

# Mathematics Long Term Plan

| Term     | Curriculum Focus       | Week | Content Focus  |
|----------|------------------------|------|--|
| Autumn   |                        | WK1  | Sort objects<br>Count objects  |
|          | Number: Place          | WK2  | Represents objects   |
|          | Value                  | WK3  | Count, read and write forwards and backwards from any number 0-10  |
| 1        |                        | WK4  | Count one more<br>Count one less   |
|          |                        | WK5  | Part-whole model   |
|          |                        | WK6  | Addition Symbol<br>Fact families- addition facts   |
|          | Number: Addition       | Wk7  | Find number bonds for numbers within 10part 1 and 2 Calculate number bonds   |
|          |                        | WK8  | Number bonds to 10<br>Compare number bonds   |
| Autumn   |                        | WK9  | Addition- adding together<br>Addition- adding more   |
| 2        | Geometry: Shape        | WK10 | Recognise and name 2D shapes<br>Sort 2D Shapes   |
|          | Number: Place<br>Value | WK11 | One to one correspondence to start to compare groups<br>Compare groups using language such as equal, more/greater,<br>less/fewer       |
|          |                        | WK12 | Introduce <>and = symbols<br>Compare numbers   |
|          |                        | WK1  | Finding a part   |
|          | Number: Addition       | WK2  | Subtraction- taking away how many left? Crossing out<br>Subtraction- taking away, how many left?<br>Introducing the subtraction symbol |
| Spring 1 | and Subtraction        | WK3  | Subtraction- finding a part, breaking apart<br>Fact families- the 8 facts  |
| , ,      |                        | WK4  | Subtraction- counting back   |
|          |                        | WK5  | Order groups of objects<br>Order numbers   |
|          | Number: Place          | WK6  | Ordinal numbers (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> )<br>The Number line  |
|          | value                  | Wk7  | Count forwards and backwards and write numbers to 20 in numerals and words.<br>Numbers from 11-20                                      |
|          | Measurement:           | WK8  | Compare lengths and height (1)   |
| Spring 2 | Length and Height      | WK9  | Compare lengths and height (2)   |
|          | Measurement:           | WK10 | Introduce weight and mass  |
|          | Weight and<br>Volume   | WK11 | Measure mass   |
|          |                        | WK12 | Compare mass   |

|        | Number:<br>Multiplication and       | WK1  | Count in 2's                                 |
|--------|-------------------------------------|------|--|
|        |                                     | WK2  | Count in 5's                                 |
| Summer |                                     | WK3  | Count in 10's                                |
| 1      | Briston                             | WK4  | Make equal groups                            |
|        | Number Freetiens                    | WK5  | Find a half (1)                              |
|        | Number: Fractions                   | WK6  | Find a half (2)                              |
|        | Geometry: Position<br>and Direction | Wk7  | Describe Turns                               |
|        | Number: Place<br>Value              | WK8  | Tens and ones<br>Count one more and one less |
| Summer |                                     | WK9  | Compare groups of objects<br>Compare numbers |
| 2      | Measurement:<br>Money               | WK10 | Recognising coins                            |
|        | Measurement:<br>Time                | WK11 | Before and After<br>Dates                    |
|        |                                     | WK12 | Time to the hour                             |



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|-------------|-------------------------------------|------|--|
|             |                                     | WK1  | Order groups of objects<br>Order numbers   |
|             | Number: Place<br>Value              | WK2  | Numbers to 50<br>Tens and ones   |
| Autumn 1    |                                     | WK3  | Represent numbers to 50  |
|             |                                     | WK4  | One more, one less   |
|             |                                     | WK5  | Find the difference  |
|             | Number: Addition                    | WK6  | Compare statements<br>Compare addition and subtraction sentences                 |
|             | and Subtraction                     | Wk7  | Add by counting on   |
|             |                                     | WK8  | Find and make number bonds   |
|             |                                     | WK9  | Add by making 10   |
| Autumn 2    | Geometry: Shape                     | WK10 | Recognise and name 3D shapes<br>Sort 3D Shapes<br>Patterns with 3D and 2D shapes |
|             | Number: Place                       | WK11 | Compare objects within 50<br>Compare numbers within 50                           |
|             | Value                               | WK12 | Order numbers within 50  |
|             | Number: Addition<br>and Subtraction | WK1  | Subtraction- not crossing 10   |
|             |                                     | WK2  | Subtraction crossing 10  |
|             |                                     | WK3  | Related facts  |
| Spring 1    |                                     | WK4  | Compare number sentences   |
|             | Number: Place                       | WK5  | Count in 2's<br>Count in 5's   |
|             | Value                               | WK6  | Counting forwards and backwards within 100                                       |
|             |                                     | Wk7  | Partitioning Numbers   |
|             | Measurement:<br>Length and Height   | WK8  | Measure length   |
| Spring 2    |                                     | WK9  | Measure length using a ruler   |
| 5pmg 2      | Measurement:                        | WK10 | Introduce capacity and volume  |
|             | Weight and                          | WK11 | Measure capacity   |
|             | Volume                              | WK12 | Compare capacity   |
|             |                                     | WK1  | Add equal groups   |
|             | Number:                             | WK2  | Make arrays  |
| Summer      | Multiplication and                  | WK3  | Make Doubles   |
| 1           | Division                            | WK4  | Make equal groups- grouping<br>Make equal groups- sharing                        |
|             | Number: Fractions                   | WK5  | Find a quarter (1)   |
|             |                                     | WK6  | Find a quarter (2)   |
| Summer<br>2 | Geometry: Position<br>and Direction | Wk7  | Describe position of objects and shapes part 1 and 2                             |

|  | Number: Place<br>Value | WK8  | Comparing numbers                      |
|--|------------------------|------|--|
|  |                        | WK9  | Ordering numbers<br>One more, one less |
|  | Measurement:<br>Money  | WK10 | Recognising notes<br>Counting coins    |
|  | Measurement:<br>Time   | WK11 | Time to the half hour<br>Writing time  |
|  |                        | WK12 | Comparing time                         |



