Ashbourne Primary School Calculation Policy (Adapted from White Rose Maths)

This policy supports the White Rose Maths scheme (Reception – Year 6) throughout the school. Progression within each area of calculation is in line with the programme of study in the 2014 National Curriculum. This calculation policy should be used to support children to develop a deep understanding of number and calculation. This policy has been designed to teach children using concrete, pictorial, and abstract representations.

Concrete representation— A pupil is first introduced to an idea or skill by acting it out with real objects. This is a 'hands on' component using real objects and is a foundation for conceptual understanding.

Pictorial representation – A pupil has sufficiently understood the 'hands on' experiences performed and can now relate them to visual representations, such as a diagram or picture of the problem.

Abstract representation—A pupil is now capable of representing problems by using mathematical notation, for example 12 x 2 = 24.

It is important that conceptual understanding, supported by the use of representation, is secure for all procedures. Reinforcement is achieved by going back and forth between these representations.

Our long-term aim is for children to be able to select an efficient method (whether this be mental or written) that is appropriate for a given task.

Progression of skills – Addition

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-Subitise to 3 -Count how many -Make numbers to 5 -Add 1 more (through songs and rhymes)	-Conceptually subitise to 5 -1 more -Notice the composition of numbers within 10 -Combine 2 groups -Add more	-Add together -Add more -Bonds within 10 -Related facts within 20 -Missing numbers	-Add 1s to any number (related facts) -Add three 1-digit numbers -Add across a 10 -Add multiples of 10 -Add 10s to any number -Add two 2-digit numbers (not across a ten) -Add two 2-digit numbers (across a ten) -Missing numbers	-Add 1s, 10s and 100s to a 3-digit number -Add two numbers (no exchange) -Add two numbers across a 10 or 100 -Complements to 100 -Add fractions with the same denominator within 1 whole -Calculate the duration of events	-Add 1s, 10s and 100s to a 4-digit number -Add up to two 4-digit numbers -Add decimal numbers in the context of money -Add fractions and mixed numbers with the same denominator beyond 1 whole	-Add using mental strategies -Add whole numbers with more than 4 digits -Add decimals with up to 2 decimal places -Complements to 1 -Add fractions with denominators that are a multiple of one another	-Add integers up to 10 million -Add decimals with up to 3 decimal places -Order of operations -Negative numbers -Add fractions

Progression of skills – Subtraction

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-Subitise to 3 -Count how many -Make numbers to 5 -Take 1 away (through songs and rhymes)	-Conceptually subitise to 5 -1 less -Notice the composition of numbers within 10 -Partition -Take away	-Find a part -Take away -Bonds within 10 -Related facts within 20 -Missing numbers	-Subtract 1s from any number (related facts) -Subtract across a 10 -Subtract multiples of 10 -Subtract 10s from any number -Subtract two 2-digit numbers (not across a ten) -Subtract two 2-digit numbers (across a ten) -Missing numbers	-Subtract 1s, 10s and 100s from a 3-digit number -Subtract two numbers (no exchange) -Subtract two numbers across a 10 or 100 -Complements to 100 -Subtract fractions with the same denominator within 1 whole	-Subtract 1s, 10s, 100s and 1,000s from a 4-digit number -Subtract up to two 4-digit numbers -Subtract decimal numbers in the context of money -Subtract fractions and mixed numbers with the same denominator	-Subtract whole numbers with more than 4 digits -Subtract using mental strategies -Subtract decimals with up to 2 decimal places -Complements to 1 -Subtract fractions with denominators that are a multiple of one another	-Subtract integers up to 10 million -Subtract decimals with up to 3 decimal places -Order of operations -Negative numbers -Subtract fractions

Progression of skills – Multiplication

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-Continue with counting and subitising skills as a foundation for later work on equal groups. (see addition and subtraction sections)	-Double to 10 -Make equal groups	-Count in 2s, 5s and 10s -Add equal groups -Make arrays -Make doubles	-Link repeated addition and multiplication -Use arrays -Double -The 2 times-table -The 10 times-table -The 5 times-table -Missing numbers	-The 3 times-table -The 4 times-table -The 8 times-table -Related facts -Multiply a 2-digit number by a 1-digit number - no exchange -Multiply a 2-digit number by a 1-digit number - with exchange -Scaling -Correspondence problems	-Times-table facts to 12 × 12 -Multiply by 1 and 0 -Multiply 3 numbers -Factor pairs -Multiply by 10 and 100 -Related facts -Mental strategies -Multiply a 2 or 3-digit number by a 1-digit number -Scaling -Correspondence problems	-Multiples and factors -Square and cube numbers -Multiply numbers up to 4 digits by a 1-digit number -Multiply numbers up to 4 digits by a 2-digit number -Multiply by 10, 100 and 1,000 -Mental strategies -Multiply fractions by a whole number -Multiply mixed numbers by a whole number -Find the whole	-Multiply numbers up to 4 digits by a 2-digit number -Multiply by 10, 100 and 1,000 -Order of operations -Multiply decimals by integers -Multiply fractions by fractions -Find the whole -Calculations involving ratio

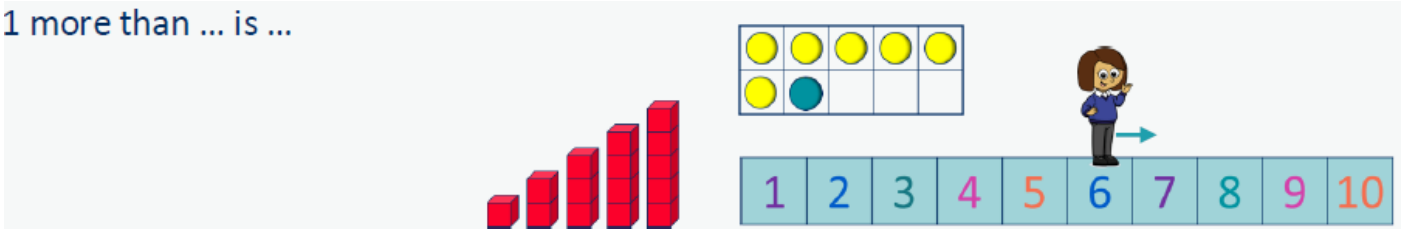
Progression of skills – Division

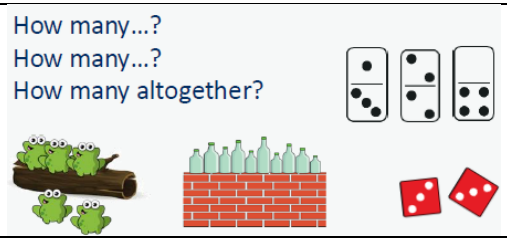
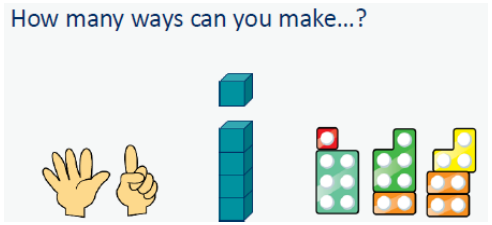
Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-Continue with counting and subitising skills as a foundation for later work on equal groups. (see addition and subtraction sections)	-Sharing -Grouping	-Make equal groups – grouping -Make equal groups – sharing -Find a half -Find a quarter	-Divide by 2 -Divide by 10 -Divide by 5 -Missing numbers -Unit fractions -Non-unit fractions	-Divide by 3 -Divide by 4 -Divide by 8 -Related facts -Divide a 2-digit number by a 1-digit number - no exchange -Divide a 2-digit number by a 1-digit number - with remainders -Unit fractions of a set of objects -Non-unit fractions of a set of objects	-Division facts to 12 × 12 -Divide a number by 1 and itself -Related facts -Divide a 2 or 3-digit number by a 1-digit number -Divide by 10 and 100	-Mental strategies -Divide numbers up to 4 digits by a 1-digit number -Divide by 10, 100 and 1,000 -Fraction of an amount	-Short division -Mental strategies -Long division -Order of operations -Divide by 10, 100 and 1,000 -Divide decimals by integers -Decimal and fraction equivalents -Divide a fraction by an integer -Fraction of an amount -Calculate percentages -Calculations involving ratio

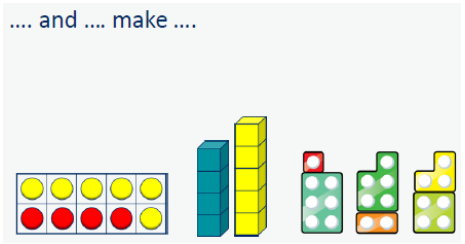
RECEPTION

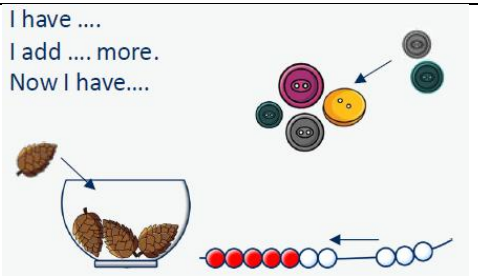
<table>
<tr><th colspan="3">Reception Addition</th></tr>
<tr><td colspan="3">Key Vocabulary:
1 more, add, add more, altogether, first, then, now, part, whole</td></tr>
<tr><th>Progression of Skills</th><th colspan="2">Key Representations</th></tr>
<tr><td>Conceptually subitise to 5

Notice the parts that make up the whole.</td><td colspan="2"> 
</td></tr>
<tr><td>1 more

Continue to link to stories, songs and rhymes.</td><td colspan="2"> 
</td></tr>
<tr><td>Notice the composition of numbers within 10

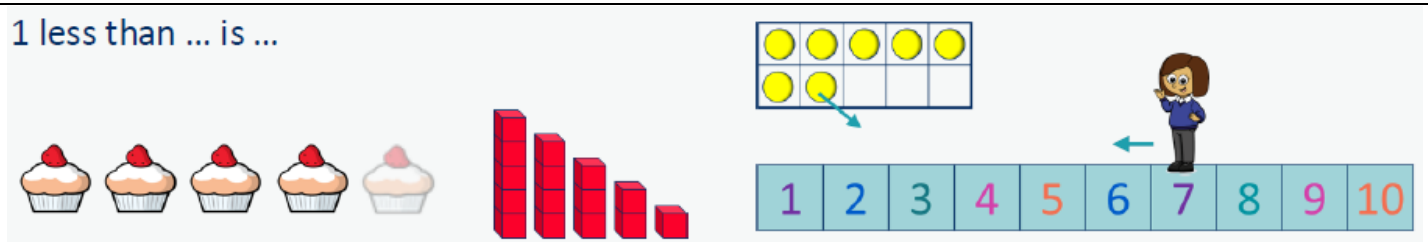
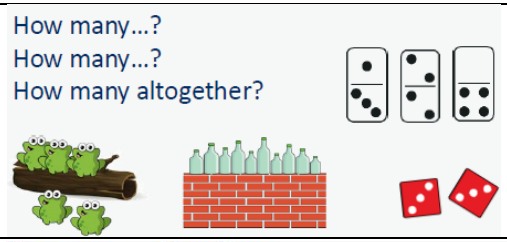
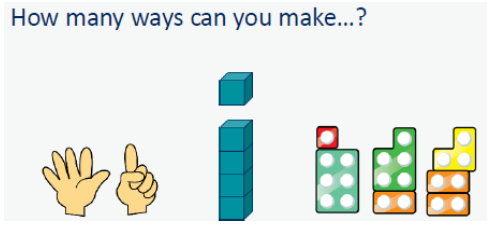
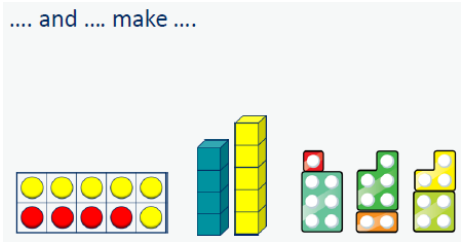
Link to stories, songs and rhymes.</td><td> 
</td><td> 
</td></tr>
<tr><td>Combine 2 groups

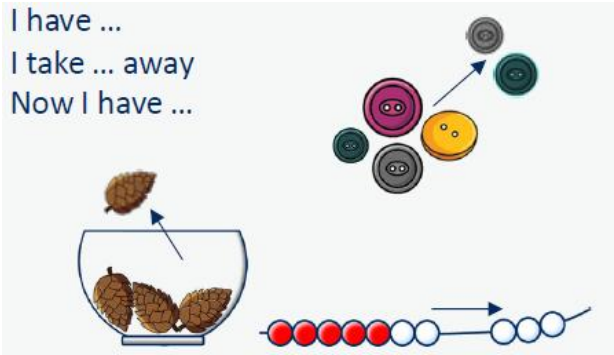
2 groups are combined to find the total.</td><td> 
</td><td> 
</td></tr>
</table>

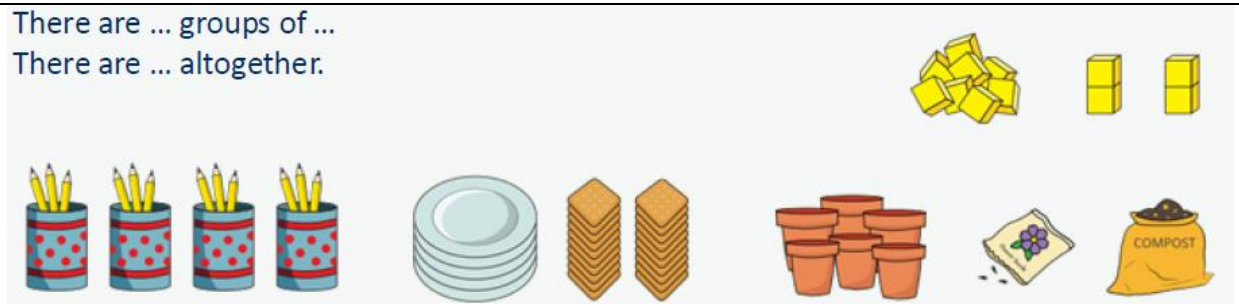
Add more A quantity is increased.		

