**Suggested oral mental starters (ongoing, throughout the term)**:
- Count on and back in multiples of 2, 3, 5 and 10 up to the 12th multiple; begin to count on and back in multiples of 4 up to the 12th multiple
- Recall and use multiplication and division facts for the 2, 3, 5 and 10 times tables up to the 12th multiple
- Recall and use addition and subtraction facts to 20 fluently (from Y2 programme of study)
- Derive/recall and use addition and subtraction facts for multiples of 10 to 100 e.g. 40 + 60 = 100, 100 – 70 = 30
- Count on and back in 10s from any one- digit or two- digit number within 200 (refer to the 200 grid)
- Find ten more or ten less than a given number within 200
- Add/subtract 9 by adding/subtracting 10 and adjusting (within 200)
- Read and write numbers up to 200 in numerals **and** words
- Recognise odd and even numbers to at least 100
- Compare and order numbers up to 200 (use 200 grid to support); make estimates of quantities within 200
- Mentally add and subtract a 3-digit number and ones or a 3-digit number tens up to and including 200 e.g. 126 + 8; 154 – 30
- Count in fractions up to 10 e.g. ½, 1, 1 ½ , 2 …
- Tell the time from an analogue clock to the nearest 5 minutes, including quarter past/ quarter to (use daily routines to support this)

| Areas of Study | No of days | Statutory requirements and non-statutory guidance | Suggested Key Vocabulary |
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| **Number**<br><br>Number and place value<br><br><br>**Week 1** | 3 - 5 | Read, write, compare (using < and > signs) and order numbers to 200, in numerals **and** words<br>Identify the number that comes between two numbers within 200<br>Given a number, identify the number that is 10 more or less within 200<br><br>Recognise the place value of each digit in a three-digit number to 200<br>Partition three-digit numbers to 200 e.g. 138 = 100 + 30 + 8; use place value cards and Dienes to support<br>Solve missing number problems using knowledge of place value e.g. 165 = 100 + ☐ + 5; 189 = ☐ + 80 + 9<br>Represent numbers using different representations such as the empty number line or 200 grid e.g. position numbers in the correct place on a 0 – 200 number line or a 200 grid<br><br>Reason about number and place value e.g.<br>If you wrote these numbers in order starting with the smallest, which number would be third?<br>150, 59, 115, 95, 105. Explain how you ordered these numbers | Order<br>Partition, place value<br>Digit, numerals<br>Hundred, tens, ones/units<br>Between<br>More than, greater than, less than<br>< and > signs |

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| **Number**<br><br>Addition<br><br><br><br><br><br><br>Week 2 | 5 | Add a three-digit number and ones (within 200); add a three-digit number and tens (within 200), mentally **and** with jottings, such as an empty number line | Digit<br>Hundred, tens, ones/units |
| | | Add 9 by adding 10 and adjusting (within 200), mentally **and** with jottings, such as an empty number line<br>**(See Mental Calculation Strategies, 2017)** | Add, sum of, total of, addition, +<br>Plus, altogether |
| | | Consolidate addition of two two-digit numbers, including bridging 100, using informal written methods such as partitioning and empty number lines e.g. 86 + 43; 97 + 24<br>**(See Written Calculation Policy, 2017)**<br>Use estimation to check that answers are reasonable | Partition<br>Calculate, calculation<br>Estimate |
| | | Solve one-step addition word problems which involve the above; extend with two-step problems<br>**Reason** about addition e.g. True or false? The sum of three odd numbers is always an odd number. How do you know? | Odd/ even numbers |
| | | If you add 5 to a number ending in 6 the sum of the two numbers will end in 1 (have 1 in the ones/units place) True or false? How do you know? | |
| **Number**<br><br>Subtraction<br><br><br><br><br>Week 3 | 5 | Subtract a three-digit number and ones (within 200); subtract a three-digit number and tens (within 200), mentally **and** with the use of jottings, such as an empty number line | Digit<br>Hundreds, tens, ones/units |
| | | Subtract 9 by subtracting 10 and adjusting (within 200) mentally **and** with the use of jottings, such as an empty number line<br>**(See Mental Calculation Strategies, 2017)** | Subtract, minus, subtraction, **-**<br>Difference |
| | | Consolidate subtraction of two two-digit numbers and a two- digit numbers from a three- digit number within 200, using informal written methods such as an empty number line<br>e.g. 128 - 35<br>**(See Written Calculation Policy, 2017)** | Partition<br>Calculate, calculation<br>Estimate |
| | | Use estimation to check that answers are reasonable | |
| | | Solve one-step subtraction word problems which involve the above; extend with two-step problems (which could involve both addition and subtraction) | |
| | | Understand **inverse** operations; use inverse operations to check answers and to solve empty box/missing number problems e.g. ▢ + 40 = 100; 125 + ▢ = 134 | Inverse |