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|-------------|---|------|---|
|             | Number: Place<br>Value                    | WK1  | Counting forwards and backwards within 20<br>Tens and one within 20   |
| Autumn      |   | WK2  | Counting forwards and backwards within 50<br>Tens and one within 50<br>Compare numbers within 50  |
|             |   | WK3  | Count objects to 100 and read and write numbers in numerals and<br>words<br>Represent numbers to 100  |
| 1           |   | WK4  | Fact families- addition and subtraction bonds to 20<br>Check calculations<br>Compare number sentences                                       |
|             |   | WK5  | Related facts<br>Bonds to 100 (tens)  |
|             | Number: Addition<br>and Subtraction       | WK6  | Add and subtract 1's<br>10 more and 10 less   |
|             |   | Wk7  | Add and subtract 10's<br>Add by making ten  |
|             |   | WK8  | Add a 2-digit and 1-digit number- crossing ten<br>Subtraction- crossing 10<br>Subtract a 1-digit number from a 2-digit number- crossing ten |
| Autumn<br>2 | Measurement:<br>Money                     | WK9  | Recognising coins<br>recognising notes<br>Count money- pence  |
| -           |   | WK10 | Count money- pounds (notes and coins)<br>Count money- notes and coins<br>Select money   |
|             | Number:<br>Multiplication and<br>Division | WK11 | Make equal groups   |
|             |   | WK12 | Add equal groups<br>Make arrays   |
|             |   | WK1  | Recognise equal groups<br>Make equal groups<br>Add equal groups   |
|             | Multiplication and                        | WK2  | Multiplication sentences using the x symbol<br>Multiplication sentences from picture  |
| Spring 1    | Division                                  | WK3  | Use arrays  |
|             |   | WK4  | Make doubles  |
|             |   | WK5  | Make tally charts   |
|             | Statistics                                | WK6  | Draw pictograms (1-1)<br>Interpret pictograms (1-1)   |
|             |   | Wk7  | Recognise 2-D and 3-Shapes<br>Count sides on 2-D shapes   |
| Spring 2    | Geometry:<br>Properties of Shape          | WK8  | Count vertices on 2-D shapes<br>Draw 2-D shapes   |
|             |   | WK9  | Lines of symmetry<br>Sort 2-D shapes  |

|        | Number: Fractions                   | WK10            | Make equal parts                  |
|--------|-------------------------------------|-----------------|-----------------------------------|
|        |                                     |                 | Recognise a half                  |
|        |                                     |                 | Find a half                       |
|        |                                     | VVKII           | Recognise a quarter               |
|        |                                     |                 | Find a quarter                    |
|        |                                     | WK12            | Recognise a third                 |
|        |                                     |                 | Find a third                      |
|        | Maaguramantu                        | WK1             | Compare lengths and heights       |
|        | Length and Height                   | WK2             | Measure lengths part 1 and 2      |
|        |                                     |                 | Measure lengths (cm)              |
| Summer |                                     | WK3             | Measure lengths (m)               |
| 1      | Geometry: Position<br>and Direction |                 | Describe position part 1          |
|        |                                     | VV K4           | Describe position part 2          |
|        |                                     | WK5             | Describe movement                 |
|        |                                     | WK6             | Describe turns                    |
|        | Measurement:<br>Time                | Wk7             | Telling the time to the hour      |
|        |                                     |                 | Telling the time to the half hour |
|        |                                     | WK8             | O'clock and half past             |
|        |                                     |                 | Quarter past and quarter to       |
| Summer |                                     | WKO             | Introduce weight and mass         |
| Summer | N de la companya a contra           | VVKS            | Measure mass                      |
| 2      | Measurement:<br>Mass Canacity and   | WK10            | Compare mass                      |
|        | Temperature                         | <b>W/K11</b>    | Measure mass in grams             |
|        |                                     | VVKII           | Measure mass in kilograms         |
|        |                                     | \ <u>\</u> /k12 | Introduce capacity and volume     |
|        |                                     | VVILL           | Measure capacity                  |



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| Term        | Curriculum Focus                 | Week | Content Focus   |
|-------------|----------------------------------|------|---|
| Autumn<br>1 | Number: Place<br>Value           | WK1  | Tens and ones using addition<br>Use a place value chart<br>Compare objects  |
|             |                                  | WK2  | Compare numbers<br>Order objects and numbers<br>Count in 2's  |
|             |                                  | WK3  | Count in 5's<br>Count in 10's<br>Count in 3's   |
|             |                                  | WK4  | Add two 2-digit numbers- not crossing ten- add ones and add tens<br>Add two 2-digit numbers- crossing ten- add ones and add tens                              |
|             | Number: Addition                 | WK5  | Subtract a 2-digit number from a 2-digit number- not crossing ten<br>Subtract a 2-digit number from a 2-digit number- crossing ten-<br>subtract ones and tens |
|             |                                  | WK6  | Find and make number bonds  |
|             |                                  | Wk7  | Bond to 100 (tens and ones)   |
|             |                                  | WK8  | Add three 1-digit numbers   |
|             | Measurement:<br>Money            | WK9  | Make the same amount<br>Compare money<br>Find the total   |
| 2           |                                  | WK10 | Find the difference<br>Find change<br>Two-step problems   |
|             | Number:                          | WK11 | 2 times table   |
|             | Multiplication and<br>Division   | WK12 | 5 times table<br>10 times table   |
|             |                                  | WK1  | Make equal groups- sharing part 1 and 2   |
|             | Number:                          | WK2  | Make equal groups- grouping part 1 and 2  |
|             | Multiplication and<br>Division   | WK3  | Divide by 2<br>Odd and Even   |
| Spring 1    |                                  | WK4  | Divide by 5<br>Divide by 10   |
|             | Statistics                       | WK5  | Draw pictograms (2, 5 and 10)<br>Interpret pictograms (2, 5 and 10)   |
|             |                                  | WK6  | Block diagrams  |
|             |                                  | Wk7  | Make patterns with 2-D shapes   |
| Spring 2    | Geometry:<br>Properties of Shape | WK8  | Count faces on 3-D shapes<br>Count edges on 3-D shapes<br>Count vertices on 3-D shapes  |
|             |                                  | WK9  | Sort 3-D shapes<br>Make patterns with 3-D shapes  |
|             | Number: Fractions                | WK10 | Unit fractions<br>Non-Unit fractions  |
|             |                                  | WK11 | Equivalence of ½ and 2/4  |

|        |   | <b>W/K1</b> 2 | Find three quarter            |
|--------|---|---------------|-------------------------------|
|        |   | VVKIZ         | Count in fractions            |
|        |   | WK1           | Compare lengths               |
|        | Measurement:                                      | WK2           | Order lengths                 |
| Summer | Length and height                                 | WK3           | Four operations with lengths  |
| 1      |   | WK4           | Describe movement and turns   |
|        | and Direction                                     | WK5           |                               |
|        |   | WK6           | Making patterns with shapes   |
|        | Measurement:<br>Time                              | Wk7           | Telling the time to 5 minutes |
|        |   |               | Writing time                  |
|        |   | WK8           | Hours and days                |
|        |   |               | Find durations of time        |
| Summer |   |               | Compare durations of time     |
| 2      |   | WK9           | Compare volume                |
|        | Measurement:<br>Mass, Capacity and<br>Temperature | WK10          | Millilitres                   |
|        |   | WK11          | Litres                        |
|        |   | WK12          | Temperature                   |



