



## Year 3 Summer 1

### Starter suggestions for Number

- Count on and back in 1s, 10s or 100s from any two- or three-digit number.
- Partition three-digit numbers in different ways, (e.g.  $325 = 300 + 20 + 5$  but is also  $200 + 125$  etc).
- Identify the value of each digit to one decimal place.
- Recall addition and subtraction facts for 100 (e.g.  $37+63 = 100$ ,  $63+37=100$ ,  $100-63=37$ ,  $100-37=63$ ).
- Mentally add groups of small numbers.
- Recall multiplication facts for 2, 3, 4, 5, 8 and 10 times tables and derive associated division facts.
- Describe and extend number sequences involving counting on or back in different steps.
- Double any number up to 100.
- Halve any number up to 200.
- Count in fraction steps, e.g.  $\frac{1}{5}, \frac{2}{5}, \frac{3}{5} \dots$

### Starter suggestions for Measurement, Geometry and Statistics

- Identify right angles in different orientations and angles that are less than or greater than a right angle.
- Estimate length in m, cm and mm and volume/capacity in l and ml.
- Read scales to nearest whole unit.
- Use vocabulary of time including o'clock, a.m./p.m., morning, afternoon, noon and midnight.
- Tell and write time from an analogue clock and 12-hour and 24-hour clocks.
- Identify and describe 2-D shapes, considering sides, corners and symmetry.
- Identify and describe 3-D shapes, considering faces, edges and vertices.
- Compare and sort common 2-D and 3-D shapes and everyday objects.

	Main learning	Rationale
<b>Week 1</b> <b>Multiplication facts, sequences and statistics</b>	<ul style="list-style-type: none"><li>▪ Count from 0 in multiples of 4, 8, 50 and 100.</li><li>▪ Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>▪ <i>Describe and extend number sequences involving counting on or back in different steps.</i></li><li>▪ Interpret (and present data) using bar charts, pictograms and tables.</li></ul>	Children use their counting, sequencing and multiplication facts knowledge in the context of handling data. The emphasis for the handling data should be on interpreting information, though there may be some mention of presentation, particularly for creating scales on bar charts by counting in equal steps.
<b>Week 2</b> <b>Addition and subtraction in the context of measures</b>	<ul style="list-style-type: none"><li>▪ Add and subtract mentally:<ul style="list-style-type: none"><li>- a three-digit number and ones</li><li>- a three-digit number and tens</li><li>- a three-digit number and hundreds.</li></ul></li><li>▪ Add numbers with up to three digits, using formal written method of columnar addition.</li><li>▪ Subtract numbers with up to three digits, using formal written method of columnar subtraction.</li><li>▪ <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</i></li><li>▪ <i>Select a mental strategy appropriate for the numbers involved in the calculation.</i></li><li>▪ <i>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.</i></li><li>▪ Estimate the answer to a calculation and use inverse operations to check the answers.</li><li>▪ <i>Solve problems involving money and measures and simple problems involving passage of time.</i></li><li>▪ Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li><li>▪ Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li><li>▪ Measure the perimeter of simple shapes.</li></ul>	Children rehearse their skills of mental and written addition and subtraction in the context of measures, including perimeter. Children should engage in practical measuring activities and solve calculations based on the measurements they have made. This could involve estimating length, mass and capacity then accurately measuring and calculating the difference between the estimate and the actual measurement. Other contexts should also be used. Children should continue to count in ones, tens and hundreds. Children should also mentally calculate with two-digit numbers in which the answer is a three-digit number.



	<b>Main learning</b>	<b>Rationale</b>
<b>Week 3</b> <b>Multiplication and division in the context of measures</b>	<ul style="list-style-type: none"> <li>▪ Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>▪ Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li> <li>▪ Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to formal written methods.</li> <li>▪ <i>Select a mental strategy appropriate for the numbers involved in the calculation.</i></li> <li>▪ <i>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</i></li> <li>▪ <i>Solve problems involving money and measures and simple problems involving passage of time.</i></li> <li>▪ Solve problems, including missing number problems involving multiplication and division, including positive integer scaling problems.</li> </ul>	<p>Children rehearse their skills of mental and written multiplication and division in the context of measures, including perimeter of regular shapes.</p> <p>Children should engage in practical measuring activities and solve calculations based on the measurements they have made.</p>
<b>Week 4</b> <b>2-D shape and angles</b>	<ul style="list-style-type: none"> <li>▪ Draw 2-D shapes and describe them.</li> <li>▪ Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> <li>▪ Recognise that angles are a property of a shape or a description of a turn.</li> <li>▪ Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four a complete turn.</li> <li>▪ Identify whether angles are greater than or less than a right angle.</li> <li>▪ <i>Compare and sort common 2-D and 3-D shapes and everyday objects. (Year 2 objective)</i></li> </ul>	<p>Children make links between their developing knowledge of shape and the language related to the position of lines/sides in relation to each other and also the angles made where lines/sides meet. This is an understanding of angles as a measure of turn, but the 'turn' is static i.e. the sides of the shape are not turning.</p> <p>The angle understanding also incorporates a dynamic understanding in which movement is made.</p>
<b>Week 5</b> <b>Addition and subtraction involving money</b>	<ul style="list-style-type: none"> <li>▪ Count up and down in tenths.</li> <li>▪ Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</li> <li>▪ <i>Identify the value of each digit to one decimal place.</i></li> <li>▪ <i>Read and write numbers with one decimal place.</i></li> <li>▪ <i>Compare and order numbers with one decimal place.</i></li> <li>▪ <i>Continue to recognise and use symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds and pence.</i></li> <li>▪ <i>Recognise that ten 10p coins are equivalent to £1 and that each coin is <math>\frac{1}{10}</math> of £1.</i></li> <li>▪ Add and subtract amounts of money to give change, using both £ and p in practical contexts.</li> <li>▪ <i>Solve problems involving money.</i></li> <li>▪ <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</i></li> <li>▪ <i>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.</i></li> <li>▪ <i>Select a mental strategy appropriate for the numbers involved in the calculation.</i></li> <li>▪ <i>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</i></li> </ul>	<p>Children may require further learning on decimal notation prior to or during this unit. It is often difficult for children to make the link between their understanding of hundreds, tens and units and £ and p notation (the 10p coins do not go in the 'tens' column when using £ and p notation).</p>
<b>Week 6</b> <b>3-D shape including sorting</b>	<ul style="list-style-type: none"> <li>▪ Make 3-D shapes using modelling materials.</li> <li>▪ Recognise 3-D shapes in different orientations and describe them.</li> <li>▪ <i>Compare and sort common 2-D and 3-D shapes and everyday objects. (Year 2 objective)</i></li> </ul>	<p>Children embed their learning of the properties 3-D shape, making shapes in different ways e.g. creating 3-D shapes using straws and plasticine; Clix, Polydron or other construction materials. The emphasis of the learning should be on children's accurate use of language when making, identifying and describing shapes.</p>