



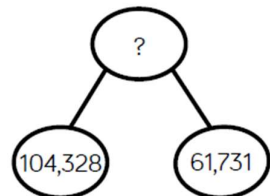
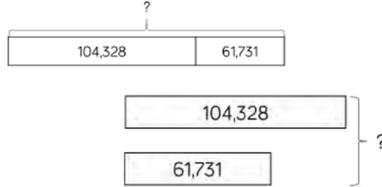
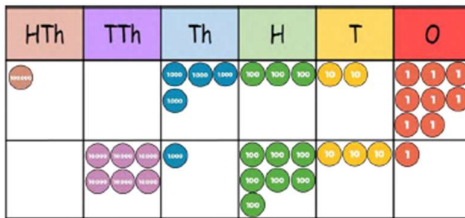
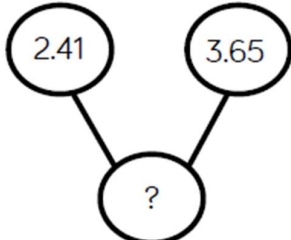
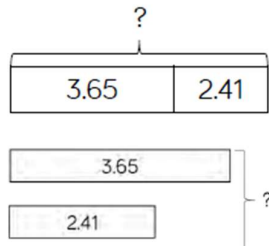
SARUM HALL SCHOOL

MATHS CALCULATION POLICY (Year 5 & 6)

Date:	September 2026
Next Review Due:	September 2027
Reviewed by:	Deputy Head (Academic & Innovation)

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 more than 4 digits	Example: $104,328 + 61,731 = 166,059$	• Multiples • Partitioning • Hundreds/Thousands/ Ten thousands/one hundred thousand • Numbers to ten million • Negative numbers / integers • Decimal / point • 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 • Order of operations																	
	Part-whole model  Bar Model  Place value counters  Column addition <table><tr><td>1</td><td>0</td><td>4</td><td>3</td><td>2</td><td>8</td></tr><tr><td>+</td><td>6</td><td>1</td><td>7</td><td>3</td><td>1</td></tr><tr><td>1</td><td>6</td><td>6</td><td>0</td><td>5</td><td>9</td></tr></table> 1		1	0	4	3	2	8	+	6	1	7	3	1	1	6	6	0	5
1	0	4	3	2	8														
+	6	1	7	3	1														
1	6	6	0	5	9														
Add with up to 3 decimal places	Example: $3.65 + 2.41 = 6.06$																		
	Part-whole model  Bar Model 																		

Place value counters

Ones	Tenths	Hundredths
1 1 1	0.1 0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01 0.01 0.01
1 1	0.1 0.1 0.1 0.1	0.01

1

Ones	Tenths	Hundredths
● ● ●	● ● ● ● ● ●	● ● ● ● ●
● ●	● ● ● ●	●

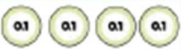
Column addition

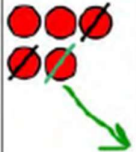
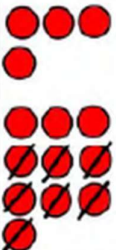
$$\begin{array}{r} 3.65 \\ + 2.41 \\ \hline 6.06 \\ 1 \end{array}$$

SUBTRACTION

Skill	Representations and Models		Vocabulary
Subtract numbers with more than 4 digits	Example: $294,382 - 182,501 = 111,881$		• Multiples • Partitioning • Hundreds/Thousands/ Ten thousands/one hundred thousand • Numbers to ten million • Negative numbers / integers • Decimal / point • 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 • Column subtraction • Exchange
	Part-whole model A part-whole model showing a large circle at the top labeled 4,357. Two lines connect it to two smaller circles below. The left circle is labeled 2,735 and the right circle is labeled ?.	Bar Model A bar model showing a top bar labeled 4,357 with a bracket above it. Below it is a bar divided into two sections: the left section is labeled 2,735 and the right section is labeled ?. Below that is another bar labeled 4,357. At the bottom is a bar labeled 2,735 with a bracket below it and an arrow pointing to the right towards a question mark ?.	
Subtract with up to 3 decimal places	Example: $5.43 - 2.7 = 2.73$		
	Part-whole model A part-whole model showing a large circle at the bottom labeled 5.43. Two lines connect it to two smaller circles above. The left circle is labeled 2.7 and the right circle is labeled ?.	Bar Model A bar model showing a top bar labeled 5.43 with a bracket above it. Below it is a bar divided into two sections: the left section is labeled 2.7 and the right section is labeled ?. Below that is another bar labeled 5.43. At the bottom is a bar labeled 2.7 with a bracket below it and an arrow pointing to the right towards a question mark ?.	