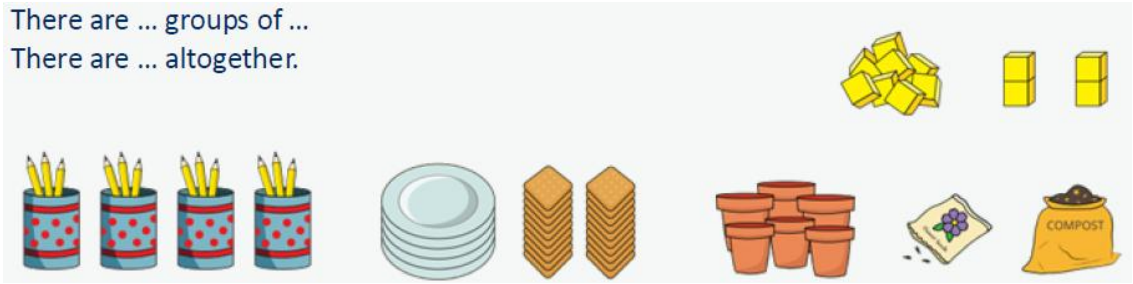
Reception Subtraction

Key Vocabulary:
1 less, first, left, now, part, take away, whole

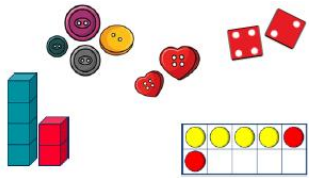
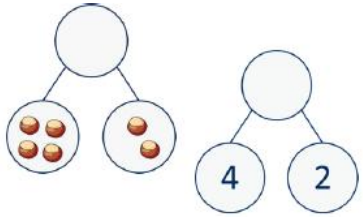
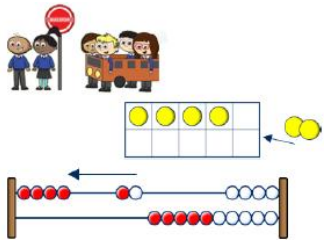
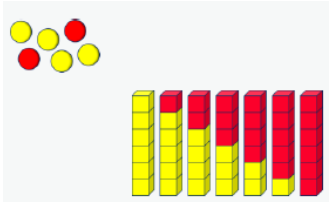
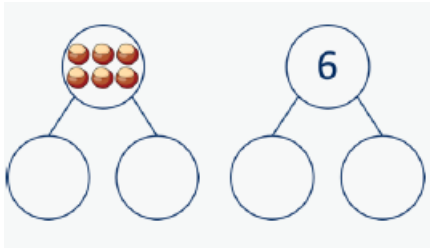
Progression of Skills	Key Representations
Conceptually subitise to 5 Notice the parts that make up the whole.	
1 less Continue to link to stories, songs and rhymes.	
Notice the composition of numbers within 10 Link to stories, songs and rhymes.	 
Partition Using objects, explore different ways to partition a number into 2 or more parts.	 

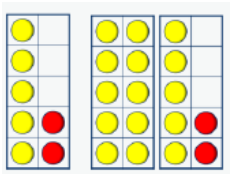
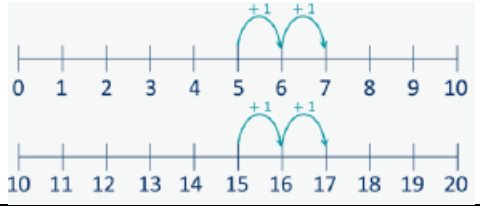
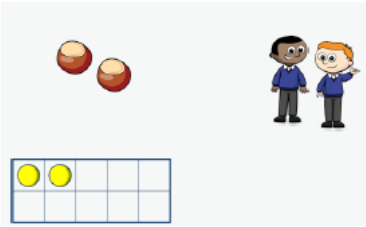
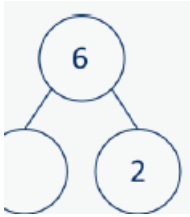
Take away A quantity is reduced.		

Reception Multiplication	
Key Vocabulary: double, equal groups, even, fair, grouping, groups, odd, pair, sharing, unequal, groups	
Progression of Skills	**Key Representations**
Double to 10 Prompt children to notice that double means twice as many and to notice that there are two equal groups.	
Make equal groups Provide opportunities to make equal groups when tidying up or during snack time. Encourage children to check that each group has the same amount.	

Reception Division	
Key Vocabulary: double, equal groups, even, fair, grouping, groups, odd, pair, sharing, unequal, groups	
Progression of Skills	**Key Representations**
Sharing Provide practical activities such as sharing items during snack time. Encourage children to check whether items have been shared fairly (equally).	
Grouping Provide opportunities to make equal groups when tidying up or during snack time. Encourage children to check that each group has the same amount.	

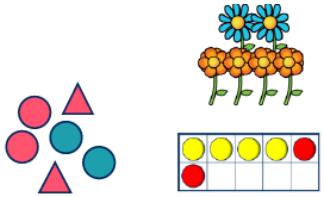
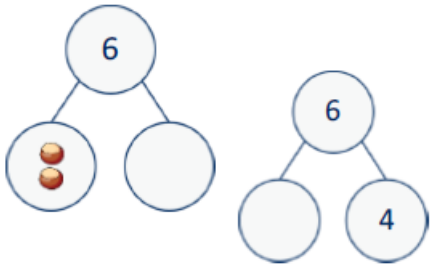
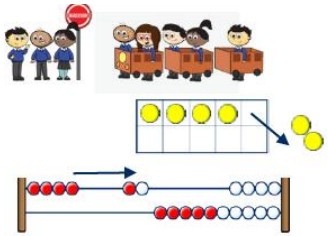
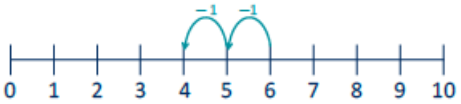
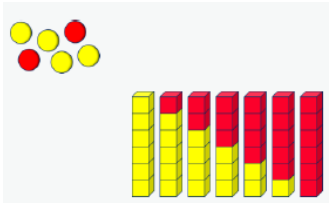
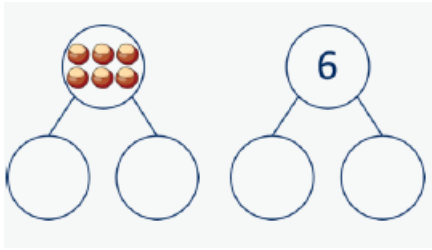
YEAR 1

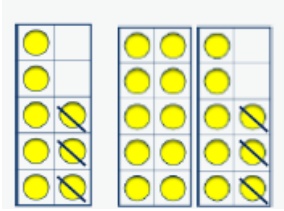
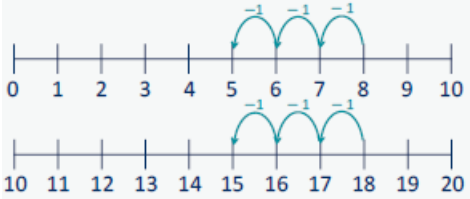
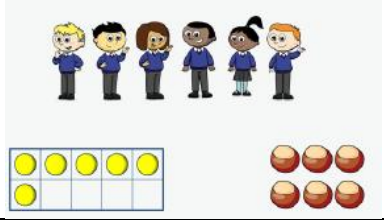
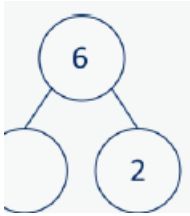
Year 1 Addition			
Key Vocabulary: addition, add together, double, efficient, equal to, fact family, greater, group, inverse, near double, number bond, plus, symbol, systematic, total			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Add together (aggregation) 2 quantities are combined to find the total.	Objects, cubes, counters, base 10, tens frame etc There are … There are … There are … altogether 	… is a part … is a part … is the whole. 	… plus … is equal to… … is equal to … + … 4 + 2 = 6 2 + 4 = 6 6 = 4 + 2 6 = 2 + 4
Add more (augmentation) A quantity is increased.	Objects, cubes, counters, base 10, tens frame, rekenreks etc First… Then… Now… 	Number tracks/Number lines I start at… I jump on… I land on… 	… plus … is equal to… … is equal to … + … 4 + 2 = 6 2 + 4= 6 6 = 4 + 2 6 = 2 + 4 Start at 4 and count on 2.
Bonds within 10 Include bonds for each number within 10. Encourage children to notice patterns.	Base 10, counters, cubes, tens frame … is made of … and … … and … make … 	… can be partitioned into … and … 	… plus … is equal to… 6 + 0 = 6 5 + 1 = 6 4 + 2 = 6 3 + 3 = 6 2 + 4 = 6 1 + 5 = 6 0 + 6 = 6

Related facts within 20 Make links to known facts.	Tens frame or Base 10 I know that … and … = … so … and … = … 	Use representations of tens frames or base 10 or numberlines … more than … is … so … more than … is … 	What patterns do you notice? 5 + 2 = 7 15 + 2 = 17 7 = 5 + 2 17 = 15 + 2
Missing numbers Make links to known facts.	Objects, cubes, counters, base 10, tens frame etc How many more do you need to make …? 	If … is the whole and … is a part, the other part must be … 	… plus … is equal to… 2 + __ = 6 6 = 2 + __

Year 1 Subtraction

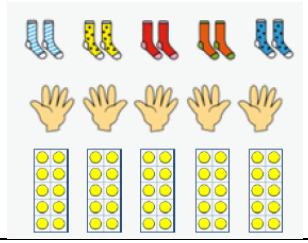
Key Vocabulary:
subtraction, subtract, difference, efficient, equal to, fact family, group, inverse, less, minus, near double, number bond, symbol, systematic

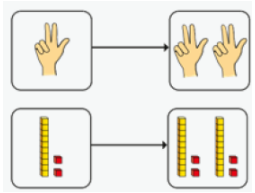
Progression of Skills	Concrete	Pictorial	Abstract
Find a part Link to number bonds and known facts	Objects, cubes, counters, base 10, tens frame etc There are … in total … are … How many are not …? 	… is the whole. … is a part … is a part 	… subtract … is equal to… … is equal to … - … 6 - 2 = 4 6 - 4 = 2 4 = 6 - 2 2 = 6 - 4
Take away	Objects, cubes, counters, base 10, tens frame, rekenreks etc First… Then… Now… 	Number tracks/Number lines I start at… I jump back… I land on… 	… minus … is equal to… … is equal to … - … 6 - 2 = 4 6 - 4 = 2 4 = 6 - 2 2 = 6 - 4
Bonds within 10 Focus on subtraction facts. Encourage children to notice patterns.	Base 10, counters, cubes, tens frame … is made of … and … … and … make … 	… can be partitioned into … and … 	… minus … is equal to… 6 - 0 = 6 6 − 1 = 5 6 − 2 = 4 6 − 3 = 3 6 − 4 = 2 6 − 5 = 1 6 − 6 = 0

