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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.
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| 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.
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| 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.
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| READING & WRITING NUMBERS * Read and write numbers to at least 100 in numerals and in words.
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| 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.
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| ROUNDING * Round any number to the nearest 10.
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| 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.
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**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.
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| 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.
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| 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.
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| 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.
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**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.
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| 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.
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| WRITTEN CALCULATION * Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.
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| PROBLEM SOLVING * Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
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**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.
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| EQUIVALENCE * Write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.
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**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]
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| 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.
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| 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.
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| ANGLES * Describe position, direction and movement, including whole, half, quarter and three-quarter turns clockwise and anti-clockwise.
* Recognise right angles.
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| 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).
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**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.
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| 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.
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| 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.
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