

<b>Additive reasoning 4.7</b>		Length of unit: <b>3 weeks</b>	Week beg:	Year:4	Teacher:
<b>Success criteria</b>  Pupils can solve addition and subtraction problems in different contexts, appropriately choosing and using number facts, understanding of place value and counting and mental and written methods. They can explain their decision making and justify their solutions.	<b>Prior Learning:</b>  Check that children can already <ul style="list-style-type: none"> <li>• add and subtract numbers mentally, including: <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 and subtract numbers with up to three digits using formal written methods of columnar addition and subtraction</li> <li>• estimate the answer to a calculation and use inverse operations to check answers</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>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>• interpret and present data using bar charts, pictograms and tables</li> <li>• 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</li> <li>• 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</li> <li>• know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>• compare durations of events, [for example, to calculate the time taken by particular events or tasks]</li> </ul>	<b>Resources</b>  Maths vocabulary book  Using and Applying in every maths lesson  Assessment through guided maths  Think Maths!  Pitch and Expectations Y4 and Y5  Mind the Gap (L3 to L4)  Overcoming Barriers to Learning – L3 to 4 and L4 to 5 (available online)  Securing Level 3 and Securing Level 4 documents			
<b>Guidance</b>  Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency.  Pupils understand and use a greater range of scales in their representations.					

## Learning objectives

### Pupils should be taught to:

#### Addition and subtraction

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

#### Measurement

- estimate, compare and calculate different measures, including money in pounds and pence

#### Statistics

- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

### Pupil outcomes:

I can explain and represent different ways of solving  $5678 \text{ km} + 456 \text{ km}$  and  $9045 \text{ km} - 654 \text{ km}$  and give reasons for which would be the most efficient.

I can suggest contexts where these calculations might be necessary.