- one exchange
19. Subtract two 4-digit numbers- more than one exchange
20. Efficient subtraction
21. Estimate answers
22. Checking strategies

## Area Wk8

51. What is area?
52. Area (counting squares)
53. Area (making shapes)
54. Area (comparing shapes)

## Multiplication and division Wk9-11

27. Multiplying by 10
28. Multiplying by 100
29. Dividing by 10
30. Dividing by 100
31. Multiply by 1 and 0
32. Divide by 1 and itself
33. Multiply and divide by 6
34. 6 times table and division facts
35. Multiply and divide by 9
36. 9 times table and division fact
37. Multiply and divide by 7
38. 7 times table and division facts

## Consolidation Wk12

## Place Value

- Count in multiples of 6, 7, 9. 25 and 1000
- Find 1000 more or less than a given number
- Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones).
- Order and compare numbers beyond 1000
- Identify, represent and estimate numbers using differen representations.
- Round any number to the nearest 10,100 or 1000 . Solve number and practical problems that involve all of the above and with increasingly large positive numbers.
- Count backwards through zero to include negative numbers Addition and subtraction
-Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why. Area
-Find the area of rectilinear shapes by counting squares. Multiplication and Division
-Recall and use multiplication and division facts for multiplication tables up to $12 \times 12$.
- Count in multiples of 6, 7, 9. 25 and 1000
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers
- 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.


## Multiplication and Division

-Recall and use multiplication and division facts for multiplication table up to $12 \times 12$.

- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers.
- Recognise and use factor pairs and commutativity in mental calculations. - Recognise and use factor pairs and commutativity in mental calculations
- Multiply two digit and three digit numbers by a one digit number using formal written layout.
- 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.
Length and perimeter
-Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
- Convert between different units of measure [for example, kilometre to
metre].
ractions fractions.
fractions
Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. - 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
- Add and subtract fractions with the same denominator

Decimal
-Recognise and write decimal equivalents of any number of tenths or hundredths

- Find the effect of dividing a one or two digit number by 10 or 100 identifying the value of the digits in the answer as ones, tenths and hundredths.
- Solve simple measure and money problems involving fractions and decimals to two decimal places
- Convert between different units of measure [for example, kilometre to metre].


## Decimals

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 write decimal equivalents to $1 / 4,1 / 2$ and $3 / 4$.
- Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths


## Money

-Estimate, compare and calculate different measures, including money in pounds and pence.

- Solve simple measure and money problems involving fractions and decimals to two decimal places.
Time
-Read, write and convert time between analogue and digital 12- and 24-hour clocks.
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Statistics
- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.


## Position and Direction

- Identify acute and obtuse angles and compare and order angles up to two right angles by size.
- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Identify lines of symmetry in 2-D shapes presented in different orientations.
- Complete a simple symmetric figure with respect to a specific line of symmetry.
Describe positions on a 2-D grid as coordinates in the first quadrant. - Plot specified points and draw sides to complete a given polygon. - Describe movements between positions as translations of a given unit to the left/ right and up/ down.

