



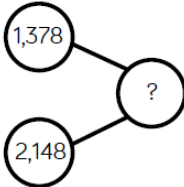
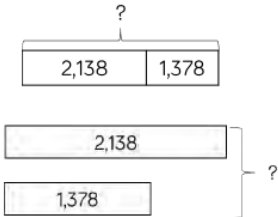
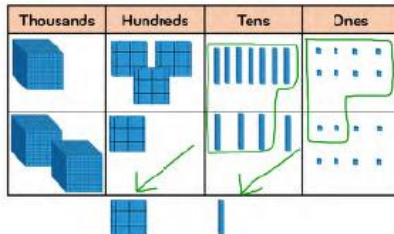
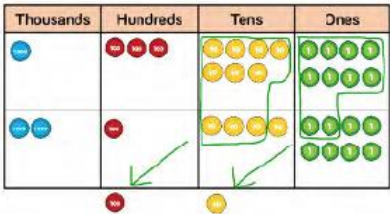
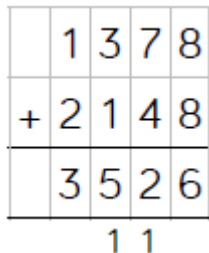
SARUM HALL SCHOOL

MATHS CALCULATION POLICY (Year 4)

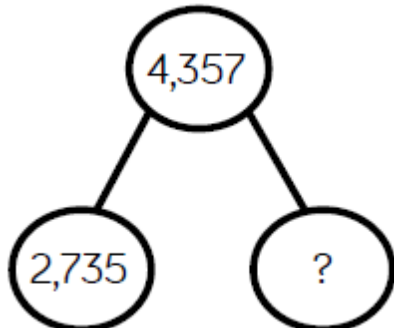
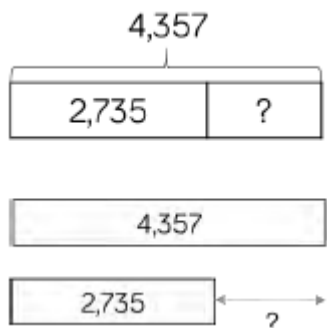
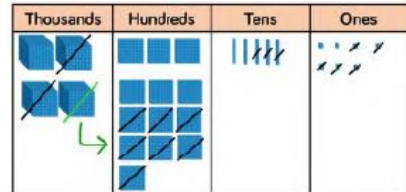
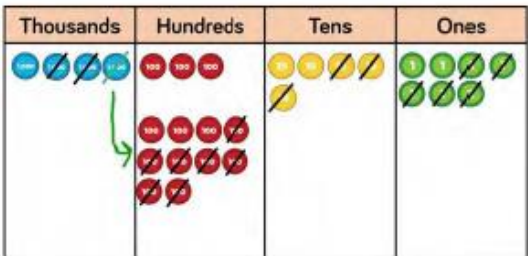
| | |
|-------------------------|----------------|
| Date: | July 2025 |
| Next Review Due: | September 2026 |
| Reviewed by: | Chen Lee |

This policy has been largely adapted from the White Rose Maths Calculation Policy with further material added.
It is a working document and will be revised and amended as necessary.

ADDITION

| Skill | Representations and Models | Vocabulary |
|---------------------------------|---|--|
| Add numbers with up to 4 digits | <p>Example: $1,378 + 2,148 = 3,526$</p> <div> <div> <p>Part-whole model</p>  </div> <div> <p>Bar Model</p>  </div> <div> <p>Base 10/Dienes</p>  </div> </div> | <ul style="list-style-type: none"> • Multiples • Partitioning • Ones • Tens • Hundreds • Thousands • Negative numbers / integers • Round • Place value • Compare • 1000 more • Count in steps • Count in multiples • Estimate • Addition/add • Equals • Facts • Missing number • Number bonds • 2/3/4-digit number • Commutative • Column addition |
| | <div> <p>Place value counters</p>  </div> <div> <p>Column addition</p>  </div> | |