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| Term     | Curriculum Focus                    | Week           | Content Focus  |
|----------|-------------------------------------|----------------|--|
|          |                                     | WK1            | Represent numbers to 100<br>Tens and ones using addition   |
|          | Number: Place<br>Value              | WK2            | Hundreds<br>Represent numbers to 1000  |
| Autumn   |                                     | WK3            | 100s, 10s and 1s part 1 and 2  |
| 1        |                                     | WK4            | Add and subtract multiples of 100<br>Add and subtract 1s   |
|          |                                     | WK5            | Add and subtract 3-digit and 1-digit numbers- not crossing 10  |
|          | Number: Addition<br>and Subtraction | WK6            | Add 2-digit and 1-digit numbers- crossing 10<br>Add 3-digit and 1-digit numbers- crossing 10                         |
|          |                                     | Wk7            | Subtract a 1-digit number from 2-digits- crossing 10<br>Subtract a 1-digit number from a 3-digit number- crossing 10 |
|          |                                     | WK8            | Add and subtract 3-digit and 2-digit numbers- not crossing 100<br>Add 3-digit and 2-digit numbers- crossing 100      |
| Autumn   |                                     | WK9            | Multiplication- equal groups<br>Multiplication using the symbol  |
| 2        | Number:                             | WK10           | Using arrays   |
|          | Multiplication and<br>Division      | WK11           | 2 times table<br>5 times table   |
|          |                                     | WK12           | Make equal groups- sharing<br>Make equal groups- grouping  |
|          |                                     | WK1            | Divide by 2<br>Divide by 5   |
|          |                                     |                | Divide by 10   |
|          | Number:                             | WK2            | Multiply by 3  |
|          | Multiplication and                  |                | Divide by 3<br>The 3 times table   |
|          | DIVISION                            | WK3            | Multiply by 4  |
|          |                                     |                | Divide by 4  |
| Spring 1 |                                     |                | The 4 times table  |
|          |                                     |                | Count money (pence)  |
|          | Measurement:                        | WK4            | Count money (pounds)   |
|          | woney                               |                | Convert pounds and pence   |
|          |                                     | WK5            | Make tally charts  |
|          | Statistics                          |                | Draw pictograms (2, 5 and 10)  |
|          |                                     | WK6            | Interpret pictograms (2, 5 and 10)   |
|          |                                     | \ <b>\</b> /k7 | Measure length   |
| Spring 2 | Measurement:                        | VVK7           | Measure length (m)   |
|          | Length and                          | WK8            | Equivalent lengths- m and cm   |
|          | Perimeter                           |                | Equivalent lengths- mm and cm  |
|          |                                     | WK9            |  |
|          | Number: Frestiens                   | WK10           |  |
|          | Number: Fractions                   | WK11           | Recognise a half<br>Find a half  |

|        |                      | WK12             | Recognise a quarter            |
|--------|----------------------|------------------|--------------------------------|
|        |                      |                  | Find a quarter                 |
|        |                      | \ <i>\\</i> ///1 | Recognise a third              |
|        |                      | VVKI             | Find a third                   |
|        | Number: Fractions    | <b>WK2</b>       | Unit Fractions                 |
|        | Number. Hactions     |                  | Non- unit fractions            |
|        |                      | <b>WK3</b>       | Equivalence of ½ and 2/4       |
| Summer |                      | VVRS             | Count in Fractions             |
| 1      |                      | <b>WK</b> 1      | O'clock and half past          |
|        |                      | VV N4            | Quarter past and quarter to    |
|        | Measurement:         | W/K5             | Months and years               |
|        | Time                 | VVND             | Hours in a day                 |
|        |                      | WK6              | Telling the time to 5 minutes  |
|        |                      |                  | Telling the time to the minute |
|        | Coomotou             | Wk7              | Turns and angles               |
|        |                      |                  | Right angles in shapes         |
|        | Properties of Shape  |                  | Compare angles                 |
|        | r toper des of shape | WK8              | Draw accurately                |
| Summer |                      |                  | Horizontal and vertical        |
| 2      |                      | WK9              | Compare mass                   |
|        | Measurement:         | WK10             | Measure mass part 1 and 2      |
|        | Temperature          | WK11             | Compare mass                   |
|        |                      | WK12             | Add and subtract mass          |



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|-------------|-------------------------------------|------|---|
|             | Number: Place<br>Value              | WK1  | Number line to 1000<br>Find 1, 10, 100 more or less than a given number   |
|             |                                     | WK2  | Compare objects to 1000<br>Compare numbers to 1000  |
|             |                                     | WK3  | Order numbers<br>Count in 50's  |
| Autumn<br>1 |                                     | WK4  | Subtract a 2-digit number from a 3-digit number- crossing 100<br>Add and subtract 100s<br>Spot the pattern- making it explicit  |
|             |                                     | WK5  | Add two 2-digit numbers -crossing 10- add ones and add tens<br>Subtract a 2-digit number from a 2-digit number- crossing 10   |
|             | Number: Addition<br>and Subtraction | WK6  | Add and subtract a 2-digit and 3-digit numbers- not crossing 10 or<br>100<br>Add a 2-digit and 3-digit numbers- crossing 10 or 100<br>Subtract a 2-digit number from a 3-digit number- crossing 10 or<br>100            |
|             |                                     | Wk7  | Add two 3-digit numbers- not crossing 10 or 100<br>Add 3-digit numbers- crossing 10 or 100<br>Subtract a 3-digit number from a 3-digit number- no exchange<br>Subtract a 3-digit number from a 3-digit number- exchange |
|             |                                     | WK8  | Estimate answers to calculations<br>Check answers   |
| Autumn<br>2 |                                     | WK9  | Multiply by 8<br>Divide by 8<br>The 8 times table   |
|             | Multiplication and                  | WK10 | Consolidate 2, 4 and 8 times-table  |
|             | Division                            | WK11 | Comparing statements<br>Related calculations  |
|             |                                     | WK12 | Multiply 2-digits by 1 digit part 1 and 2   |
|             | Number:<br>Multiplication and       | WK1  | Divide 2-digits by 1 digit part 1, 2 and 3  |
|             |                                     | WK2  | Scaling   |
|             | Division                            | WK3  | How many ways?  |
| Spring 1    | Measurement:<br>Money               | WK4  | Add money<br>Subtract money<br>Give change  |
|             |                                     | WK5  | Pictograms  |
|             | Statistics                          | WK6  | Bar Charts<br>Tables  |
|             | Massurament                         | Wk7  | Add lengths   |
|             | Length and                          | WK8  | Subtract lengths  |
| Spring 2    | Perimeter                           | WK9  | Measure perimeter<br>Calculate perimeter  |
|             | Number: Fractions                   | WK10 | Making the whole<br>Tenths  |
|             |                                     | WK11 | Count in tenths   |

