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; 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 **(See multiplication tables Guidance, 2020)**
- 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 (with jottings) 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
Number Number and place value **Week 1**	3 - 5	Read, write, compare (using < and > signs) and order numbers to 200, in numerals and words Identify the number that comes between two numbers within 200 Given a number, identify the number that is 10 more or less within 200 Recognise the place value of each digit in a three-digit number to 200 Partition three-digit numbers to 200 e.g. 138 = 100 + 30 + 8; use place value cards and Dienes to support Solve missing number problems using knowledge of place value e.g. 165 = 100 + ☐ + 5; 189 = ☐ + 80 + 9 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 **Reason** about number and place value e.g. If you wrote these numbers in order starting with the smallest, which number would be third? 150, 59, 115, 95, 105. Explain how you ordered these numbers	Order Partition, place value Digit, numerals Hundred, tens, ones/units Between More than, greater than, less than < and > signs

Number Addition **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 Add 9 by adding 10 and adjusting (within 200), mentally and with jottings, such as an empty number line **(See Mental Calculation Strategies, 2017)** 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 **(See Written Calculation Policy, 2017)** Use estimation to check that answers are reasonable Solve one-step addition word problems which involve the above; extend with two-step problems **Reason** about addition e.g. True or false? The sum of three odd numbers is always an odd number. How do you know? 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?	Digit Hundred, tens, ones/units Add, sum of, total of, addition, + Plus, altogether Partition Calculate, calculation Estimate Odd/ even numbers
Number Subtraction **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 Subtract 9 by subtracting 10 and adjusting (within 200) mentally and with the use of jottings, such as an empty number line **(See Mental Calculation Strategies, 2017)** 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 e.g. 128 - 35 **(See Written Calculation Policy, 2017)** 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	Digit Hundreds, tens, ones/units Subtract, minus, subtraction, - Difference Partition Calculate, calculation Estimate Inverse

Geometry Properties of shape (2-D shapes) **Week 4**	5	Consolidate names and properties of common 2-D shapes; introduce the terms **quadrilateral** and **polygon** Consolidate the term right angle and relate to common 2D shapes and shapes in the environment Recognise line symmetry, in a vertical line, in 2-D shapes; use the terms symmetrical and non-symmetrical 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? 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 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 Extend with: quadrilateral, polygon, symmetrical and non-symmetrical Horizontal, vertical (lines)
Number Multiplication **Week 5**	5	Count forwards and backwards in multiples of two, five, ten and three to the 12th multiple- consider as oral/mental starters Consolidate the recall of multiplication facts for the 2, 5 and 10 times tables Begin to recall multiplication facts for the 3 times table Write and calculate mathematical statements for multiplication using the 3 times table and other known tables **(See Multiplication Tables Guidance 2020)** Develop/consolidate informal methods for multiplication – arrays and empty number lines Extend by multiplying a teen number by a one- digit number using informal methods such as partitioning **(See Written Calculation Policy 2017, Mental calculation Strategies2017)** Solve word problems using known multiplication tables (including 3x table) e.g. There are 4 bowls and there are 3 apples in each bowl. How many apples are there altogether? Six children sit round each table. There are five tables. How many children are there altogether? There are 15 chairs in each row and there are 5 rows of chairs. How many chairs are there altogether? Solve missing number problems using known times tables e.g. 5 x ☐ = 15 ; ☐ x 10 = 80	Multiply, multiplication, times, multiples, groups of Array Empty number line Count forwards Partition