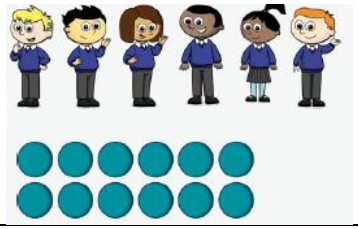
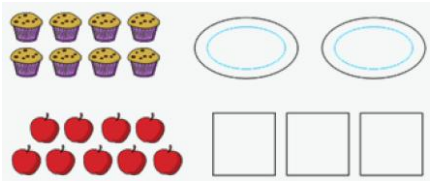
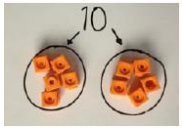
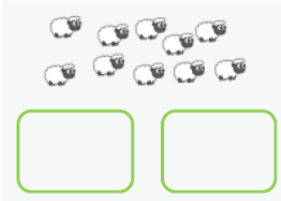
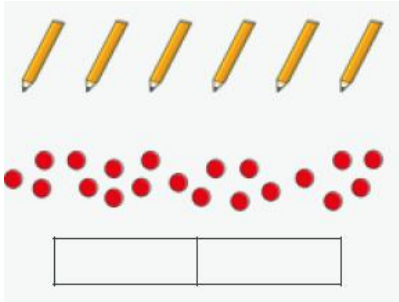
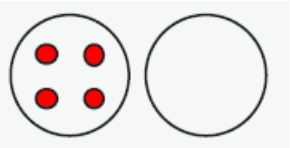
Related facts within 10 Make links to know facts.	Tens frame or Base 10 I know that … minus … = … so … minus … = … 	Use representations of tens frames or base 10 or numberlines … less than … is … so … less than … is … 	What patterns do you notice? 8 – 3 = 5 18 – 3 = 15 5 = 8 – 3 15 = 18 - 3
Missing numbers Make links to know facts.	Objects, cubes, counters, base 10, tens frame etc How many more do you need to subtract to make …? 	If … is the whole and … is a part, the other part must be … 	… minus … is equal to… 6 - __ = 2 2 = 6 - __

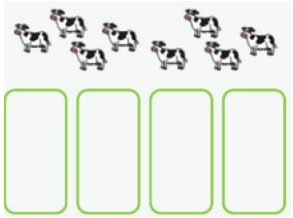
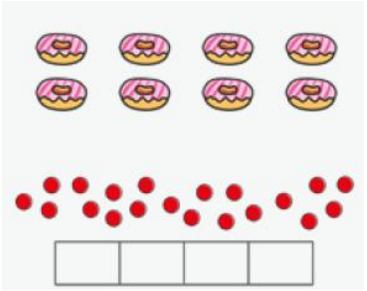
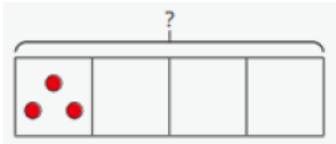
Year 1 Multiplication

Key Vocabulary:
array, divide, repeated, addition

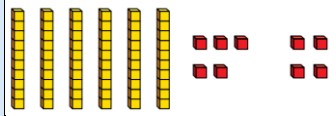
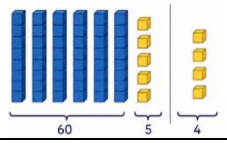
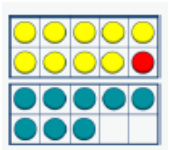
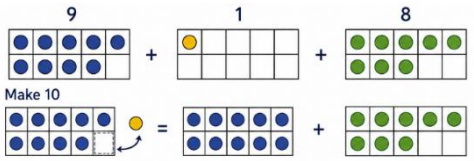
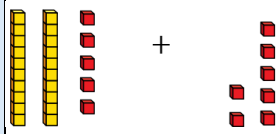
Progression of Skills	Concrete	Pictorial	Abstract
Count in 2s, 5s and 10s	Counters/cubes/equipment. Make groups of 2, 5 and 10 and count in 2s, 5s and 10s There are … equal groups of … There are … altogether 	Count in 2s, 5s, 10s using pictures, drawings of repeated groups, hundred square, numberlines, numbertracks  <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr><tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr><tr><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td></tr><tr><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td></tr></table>	Count groups on fingers
Add equal groups (repeated addition)	Base 10/cubes/counters/equipment There are … equal groups of … There are … altogether.  2 + 2 + 2 = 6	Count equal groups using pictures or drawings of repeated groups 	2 + 2 + 2 = 6
Make arrays	Counters/cubes/equipment There are … rows of … There are … altogether. There are … columns of … There are … altogether. 	Draw arrays and circle groups 	2 and 2 and 2 and 2 and 2 equals 10

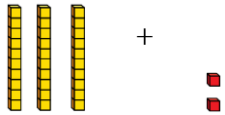
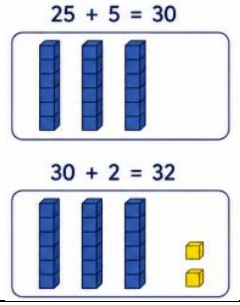
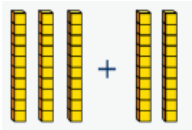
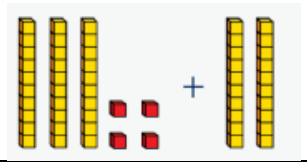
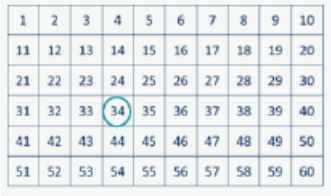
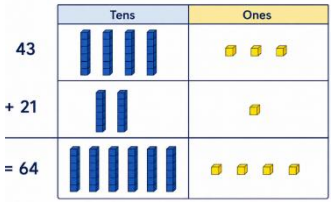
Make doubles	Base 10/cubes/counters/equipment Double … is … … + … = … 	Draw two equal groups of Base 10/cubes/counters/equipment 	4 + 4 = 8

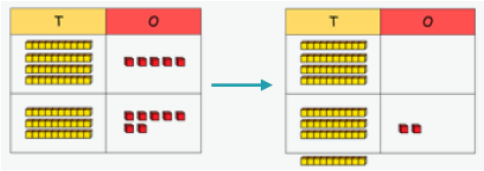
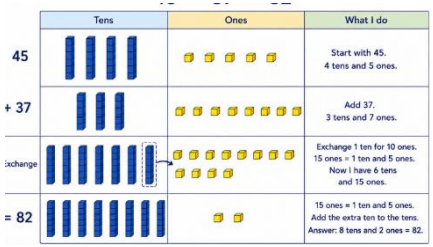
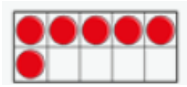
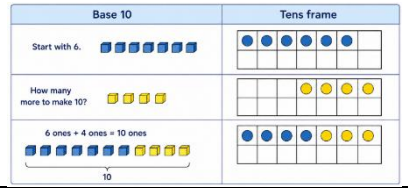
Year 1 Division			
Key Vocabulary: array, divide, repeated, addition			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Make equal groups – grouping	Counters/cubes/equipment/objects. There are … altogether. How many groups of … can you make? 	Draw representations of Counters/cubes/equipment. There are … groups of … 	2, 4, 6, 8, 10, 12 – 6 equal groups of 2
Mae equal groups – sharing	Base 10/cubes/counters/equipment/ objects … have been shared equally between… There are … on/in each … 	Draw representations of Counters/cubes/equipment. 	2, 4, 6, 8, 10, 12 – 6 equal groups of 2 12 shared between … is …
Find a half	To find half, I need to share into 2 equal groups.  There are … in each group.	Half of … is … 	If … is half, what is the whole?  4 is half of …

Find a quarter	To find a quarter, I need to share into 4 equal groups.  There are … in each group.	A quarter of … is … 	If … is one quarter, what is the whole?  3 is one quarter of …

YEAR 2

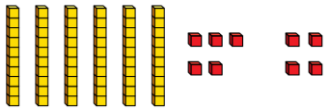
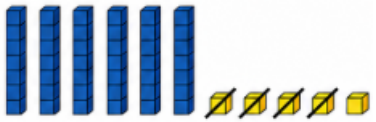
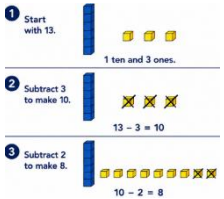
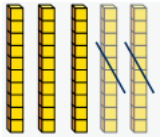
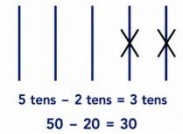
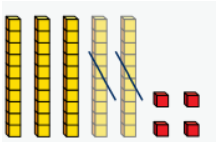
Year 2 Addition			
Key Vocabulary: calculation, exchange, method, multiple, one(s), operation, partition, related facts, ten(s), value, increase, sum			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Add ones to any number	… plus … is equal to… … is equal to … + … Base 10  65 + 4 = 69	… plus … is equal to… … is equal to … + … Use representations of base 10 and tens frame. 	… plus … is equal to… … is equal to … + … 65 + 4 = 69 Recall of number facts must be secure by this point 5 + 4 = 9
Add three 1-digit numbers	Tens frame or Base 10 Combine to make 10 or bridge 10, then add the third digit … and … are a bond to 10  9 + 1 + 8 = 18	Draw representations – look for bonds to ten or make 10 	What do you notice? Which addition is the easiest to calculate? 8 + 9 + 1 = 8 + 1 + 9 = 9 + 1 + 8 =
Add across a ten	Base 10 or Tens frame  25 + 7 = 32 Partition the number being added to make a full ten (exchange) … can be partitioned into … and …	Use representations of base 10 and tens frame.	I add … to get to … then I add … 25 + 7 = 32 25 + 5 = 30 30 + 2 = 32

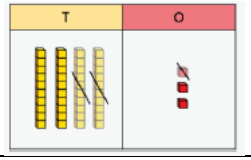
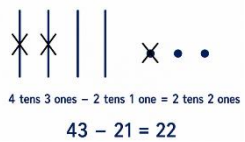
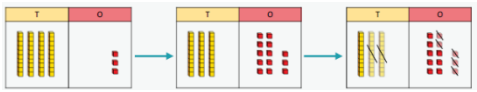
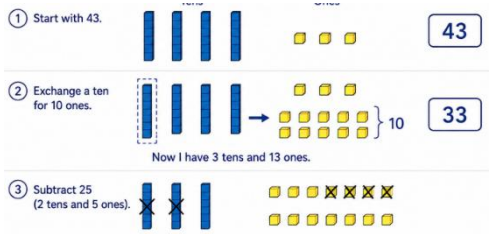
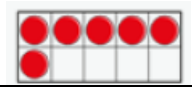
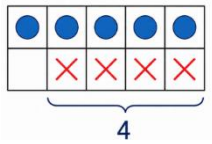
	 30 + 2 = 32		
Add multiples of 10	Base 10 … tens + … tens = … tens  30 + 20 = 50	Use representations of base 10. Draw tens and ones. 	30 + 20 = 50 20 + 30 = 50 50 = 30 + 20 50 = 20 + 30
Add 10s to any number	Base 10 … tens + … tens = … tens … tens and … ones =  34 + 20 = 54	Base 10 or 100 square To add … I need to add 10 … times 	34 + 20 = 54 34 + 10 = 44 44 + 10 = 54
Add 2-digit numbers (not crossing a ten)	Base 10. Lining up ones and tens in columns will support with later written methods. … ones + … ones = … ones … tens + … tens = … tens  43 + 21 = 64	Use representations of base 10. Draw tens and ones. 	Partitioning tens and ones 3 ones + 1 one = 4 ones 4 tens + 2 tens = 6 tens 6 tens + 4 ones = 64 40 + 20 = 60 3 + 1 = 4 60 + 4 = 64

Add 2-digit numbers (crossing a ten) Begin to exchange 10 ones for a ten	Base 10. Exchange 10 ones for 1 ten. There are … ones so I do/do not need to make an exchange. 45 + 37 = 82 	Use representations of base 10. Draw tens and ones. 	Partitioning tens and ones 5 ones + 7 ones = 12 ones 12 ones = 1 ten and 2 ones 4 tens + 3 tens + 1 ten = 8 tens 8 tens + 2 ones = 82 40 + 30 = 70 5 + 7 = 12 70 + 12 = 82
Missing numbers	Tens frame or Base 10. How many more do you need to make …?  6 + ___ = 10	Use representations of base 10 and tens frame. 	6 + 4 = 10 4 + 6 = 10 10 = 6 + 4 10 = 4 + 6

Year 2 Subtraction

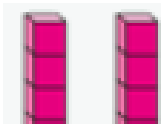
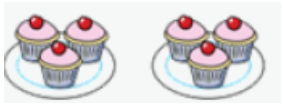
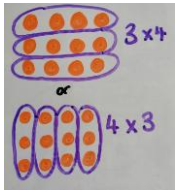
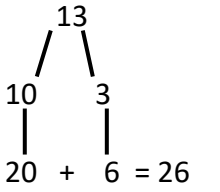
Key Vocabulary:
calculation, exchange, method, multiple, one(s), operation, partition, related facts, ten(s), value, decrease, sum