|        |   |      | Tenths as decimals  |
|--------|---|------|---|
|        |   | WK12 | Fractions on a number line<br>Fractions of a set of objects part 1, 2 and 3 |
|        |   | WK1  | Equivalent fractions part 1, 2 and 3  |
|        | Number: Fractions                                 | WK2  | Compare fractions<br>Order fractions  |
| Summer |   | WK3  | Add fractions<br>Subtract fractions   |
| 1      | Measurement:<br>Time                              | WK4  | Using a.m. and p.m.<br>24- hour clock                                       |
|        |   | WK5  | Finding the duration<br>Comparing durations                                 |
|        |   | WK6  | Start and end times<br>Measuring time in seconds                            |
|        | Geometry:<br>Properties of Shape                  | Wk7  | Parallel and perpendicular<br>Recognise and describe 2D shapes              |
|        |   | WK8  | Recognise and describe 3D shapes<br>Make 3D shapes                          |
| Summer |   | WK9  | Compare volume  |
| 2      | Measurement:<br>Mass, Capacity and<br>Temperature | WK10 | Measure capacity part 1 and 2   |
|        |   | WK11 | Compare capacity<br>Add and subtract capacity                               |
|        |   | WK12 | Temperature   |



| Unit                             | Planning Year 1  | Planning Year 2  | Planning Year 3  | Planning Year 4  | Planning Year 5   | Planning Year 6  |
|----------------------------------|--|--|--|--|---|--|
| Number: Addition and Subtraction | Autumn<br>Part whole model- part, part,<br>whole- leading to number bonds.<br>Introduced to the addition (+),<br>subtraction (-) and equals (=) signs<br>to create number sentences.<br>Addition fact families are<br>commutative.<br>Whole part model to explore<br>number bonds to 10.<br>Systematic number bonds using<br>equipment to 10.<br>Use knowledge of place value to<br>compare number bonds and number<br>sentences.<br>Use the whole part model to<br>understand the concept of addition<br>using the + and = symbols.<br>Move from counting all to counting<br>on.<br>Spring<br>Solve missing number problems.<br>Introduced to the language of<br>subtraction as how many left.<br>Include the use of zero meaning<br>the number remains the same.<br>Story representations can be used.<br>Introduction of the - symbol.<br>Subtraction by partitioning.<br>Link subtraction and addition facts<br>including the use of zero.<br>Count backwards to subtract. | Autumn<br>Find the difference as a form of<br>subtraction.<br>Introduce the inequality symbols<br>to compare statements recapping<br>on the = symbol.<br>Compare simple statements using<br>addition and subtraction<br>calculations, use. <, > and =.<br>Explore addition by counting on<br>from any number up to 20.<br>Find number bonds to 20.<br>Add numbers within 20 using<br>their knowledge of number<br>bonds.<br>Spring<br>Build on the language of<br>subtraction, recognising and<br>using the subtraction symbol<br>within 20.<br>Introduce to subtraction where<br>they have to cross ten.<br>Explore addition and subtraction<br>fact families for numbers within<br>20.<br>Compare number sentences<br>within 20 using inequality<br>symbols. | Autumn<br>Identify related facts to 20 and<br>know the purpose of the = symbol.<br>Use a range of checking<br>strategies when concluding<br>addition and subtraction<br>calculations.<br>Use terminology such as greater<br>than, less than and equal to<br>symbols to compare number<br>sentences.<br>Explore related facts in addition<br>and subtraction.<br>Use 10 frames for number bonds<br>to 100.<br>Add and subtract by 1's to<br>calculate one more and one less.<br>Add and subtract 10's from a<br>given number.<br>Add numbers within 20 using<br>number bonds.<br>Understand the difference<br>between 1-digit and two-digit<br>numbers and use the number line<br>more efficiently. | Autumn<br>Partitioning to make 10 using 10<br>frames and number lines.<br>Focus on language of 10s and ones<br>and look at different methods to<br>add the numbers including the<br>column method.<br>Use base 10 and partitioning to add<br>together to delete numbers<br>including an exchange.<br>Use concrete materials to draw<br>images of the base 10 to<br>independently solve problems.<br>Use knowledge that 110 is the same<br>as 10 ones to exchange when<br>crossing at 10 in subtraction.<br>Use knowledge of number bonds to<br>10 to find number bonds to 20.<br>Build on earlier work on number<br>bonds to 100 with tens together<br>with number bonds to 10 and 20.<br>Use knowledge of commutativity to<br>find the most efficient and quick<br>way to add the three one-digit<br>numbers. | Autumn<br>Add and subtract multiples of 100.<br>Add numbers greater than 100.<br>Understand the value of the digits.<br>See patterns when adding or<br>subtracting 1 stating what happens.<br>Continue the patterns by adding 2<br>and 3.<br>Add and subtract 1s from a 3-digit<br>number without an exchange.<br>Column method can be used, and<br>mental arithmetic encouraged.<br>Add 2 digit and 1-digit numbers<br>crossing 10. Have a strong<br>understanding of place value, be<br>able to partition a 2-digit number<br>and line them up in columns.<br>Add 3 digit and 1-digit numbers with<br>an exchange. Know when adding<br>ones, it can affect the one column<br>and the tens column. Single digit<br>can only be held in each column.<br>Zero is a place value holder.<br>Subtract a 1-digit number from 2<br>digits crossing 10. Understand the<br>difference between one digit and<br>two digit and line them up in<br>columns.<br>Subtract a 1-digit number from a<br>3-digit number crossing 10 using an<br>exchange.<br>Add and subtract 3 digit and 2-<br>digit numbers not crossing 100.<br>Explore what happens to a 3-digit<br>number when a multiple of 10 is<br>added or subtracted.<br>Add 3 digit and 2 digits crossing<br>100. Add multiples of 10 to a 3-<br>digit number with an exchange. | Autumn<br>Subtract multiples of 10 from a<br>three-digit number, with an<br>exchange.<br>Build on their knowledge of adding<br>one hundreds together e.g., 300+500,<br>by adding ones and tens to solve<br>calculations such as 234+500.<br>Consolidate adding ones, 10s and<br>hundreds to three-digit numbers.<br>Look for patterns between<br>calculations to enable them to predict<br>answers and to develop their number<br>sense.<br>Use base 10 am partitioning to add<br>together 2-digit numbers including an<br>exchange.<br>Use their knowledge that 110 is the<br>same as 10 ones to exchange when<br>crossing attend in subtraction.<br>Focus on the position of numbers and<br>place value to add and subtract 2<br>digit and three-digit numbers.<br>Deepen their understanding of adding<br>2 digit and 3-digit numbers in this<br>step.<br>Focus on the position of numbers and<br>place value to subtract 2 digits from<br>3 digits using the column method.<br>Add two 3-digit numbers with no<br>exchange. They should focus on the<br>lining up.<br>Add 3-digit numbers with an<br>exchange.<br>understand that there are different<br>methods of subtraction. They need<br>to explore efficient strategies for<br>subtraction, including:<br>Counting on number lines<br>Near subtraction<br>Number bonds<br>Explore column subtraction using<br>concrete manipulatives.<br>Estimate answers to calculations.<br>Explore ways of checking to see if an<br>answer is reasonable. |