| ar 5 Autumn | Spring | Summer |
| :---: | :---: | :---: |
| Place Value Wk 1-3 |  | Shape Wk 1-3 |
| 1. Place value to 10,000 | Multiplication \& Division Wk 1-3 | 86. Measuring angles in degrees |
| 2. Rounding to $10,100,1000$ | 37. Multiply 4-digits by 1 -digit | 87. Measuring acute angles |
| 3. Place value to 100,000 | 38. Multiply 2 -digits by 2 digits (area model) | 88. Measuring obtuse angles |
| 4. Compare and order numbers to 100,000 | 39. Multiply 2 -digits by 2 -digits | 89. Drawing lines and angles accurately |
| 5. Round within 100,000 | 40. Multiply 3 -digits by 2 -digits | 90. Angles on a straight line |
| 6. Number to 1 million | 41. Multiply 4 -digits by 2 -digits | 91. Angles around a point |
| 7. Counting in powers of 10 | 42. Divide 4 -digits by 1 -digit | 92. Lengths and angles in shapes |
| 8. Compare and order numbers to $1,000,000$ | 43. Division with remainders | 93. Regular and irregular polygons |
| 9. Rounding to $1,000,000$ |  | 94. Reasoning about 3D shapes |
| 10. Negative numbers | Fractions Wk 4-5 |  |
| 11. Roman numerals (1000) | 59. Multiplying unit fractions by an integer | Position and direction Wk 4-5 |
| Addition and Subtraction Wk 4-5 | 60. Multiply non-unit fractions by an integer | 95. Position in the first quadrant |
| 12. Column addition more than 4 digits | 61. Multiply mixed numbers by an integer | 96. Translation |
| 13. Column subtraction more than 4 digits | 62. Fraction of an amount | 97. Translation with coordinates |
| 14. Round to estimate and approximate | 63. Fractions as operations | 98. Reflection (shape) |
| 15. Inverse operations |  | 99. Reflection with coordinates |
| 16. Multi-step problems | Decimals \& Percentages Wk 6-8 |  |
| Multiplication and division Wk 6-8 | 64. Numbers to two decimal places | Decimals Wk 6-8 |
| 23. Multiples | 65. Decimals as fractions 1 | 74. Adding decimals within 1 |
| 24. Factors | 66. Decimals as fractions 2 | 75. Subtracting decimals within 1 |
| 25.Common Factors | 67. Understand Thousandths | 76. Complements to 1 |
| 26. Prime numbers | 68. Thousandths as decimals | 77. Adding decimals across the whole |
| 27. Square numbers | 69. Rounding decimals | 78. Adding decimals (same decimal place) |
| 28. Cube numbers | 70. Order and compare decimals | 79. Subtract decimals (same decimal places) |
| 29. Multiply by 10,100 and 1000 | 71. Understand percentages | 80. Adding decimals (different decimal places) |
| 30. Dividing by 10,100 and 100031. Multiples of 10,100 and 1000 | 72. Percentages as fractions and decimals | 81. Subtract decimals (different decimal |
|  | 73. Equivalent F.D.P | places) |
| 31. Multiples of 10,100 and 1000 Fractions WK 9-12 |  | 82. Adding and subtracting wholes and |
| 44. Equivalent fractions | Perimeter \& Area Wk 9-1 | decimals |
| 45. Improper fractions to mixed numbers | 32. Measure perimeter | 83. Decimal sequences |
| 46. Mixed numbers to improper fractions47. Number sequences (fractions) | 33. Calculating perimeter | 84. Multiplying decimals by 10,100 and 1000 . |
|  | 34. Area of rectangles | 85. Dividing decimals by 10,100 and 1000 |
| 48. Compare and order fractions less than 1 | 35. Area of compound shapes | Converting Units Wk 9-10 |
| 49. Compare and order fractions greater than 1 <br> 50. Add and subtract fractions (same denominator) | 36. Area of irregular shapes | 100. Kilograms and kilometres |
|  |  | 101. Millimetres and millilitres |
| 51. Add fractions within 1 | Statistics | 102. Metric Units |
| 52. Add three or more fractions | 17. Read and interpret line graphs | 103. Imperial Units |
| 53. Add fractions | 18. Draw line graphs | 104. Converting units of time |
| 54. Add mixed numbers | 19. Solving problems with line graphs |  |
| 55. Subtract fractions | 20. Read and interpret tables | Volume Wk 11 |
| 56. Subtract mixed numbers57. Breaking the whole | 21. Two-way tables | 106. What is volume? |
|  |  | 107. Compare volume? |
| 58. Subtract two mixed numbers |  | 108. Estimate volume 109. Estimate capacity |
| Place Value <br> -Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. <br> - Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. <br> - Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. | Multiply and Division |  |
|  | - Multiply and divide numbers mentally drawing upon known | - Identify 3D shapes, including cubes and other cuboids, |
|  |  |  |
|  | - Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for | - Use the properties of rectangles to deduce related facts and find missing lengths and angles. |
|  | 2 digit numbers. <br> - Divide numbers up to 4 digits by a one digit number using the | - Distinguish between regular and irregular polygons base on reasoning about equal sides and angles. |
| - Round any number up to 1000000 to the nearest $10,100,1000,10000$ and 100000. <br> - Solve number problems and practical problems that involve all of the above. | formal written method of short division and interpret | - Know angles are measured in degrees: estimate and |
|  | remainders appropriately for the context. | compare acute, obtuse and reflex angles. |
| - Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. <br> Addition and Subtraction | - Solve problems involving addition and subtraction, multiplication and division and a combination of these, | - Draw given angles, and measure them in degrees. <br> - Identify: angles at a point and one whole turn (total 360 ) |