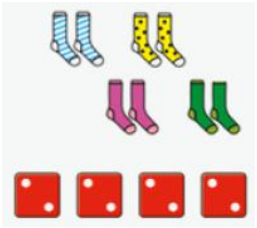
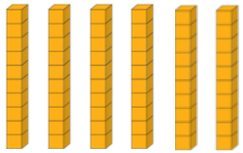
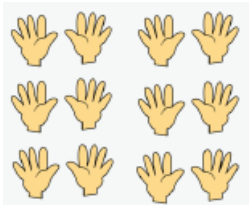
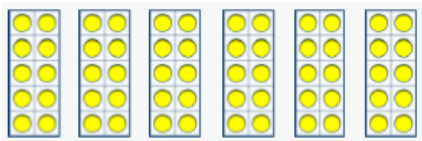
Progression of Skills	Concrete	Pictorial	Abstract
Subtract ones from any number	Base 10 … subtract … is equal to … … is equal to … - …  65 - 4 = 61	Use representations of base 10 and tens frame. … subtract … is equal to … … is equal to … - … 	… subtract … is equal to … … is equal to … - … 65 - 4 = 61 Recall of number facts must be secure by this point 5 - 4 = 1
Subtract across a ten	 13 – 5 = 8 Partition the number being taken away, e.g. 5 is made of 3 and 2. … can be partitioned into … and …	Use representations of base 10 and tens frame. 	13 – 5 = 8 5 = 3 + 2 5 = 2 + 3
Subtract multiples of 10	Base 10 … tens - … tens = … tens  50 – 20 = 30	Use representations of base 10. Draw tens and ones 	50 – 20 = 30 50 – 30 = 20 30 + 20 = 50 20 + 30 = 50
Subtract 10s from any number	Base 10 … tens - … tens = … tens … tens and … ones = …  54 – 20 = 34	Base 10 or 100 square To subtract … I need to subtract 10 … times. 	54 – 20 = 34 54 – 10 = 44 44 – 10 = 34

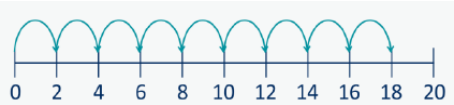
Subtract two 2-digit numbers (not across a ten)	Base 10 … ones - … ones = … ones … tens - … tens = … tens  43 – 21 = 22	Use representations of base 10. Draw tens and ones.  	Partitioning tens and ones 3 ones – 1 one = 2 ones (3 – 1 = 2) 4 tens – 2 tens = 2 tens (40 – 20 = 20) 2 tens and 2 ones = 22 (20 + 2 = 22)
Subtract two 2-digit numbers (across a ten)	 43 – 25 = 18 Begin to exchange 1 ten for 10 ones. I need to make an exchange because I do not have enough ones to subtract … ones.	Use representations of base 10. Draw tens and ones.  	Partitioning tens and ones 3 ones − 5 ones (I need to exchange 1 ten for 10 ones) 13 ones − 5 ones = 8 ones 3 tens − 2 tens = 1 ten 1 ten and 8 ones = 18
Missing numbers	Tens frame or Base 10. How many do you need to subtract to make …?  10 - ___ = 6	Use representations of base 10 and tens frame.  	10 – 4 = 6 10 – 6 = 4 6 = 10 – 4 4 = 10 - 6

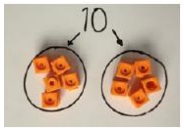
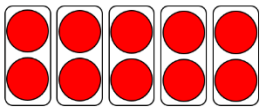
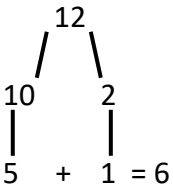
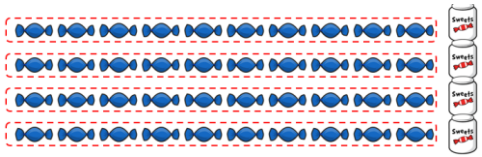
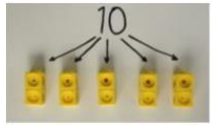
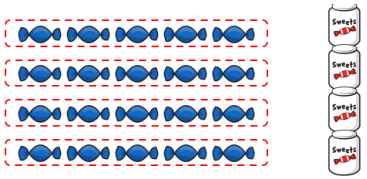
Year 2 Multiplication

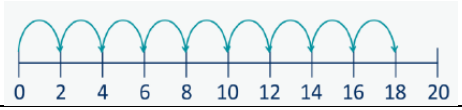
Key Vocabulary:
even, lots of, multiply, odd, twice, times, times-table

Progression of Skills	Concrete	Pictorial	Abstract
Link repeated addition and multiplication	Base 10/cubes/counters/equipment There are … equal groups with … in each group. There are … altogether.  3 + 3 = 6 2 x 3 = 6	Count equal groups using pictures or drawings of repeated groups 	3 + 3 = 6 2 x 3 = 6
Use arrays	Counters/cubes/equipment There are … rows with … in each row. There are … columns with … in each column.  2 x 5 or 5 x 2  3 x 4 or 4 x 3	Draw arrays and circle groups in 2 ways to show Commutativity 	Instant recall or using arrays to write the equation I can see … x … and … x … 3 x 4 = 12 4 x 3 = 12 3 x 4 = 4 x 3
Double	Base 10/cubes/counters/equipment  Double … is … Double 4 = 4 + 4 Double 4 is 8  Double 2 = 2 + 2 Double 2 is 4	Draw the same number again 	Partition mentally 

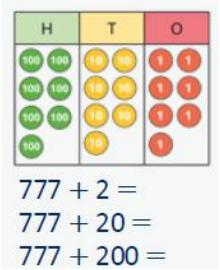
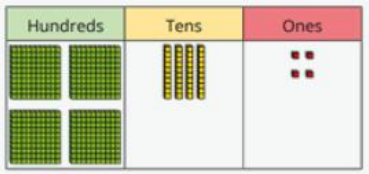
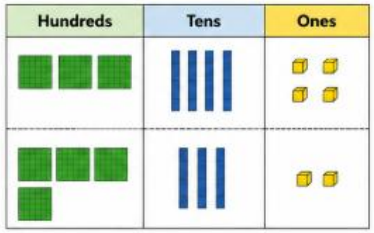
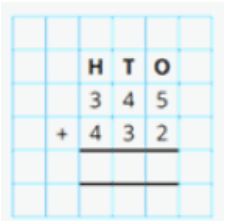
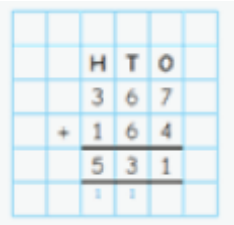
The 2-times table	Counters/cubes/equipment. Make groups of 2 and count in 2s  4 lots of 2 = 8 4 x 2 = 8	Count in 2s using pictures or drawings of repeated groups  	Count groups on fingers … times 2 is equal to … Instant recall of 2-times table facts, e.g. 4 x 2 = 8 or 4 lots of 2 = 8
The 10-times table	Counters/cubes/equipment. Make groups of 10 and count in 10s  6 lots of 10 = 60 6 x 10 = 60	Count in 10s using pictures or drawings of repeated groups   	Count groups on fingers … times 10 is equal to … Instant recall of 10-times table facts, e.g. 6 x 10 = 60 or 6 lots of 10 = 60
The 5-times table	Counters/cubes/equipment. Make groups of 5 and count in 5s  5 lots of 5 = 25 5 x 5 = 25	Count in 5s using pictures or drawings of repeated groups   	Count groups on fingers … times 5 is equal to … Instant recall of 5-times table facts, e.g. 5 x 5 = 25 or 5 lots of 5 = 25

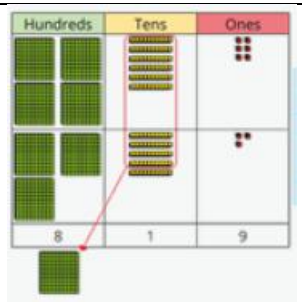
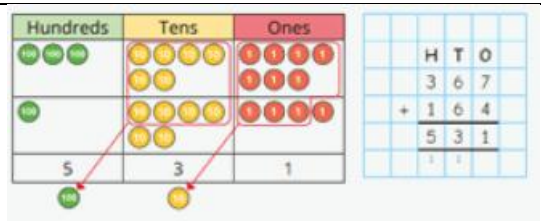
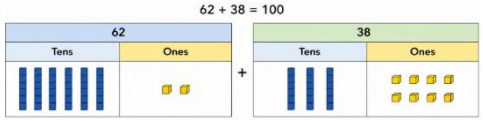
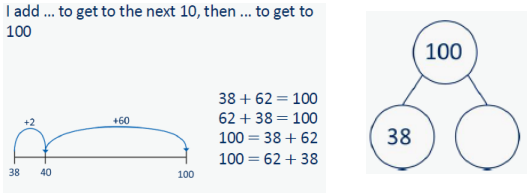
Missing numbers	Objects, counters, cubes, base 10 etc … is equal to … groups of … 18 socks, how many pairs? 	Count in 2s, 5s and 10s using numberlines, pictures or drawings of repeated groups 	… times … is equal to … ___ x 2 = 18 18 = 2 x ___

Year 2 Division			
Key Vocabulary: divide, even, half, odd, twice, times, times-table			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Divide by 2	Counters/cubes/equipment. Share equipment equally between groups.  10 shared equally between 2 is 5 10 ÷ 2 = 5	Use pictures to share amounts.  There are 5 equal groups of 2 10 ÷ 2 = 5	Know half of a number by partitioning in head. 
Divide by 10	Counters/cubes/equipment. Share equipment equally between groups.  30 shared equally between 10 is 3 30 ÷ 10 = 3	Use pictures to share amounts.  There are 4 equal groups of 10 40 ÷ 10 = 4	40 ÷ 10 = 4 4 tens ÷ 10 = 4
Divide by 5	Counters/cubes/equipment. Share equipment equally between groups.  10 shared equally between 5 is 2 10 ÷ 5 = 2	Use pictures to share amounts.  There are 4 equal groups of 5 20 ÷ 5 = 4	20 ÷ 5 = 4

Missing numbers	Objects, counters, cubes, base 10 etc … divided by 2/5/10 is equal to … 18 socks, how many pairs? 18 divided by 2 is equal to … 	Count in 2s, 5s and 10s using numberlines, pictures or drawings of repeated groups 	… divided by 2/5/10 is equal to … 18 ÷ 2 = 9

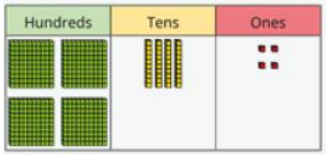
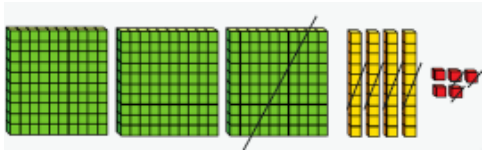
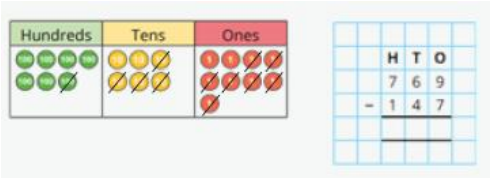
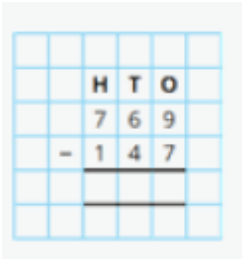
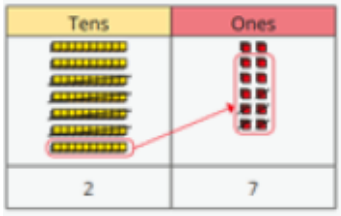
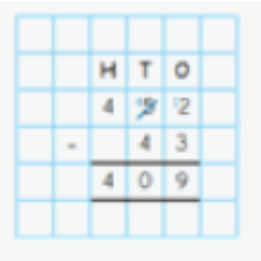
YEAR 3

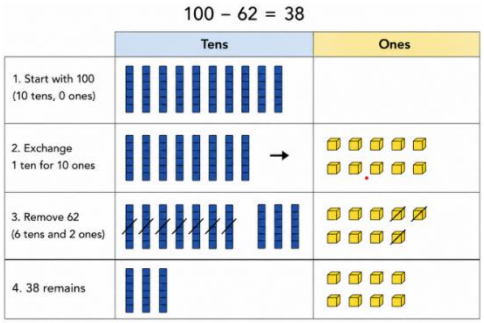
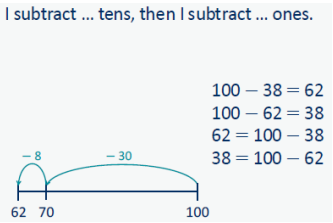
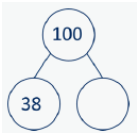
Year 3 Addition			
Key Vocabulary: column, addition, digit, estimate, exchange, hundred(s), inverse, crossing the 10, crossing the 100			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Add 1s, 10s or 100s to a 3-digit number	Base 10, place value chart  777 + 2 = 777 + 20 = 777 + 200 =	Draw representations of Base 10  444 + 5 = 444 + 50 = 444 + 500 =	What patterns do you notice? 235 + 3 = 235 + 30 = 235 + 300 = 604 + 20 = 604 + 50 = 604 + 90 =
Add two numbers (no exchange)	Base 10/place-value counters ... ones + … ones = … ones ... tens + … tens = … tens … hundreds + … hundreds = … hundreds 	Introduction of formal method – column addition (using representations, such as place value grid/counters, to support) 	Column addition 345 + 432 = 
Add two numbers across a 10 or 100 Formal written method involving up to 2 exchanges including 3-digit plus 2-digit numbers.	Base 10/place-value counters There are … ones, so I do/do not need to make an exchange. There are … tens, so I do/do not need to make an exchange. … ones = … ten and … ones. … tens = … hundred and … tens.	Formal method – column addition (using representations, such as place value grid/counters, to support)	Column addition 367 + 164 = 