### Unit Skill and Knowledge Development

#### Mathematics

| Unit              | Planning Year 1   | Planning Year 2   | Planning Year 3  | Planning Year 4   | Planning Year 5  | Planning Year 6   |
|-------------------|---|---|--|---|--|---|
| Number: Fractions | Summer<br>Explore finding half using<br>shapes and sets of objects.<br>Find half of a small quantity. | Summer<br>Explore quarters, develop an<br>understanding of equal parts.<br>Find a quarter of a small<br>quantity. | Spring<br>Understand the concept of a<br>whole as being one object or one<br>quantity.<br>Understand that halving is<br>splitting a whole into two equal<br>parts.<br>Find a half of a set of objects or<br>quantity. Links should be made to<br>dividing by 2.<br>Extend knowledge of the whole<br>and halves to recognise quarters<br>of shapes, objects, and<br>quantities.<br>Find quarters of shapes, objects,<br>and quantities.<br>Apply understanding of fractions<br>to finding thirds.<br>Build on their understanding of a<br>third and three equal parts to<br>find a third of a quantity. | Spring<br>Understand the concept of a<br>unit fraction by recognising it as<br>one equal part of a whole.<br>Introduce the non-unit<br>fractions 2/3 and $\frac{3}{4}$ for the<br>first time.<br>Explore the equivalence of two<br>quarters and one half of the<br>same whole and understand that<br>they are the same.<br>Use understanding of quarters<br>to find three quarters of a<br>quantity.<br>Use knowledge of halves, thirds,<br>and quarters, to count in<br>fractions from any number up to<br>10. | Spring<br>Understand the concept of a whole as<br>being one object or one quantity.<br>Explore making and recognising equal<br>and unequal parts.<br>Understand that halving is splitting a<br>whole into two equal parts. Introduced<br>to the language of numerator,<br>denominator and what these<br>represent.<br>Find a half of a set of objects or<br>quantity.<br>Extend their knowledge of the whole<br>and halves to recognise quarters of<br>shapes, objects, and quantities.<br>Find quarters of shapes, objects, and<br>quantities.<br>Summer<br>Apply understanding of fractions to<br>finding thirds.<br>Find a third using practical resources.<br>Understand the concept of a unit<br>fraction by recognising it as one equal<br>part of a whole.<br>Introduced to the non-unit fractions<br>2/3 and 3/4 for the first time.<br>Explore the equivalence of two<br>quarters and one half of the same<br>whole.<br>Count in fractions from any number up<br>to 10. | Spring<br>Look at whole shapes and quantities and see<br>that when a fraction is equivalent to a whole,<br>the numerator and denominator are the same.<br>Explore what a tenth is. They recognise that<br>tenths arise from dividing one whole into 10<br>equal parts.<br>Count up and down in tenths using different<br>representations.<br>Introduced to tenths as decimals for the first<br>time.<br>Use a number line to represent fractions<br>beyond one whole.<br>Find a unit fraction of an amount by dividing an<br>amount into equal groups.<br>Need to understand that the denominator of<br>the fraction tells us how many equal parts the<br>whole will be divided into.<br>Apply knowledge and understanding of<br>fractions to solve problems in various<br>contexts.<br><b>Summer</b><br>Begin by using Cuisenaire or number rods to<br>investigate and record equivalent fractions.<br>Use Cuisenaire rods and paper strips alongside<br>number lines to deepen their understanding of<br>equivalent fractions.<br>Use proportional reasoning to link pictorial<br>images with abstract methods to find<br>equivalent fractions.<br>Compare unit fractions or fractions with the<br>same denominator.<br>Order unit fractions and fractions with the<br>same denominator.<br>Use practical equipment and pictorial<br>representations to add two or more fractions<br>with the same denominator where the total is<br>less than 1.<br>Use practical equipment and pictorial<br>representations to subtract fractions with the<br>same denominator. |



| Unit                                | Planning Year 1  | Planning Year 2   | Planning Year 3   | Planning Year 4  | Planning Year 5   | Planning Year 6  |
|-------------------------------------|--|---|---|--|---|--|
| Number: Multiplication and Division | Summer<br>Build upon previous knowledge of<br>counting in 2's beyond 20 and up to<br>50.<br>Build upon previous knowledge of<br>counting in 5's beyond 20 and up to<br>50.<br>Count in groups of tens.<br>Begin using stories to link pictures<br>and concrete manipulative to<br>explore making equal groups. | Summer<br>Use equal groups to find a total,<br>focussing on 2's, 5's, 10's.<br>Begin to make arrays baby making<br>equal groups.<br>Explore doubling with numbers up<br>to 20.<br>Make groups of equal amounts<br>starting with a given total.<br>Sharing as a model of division. | Spring<br>Make equal groups using concrete<br>materials. Use equal groups to find<br>total number within 50.<br>Use arrays recognising the<br>importance of the columns and<br>rows.<br>Recognise equal and unequal groups<br>and refer to the 2x table facts.<br>Expose to numerals and words for<br>multiple representations.<br>Begin to relate the connecting of<br>equal groups to repeated addition.<br>Introduce the x symbol. Use the<br>multiplication symbol and work out<br>the total from pictures.<br>Explore arrays to see the<br>commutativity of multiplication<br>facts e.g., 5 × 2 = 2 × 5.<br>Explore doubling with numbers up<br>to 20. | Spring<br>Explore sharing as a model<br>of division. Use 1: 1<br>correspondence to share<br>concrete objects into equal<br>groups.<br>Divide by sharing objects<br>into equal groups using one-<br>to-one correspondence.<br>Start with a given total and<br>make groups of an equal<br>amount.<br>Divide by making equal<br>groups. use this knowledge<br>to help them divide by 2.<br>Recognise odd and even<br>numbers. Divide by 5.<br>Divide by 10. | Autumn<br>Recap their understanding of<br>recognising, making, and adding<br>equal groups.<br>Introduced to the multiplication<br>symbol. Interpret mathematical<br>stories and create own involving<br>multiplication.<br>Explore arrays to see the<br>commutativity of multiplication<br>facts.<br>2 times table. Count in 2s using<br>practical resources, exploring<br>equal groups of 2.<br>5 times table. Count in 5s using<br>practical resources, exploring<br>groups of 5.<br>Make equal groups by sharing<br>objects into equal groups using<br>one to one correspondence. Move<br>onto pictorial representations. Be<br>introduced to the division symbol.<br>Divide objects into equal groups<br>and count to find total numbers.<br>Notice the link between division<br>and multiplication and repeated<br>addition.<br><b>Spring</b><br>Divide by 2, secure<br>representation of the abstract<br>number using the division and<br>equals symbols.<br>Use grouping and sharing to<br>divide by 5. Knowledge of the 5<br>times table will help.<br>Use the 10 timetable to support<br>division by 10. Use grouping and<br>sharing to do this.<br>Use knowledge of counting in 3 to<br>multiply by 3.<br>Explore division by 4 becoming<br>more fluent in the 3 times table.<br>Use knowledge of counting in 4 to<br>multiply by 4.<br>Explore division by 4 becoming<br>more fluent in the 4 times table. | Autumn<br>Start to multiply by 8, understanding that<br>each multiple of eight is double is<br>equivalent multiple of four.<br>Explore dividing by 8 through sharing into<br>eight equal groups and grouping in eight.<br>Multiplication facts for two, 3, four and<br>five times tables along with the distributive<br>law in Order to calculate unknown<br>multiplication facts.<br>Use concept of multiplication to apply this<br>to multiplication tables.<br>Multiplication tables (2, 3, 5 and 10 times<br>tables) and understanding of key concepts<br>of multiplication to develop knowledge of<br>the 4 times table.<br>Multiplication facts for 2, 3, 4 and 5 times<br>tables along with the distributive law in<br>order to calculate unknown multiplication<br>facts.<br>Multiplication and division facts to compare<br>statements using inequality symbols.<br>Multiplication facts to solve other<br>multiplication problems.<br>Repeated addition to represent a two-digit<br>number multiplied by a one-digit number<br>with concrete manipulatives.<br>Repeated addition to represent a two-digit<br>number multiplied by a one-digit number<br>with concrete manipulatives.<br><b>Spring</b><br>Divide 2-digit numbers by a 1-digit number<br>by partitioning into tens and ones and<br>sharing into equal groups.<br>Divide 2-digit numbers by a 1-digit number<br>by partitioning into tens and ones and<br>sharing into equal groups.<br>Solve division problems with a remainder.<br>Expose to problems with a remainder.<br>Expose to problems involving scaling.<br>List systematically the possible<br>combinations resulting from two groups of<br>objects. |