Place value counters

Ones	Tenths	Hundredths
 	 	

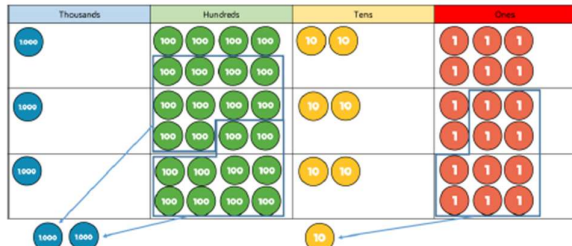
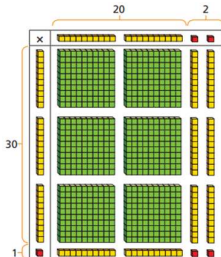
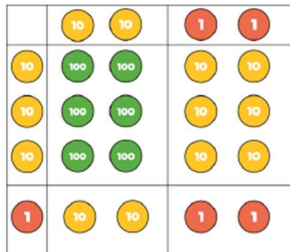
Ones	Tenths	Hundredths
		

Column subtraction

$$\begin{array}{r}
 \overset{4}{\cancel{5}}.\overset{1}{\cancel{4}}3 \\
 - 2.7 \\
 \hline
 2.73
 \end{array}$$

- Order of operations

MULTIPLICATION

Skill	Representations and Models		Vocabulary																							
Multiply 4-digit numbers by 1-digit numbers	Example: $1,826 \times 3 = 5,478$		- Partitioning - Hundreds/Thousands/ Ten thousands/one hundred thousand - Numbers to ten million - Negative numbers / integers - Decimal / point - Round - Place value - Estimate - Multiplication - Multiply - Arrays - Times - Common factors - Common multiples - Product 2/3/4-digit number - Prime numbers - Square numbers - Cube numbers																							
	Place value counters 	Short written method <table><tr><td></td><td>Th</td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>1</td><td>8</td><td>2</td><td>6</td></tr><tr><td>x</td><td></td><td></td><td></td><td>3</td></tr><tr><td></td><td>5</td><td>4</td><td>7</td><td>8</td></tr><tr><td></td><td>2</td><td></td><td>1</td><td></td></tr></table>			Th	H	T	O		1	8	2	6	x				3		5	4	7	8		2	
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	1	8	2	6																						
x				3																						
	5	4	7	8																						
	2		1																							
Multiply 2-digit numbers by 2-digit numbers	Example: $22 \times 31 = 682$																									
	Base 10 	Place value counters 																								

	Grid method <table><tr><td>×</td><td>20</td><td>2</td></tr><tr><td>30</td><td>600</td><td>60</td></tr><tr><td>1</td><td>20</td><td>2</td></tr></table>	×	20	2	30	600	60	1	20	2	Short written method <table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td></td><td>2</td><td>2</td></tr><tr><td>×</td><td></td><td>3</td><td>1</td></tr><tr><td></td><td></td><td>2</td><td>2</td></tr><tr><td></td><td>6</td><td>6</td><td>0</td></tr><tr><td></td><td>6</td><td>8</td><td>2</td></tr></table>		H	T	O			2	2	×		3	1			2	2		6	6	0		6	8	2																																																																					
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	6	8	2																																																																																																					
Multiply 3-digit numbers by 2-digit numbers	Example: 234 × 32 = 7,488																																																																																																							
	Place value counters <table><tr><td></td><td> 100 </td><td> 100 </td><td> 10 </td><td> 10 </td><td> 10 </td><td> 1 </td><td> 1 </td><td> 1 </td><td> 1 </td></tr><tr><td> 30 </td><td> 1000 </td><td> 1000 </td><td> 100 </td><td> 100 </td><td> 100 </td><td> 30 </td><td> 30 </td><td> 10 </td><td> 10 </td></tr><tr><td> 30 </td><td> 1000 </td><td> 1000 </td><td> 100 </td><td> 100 </td><td> 100 </td><td> 30 </td><td> 30 </td><td> 10 </td><td> 10 </td></tr><tr><td> 30 </td><td> 1000 </td><td> 1000 </td><td> 100 </td><td> 100 </td><td> 100 </td><td> 30 </td><td> 30 </td><td> 10 </td><td> 10 </td></tr><tr><td> 1 </td><td> 100 </td><td> 100 </td><td> 10 </td><td> 10 </td><td> 10 </td><td> 1 </td><td> 1 </td><td> 1 </td><td> 1 </td></tr><tr><td> 1 </td><td> 100 </td><td> 100 </td><td> 10 </td><td> 10 </td><td> 10 </td><td> 1 </td><td> 1 </td><td> 1 </td><td> 1 </td></tr></table>		100	100	10	10	10	1	1	1	1	30	1000	1000	100	100	100	30	30	10	10	30	1000	1000	100	100	100	30	30	10	10	30	1000	1000	100	100	100	30	30	10	10	1	100	100	10	10	10	1	1	1	1	1	100	100	10	10	10	1	1	1	1	Grid method <table><tr><td>×</td><td>200</td><td>30</td><td>4</td></tr><tr><td>30</td><td>6,000</td><td>900</td><td>120</td></tr><tr><td>2</td><td>400</td><td>60</td><td>8</td></tr></table>	×	200	30	4	30	6,000	900	120	2	400	60	8	Short written method <table><tr><td></td><td>Th</td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td></td><td>2</td><td>3</td><td>4</td></tr><tr><td>×</td><td></td><td></td><td>3</td><td>2</td></tr><tr><td></td><td></td><td>4</td><td>6</td><td>8</td></tr><tr><td>1 7</td><td>1 0</td><td>2</td><td>0</td><td></td></tr><tr><td>7</td><td>4</td><td>8</td><td>8</td><td></td></tr></table>		Th	H	T	O			2	3	4	×			3	2			4	6	8	1 7	1 0	2	0		7	4	8	8
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Multiply 4-digit numbers by 2-digit numbers	Example: 2,739 × 28 = 76,692																																																																																																							
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DIVISION