			
Complements to 100	Base 10 … plus … is equal to 100 	Part whole models, bar models, numberlines, hundred squares  	38 + 62 = 100 62 + 38 = 100 100 = 38 + 62 100 = 62 + 38

Year 3 Subtraction

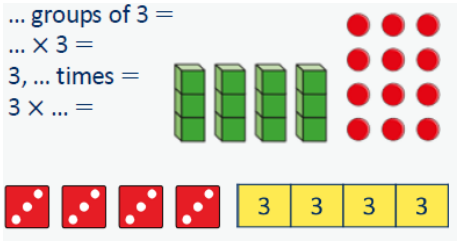
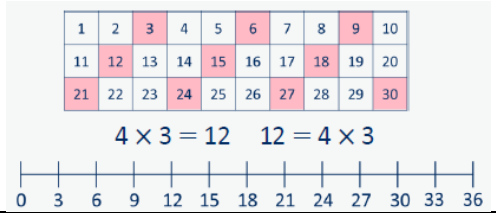
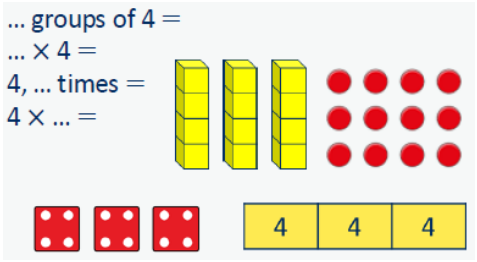
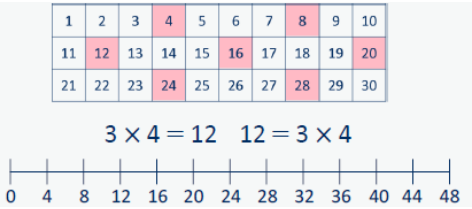
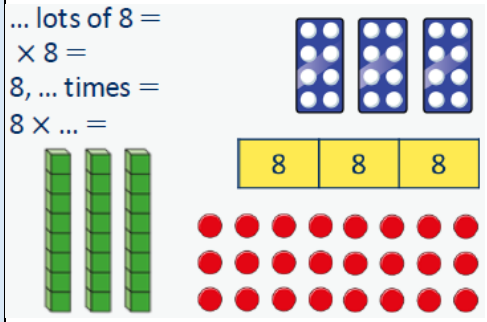
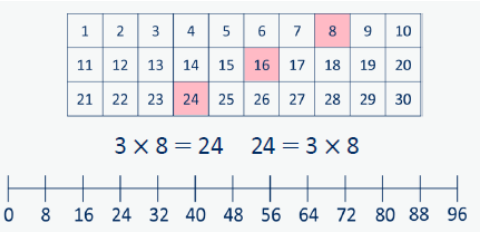
Key Vocabulary:
column, subtraction, digit, estimate, exchange, hundred(s), inverse, crossing the 10, crossing the 100

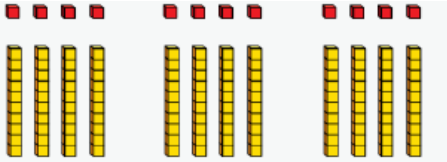
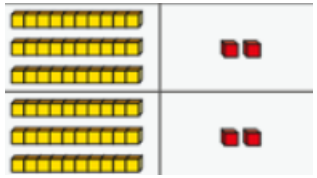
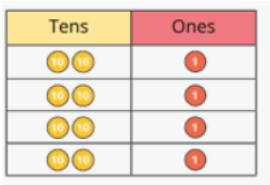
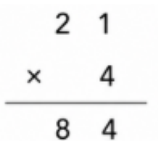
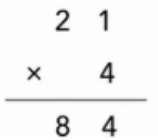
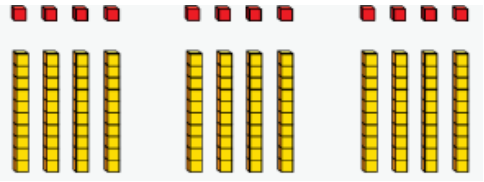
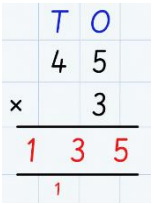
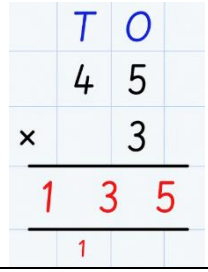
Progression of Skills	Concrete	Pictorial	Abstract
Subtract 1s, 10s or 100s from a 3-digit number	Base 10, place value chart 	Draw representations of Base 10 	What patterns do you notice? 235 – 3 = 235 – 30 = 235 – 300 = 624 – 20 = 654 – 50 = 694 – 90 =
Subtract two numbers (no exchange)	Base 10/place-value counters … ones - … ones = … ones … tens - … tens = … tens … hundreds - … hundreds = … hundreds 	Introduction of formal method – column subtraction (using representations, such as place value grid/counters, to support) 	Column subtraction 769 - 147 = 
Add two numbers across a 10 or 100 Formal written method involving up to 2 exchanges including 3-digit subtract 2-digit numbers.	Base 10/place-value counters I need to subtract … ones. I do/do not need to make an exchange. I need to subtract … tens. I do/do not need to make an exchange. I can exchange 1 … for 10 … 	Formal method – column subtraction (using representations, such as place value grid/counters, to support) 	Column subtraction 452 - 43 = 409 

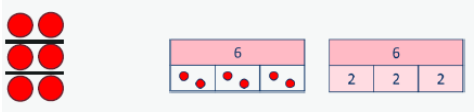
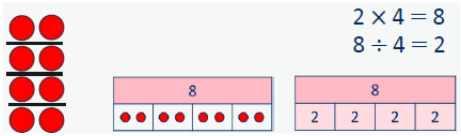
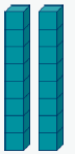
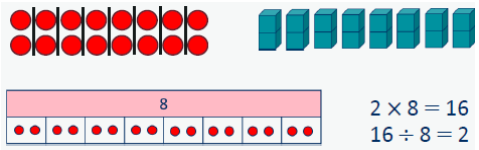
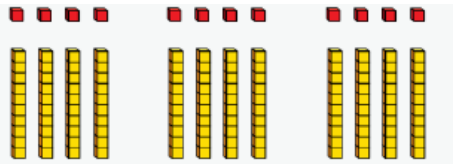
Complements to 100	Base 10 … minus … is equal to … 	Part whole models, bar models, numberlines, hundred squares  	100 – 38 = 62 100 – 62 = 38 62 = 100 – 38 38 = 100 - 62

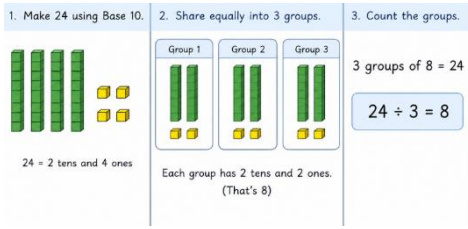
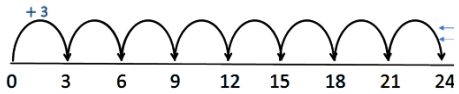
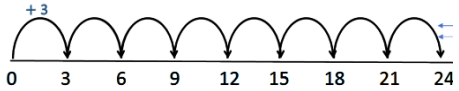
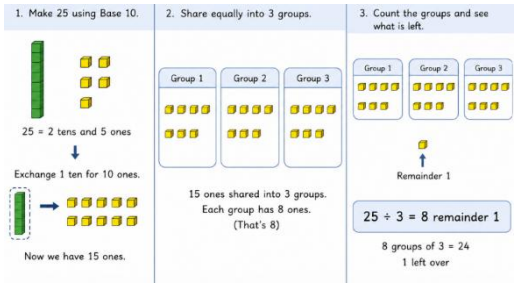
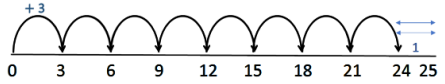
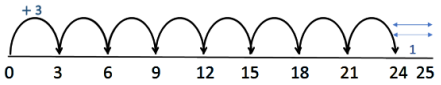
Year 3 Multiplication

Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling

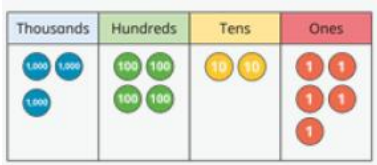
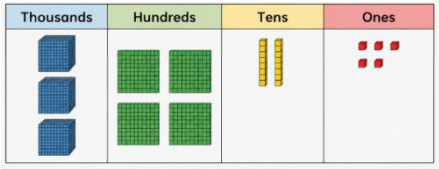
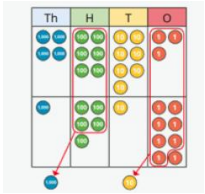
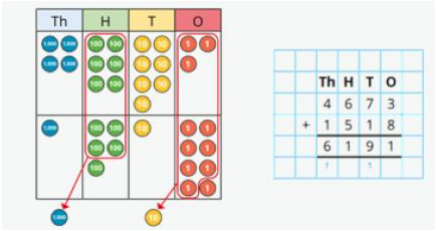
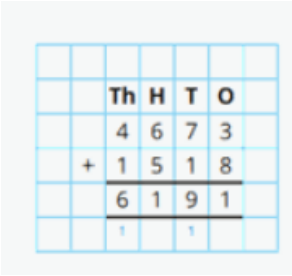
Progression of Skills	Concrete	Pictorial	Abstract
The 3 times-table	Cubes, counters, dice, equipment 	Numberline, numbertrack, hundred square, drawings ... times 3 is equal to ... 	4 x 3 = 12 12 = 4 x 3
The 4 times-table	Cubes, counters, dice, equipment 	Numberline, numbertrack, hundred square, drawings ... times 4 is equal to ... 	3 x 4 = 12 12 = 3 x 4
The 8 times-table	Cubes, counters, dice, equipment 	Numberline, numbertrack, hundred square, drawings ... times 8 is equal to ... 	3 x 8 = 24 24 = 3 x 8

Related facts Use knowledge of multiplying by 10 to scale times-table facts	Base 10, place value counters … × … ones is equal to … ones So … x … tens is equal to … tens 	Use/draw representations of base 10/place value counters 	3 x 4 = 12 3 x 40 = 120
Multiply a 2-digit number by a 1-digit number – no exchange	Base 10 or place-value counters arranged into equal groups 32 x 2 = 	Introduction of formal method – short multiplication (using representations, such as place value grid/counters, to support)  	Short multiplication 21 x 4 = 84 
Multiply a 2-digit number by a 1-digit number – with exchange	Base 10 or place-value counters arranged into equal groups or make arrays using manipulatives 44 x 3 = 	Formal method – short multiplication (using representations, such as place value grid/counters, to support)  	Short multiplication 45 x 3 = 135 

Year 3 Division			
Key Vocabulary: commutative, inverse, multiple, product, remainder, scaling			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Divide by 3	Cubes, counters, equipment There are … groups of 3 in … … ÷ 3 = … 	Use representations/drawings of manipulatives, numberlines, bar models 	2 × 3 = 6 6 ÷ 3 = 2
Divide by 4	Cubes, counters, equipment There are … groups of 4 in … … ÷ 4 = … 	Use representations/drawings of manipulatives, numberlines, bar models 	2 × 4 = 8 8 ÷ 4 = 2
Divide by 8	Cubes, counters, equipment There are … groups of 8 in … … ÷ 8 = … 2 × 8 = 16 16 ÷ 8 = 2 	Use representations/drawings of manipulatives, numberlines, bar models 	2 × 8 = 16 16 ÷ 8 = 2
Related facts Link to known times-table facts	Base 10, place value counters … ÷ … is equal to …, So … tens ÷ … is equal to … tens. 	Use/draw representations of base 10/place value counters 	12 ÷ 3 = 4 120 ÷ 3 = 40