| Unit                | Planning Year 1   | Planning Year 2  | Planning Year 3  | Planning Year 4   | Planning Year 5   | Planning Year 6  |
|---------------------|---|--|--|---|---|--|
| Number: Place Value | Autumn<br>Sort objects by characteristic.<br>Counting objects one at a time up<br>to 10, understand the last number<br>is the total amount.<br>Using objects as representation,<br>the use of zero is important.<br>Continue a number sequence<br>forwards.<br>Continue a number sequence<br>backwards.<br>Explore the language of one more<br>and one less. Relate these two<br>terms and understand they are<br>opposite.<br>Match one object to another,<br>explore situations where there are<br>too many or not enough.<br>Use language equal to, more, less,<br>greater than, fewer, and less than<br>to compare groups of objects.<br>Introduce <, > and =.<br>Use previous knowledge to choose<br>an efficient method to compare<br>numbers.<br><b>Spring</b><br>Order up to three groups of<br>objects.<br>Order numbers from smallest to<br>greatest or greatest to smallest.<br>Explore ordinal numbers as<br>positional.<br>Use a number line to count to 10.<br>Introduce numbers 11-20.<br>Use pictorial representations to<br>explore numbers 11-20.<br>Summer<br>Numbers from 11to 19 has a one<br>and another number. Apply<br>counting skills to find one more and<br>one less up to 20. Compare<br>numbers greater than 10 up to 20. | Autumn<br>Order up to three groups using<br>objects within 20.<br>Order abstract digits from 0-20.<br>Count forwards and backwards<br>within 50.<br>Use practical equipment to<br>represent numbers to 50.<br>Build understanding of tens and<br>ones, grouping tens.<br>Represent 50 with various<br>materials.<br>Identify one more and one less<br>within numbers to 50.<br>Compare two sets objects of<br>numbers using <=> within 50.<br>Compare practical objects up to<br>50.<br>Order numbers up to 50 using<br>language largest, smallest, more<br>than, less than, least, most and<br>equal to.<br><b>Spring</b><br>Count in 2's up to 20 and 50.<br>Count in 5s'sup to 20 and 50.<br>Introduce the hundred square and<br>use it to count forwards and<br>backwards to 100.<br>Grouping in 10's to identify how<br>many tens and ones are within a<br>number.<br><b>Summer</b><br>Compare numbers up to 50 using<br>language largest, smallest, more<br>than, less than, least, most and<br>equal to < | Autumn<br>Introduced to number 11-20 to<br>count forwards and backwards<br>within 20.<br>Counting in 10's to 20.<br>Count forwards and backwards<br>within 50.<br>Count in tens and ones to 50.<br>Compare two amounts of objects<br>within 50.<br>Count objects to 100 represented<br>in numerals and word.<br>Represent number to 100 with<br>concrete materials.<br>Number representation of tens and<br>ones in number to 100.<br>Whole-part model to explore how<br>tens and ones can be partitioned. | Autumn<br>Continue to use a part-whole model<br>to explore how tens and ones can<br>be partitioned and recombined to<br>make a total.<br>Use a place value chart to aid<br>understanding of place value.<br>Compare objects by using <, >, =<br>symbols.<br>Compare number using the language<br>greater than, less than, more than,<br>fewer, most, least and equal to.<br>Add 10 more or subtract 10 from<br>numbers within 100. Order<br>numbers from smallest to greatest<br>or greatest to smallest.<br>Build on previous knowledge of<br>counting in multiples of two and go<br>beyond 20 u to 50.<br>Build on previous learning of<br>counting in fives to go beyond 20<br>and up to 50.<br>Count in groups of tens for the<br>first time. Count forwards and<br>backwards in 3's from any multiple<br>of 3. | Autumn<br>Represent numbers to 100 using a<br>range of concrete materials. state<br>how a number is made up.<br>Use whole-part model to explore<br>10s and 1s. Use the addition symbol<br>to express numbers to 100.<br>Explore 100, ten tens make 100<br>and 100 ones make 100. Count<br>objects to 100.Count in 100s to<br>1000.<br>Represent numbers to 1000. Use<br>base 10 to become familiar with<br>any number up to 1000. Use<br>columns for zeroes.<br>Understand 3-digit number is made<br>up of 100s, 10s and 1s. Read<br>numbers shown in different<br>representations.<br>Represent different numbers using<br>place value counters showing how<br>numbers are made. Understand the<br>hundreds counter is worth more<br>than tens and tens are worth more<br>than ones. | Autumn<br>Estimate, work out and write<br>numbers on a number line.<br>Move on to finding 10 and 100 more<br>or less than a given a number.<br>Use objects to represent numbers<br>to 1000.<br>Compare numbers presented as<br>numerals rather than objects.<br>Explore ordering a set of numbers<br>from smallest to greatest and<br>greatest to smallest.<br>Use their knowledge of the<br>patterns in the 5 times table to<br>count in steps of 50. |



