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**Year 2 Objectives**

**Place Value**

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| COUNTING   * Count in steps of 1, 2, 3, and 5 from 0, and in tens from any two-digit number, forward or backward. * Say the number names to at least 100, from and back to zero. * Count reliably up to 100 objects by grouping them in 10s. * Count up to 100 objects by grouping in tens, then fives or twos. * Count in 100s from/back to 0. * Count on in steps of 5 to at least 30, from 0 or a small number. * Count on in steps of 3 or 4 to at least 30, from and back to zero. |
| COMPARING NUMBERS   * Compare and order numbers from 0 up to 100; use <, > and = signs. * Order whole numbers and place them on a number line or 100-square. * Recognise two–digit multiples of 10. * Recognise two–digit multiples of 5. * Compare two two–digit numbers, say which is more or less and give a number that lies between them. |
| IDENTIFYING, REPRESENTING & ESTIMATING NUMBERS   * Identify, represent and estimate numbers using different representations, including the number line. * Place numbers on number line or 100 square. * Recognise odd, even numbers, and two–digit multiples of 2, to 30. * Use and read vocabulary of estimation and approximation. * Give a sensible estimate of up to 50 objects. |
| READING & WRITING NUMBERS   * Read and write numbers to at least 100 in numerals and in words. |
| UNDERSTANDING PLACE VALUE   * Recognise the place value of each digit in a two-digit number (tens, ones). * Say the number that is one or ten more/less than a given two-digit number. * Partition two-digit numbers into a multiple of 10 and ones. |
| ROUNDING   * Round any number to the nearest 10. |
| PROBLEM SOLVING   * Use place value and number facts to solve problems. * Solve mathematical problems/puzzles, recognise simple patterns and relationships and make predictions. Suggest extensions.   REASONING   * Give examples to match general statement about numbers. |

**Addition and Subtraction**

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| NUMBER BONDS   * Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. * State subtraction fact corresponding to addition fact and vice versa. * Recall doubles to 10 + 10 and corresponding halves. * Derive doubles to 15 + 15 and corresponding halves. * Derive doubles of multiples of 5, halves of multiples of 10. * Recall all pairs that make 20 (e.g. 13 + 7, 20 - 12). * Recall pairs of multiples of 10 that make 100. |
| MENTAL CALCULATION   * Add and subtract numbers using concrete objects, pictorial representations, and mentally. * Say the number that is one or ten more/less than a 2-digit number. * Add three one-digit numbers. * Use number facts and place value to add/subtract mentally. * Find small difference, counting up. * Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. * Identify near doubles, using doubles already known. * Partition into 5 and a bit when adding 6, 7, 8, or 9. * Bridge through 10, then 20, and adjust. * Add two then three two-digit numbers with apparatus. * State subtraction fact corresponding to addition fact and vice versa. |
| WRITTEN METHODS   * Inverse operations for checking. * Use + – = signs to record mental calculations in a number sentence. * Add and subtract numbers with up to two digits, using a number line. |
| PROBLEM SOLVING  Solve problems with addition and subtraction by;   * Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. * Applying their increasing knowledge of mental and written methods. * Explain how problem was solved, orally and in writing. |

**Multiplication and Division**

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| MULTIPLICATION & DIVISION FACTS   * Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. * Understand the term ‘multiple’. * Understand multiplication as repeated addition. * Use known facts to carry out simple multiplication. * Add and multiply mentally to solve simple word problems. * Know and use halving as the inverse of doubling. * Understand division as grouping or sharing. Read the related vocabulary. |
| MENTAL CALCULATION   * Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. * Use known number facts and place value to divide mentally. |
| WRITTEN CALCULATION   * Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. |
| PROBLEM SOLVING   * Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. |

**Fractions**

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| RECOGNISING FRACTIONS   * Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity. |
| EQUIVALENCE   * Write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. |

**Geometry: Shape**

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| IDENTIFYING SHAPES & THEIR PROPERTIES   * Use mathematical names for common 3-D and 2-D shapes. * Sort shapes and describe some of their features, e.g. number of sides, corners, edges, faces. * Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. * Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. * Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] |
| DRAWING & CONSTRUCTING   * Draw 2-D shapes and begin to make 3-D shapes using modelling materials; * Make and describe shapes, patterns or pictures using solid shapes and templates. * Make and describe shapes using pin-boards, elastic boards, squared paper, and programmable toy. * Begin to recognise line symmetry. |
| COMPARING & CLASSIFYING   * Compare and sort common 2-D and 3-D shapes and everyday objects * Investigate general statements about shapes. * Solve shape puzzles, explaining reasoning orally. |
| ANGLES   * Describe position, direction and movement, including whole, half, quarter and three-quarter turns clockwise and anti-clockwise. * Recognise right angles. |
| POSITION, DIRECTION & MOVEMENT   * Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). * Use N, S, E, W to track a pathway or route (mapwork). |

**Measurement**

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| COMPARING & ESTIMATING   * Compare and order lengths, mass, volume/capacity and record the results using >, < and =. * Compare and sequence intervals of time. |
| MEASURING & CALCULATING   * Use and begin to read the vocabulary related to length, mass, capacity and time. * Suggest suitable units and equipment for such measurements. * Read a scale to the nearest division. * Solve problems involving length, mass, capacity or time.   Length and height   * choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); * Estimate, measure then compare lengths using metres, recording as ‘3 and a bit metres’. * Use a ruler to measure and draw lines to the nearest cm.   Mass (kg/g)   * Estimate, measure then compare masses using kilograms; suggest suitable units and equipment for such measurements. * Read a simple scale. * Record measurements as ‘nearly 3 kilograms heavy’.   Capacity (litres/ml)   * Estimate, measure then compare capacities using litres.   Money   * Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. * Find different combinations of coins that equal the same amounts of money * Recognise all coins. Find totals. Give change. Work out how to pay. * Use £p notation. * Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. |
| TELLING THE TIME   * Use units of time: second, minute, hour, day, week. * Know relationships between second, minute, hour, day, week. * Order months of the year. * Suggest suitable units to estimate or measure time. * Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. * Tell the time to half past, 15 minutes past, 45 minutes past and begin to count in minutes of intervals of 5. * Start to look at digital time and link to analogue time. * Solve time problems. * Know the number of minutes in an hour and the number of hours in a day. |