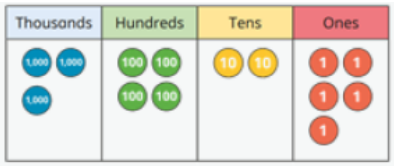
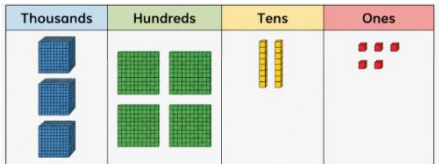
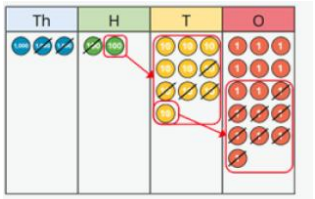
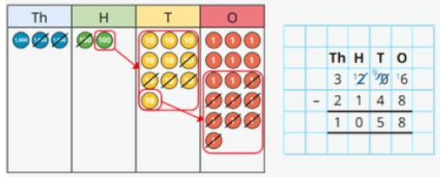
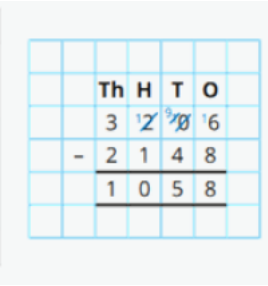
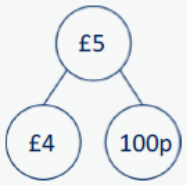
Divide a 2-digit number by a 1-digit number – no exchange	Base 10 or place-value counters arranged into equal groups … tens divided by … is equal to … tens. … ones divided by … is equal to … ones. 	Introduction of formal method – numberline (using representations, such as place value grid/counters, to support)   (Move to bus stop method when/if ready)	Numberline 24 ÷ 3 = 8  (Move to bus stop method when/if ready)
Divide a 2-digit number by a 1-digit number – with exchange	Base 10 or place-value counters arranged into equal groups … tens divided by … is equal to … tens. … ones divided by … is equal to … ones. 	Formal method – numberline (using representations, such as place value grid/counters, to support)   (Move to bus stop method when/if ready)	Numberline 25 ÷3 = 8r1  (Move to bus stop method when/if ready)

YEAR 4

Year 4 Addition			
Key Vocabulary: column, addition, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s)			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Add 1s, 10s or 100s to a 4-digit number	Base 10, place value chart  3,425 + 3 = 3,425 + 30 = 3,425 + 300 = 3,425 + 3,000 =	Draw representations of Base 10  	What patterns do you notice? 2350 + 3 = 2350 + 30 = 2350 + 300 = 2350 + 3000 = 6040 + 200 = 6040 + 500 = 6040 + 900 =
Add up to two 4-digit numbers	Base 10/place-value counters There are … ones/tens/hundreds so I do/do not need to make an exchange. I can exchange 10 … for 1 …  	Formal method – column addition (using representations, such as place value grid/counters, to support)  	Column addition 4673 + 1518 = 6191 
Add decimal numbers in the context of money		… pence + … pence = … pence … pounds + … pounds = … pounds  45p + 25p = 70p £2 + £3 = £5 £5 + 70p = £5.70	

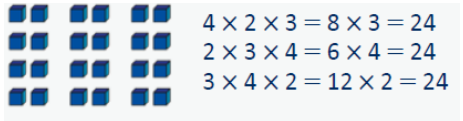
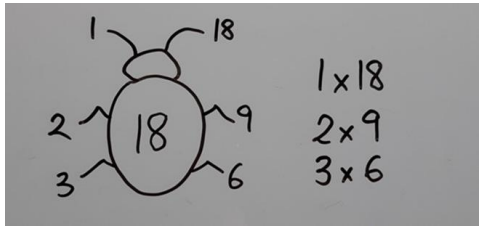
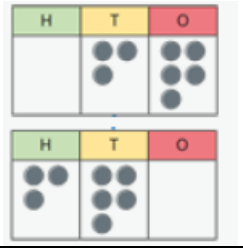
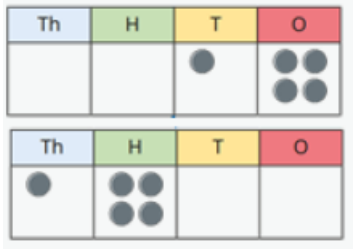
Year 4 Subtraction

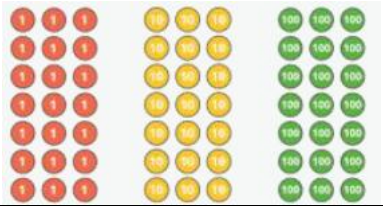
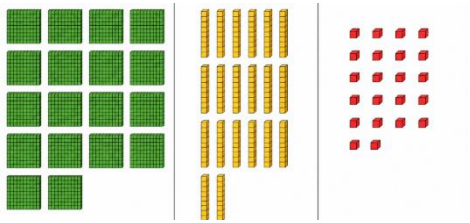
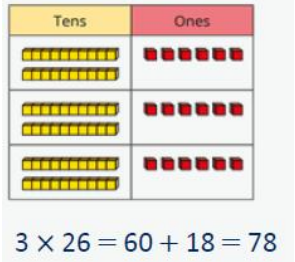
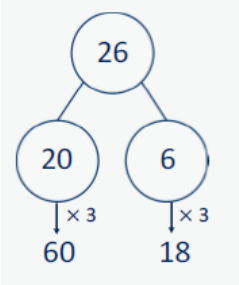
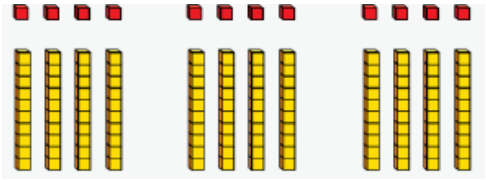
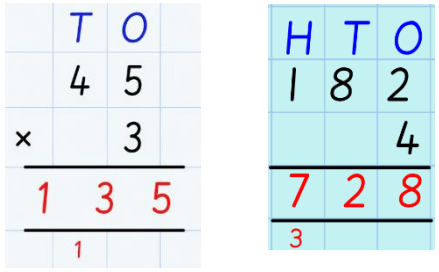
Key Vocabulary:
column, subtraction, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s)

Progression of Skills	Concrete	Pictorial	Abstract
Subtract 1s, 10s, 100s and 1000s from a 4-digit number	Base 10, place value chart  3,425 − 2 = 3,425 − 20 = 3,425 − 200 = 3,425 − 2,000 =	Draw representations of Base 10 	What patterns do you notice? 4356 - 3 = 4356 - 30 = 4356 - 300 = 4356 - 3000 = 6940 - 200 = 6940 - 300 = 6940 - 400 =
Subtract up to two 4-digit numbers	Base 10/place-value counters I need to subtract… ones/tens/hundreds. I do/do not need to make an exchange. I can exchange 1… for 10… 	Formal method – column subtraction (using representations, such as place value grid/counters, to support) 	Column subtraction 3206 – 2148 = 1058 
Subtract decimal numbers in the context of money		I can partition £… into £… and 100p £… − £… = £… 100p − …p = …p **£5 − £3.26** £4 − £3 = £1 100p − 26p = 74p £5 - £3.26 = £1.74 	

Year 4 Multiplication

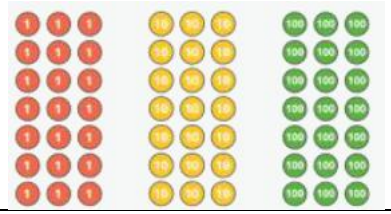
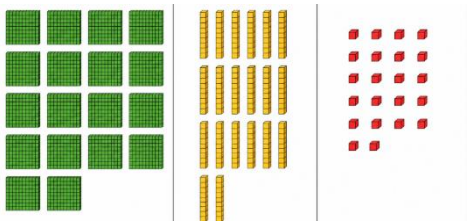
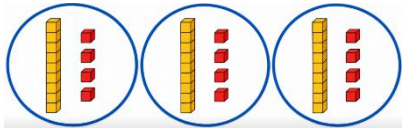
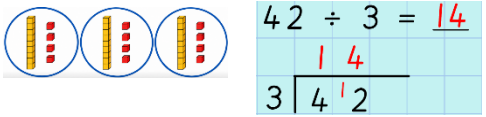
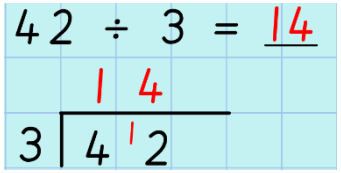
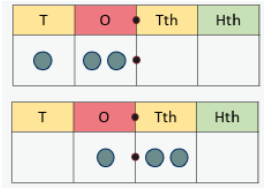
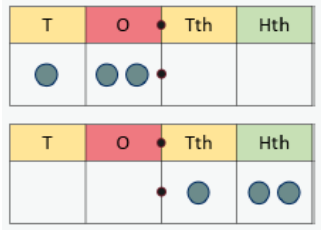
Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient

Progression of Skills	Concrete	Pictorial	Abstract
Multiply 3 numbers	Base 10, cubes, manipulatives To work out … x …, I can first calculate … x … and then multiply the answer by … 	Use representations of cubes etc 	4 x 2 x 3 = 8 x 3 = 24 2 x 3 x 4 = 6 x 4 = 24 3 x 4 x 2 = 12 x 2 = 24
Factor pairs	Factor Bugs 		
Multiply by 10 and 100	Place value grid & counters When I multiply by 10/100, the digits move… place value column to the left. … is 10/100 times the size of … 	Use representations/drawings of place value grid & counters 	35 x 10 = 350 14 x 100 = 1400

Related facts	Base 10, place value counters … × … ones is equal to … ones So … x … tens is equal to … tens And … x … hundreds is equal to … hundreds 	Use/draw representations of base 10/place value counters 	3 x 7 = 21 3 x 70 = 210 3 x 700 = 2100
Mental strategies Partition 2 or 3-digit numbers to multiply using informal methods.	Base 10 … tens multiplied by … is equal to … tens. … ones multiplied by … is equal to … ones. 	Part-whole models 	3 x 26 = 78
Multiply a 2 or 3-digit number by a 1-digit number	Base 10 or place-value counters arranged into equal groups 44 x 3 = 	Formal method – short multiplication (using representations, such as place value grid/counters, to support) 	Short multiplication 

Year 4 Division

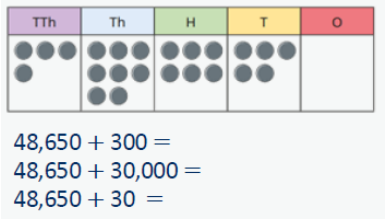
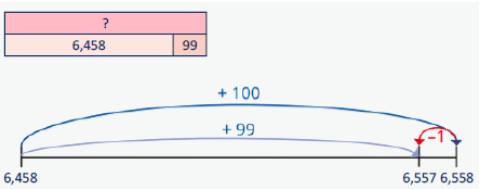
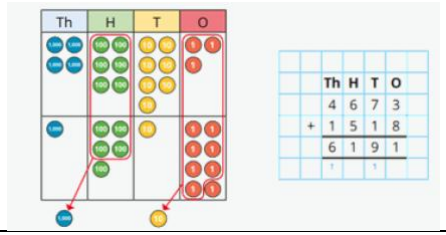
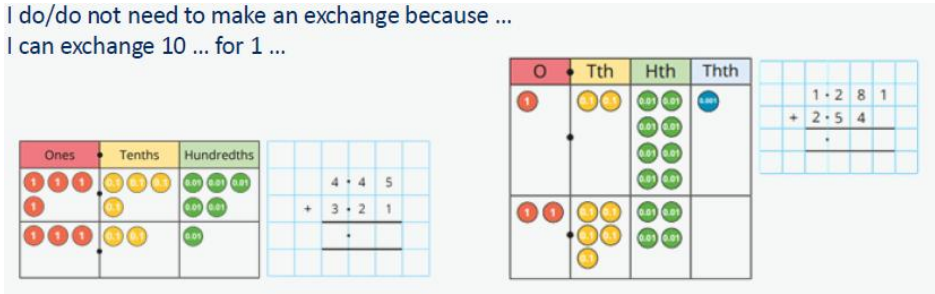
Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient

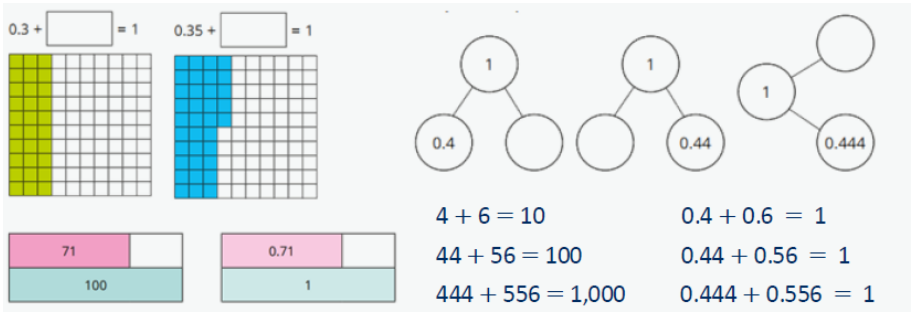
Progression of Skills	Concrete	Pictorial	Abstract
Related facts Link to known times-table facts	Base 10, place value counters … ÷ … is equal to …, So … tens ÷ … is equal to … tens. And … hundreds ÷ is equal to … hundreds. 	Use/draw representations of base 10/place value counters 	21 ÷ 7 = 3 210 ÷ 7 = 30 2,100 ÷ 7 = 300
Divide a 2 or 3-digit number by a 1-digit number	Base 10 or place-value counters arranged into equal groups 	Formal method – bus stop (using representations, such as place value grid/counters, to support) 	Bus stop (short division) 
Divide by 10 and 100	Place value grid & counters When I divide by 10/100, the digits move… place value column to the right. … is one-tenth/one-hundredth the size of … 	Use representations/drawings of place value grid & counters 	12 ÷ 10 = 1.2 12 ÷ 100 = 0.12

YEAR 5

<table>
<tr><th colspan="4">Year 5 Addition</th></tr>
<tr><td colspan="4">Key Vocabulary:
column, addition, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s), accurate, approximate, constant difference, strategy</td></tr>
<tr><th>Progression of Skills</th><th>Concrete</th><th>Pictorial</th><th>Abstract</th></tr>
<tr><td>Add using mental strategies

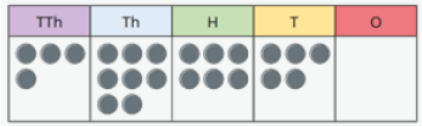
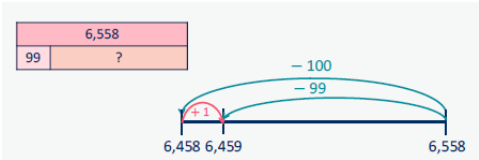
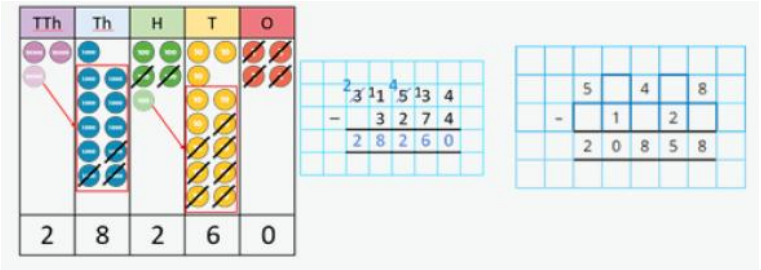
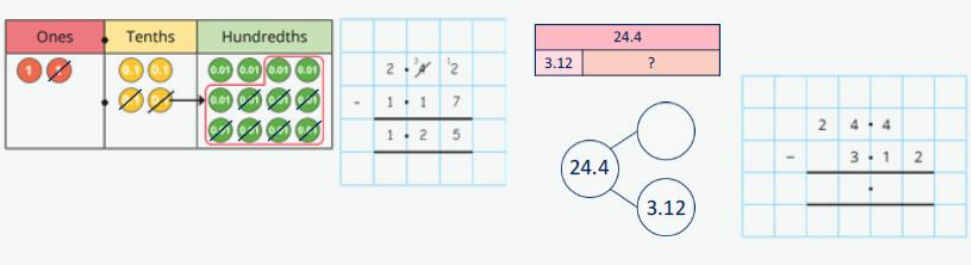
Add 1s, 10s, 100s etc to any number.

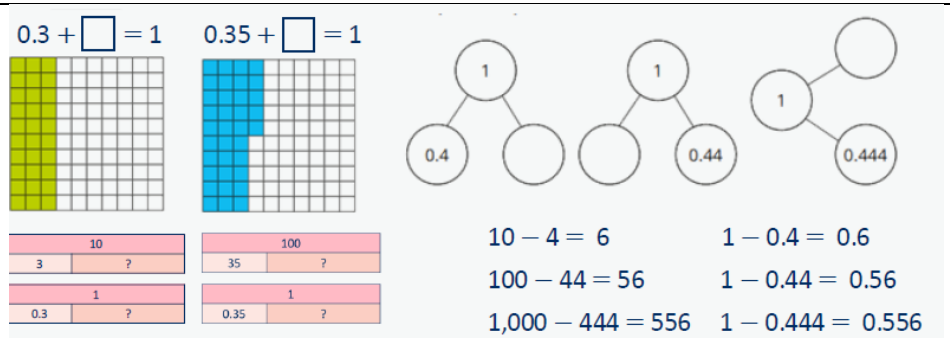
Use number bonds and related facts.</td><td>Place value chart
 
</td><td>Numberlines, bar models
To add…, I can add … then subtract …
 
</td><td>6458 + 99 = 6558</td></tr>
<tr><td>Add whole numbers with more than 4 digits</td><td colspan="3">Base 10/place-value counters
I can exchange 10 … for 1 …
Formal method – column addition (using representations, such as place value grid/counters, to support)
4673 + 1518 = 6191
 
</td></tr>
<tr><td>Add decimals with up to 2 decimal places</td><td colspan="3"> 
</td></tr>
</table>

Complements to 1 Pairs of numbers with up to 3 decimal places which total 1	

Year 5 Subtraction

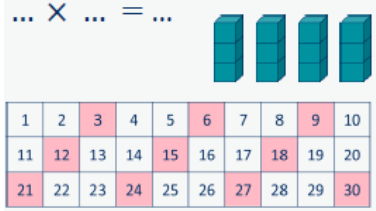
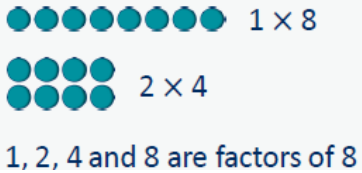
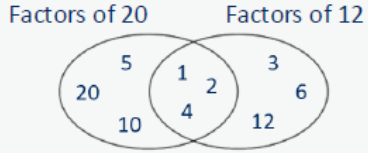
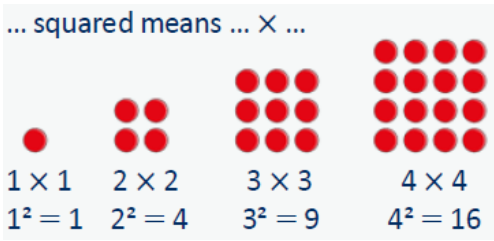
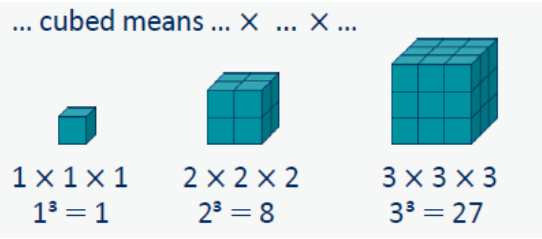
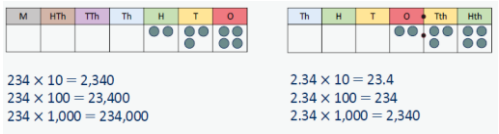
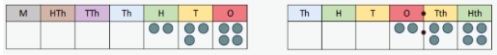
Key Vocabulary:
column, subtraction, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s), accurate, approximate, constant difference, strategy

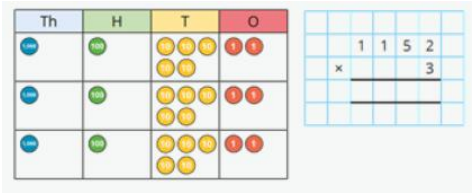
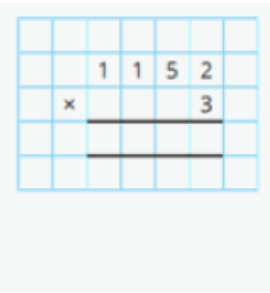
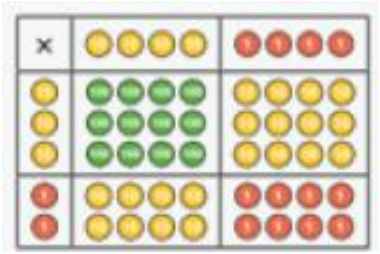
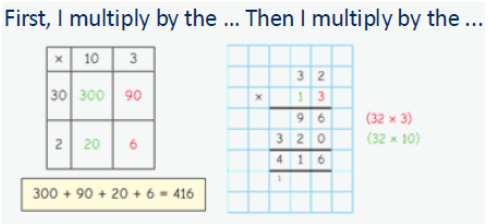
Progression of Skills	Concrete	Pictorial	Abstract
Subtract using mental strategies Add 1s, 10s, 100s etc to any number. Use number bonds and related facts.	Place value chart  48,650 – 300 = 48,650 – 30,000 = 48,650 – 30 =	Numberlines, bar models To subtract…, I can subtract … then add …  	6558 – 99 = 6459
Subtract whole numbers with more than 4 digits	Base 10/place-value counters I can exchange 1 … for 10 … Formal method – column subtraction (using representations, such as place value grid/counters, to support) 31534 – 3274 = 28260  		
Subtract decimals with up to 2 decimal places	 		

Complements to 1 Pairs of numbers with up to 3 decimal places which total 1	

Year 5 Multiplication

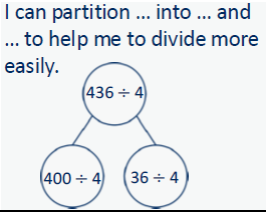
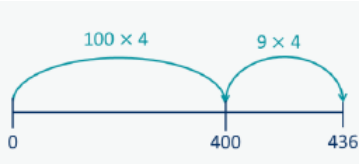
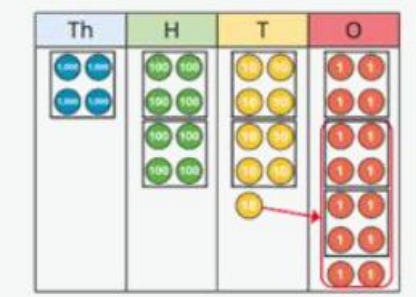
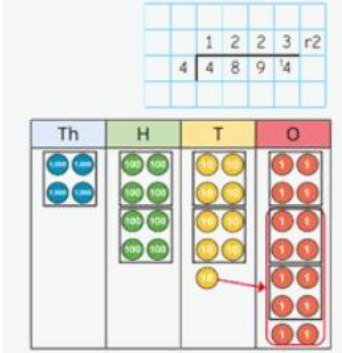
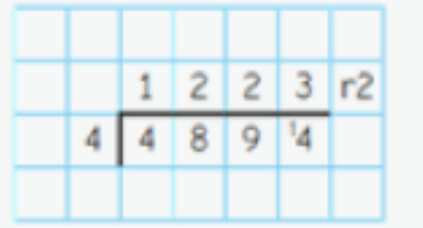
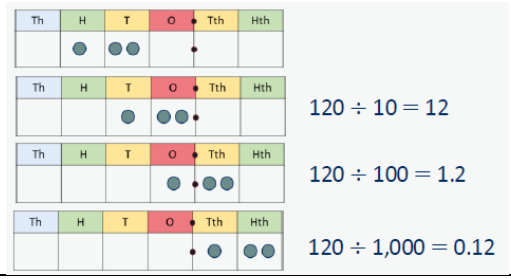
Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient, common multiple, common factor, cube number, prime number, square number

Progression of Skills	Concrete	Pictorial	Abstract
Multiples and Factors	… is a multiple of … because … × … = …  	… is a factor of … because … × … = …  	The common factors of … and … are … 
Square and Cube numbers	… squared means … × …  	… cubed means … × … × …  	
Multiply by 10, 100 and 1000	Place value grid & counters When I multiply by 10/100/1000, the digits move… place value column to the left. … is 10/100/1000 times the size of …  	Use representations/drawings of place value grid & counters  	234 x 10 = 2340 234 x 100 = 23,400 234 x 1000 = 234,000 2.34 x 10 = 23.4 2.34 x 100 = 234 2.34 x 1000 = 2340

Mental strategies Partition 2 or 3-digit numbers to multiply using informal methods.	The most efficient strategy to calculate … × … is … To calculate … × 12, I can do … × … × … For example: 121 × 12 I could calculate 100 × 12 plus 20 × 12 plus 1 × 12 I could calculate 121 × 10 plus 121 × 2 I could calculate 121 × 6 × 2 I could calculate 121 x 4 x 3		
Multiply numbers up to 4 digits by a 1-digit number	Place-value counters 	Formal method – short multiplication (using representations, such as place value grid/counters, to support) 	Short multiplication 1152 x 3 = 
Multiply numbers up to 4 digits by a 2-digit number	Place-value counters 	Formal method – Long multiplication (using representations to support) 	Long multiplication 32 x 13 = 416 