### nit Skill and Knowledge Development

#### Mathematics

| Unit  | Planning Year 1  | Planning Year 2   | Planning Year 3   | Planning Year 4  | Planning Year 5  | Planning Year 6   |
|---|--|---|---|--|--|---|
| Geometry: Properties of Shape; Position and Direction | Autumn<br>Identify basic 2D shapes such as<br>triangle, square and circle.<br>Group or sort shapes according to<br>simple properties.<br>Summer<br>Describe turns using language full,<br>half, quarter and three quarter. | Autumn<br>Name simple 3D shapes: cuboids,<br>cubes, cylinders, pyramids, cones,<br>and spheres.<br>Group or sort 3D shapes according<br>to simple properties.<br>Use 2D and 3D shapes to complete<br>and make simple patterns focussing<br>on shape, size, and colour.<br>Summer<br>Use left, right, forwards and<br>backwards to describe position and<br>direction.<br>Describe position using top, in<br>between, bottom, above and below. | Spring<br>Recognise 2-D shapes by name,<br>recognise 2-D shapes are flat.<br>Count sides of 2-D shapes<br>developing strategies to be able to<br>do this.<br>Introduce vertex and vertices.<br>Create own 2-D shapes and name<br>them.<br>Introduced to the concept of<br>vertical lines of symmetry.<br>Recognise and sort 2-D shapes<br>including circle, square, triangle,<br>rectangle, pentagon, hexagon, and<br>octagon using a range of different<br>orientations.<br>Summer<br>Use 'left', 'right', 'forwards' and<br>'backwards' to describe position<br>and direction.<br>Build upon directional language<br>'left' and 'right' to assist with<br>describing position.<br>Use language 'forwards',<br>'backwards', 'up', 'down', 'left' and<br>'right' to describe movement in a<br>straight line.<br>Describe turns using the language<br>'full turn', 'half turn', 'quarter turn',<br>'three-quarter turn', 'clockwise' and<br>'anticlockwise'. | Spring<br>Use knowledge of the properties<br>of 2-D shapes to create patterns.<br>Use knowledge of 2-D shapes to<br>identify the shapes of faces on 3-<br>D shapes.<br>Use knowledge of faces and curved<br>surfaces to help them to identify<br>edges on 3-D shapes.<br>Use knowledge of edges to help<br>them to identify vertices on 3-D<br>shapes.<br>Use knowledge of shape properties<br>to sort 3-D shapes in different<br>ways e.g., faces, shapes of faces,<br>edges, vertices, if they roll, if they<br>stack.<br>Use knowledge of the properties<br>of 3-D shapes to create patterns.<br>Summer<br>Use knowledge of movement and<br>turns to describe and record<br>directions.<br>Build on previous knowledge of<br>patterns and repeating patterns. | Summer<br>Recognise angles as a measure of a<br>turn. They practice making 1 2, 1 4,<br>3 4 and whole turns from different<br>starting points in both clockwise<br>and anti-clockwise directions in<br>practical contexts.<br>Recognise that a right angle is a<br>quarter turn, 2 right angles make a<br>half-turn, 3 right angles make three-quarters of a turn, and 4<br>right angles make a complete turn.<br>Identify whether an angle is<br>greater than or less than a right<br>angle in shapes and turns, by<br>measuring, comparing, and<br>reasoning in practical contexts.<br>Measure and draw straight lines<br>accurately in centimetres and<br>millimetres.<br>Identify and find horizontal and<br>vertical lines in a range of<br>contexts. | Summer<br>Children identify and find parallel<br>and perpendicular lines in a range<br>of practical contexts. They use the<br>arrow notation to represent<br>parallel lines and the right-angle<br>notation for perpendicular lines.<br>Recognise, describe, and draw 2-D<br>shapes accurately. They use<br>properties including types of<br>angles, lines, symmetry, and<br>lengths of sides to describe the<br>shape.<br>Recognise and describe 3-D shapes<br>in different orientations. They use<br>properties including the number of<br>faces, edges, and vertices to<br>describe the shape.<br>Make 3-D shapes (cubes, cuboids,<br>prisms, cylinders, pyramids, cones,<br>spheres) using construction<br>materials. |



| Unit                                       | Planning Year 1   | Planning Year 2   | Planning Year 3   | Planning Year 4   | Planning Year 5  | Planning Year 6  |
|--|---|---|---|---|--|--|
| Measurement: Length, Perimeter, and Height | Spring<br>Understand the language of length<br>such as long, longer, short,<br>shorter, tall, taller. | Spring<br>Use non-standard units such as<br>cubes, hands, and straws to<br>measure length and height.<br>Explore measurement using a ruler. | Summer<br>Understand the language of long,<br>longer, short, and shorter by<br>comparing lengths and height. Use<br>nonstandard units to measure<br>length and height.<br>Build on prior knowledge of<br>measuring length and height using<br>non-standard units and apply this<br>to measuring using a ruler.<br>Measure to the nearest centimetre<br>using a ruler or tape measure.<br>Begin to measure larger objects<br>using metres. | Summer<br>Compare lengths of objects using<br>comparison language and symbols.<br>Order more than two lengths from<br>shortest to longest and vice versa.<br>Draw on their skills of the four<br>operations and apply their<br>understanding to length. | Spring<br>Introduced to millimetres building<br>on understanding of centimetres<br>and metres. use different<br>measuring equipment including<br>rulers, tape measures, metre<br>sticks and trundle wheels.<br>Begin to measure larger objects<br>using metres. Use the most<br>appropriate equipment to measure<br>with depending on length.<br>Recognise that 100 cm is equivalent<br>to 1 metre. Explore equivalent<br>lengths in metres and cm.<br>Recognise that 10 mm is equivalent<br>to 1 cm. Explore equivalent lengths<br>in cm and mm.<br>Compare lengths of objects using<br>comparison language and symbols.<br>Compare and order lengths based<br>on measurements in mm, cm and m. | Spring<br>Add lengths given in different<br>units of measurement. They<br>convert measurements to the same<br>unit of length to add more<br>efficiently.<br>Use take-away and finding the<br>difference to subtract lengths.<br>Introduced to perimeter for the<br>first time.<br>Use understanding of the<br>properties of shape to calculate<br>the perimeter of simple 2-D<br>shapes. |



### Unit Skill and Knowledge Development

#### Mathematics

| Unit               | Planning Year 1   | Planning Year 2  | Planning Year 3   | Planning Year 4   | Planning Year 5   | Planning Year 6   |
|--------------------|---|--|---|---|---|---|
| Measurement: Money | Summer<br>Recognise and know the value of<br>different coins. | Summer<br>Identify different notes and know<br>the value of them.<br>Count money in 2's, 5's and 10's. | Autumn<br>Recognise and know the value of<br>different coins.<br>Recognise and know the value of<br>different notes.<br>Count coins in pence.<br>Count coins and notes in pounds.<br>Count money coins and notes by<br>bringing pounds and pence<br>together.<br>Select coins to make a stated<br>amount. | Autumn<br>Explore different ways of making<br>the same amount. Compare two<br>different values in either pounds<br>or pence using greater than and<br>less than.<br>Build on their knowledge of<br>addition to add money including: 2-<br>digit and 2-digit, 2-digit, and ones.<br>2-digit and tens, 3-single digits.<br>Expand their knowledge of addition<br>and subtraction strategies by<br>specifically finding the difference<br>between two amounts.<br>Find change from a given amount.<br>Draw together all the skills they<br>have used in this block and<br>consolidate their previous addition<br>and subtraction learning. | Spring<br>Be introduced to the £ and p<br>symbols, count in 1p,2p,5p, and 10p<br>coins. Use related facts to count in<br>20p coins.<br>Count in £1, £2, £5, £10 and<br>£20s.<br>Understand the value of coins and<br>notes, showing how money can<br>represent in different ways.<br>Convert between pounds and pence<br>using the knowledge that £1 is 100<br>pence. | Spring<br>Add two amounts of money using<br>pictorial representations to support<br>them.<br>Use different methods to subtract<br>money.<br>Use a number line and a part-whole<br>model to subtract to find change. |