| - Add and subtract numbers mentally with increasingly large numbers. <br> - Add and subtract whole numbers with more than 4 digits, including using formal | including understanding the use of the equals sign. | angles at a point on a straight line and $1 / 2$ a turn (total $180^{\circ}$ |
|  | Decimals and percentages | other multiples of $90^{\circ}$ |
| written methods (columnar addition and subtraction). <br> - Use rounding to check answers to calculations and determine, in the context of a | -Read, write, order and compare numbers with up to three | Position and Direction |
| - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. | decimal places. <br> - Recognise and use thousandths and relate them to tenths, | -Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate |
| - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | hundredths and decimal equivalents. <br> - Round decimals with two decimal places to the nearest whole | language, and know that the shape has not changed. Decimals |
| Multiplication and Division <br> -Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers. <br> - Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers. | number and to one decimal place. |  |
|  | - Solve problems involving number up to three decimal places. <br> - Recognise the per cent symbol (\%) and understand that per | places. <br> - Multiply and divide whole numbers and those involving |
|  | - ${ }^{\text {- }}$ - ${ }^{\text {ent reglates to 'number of parts per hundred', and write }}$ |  |
|  | percentages as a fraction with denominator 100, and as a | - Use all four operations to solve problems involving |
| - Establish whether a number up to 100 is prime and recall prime numbers up to 19. <br> - Multiply numbers up to 4 digits by a one- or two-digit number using a formal | decimal. <br> - Solve problems which require knowing percentage and | measure [ for example, length, mass, volume, money] using decimal notation, including scaling. |
| written method, including long multiplication for two-digit numbers. <br> - Multiply and divide numbers mentally, drawing upon known facts. |  |  |
|  | denominator of a multiple of 10 or 25 . |  |
| - 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. | Perimeter and Area | example, km and $\mathrm{m} ; \mathrm{cm}$ and $\mathrm{m} ; \mathrm{cm}$ and $\mathrm{mm} ; \mathrm{g}$ and kg ; la |
|  | - Measure and calculate the perimeter of composite rectilinear |  |
| - Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000. | shapes in centimetres and metres. <br> - Calculate and compare the area of rectangles (including | - Understand and use approximate equivalences between metric units and common imperial units such as inches, |
| - Recognise and use square numbers and cube numbers, and the notation for squared $\left(^{2}\right)$ and cubed ${ }^{(3)}$. | squares), including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(\mathrm{m}^{2}\right)$, and estimate the area of | pounds and pints. <br> - Solve problems involving converting between units of |
| - Solve problems involving multiplication and division, including using theirknowledge of factors and multiples, squares and cubes. | irregular shapes. |  |
|  | Statistics | -Estimate volume [for example using 1cm3 blocks to build |
| - Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. | - Solve comparison, sum and difference problems using information presented in a line graph. | cuboids (including cubes)] and capacity [for example, using water]. |
| - Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. | - Complete, read and interpret information in tables including timetables. | - Use all four operations to solve problems involving measure. |
| Fractions <br> - Compare and order fractions whose denominators are multiples of the same |  |  |
| - Compare and order fractions whose denominators are multiples of the same number. <br> - Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. <br> - Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example $2 / 5+4 / 5=$ $6 / 5=11 / 5$ ]. <br> - Add and subtract fractions with the same denominator and denominators that are multiples of the same number. |  |  |
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| Year 6 Autumn | Spring | Summer |
| :---: | :---: | :---: |
| Place Value Wk 1-2 | Ratio Wk1-2 | Shape Wk 1-3 |
| 1. Numbers to 10 million | 77. Using ration language | 92. Measure with a protractor |
| 2. Compare and order any number | 78. Ratio and fractions | 93. Introduce angles |
| 3. Rounding any whole number | 79. Introducing the ratio symbol | 94. Calculate angles |
| 4. Negative numbers | 80. Calculating ratio | 95. Vertically opposite angles |
| Addition, subtraction, multiplication and division Wk 3-7 | 81. Using scale factors | 96. Angles in a triangle |
| 5. Add and subtract integers | 82. Calculating scale factors | 97. Angles in isosceles triangles |
| 6. Multiply up to 4 digits by 2 digits | 83. Ratio and proportion problems | 98. Using triangle angles knowledge |
| 7. Short division | Algebra Wk 3-4 | 99. Angles in quadrilaterals |
| 8. Division using factors | 54. Find a rule 1 | 100. Angles in regular polygons |
| 9. Long division 1 | 55. Find a rule 2 | 101. Drawing shapes accurately |