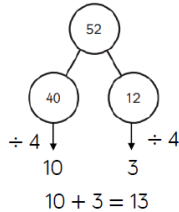
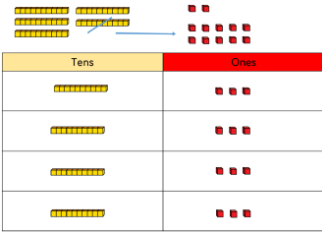
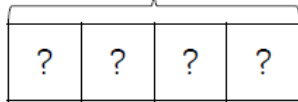

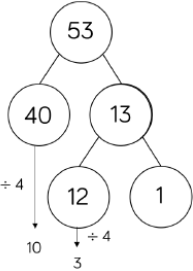

SUBTRACTION

| Skill | Representations and Models | Vocabulary |
|--------------------------------------|--|--|
| Subtract numbers with up to 4 digits | <p>Example: $4,357 - 2,735 = 1,622$</p> | <ul style="list-style-type: none"> • Multiples • Partitioning • Ones • Tens • Hundreds • Thousands • Negative numbers / integers • Round • Place value • Compare • 1000 less • Count in steps • Count in multiples • Estimate • Subtraction/subtract • Take away • Equals • Facts • Missing number • Number bonds • 2/3/4-digit number • Commutative • Column subtraction • Exchange |
| | <p>Part-whole model</p>  | |
| | <div> <p>Bar Model</p>  </div> <div> <p>Base 10/Dienes</p>  </div> | |
| | <div> <p>Place value counters</p>  </div> <div> <p>Column subtraction</p> $\begin{array}{r} 3 1 \\ 4357 \\ - 2735 \\ \hline 1622 \end{array}$ </div> | |









MULTIPLICATION

| Skill | Representations and Models | | Vocabulary |
|---|-------------------------------|----------------------|---|
| Multiply 2-digit numbers by 1-digit numbers | Example: $34 \times 5 = 170$ | | <ul style="list-style-type: none"> • Multiples • Partitioning • Ones • Tens • Hundreds • Thousands • Negative numbers / integers • Round • Place value • Compare • Count in multiples • Estimate • Multiplication • Multiply • Arrays • Row • Column • Count in... • Groups of... • Times • Repeated addition • Factors • Product • Facts • Missing number • 2/3/4-digit number |
| | Place value counters | Base 10 | |
| | Expanded written method | Short written method | |
| | | | |
| Multiply 3-digit numbers by 1-digit numbers | Example: $245 \times 4 = 980$ | | |
| | Base 10 | Place value counters | |
| | | Short written method | |

DIVISION

| Skill | Representations and Models | Vocabulary |
|---|--|--|
| Divide 2-digits by 1-digit (sharing with exchange) | <div>Example: $52 \div 4 = 13$</div> <div>Part-whole model</div>  <div>Base 10</div>  | <ul style="list-style-type: none"> • Multiples • Partitioning • Ones • Tens • Hundreds • Thousands • Negative numbers / integers • Round • Place value • Compare • Estimate • Division • Divide • Share • Exchange • Remainders • Arrays • Row • Column • Facts • Missing number • Inverse 2/3/4-digit number |
| | <div>Bar model</div>  <div>Place value counters</div>  | |
| Divide 2-digits by 1-digit (sharing with remainders) | <div>Example: $53 \div 4 = 13 \text{ r}1$</div> <div>Part-whole model</div>  | <div>Bar model</div>  |




