**Year 3 2018-19 Overview Maths**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Autumn Term** | | | | | | | | | | | | | | | |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | |
| 3rd Sep – 7th Sep | 10th Sep – 14 Sep | 17th - 21st Sep | 24th – 28th Sep | 1st – 5th Oct | 8th– 12th Oct | 15th - 19th oct | Half term | 29th Oct – 2nd Nov | 5th – 9th Nov | 12th – 16th Nov | 19th – 23rd  Nov | 26th – 30th Nov | 3rd – 7th Dec | 10th - 14th Dec | 17th – 21st Dec | |
|  | **Number and Place value**   * Recognise the place value of each digit in a 3 digit number. * Identify, represent and estimate numbers using different representations * Partition numbers in different ways E.g. 146 = 100 + 40 + 6 and 146 = 130 + 16 * Compare and order numbers up to 1000 using < > = * Size order numbers on a number lines. 0 -100, 0-1000. * Read and write numbers to 1000 in numerals and words. * Count in steps of 2, 3, 5, and 10 from any given number forwards and backwards. (MMM) * Count from 0 in multiples of 4, 8, 50 and 100. (lesson) * Solve number problems and practical problems involving place value.   Can move onto addition and subtraction earlier of finished! | | | **Addition and Subtraction**   * Recall and use the addition and subtraction facts to 20 and use this to derive related facts up to 100. (Assess, teach if needed, move into MMM.) * Add and subtract mentally: * A three digit number and ones. Initially without crossing tens E.g. 324 + 5 = 329 and then moving onto 324 + 9 = 333. * A three digit number and tens. Initially within hundreds E.g. 324 + 60 = 384 and then crossing hundreds 456 + 70 = 524. * A three digit number and hundreds. Initially without crossing thousands, moving to crossing. * Estimate the answer to a calculation and use the inverse operation to check answers. Introduce with small numbers before using it with 3 digit numbers. * Add and subtract numbers with up to 3 digits, using partitioning. Introducing carrying and exchanging. * Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. | | |  | **Multiplication and Division**   * Recognise odd and even numbers * Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs, for example using the 2, 5 and 10 times tables. Pupils relate multiplication to repeated groups and division to sharing and can show understanding using resources. * Recall and use multiplication and division facts for 2,5,10, 3, 4, and 8 times tables. * Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know. *Pupils should be able to use different representations, groups of, arrays, and repeated addition for multiplication and subtraction for division using a number line (with single jumps at this time.)* | | | **Fractions**   * Recognise, find, name and write fractions, , / and of a length, shape, set of objects or quantity. (To be done practically.) * Count up and down in halves and * Recognise, find and write fractions of shapes both simple unit and non- unit fractions. (Teach in the context of is 3 out of every 4.) * Recognise, find and write fractions of discrete sets of objects both simple unit and non- unit fractions. (Teach in the context of is 3 out of every 4.) * Compare and order unit fractions, and fractions with the same denominators, including on a number line. * Add and subtract fractions with the same denominator within one whole, for example, + = . (ensure chn understand why you do not add the denominator.) * Recognise and show, using diagrams, equivalent fractions with small denominators. (Can be done very simply and practically.) * Solve problems involving all of the above. | | | **Geometry – property of shapes.**   * Describe the properties of 2D and 3D shapes using accurate terminology. * Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. * Measure the perimeter of simple 2D shapes. * Identify horizontal lines and vertical lines and pairs of perpendicular and parallel lines. * Identify symmetrical and non-symmetrical polygons. | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Spring Term** | | | | | | | | | | | | |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| Mon 7th – 11th Jan | 14th – 18th Jan | 21th – 25th Jan | 28th Jan – 1st Feb | 4th – 8th Feb | 11th Feb – 15th Feb | Half term | 25th Feb– 1st March | 4th – 8th March | 11th - 15th March | 18th – 22nd March | 25th – 29th March | 1st – 5th Apri |
| **Addition and subtraction**   * Add and subtract numbers with up to 3 digits, using partitioning. Introducing carrying and exchanging. (All ARE pupils need to do this confidently.) * If appropriate move pupils onto formal compact addition and subtraction. * Estimate the answer to a calculation and use the inverse operation to check answers. Introduce with small numbers before using it with 3 digit numbers. * Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. | | **Multiplication and Division**  *All within multiplication tables which pupils need to recall fluently 2,5,10, 3, 4, and 8.*   * Pupils use efficient mental methods, for example, commutativity and associativity (for example, 4 x 12 x 5 = 4 x 5 x 12 = 20 x 12 = 240) (can *be taught through derivation board.)* * Write and calculate mathematical statements for multiplication and division using number lines with single jumps for repeated addition for multiplication or repeated division for subtraction. * Write and calculate division sentences which include remainders within the multiplication tables that they know. * Write and calculate mathematical statements for multiplication, including for two-digit numbers times one-digit numbers, using mental methods (number lines) and progressing to formal written methods (expanded multiplication if appropriate)   *(All ARE pupils to use number lines to multiply numbers such as 17 x 8 and 32 x 4.)*   * solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. | | | **Geometry – properties of shapes**   * Recognise angles as a property of turn. * Identify right angles, recognise that two right angles make a half-turn, three make a three quarter turn and four make a complete turn. * Identify whether angles are greater or less than a right angle. |  | **Fractions**   * Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators using bar models. * Count up and down in tenths. * Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 * Solve problems involving all of the fraction objectives previously taught.   Pick up on any fraction objectives missed or not fully understood from previous unit. | | | Assessment Week? | **Measures**   * Know confidently which unit relates to which measure E.g. grams and kilograms measure mass. * Measure and compare: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) using the appropriate tools E.g. measuring cylinders and scales. * Make measurements using mixed units E.g. 1Kg and 200g (pupils do not need to be able to convert between units of measure at this time.) * The comparison of measures should include simple scaling questions E.g. a measure is twice as long or five times as high.) * Add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)   Complete above objectives practically initially.   * Problem solving with all four operations within a measurement context. | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Summer Term** | | | | | | | | | | | | | | | | | |
| Week 1 | Week 2 | | Week 3 | Week 4 | | Week 5 |  | Week 1 | Week 2 | | Week 3 | | Week 4 | Week 5 | Week 6 | Week 7 | |
| 23rd (Tues) – 26th April | | 29th – 3rd May | 6th - 10th May | 13th – 17th May | | 20th – 24th May | Half Term | **3rd – 7th June** | | 10h – 14th June | | 17th – 21st June | 24th – 28th June | 1st – 5th July | 8th – 12th July | 15th – 19th July | |
| **Measures – Time**   * Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks * Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight * Know the number of seconds in a minute and the number of days in each month, year and leap year * Compare durations of events [for example to calculate the time taken by particular events or tasks]. | | | **Statistics**   * Interpret and present data using bar charts, pictograms and tables. Including simple scaes for example, 2, 5 and 10 units per cm in pictograms and bra charts. * *(This could be completed as part of an investigation.)* * Solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables. | | **Measures – Money**   * Add and subtract amounts of money to give change, using both £ and p in practical contexts | |  | **Four operations/ Fractions additional problem solving.**   * Single step problems involving all four operations – pupils can identify which operation to use. * Over teaching of tricky language, E.g. how many more, how many fewer, what is the total/ sum, what is the difference? * Two step and multi-step questions involving mixed operations and embedded within contexts E.g. measures. Should be supported with practical resources and heuristics. | | | | | **Assessment Week?** | Consolidation of written methods and fractions. Pick up on any objects or units that need further teaching. | | |