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| **Geometry**<br><br>Properties of shape<br>(2-D shapes)<br><br><br><br><br>**Week 4** | 5 | Consolidate names and properties of common 2-D shapes; introduce the terms **quadrilateral** and **polygon**<br>Consolidate the term right angle and relate to common 2D shapes and shapes in the environment<br>Recognise line symmetry, in a vertical line, in 2-D shapes; use the terms symmetrical and non-symmetrical<br>Describe 2D shapes including the number of sides, lines of symmetry and number of right angles and **reason** about shapes e.g. what is the same about these three polygons?<br>Sort 2-D shapes using simple Venn diagrams or Carroll diagrams using known properties e.g. polygons with right angles/ polygons without right angles; symmetrical 2-D shapes/ non-symmetrical 2-D shapes; quadrilaterals/ not quadrilaterals<br>Identify **horizontal** and **vertical** lines; link to known 2D shapes | All vocabulary from previous year: including 2-D, square, rectangle, triangle, circle, pentagon, hexagon, right angle, line of symmetry<br><br>Extend with: quadrilateral, polygon, symmetrical and non-symmetrical<br><br><br><br>Horizontal, vertical (lines) |
| **Number**<br><br>Multiplication<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>**Week 5** | 5 | Recall and use multiplication facts for the 2, 5 and 10 times tables -consider as oral/mental starters<br>Begin to recall and use multiplication facts for the 3 times table<br>Write and calculate mathematical statements for multiplication using 3 times table and other known tables<br>Develop/consolidate informal methods for multiplication – arrays and empty number lines<br>Extend by multiplying a teen number by a one- digit number using informal methods such as partitioning<br>**(See Written Calculation Policy 2017 and Mental calculation Strategies, 2017)**<br><br>Solve word problems using known multiplication tables (including 3x table) e.g.<br>There are 4 bowls and there are 3 apples in each bowl. How many apples are there altogether?<br>Six children sit round each table. There are five tables. How many children are there altogether?<br>There are 15 chairs in each row and there are 5 rows of chairs. How many chairs are there altogether?<br><br>Solve missing number problems using known times tables e.g. 5 x ☐ = 15 ; ☐ x 10 = 80 | Multiply, multiplication, times, multiples, groups of<br><br>Array<br>Empty number line<br>Count forwards<br><br>Partition |

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| **Number**<br><br>Division<br><br><br><br><br><br><br>**Week 6** | 5 | Recall and use division facts for the 2, 5 and 10 times tables -consider as oral/mental starters | Divide, division<br>Groups of<br>Array<br>Empty number line |
| | | Begin to recall and use division facts for the 3 times table | |
| | | Write and calculate mathematical statements for division using the 3 times table and other known times tables | |
| | | Develop/consolidate informal methods for division – arrays and empty number lines; count forwards to make the link with multiplication; count backwards to make the link with repeated subtraction<br>**(See Written Calculation Policy, 2017 and mental calculation Strategies, 2017)** | Count forwards, count backwards |
| | | Solve word problems involving division using known multiplication tables (including 3x table) | Problem, solution |
| | | Solve missing number problems involving division using known times tables e.g. 30 ÷ ☐ = 3 | |
| | | Solve a problem using knowledge of multiplication/division facts and known multiples; consider using the problem **'**Spaceship' **(See Mathematical Challenges for all pupils booklet, 2016)** | |
| **Number**<br><br><br><br>Fractions<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>**Week 7** | 5 | Consolidate recognising, finding, naming and writing fractions of shapes (using fraction notation and words) half, third, quarter, two quarters, and three quarters<br>Consolidate recognising that 2/4 is equivalent to 1/2, using diagrams to support | Fraction<br>Half, quarter<br>1/2, 1/4, 2/4, 3/4<br>Third, 1/3<br>Tenth, 1/10<br>Whole |
| | | Compare two unit fractions, such as 1/4 and 1/3, using < and >, using diagrams such as a simple fraction wall to support | |
| | | Connect finding **unit fractions** to division e.g. connect finding a third of a number with dividing by 3; 1/3 of 15 = 5 | |
| | | Solve simple problems involving fractions. I have 12 stickers. I give 1/3 of them to Bob. How many stickers do I give to Bob? How many stickers do I have left? | Divide, part, equal parts |
| | | Reason about fractions e.g. would you rather have 1/3 of £18 or 1/4 of £20? Why? | Compare, <, > |
| | | **Introduce** the term tenth (and the notation 1/10) and recognise that tenths arise from dividing an object or shape into ten equal parts; count up and back in tenths (consider using a counting stick) | |
| | | Find one tenth of a number, quantity or length (multiples of ten) e.g.<br>1/10 of 50 = 5; 1/10 of 80cm = 8 cm; 1/10 of 100 cherries = 10 cherries | |
| | | Introduce the term **non-unit fraction** using diagrams to support understanding; find non-unit fractions of shapes e.g. shade 2/3 of the rectangle blue and 1/3 of the rectangle red | Unit fraction, non-unit fraction |
| | | Find non-unit fractions, with small denominators, of a number and a discrete set of objects using resources/diagrams to support e.g. find 2/3 of 12; find 3/4 of 20 | |