| 10. Long division 2 | 56. Forming expressions | 102. Nets of 3D shapes |
| 11. Long division 3 | 57. Substitution | Position and direction Wk 4 |
| 12. Long division 4 | 58. Formulae | 35. The first quadrant |
| 13. Common factors | 59. Forming Equations | 36. Four quadrants |
| 14. Common multiples | 60. One step Equations | 37. Translations |
| 15. Prime numbers to 100 | 61. Two step Equations | 38. Reflections |
| 16. Square and cube numbers | 62. Find pairs of values 1 | Themed projects, consolidation and problem solving |
| 17. Order of operations | 63 . Find pairs of values 2 |  |
| 18. Mental calculations | Decimals Wk 5-6 |  |
| 19. Reason from known facts | 39. Three place decimals |  |
| Fractions Wk 8-9 | 40. Multiply by 10, 100, 1000 |  |
| 20. Simplify fractions | 41. Divide by $10,100,1000$ |  |
| 21. Fractions on a number line | 42. Multiply decimals by integers |  |
| 22. Compare and order fractions (Denominators) | 43. Divide decimals by integers |  |
| 23. Compare and order fractions (Numerators) | 44. Division to solve problems |  |
| 24. Add and subtract fractions 1 | Fractions, decimals and percentages Wk 7-8 |  |
| 25. Add and subtract fractions 2 | 45. Decimals as fractions |  |
| 26. Add fractions | 46. Fractions to decimals 1 |  |
| 27. Subtract fractions | 47. Fractions to decimals 2 |  |
| Fractions Wk 10-11 | 48. Fractions to percentages |  |
| 28. Multiply fractions by integers | 49. Equivalent Fractions, decimals and percentages |  |
| 29. Multiply fractions by fractions | 50. Order fractions, decimals and percentages |  |
| 30. Divide fractions by integers 1 | 51. Percentage of amounts 1 |  |
| 31. Divide fractions by integers 2 | 52. Percentage of amounts 2 |  |
| 32. Four rules with fractions | 53. Percentages missing values |  |
| 33. Fraction of an amount | Area, perimeter and volume Wk 9-10 |  |
| 34. Finding the whole | 69. Shape: same area |  |
| Converting units Wk12 | 70. Area and perimeter |  |
| 64. Metric measures | 71.Area of triangles 1 |  |
| 65. Converting metric measures | 72. Area of triangles 2 |  |
| 66. Calculating metric measures | 73. Area of triangles 3 |  |
| 67. Miles and kilometres | 74. Area of parallelograms |  |
| 68. Imperial measures | 75. Volume by counting cubes |  |
|  | 76. Volume of a cuboid |  |
|  | Statistics |  |
|  | 84. Read and interpret line graphs |  |
|  | 85. Draw line graphs |  |
|  | 86. Line graphs problems |  |
|  | 87. Circles |  |
|  | 88. Read and interpret pie charts |  |
|  | 89. Pie charts with percentages |  |
|  | 90. Draw pie charts <br> 91. The mean |  |
| Place Value | Ratio | Properties of Shape |
| -Read, write, order and compare numbers up to 10,000,000 and | - Solve problems involving the relative sizes of two quantities where | - Draw 2-D shapes using given dimensions and angles. |
| determine the value of each digit. | missing values can be found by using integer multiplication and division | - Compare and classify geometric shapes based on their properties |
| - Use negative numbers in | - Solve problems involving similar shapes where the scale factor is known | and regular polygons. |
| - context and calculate intervals across zero. | or can be found. | - Recognise angles where they meet at a point, are on a straight |
| - Solve number and practical problems that involve all of the above. | - Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. | line, or are vertically opposite, and find missing angles. Position and Direction |
| Addition, Subtraction, Multiplication and Division | Algebra | -Describe positions on the full coordinate grid (all four quadrants). |
| - Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. | - Use simple formulae. <br> - Generate and describe linear number sequences. | - Draw and translate simple shapes on the coordinate plane, and |
| - Multiply multi-digit number up to 4 digits by a 2 -digit number | - Express missing number problems algebraically. |  |
| using the formal written method of long multiplication. | - Find pairs of numbers that satisfy an equation with two unknowns. |  |
| - Divide numbers up to 4 digits by a 2 -digit whole number using the formal written method of long division, and interpret | - Enumerate possibilities of combinations of two variables. Decimals |  |
| remainders as whole number remainders, fractions, or by rounding as appropriate for the context. | - Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10,100 and 1,000 giving answers up to 3 decimal |  |
| - Divide numbers up to 4 digits by a 2 -digit number using the | multiply numbers by 10,100 and 1,000 giving answers up to 3 decimal places. |  |
| formal written method of short division, interpreting remainders according to the context. | - Multiply one-digit numbers with up to 2 decimal places by whole numbers. |  |
| - Perform mental calculations, including with mixed operations and large numbers. | - Use written division methods in cases where the answer has up to 2 decimal places. |  |
| - Identify common factors, common multiples and prime numbers. | - Solve problems which require answers to be rounded to specified degrees of accuracy |  |
| - Use their knowledge of the order of operations to carry out calculations involving the four operations. | Fraction, Decimals and Percentages |  |