| Unit              | Planning Year 1   | Planning Year 2   | Planning Year 3   | Planning Year 4  | Planning Year 5   | Planning Year 6   |
|-------------------|---|---|---|--|---|---|
| Measurement: Time | Summer<br>Introduce the word time and use<br>before and after to describe, sort,<br>and order events.<br>Days of the week, introduce<br>vocabulary today, yesterday, and<br>tomorrow.<br>Explore months of the year as<br>specific key dates such as<br>birthdays.<br>Introduce time to the hour. | Summer<br>Time to half an hour.<br>Explore the difference between<br>seconds, minutes, and hours.<br>Comparing time, faster, slower,<br>earlier, and later. | Summer<br>Introduced to telling the time to<br>the hour using an analogue clock.<br>Telling the time to half an hour.<br>Read and write times from clocks.<br>Read and draw the times 'quarter<br>to' and 'quarter past'. | Summer<br>Read and show analogue time to 5-<br>minute intervals.<br>Explore the difference between<br>seconds, minutes, and hours. Learn<br>that there are 24 hours in a day<br>and 60 minutes in an hour. Identify<br>the start and end time of an event.<br>Compare times using 'longer' and<br>'shorter'. | Summer<br>Recap previous objective of telling<br>the time to the hour and half past<br>the hour.<br>Read and draw the times 'quarter<br>to' and 'quarter past'.<br>Look at the concept of years and<br>months. Introduced to leap years<br>and how they are different from a<br>non-leap year.<br>Recap the number of hours in a day<br>and are introduced to language<br>such as 'noon', 'midday', 'midnight'.<br>Tell the time to the nearest 5<br>minutes on an analogue clock.<br>Tell time to the nearest minute<br>using an analogue clock. | Summer<br>Use 'morning', 'afternoon', 'a.m.'<br>and 'p.m.' to describe the time of<br>day.<br>Introduce to telling the time on a<br>24-hour digital clock for the first<br>time.<br>Find the durations of events using<br>both analogue and digital clocks.<br>Compare durations of time using<br>analogue and digital clocks.<br>Find start and end times to the<br>nearest minute using both analogue<br>and digital times.<br>Measure and compare durations of<br>time in seconds. |



### Unit Skill and Knowledge Development

#### Mathematics

| Unit   | Planning Year 1   | Planning Year 2  | Planning Year 3   | Planning Year 4  | Planning Year 5  | Planning Year 6  |
|--|---|--|---|--|--|--|
| Measurement: Weight, Volume, Mass,<br>Capacity and Temperature | Spring<br>Introduce weight and mass, heavy<br>and light.<br>Describe objects as heavy, light,<br>heavier than, lighter than before<br>using scales to check.<br>Use non-standard units to measure<br>mass of an object.<br>Understand when the scale is<br>balanced the number of non-<br>standard units can be used to<br>determine the mass.<br>Use balance scales to compare two<br>objects, using language such as<br>heavier, lighter, and equal to. | Spring<br>Introduce volume and capacity.<br>Measure capacity using different<br>types of containers.<br>Compare capacity of different<br>containers using non-standard<br>units, use more, less, equal words<br>to describe. | Summer<br>Introduced to weight and mass for<br>the first time.<br>Begin by using a variety of non-<br>standard units (e.g., cubes, bricks)<br>to measure the mass of an object.<br>Recap by comparing the mass of<br>different objects. Continue to use<br>balance scales before moving on to<br>use standard weighing scales.<br>Use knowledge of measuring mass<br>in grams to start to measure mass<br>in kilograms. Introduced to volume<br>and capacity for the first time.<br>Measure the capacity of different<br>containers using non-standard units<br>of measure. | Summer<br>Compare the volume of containers<br>using <, > and =. Introduced to<br>standard units of millilitres (ml)<br>for the first time.<br>Introduced to litres (l) as a<br>standard unit for the first time.<br>Introduced to temperature,<br>thermometers, and the units<br>'degrees Centigrade', written °C<br>for the first time. | Summer<br>Recap on previous learning by<br>comparing the mass of different<br>objects.<br>Learn how to read a range of scales<br>to measure mass, including scales<br>with missing intervals.<br>Measure the mass of objects and<br>record them as a mixed<br>measurement in kilograms and<br>grams.<br>Build on previous knowledge and<br>use 'lighter' and 'heavier' to<br>compare mass.<br>Add and subtract mass. They use a<br>range of mental and written<br>methods, choosing the most<br>efficient one for each question. | Summer<br>Compare the volume of containers<br>using <, > and =.<br>Use litres, millilitres and standard<br>scales to explore capacity.<br>Continue to build on previous<br>learning and use 'full' and 'empty' to<br>compare capacity.<br>Add and subtract volumes and<br>capacities. They can apply their<br>understanding of different<br>methods such as column<br>addition/subtraction, finding the<br>difference etc.<br>Introduce temperature,<br>thermometers, and the units<br>'degrees Centigrade', written °C<br>for the first time. |



| Unit       | Planning Year 1 | Planning Year 2 | Planning Year 3   | Planning Year 4  | Planning Year 5   | Planning Year 6  |
|------------|-----------------|-----------------|---|--|---|--|
| Statistics |                 |                 | Spring<br>Introduced to tally charts as a<br>systematic method of recording<br>data.<br>Draw pictograms using tally charts.<br>Use knowledge of one-to-one<br>correspondence to help them<br>interpret and answer questions<br>about the data presented in<br>pictograms. | Spring<br>Draw pictograms where the<br>symbols represent 2, 5 or 10 items.<br>Collect own data previously in tally<br>charts and constructed larger<br>scale pictograms practically.<br>Build block diagrams using cubes<br>and then move to drawing and<br>interpreting block diagrams. | <b>Spring</b><br>Introduced to tally charts as a<br>systematic way for recording data.<br>Draw pictograms where the<br>symbols represent 2, 5 or 10 items.<br>Collect own data.<br>Interpret pictograms (2, 5 and 10).<br>Children also need to be able to<br>halve 2 and 10. | <b>Spring</b><br>Build on their understanding of<br>pictograms from previous learning.<br>They continue to read and<br>interpret information to answer<br>questions about the data.<br>Interpret information in<br>pictograms and tally charts to<br>construct bar charts.<br>Interpret information from tables<br>to answer one and two-step<br>problems. |