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| **Measurement**<br><br>Time<br><br><br><br><br><br><br>**Week 8** | 1 | **Introduce** Roman numerals from I to XII<br>**Consolidate** telling the time using an analogue clock: o'clock, half past, quarter past/quarter to using an analogue clock, including clocks with Roman numerals<br>Tell the time to the nearest five minutes on an analogue clock<br>Know that there are 60 minutes in an hour and 60 seconds in a minute | Roman numerals I,V,X<br><br>Analogue, 12 hour digital clock, minutes, hour<br>O'clock, half past, quarter past, quarter to, five to, five past etc |
| | 4 | Relate analogue time to 12 hour digital clocks and begin to convert between analogue and digital time using **simple** examples e.g. half past two = 2.30; ten past eight = 8.10 | a.m. p.m.<br>noon, midday, midnight |
| | | Introduce a.m. (morning) and p.m. (afternoon), noon and midnight; use this vocabulary when telling the time | |
| | | Solve problems set in the context of time e.g.<br>I leave the house at ten past eight and arrive at school at half past eight. How long is my journey to school?<br>My favourite TV programme starts at 7.15 p.m. and lasts for one hour and five minutes. What time does the programme finish? (consider using clocks to support) | |
| **Geometry**<br><br>Angles<br><br>**&**<br><br>**Measurement**<br><br>Length<br><br><br>**Week 9** | 2 | Recognise angles as a property of shapes or description of turns (consider using hands on a clock to illustrate) | Angle, right angle<br>Less than, greater than |
| | | Recognise that one right angle is a quarter turn and two right angles make a half turn | |
| | | Identify angles that are right angles, less than a right angle and greater than a right angle (terms acute and obtuse introduced later in the year) | |
| | 2 | Consolidate metre (m) and centimetre (cm) as units of measurement of length and height and the relationship between them (1m = 100cm; 2m = 200cm) | |
| | | Estimate and then measure using appropriate equipment and units, progressing to using mixed units e.g. I am 1m 45cm tall. How many cm is this? | Length, measure, ruler<br>Millimetre, centimetre, metre<br>mm, cm, m |
| | | Compare two lengths/heights under 100 cm e.g. my beanstalk/ your beanstalk, my foot/your foot **(possible link to the science curriculum)** | |
| | 1 | Introduce millimetre (mm) as a unit of measurement for length and relate to tenths of a cm<br>Measure small objects to the nearest mm | Perimeter, sides, total<br>Distance all the way around |
| | | **Introduce** the term **perimeter** and measure the perimeter of simple polygons using cm | |

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| **Measurement**<br><br>Money<br><br>**&**<br><br>**Number**<br><br>Addition and Subtraction (number facts and mental methods)<br><br>**Week 10** | 2 | Consolidate recognition of the value of **all** coins and notes (from Y2 programmes of study)<br>Consolidate pound and pence and the relationship between them (£1 = 100p; £2 = 200p)<br>Begin to use decimal notation related to money e.g. £1.45 = 145p (from Y4 programme of study)<br><br>Add and subtract amounts of money within £2 in practical contexts and in word problems, including giving change | Coins<br>Pence (p), penny<br>Pound (£)<br><br>Change, pay, costs<br>How much? |
| | 3 | Consolidate pairs of multiples of ten that total 100 e.g. 70 + 30 = 100, and give related subtraction facts; derive pairs of multiples of 5 that total 100 e.g. 85 +15 = 100, and give related subtraction facts (consider using a 100 grid to support); use knowledge of inverse operations<br><br>Solve missing number problems, using number facts and place value e.g. $\square$ + 65 = 100; 100 - $\square$ = 25<br><br>Mentally add a three-digit number and ones and a three-digit number and tens within and beginning to bridge 200, including the use of jottings such as a number line; use estimation to check that answers are reasonable | Digit, hundreds, tens, ones/units<br><br>Estimate<br>Calculate, calculation<br>Inverse |
| **Statistics**<br><br>Data handling<br><br>**Week 11** | 3 | Use information presented in scaled bar charts and pictograms to answer one-step questions e.g. How many more? How many fewer? How many altogether?<br><br>Use information presented in tables and tally charts to answer one-step questions e.g. How many more? How many fewer? How many altogether?<br><br>Follow a line of enquiry e.g. when planning a party identify which fillings children want to eat in their sandwiches; collect and present data; answer questions about the data<br>**(Possible link to science curriculum)** | Bar chart, pictogram<br>Tally chart, table<br>Data<br>Scale, interval |
| **Number**<br><br>Multiplication and Division (facts)<br><br>**Week 12** | 5 | Recall and use multiplication and division facts for the 2, 3, 5 and 10 times tables<br>Through doubling, connect the 2 and 4 times tables<br>Begin to recall and use multiplication and division facts for the 4 times table<br><br>Recognise the **inverse** relationships between multiplication and division and use this to solve missing number problems involving known multiplication and division facts<br><br>e.g. 3 x $\square$ = 24,   24 ÷ $\square$ = 3;   $\square$ x 5 = 35,   35 ÷ $\square$ = 5<br><br>Solve word problems using known multiplication and division facts | Multiply, multiplication, times<br>Divide, division, 'goes into'<br>Groups of<br><br>Inverse |

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**Additional weeks**

To be used for:
- assessment, consolidation and responding to AfL
- additional using and applying activities
- Christmas maths activities

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