Number Division **Week 6**	5	Count forwards and backwards in multiples of two, five, ten and three to the 12th multiple- consider as oral/mental starters Consolidate recall of division facts for the 2, 5 and 10 times tables 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 **(See Multiplication Tables Guidance 2020)** 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 **(See Written Calculation Policy 2017, Mental Calculation Strategies 2017)** Solve word problems involving division using known multiplication tables (including 3x table) Solve missing number problems involving division using known times tables e.g. 30 ÷ ☐ = 3 Solve problems using knowledge of multiplication/division facts and known multiples; consider using the problem 'Spaceship' **(See Mathematical Challenges for all pupils booklet, 2016)**	Divide, division Groups of Array Empty number line Count forwards, count backwards Problem, solution
Number Fractions **Week 7**	5	Consolidate recognising, naming and writing fractions of shapes (using fraction notation and words) half, third, quarter, two quarters, and three quarters Consolidate recognising that 2/4 is equivalent to 1/2, using diagrams to support Compare two unit fractions, such as 1/4 and 1/3, using < and >, using diagrams such as a simple fraction wall to support Find fractions of numbers, measurements and discrete sets of objects by connect finding **unit fractions** to division e.g. 1/3 of 12 = 4; 1/4 of £40 = £10 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? **Reason** about fractions e.g. would you rather have 1/3 of £18 or 1/4 of £20? Why? **I**ntroduce 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 to support understanding) Find one tenth of a number, quantity or length (multiples of ten) e.g. 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 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	Fraction Half, quarter, whole 1/2, 1/4, 2/4, 3/4 Third, 1/3 Tenth, 1/10 Divide, part, equal parts Compare, <, > Unit fraction, non-unit fraction

Measurement Time **Week 8**	1 4	Introduce Roman numerals from I to XII 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 Tell the time to the nearest five minutes on an analogue clock NB Use daily routines to support telling the time Know that there are 60 minutes in an hour and 60 seconds in a minute 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 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. I leave the house at ten past eight and arrive at school at half past eight. How long is my journey to school? 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)	Roman numerals I,V,X Analogue, 12 hour digital clock, minutes, hour O'clock, half past, quarter past, quarter to, five to, five past etc a.m. p.m. noon, midday, midnight
Geometry Angles **&** **Measurement** Length **Week 9**	2 2 1	Recognise angles as a property of shapes or description of turns (consider using hands on a clock to illustrate) 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) 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? Compare two lengths/heights under 100 cm e.g. my beanstalk/ your beanstalk, my foot/your foot (possible link to the science curriculum) Introduce millimetre (mm) as a unit of measurement for length and relate to tenths of a cm Measure small objects to the nearest mm Introduce the term **perimeter** and measure the perimeter of simple polygons using cm	Angle, right angle Less than, greater than Length, measure, ruler Millimetre, centimetre, metre mm, cm, m Perimeter, sides, total Distance all the way around

Measurement Money **&** **Number** Addition and Subtraction (number facts and mental methods) **Week 10**	2 3	Consolidate recognition of the value of all coins and notes (from Y2 programmes of study) Consolidate pound and pence and the relationship between them (£1 = 100p; £2 = 200p) Begin to use decimal notation related to money e.g. £1.45 = 145p (from Y4 programme of study) Add and subtract amounts of money within £2 in practical contexts and in word problems, including giving change 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 Solve missing number problems, using number facts and place value e.g. ☐ + 65 = 100; 100 - ☐ = 25 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	Coins Pence (p), penny Pound (£) Change, pay, costs How much? Digit, hundreds, tens, ones/units Estimate Calculate, calculation Inverse Empty number line
Statistics Data handling **Week 11**	5	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? Use information presented in tables and tally charts to answer one-step questions e.g. How many more? How many fewer? How many altogether? 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 **(Possible link to science curriculum)**	Bar chart, pictogram Tally chart, table Data Scale, interval
Number Multiplication and Division (facts) **Week 12**	5	Recall and use multiplication and division facts for the 2, 3, 5 and 10 times tables Through doubling, connect the 2 and 4 times tables Begin to recall and use multiplication and division facts for the 4 times table **(See Multiplication Tables Guidance 2020)** Recognise the **inverse** relationships between multiplication and division and use this to solve missing number problems involving known multiplication and division facts e.g. 3 x ☐ = 24, 24 ÷ ☐ = 3; ☐ x 5 = 35, 35 ÷ ☐ = 5 Solve word problems using known multiplication and division facts	Multiply, multiplication, times Divide, division, 'goes into' Groups of Inverse

Additional weeks

To be used for:

- assessment, consolidation and responding to AfL
- additional using and applying activities
- Christmas maths activities