| | <h3>Base 10</h3> <table border="1"> <thead> <tr> <th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td>[Rod]</td><td>[Units]</td></tr> <tr><td>[Rod]</td><td>[Units]</td></tr> <tr><td>[Rod]</td><td>[Units]</td></tr> <tr><td>[Rod]</td><td>[Units]</td></tr> </tbody> </table> | Tens | Ones | [Rod] | [Units] | [Rod] | [Units] | [Rod] | [Units] | [Rod] | [Units] | <h3>Place value counters</h3> <table border="1"> <thead> <tr> <th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td>[Counter]</td><td>[Counters]</td></tr> <tr><td>[Counter]</td><td>[Counters]</td></tr> <tr><td>[Counter]</td><td>[Counters]</td></tr> <tr><td>[Counter]</td><td>[Counters]</td></tr> </tbody> </table> | Tens | Ones | [Counter] | [Counters] | [Counter] | [Counters] | [Counter] | [Counters] | [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------|------|----------------|------------|------------|------------|------------|-----------|------------|---------|--|------------|------|-----------|------------|-----------|------------|------------|------------|-----------|------------|--|----------|------|------|--------|--------|--------|--------|-------|--------|--|--|--------|--|--|--------|---|--|--|---|---|---|---|--|---|---|----------------|
| Tens | Ones | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Rod] | [Units] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Rod] | [Units] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Rod] | [Units] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Rod] | [Units] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tens | Ones | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Divide 2-digits by 1-digit (grouping) | <p>Example:</p> $52 \div 4 = 13$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <h3>Place value counters</h3> <table border="1"> <thead> <tr> <th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td>[Counters]</td><td>[Counters]</td><td>[Counters]</td></tr> <tr><td>[Counters]</td><td>[Counter]</td><td>[Counters]</td></tr> <tr><td></td><td></td><td>[Counters]</td></tr> <tr><td></td><td></td><td>[Counters]</td></tr> <tr><td></td><td></td><td>[Counters]</td></tr> <tr><td></td><td></td><td>[Counters]</td></tr> </tbody> </table> | Hundreds | Tens | Ones | [Counters] | [Counters] | [Counters] | [Counters] | [Counter] | [Counters] | | | [Counters] | | | [Counters] | | | [Counters] | | | [Counters] | <h3>Place value grid</h3> <table border="1"> <thead> <tr> <th>Hundreds</th><th>Tens</th><th>Ones</th></tr> </thead> <tbody> <tr><td>[Dots]</td><td>[Dots]</td><td>[Dots]</td></tr> <tr><td>[Dots]</td><td>[Dot]</td><td>[Dots]</td></tr> <tr><td></td><td></td><td>[Dots]</td></tr> <tr><td></td><td></td><td>[Dots]</td></tr> </tbody> </table> | Hundreds | Tens | Ones | [Dots] | [Dots] | [Dots] | [Dots] | [Dot] | [Dots] | | | [Dots] | | | [Dots] | <h3>Written short division</h3> <table border="1"> <tr> <td></td><td></td><td>2</td><td>1</td><td>4</td></tr> <tr> <td>4</td><td> </td><td>8</td><td>5</td><td>¹6</td></tr> </table> | | | 2 | 1 | 4 | 4 | | 8 | 5 | ¹ 6 |
| Hundreds | Tens | Ones | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counters] | [Counters] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Counters] | [Counter] | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Counters] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hundreds | Tens | Ones | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Dots] | [Dots] | [Dots] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [Dots] | [Dot] | [Dots] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Dots] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | [Dots] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | 1 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | 8 | 5 | ¹ 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |




| Tens | Ones |
|---|---|
|  |  |
|  |  |
|  |  |
|  |  |

Base ten blocks representing 34. Three yellow tens rods and four red ones units are shown. A blue line connects one ten rod to ten ones units, illustrating the exchange of one ten for ten ones.

Example:

$$52 \div 4 = 13$$

| Hundreds | Tens | Ones |
|---|---|---|
|  |  |  |

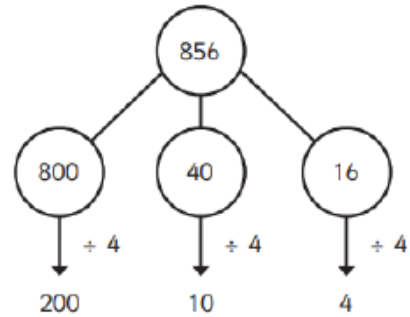
| Hundreds | Tens | Ones |
|--|---|---|
|  |  |  |

| | | | | |
|--|---|---|---|----|
| | | 2 | 1 | 4 |
| | 4 | 8 | 5 | 16 |

Divide 3-digits by 1-digit (sharing)

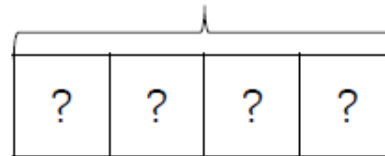
Example: $856 \div 4 = 214$

Part-whole model



Bar model

856



Place value counters