Skill	Representations and Models	Vocabulary
Divide 3-digits by 1-digit (grouping)	Example: $52 \div 4 = 13$ Place value counters Place value grid Written short division	- Partitioning - Hundreds/Thousands/ Ten thousands/one hundred thousand - Numbers to ten million - Negative numbers / integers - Decimal / point - Round - Place value - Estimate - Division / Divide - Share - Exchange - Remainders - Common factors - Common multiples - Inverse 2/3/4-digit number - Prime numbers - Square numbers - Cube numbers - Short/long division - Dividend
Divide 4-digits by 1-digit (grouping)	Example: $8,532 \div 2 = 4,266$ Place value counters Written short division	

Divide multi-digits by 2-digits (short division)	Example: 432 ÷ 12 = 36 <table> <tr><td></td><td></td><td>0</td><td>3</td><td>6</td></tr> <tr><td></td><td>12</td><td>4</td><td>⁴3</td><td>⁷2</td></tr> </table>			0	3	6		12	4	⁴ 3	⁷ 2	Example: 7,335 ÷ 15 = 489 <table> <tr><td></td><td>0</td><td>4</td><td>8</td><td>9</td></tr> <tr><td>15</td><td>7</td><td>⁷3</td><td>¹³3</td><td>¹³5</td></tr> </table>		0	4	8	9	15	7	⁷ 3	¹³ 3	¹³ 5	• Divisor Quotient																																																	
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	0	4	8	9																																																																				
15	7	⁷ 3	¹³ 3	¹³ 5																																																																				
Divide multi-digits by 2-digits (long division)	Example: 432 ÷ 12 = 36 <table> <tr><td></td><td></td><td>0</td><td>3</td><td>6</td></tr> <tr><td>1</td><td>2</td><td>4</td><td>3</td><td>2</td></tr> <tr><td></td><td>–</td><td>3</td><td>6</td><td>0</td></tr> <tr><td></td><td></td><td></td><td>7</td><td>2</td></tr> <tr><td></td><td>–</td><td></td><td>7</td><td>2</td></tr> <tr><td></td><td></td><td></td><td></td><td>0</td></tr> </table> (×30) (×6) 12 × 1 = 12 12 × 2 = 24 12 × 3 = 36 12 × 4 = 48 12 × 5 = 60 12 × 6 = 72 12 × 7 = 84 12 × 8 = 96 12 × 9 = 108 12 × 10 = 120			0	3	6	1	2	4	3	2		–	3	6	0				7	2		–		7	2					0	Example: 7,335 ÷ 15 = 489 <table> <tr><td></td><td>0</td><td>4</td><td>8</td><td>9</td></tr> <tr><td>15</td><td>7</td><td>3</td><td>3</td><td>5</td></tr> <tr><td>–</td><td>6</td><td>0</td><td>0</td><td>0</td></tr> <tr><td></td><td>1</td><td>3</td><td>3</td><td>5</td></tr> <tr><td>–</td><td>1</td><td>2</td><td>0</td><td>0</td></tr> <tr><td></td><td></td><td>1</td><td>3</td><td>5</td></tr> <tr><td>–</td><td></td><td>1</td><td>3</td><td>5</td></tr> <tr><td></td><td></td><td></td><td></td><td>0</td></tr> </table> (×400) (×80) (×9) 1 × 15 = 15 2 × 15 = 30 3 × 15 = 45 4 × 15 = 60 5 × 15 = 75 10 × 15 = 150		0	4	8	9	15	7	3	3	5	–	6	0	0	0		1	3	3	5	–	1	2	0	0			1	3	5	–		1	3	5					0
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