- Solve problems involving addition, subtraction, multiplication and division.
- Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.


## Fractions

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination - Compare and order fractions, including fractions $>1$.
- Add and subtract fractions with different denominators and
mixed numbers, using the concept of equivalent fractions.
- Multiply simple pairs of proper fractions, writing the answer in
its simplest form (e.g. $1 / 4 \times 1 / 2=1 / 8$ ).
- Divide proper fractions by whole numbers (e.g. $1 / 3 \div 2=1 / 6$ ).
- Associate a fraction with division to calculate decimal fraction
equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8).
- 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
- Multiply one digit numbers with up to two decimal places by whole numbers
- Use written division methods in cases where the answer has up to two decimal places.
- Solve problems which require answers to be rounded to specified degrees of accuracy.
- Recall and use equivalences between simple fractions, decimal and percentages, including in different contexts. and percentages,
Converting Units
Converting Units - Solve problems involving the calculation and conversion of units - Solve problems involving the calculation and conversion of un
of measure, using decimal notation up to three decimal places of measure, using d
where appropriate.
- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller measurements of length, mass, volume and time from a smalle unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 d.p.
- Convert between miles and kilometres
- Solve problems involving the calculation of percentages [for example, of measures and
- Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.
Area, Perimeter and volume
- Recognise that shapes with the same areas can have different perimeters and vice versa
- Recognise when it is possible to use formulae for area and volume of shapes.
-alculate the area of parallelograms and triangles.
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including $\mathrm{cm} 3, \mathrm{~m} 3$ and extending to other units (mm3, km3).
Statistic
- Illustrate and name parts of circles, including radius, diameter and
circumference and know that the diameter is twice the radius.
- Interpret and construct pie charts and line graphs and use these to solve problems
- Calculate the mean as an average