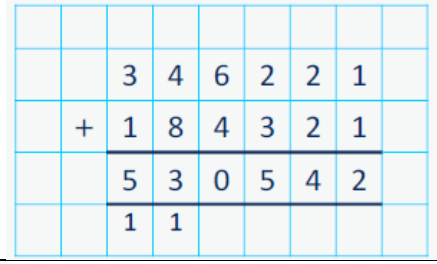
Year 5 Division

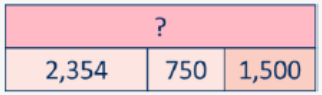
Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient, common multiple, common factor, cube number, prime number, square number

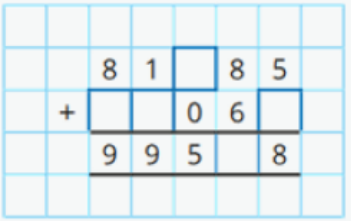
Progression of Skills	Concrete	Pictorial	Abstract
Mental strategies	Part whole models, numberlines  		To divide by …, I can divide by … and then divide the result by … 436 ÷ 4 = 436 ÷ 2 ÷ 2 436 ÷ 2 = 218 218 ÷ 2 = 109
Divide numbers up to 4 digits by a 1-digit number	Base 10 or place-value counters 	Formal method – bus stop (using representations, such as place value grid/counters, to support) 	Bus stop (short division) 4894 ÷ 4 = 1223 r2 
Divide by 10, 100 and 1000	Place value grid & counters When I divide by 10/100/1000, the digits move… place value column to the right. … is one-tenth/one-hundredth/one-thousandth the size of …		120 ÷ 10 = 12 120 ÷ 100 = 1.2 120 ÷ 1000 = 0.12

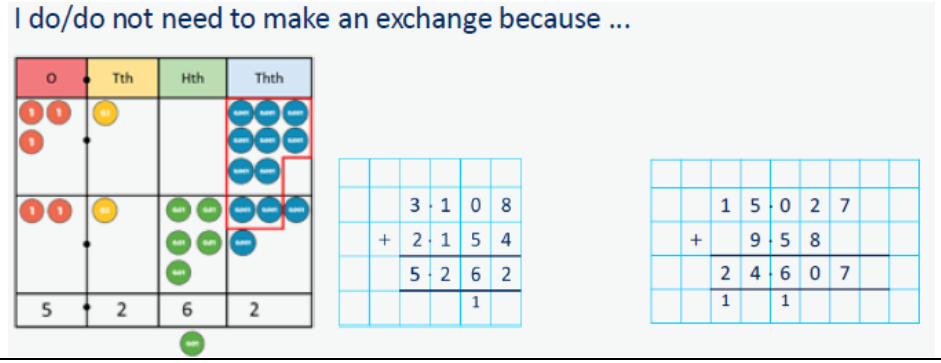
YEAR 6

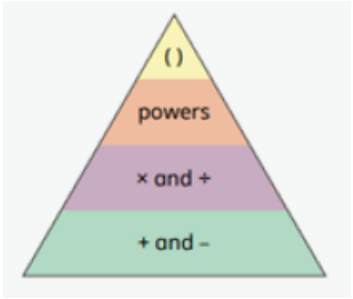
Year 6 Addition			
Key Vocabulary: column, addition, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s), accurate, approximate, constant difference, strategy, order of operations			
Progression of Skills	**Concrete**	**Pictorial**	**Abstract**
Add integers up to 10 million			
Add decimals with up to 3 decimal places			
Order of operations Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction. *When no brackets re shown and the operations have the same priority, work left to right.			

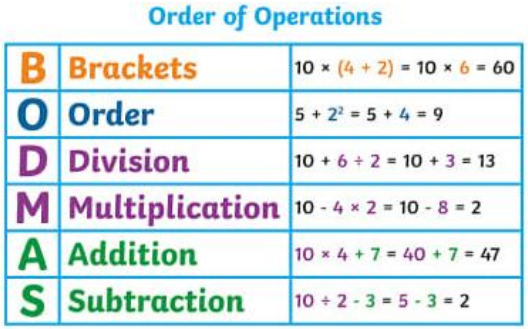


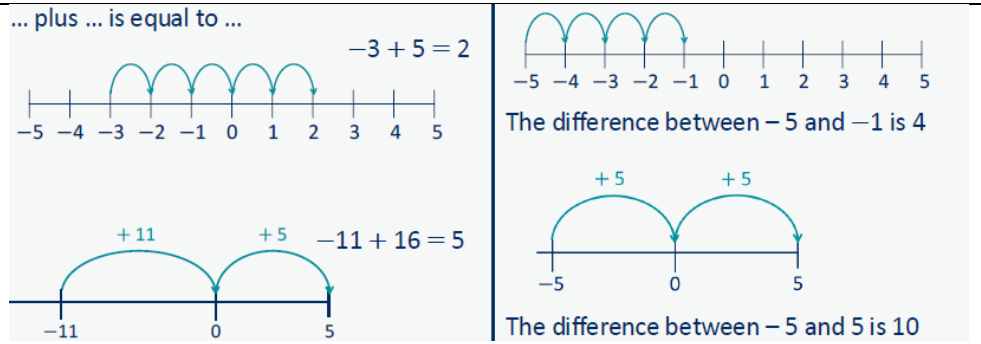








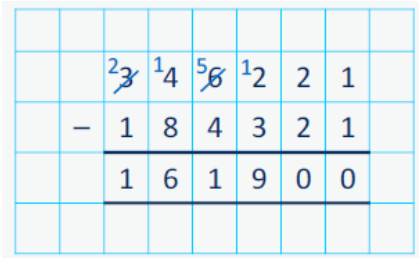


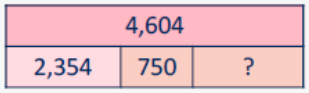
Negative numbers	

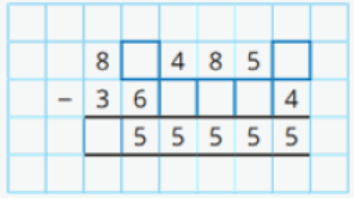
Year 6 Subtraction

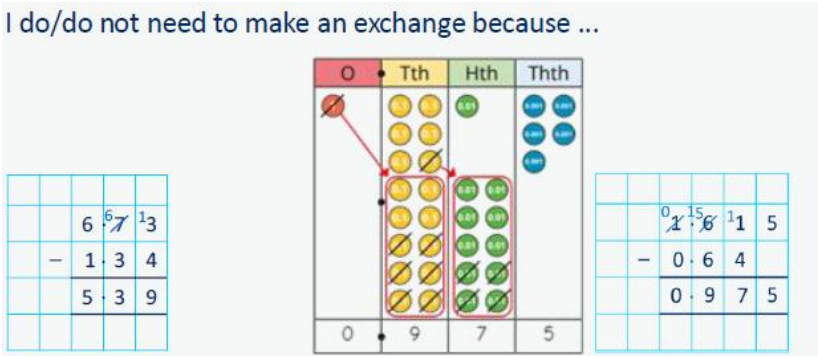
Key Vocabulary:
column, subtraction, digit, estimate, exchange, hundred(s), crossing the 10, crossing the 100, efficient, inverse, round, thousand(s), accurate, approximate, constant difference, strategy, order of operations

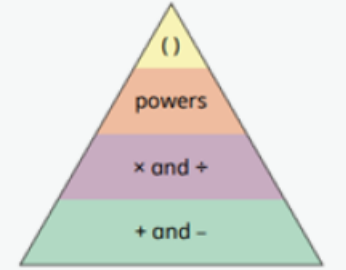
Progression of Skills	Concrete	Pictorial	Abstract
Subtract integers up to 10 million			
Subtract decimals with up to 3 decimal places			
Order of operations Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction. *When no brackets re shown and the operations have the same priority, work left to right.			

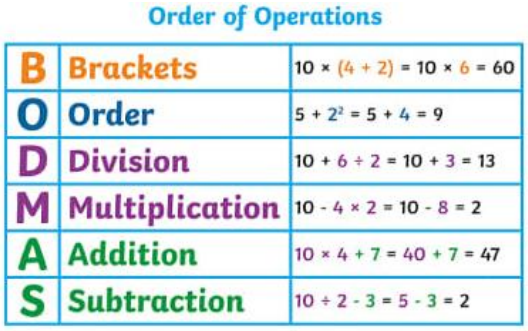


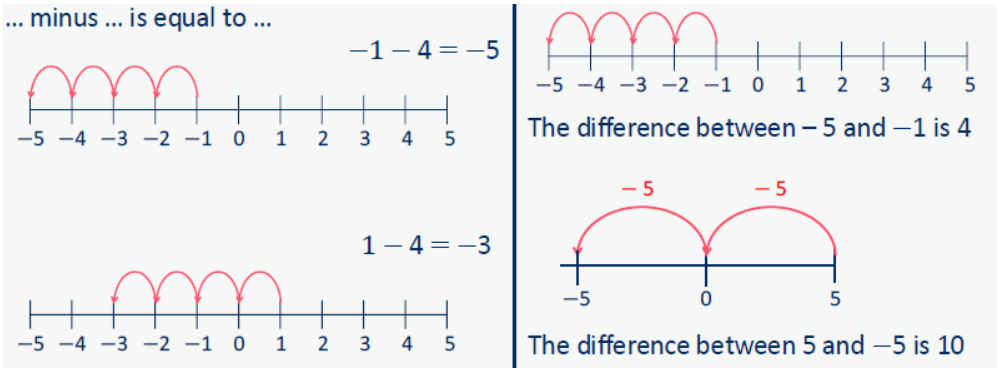






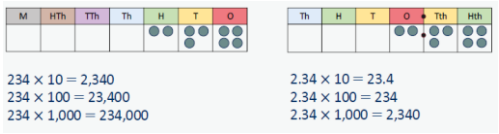
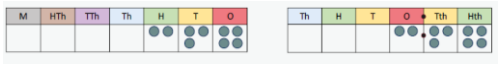
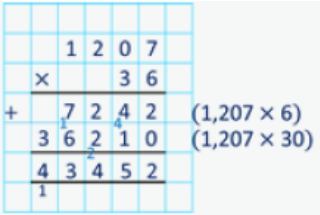
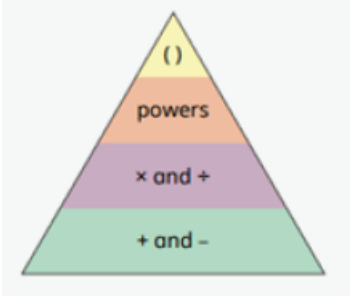
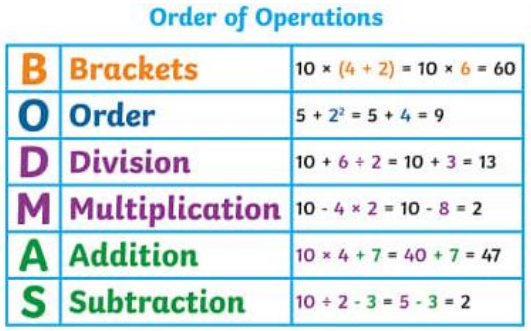


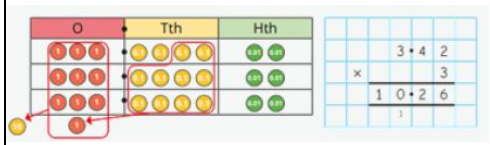
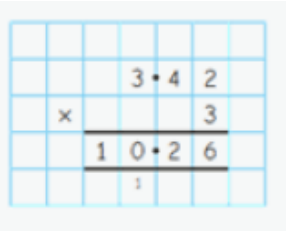


Negative numbers	

Year 6 Multiplication

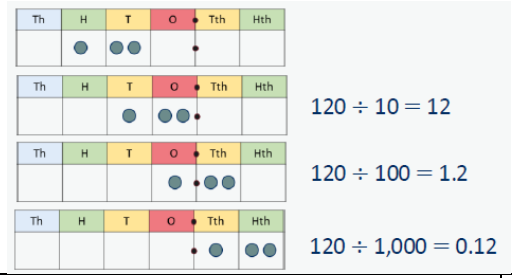
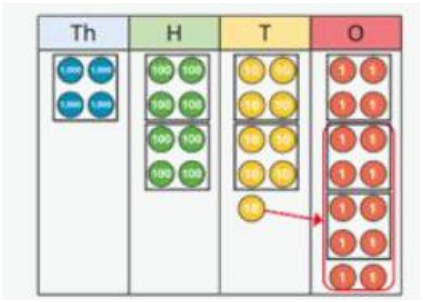
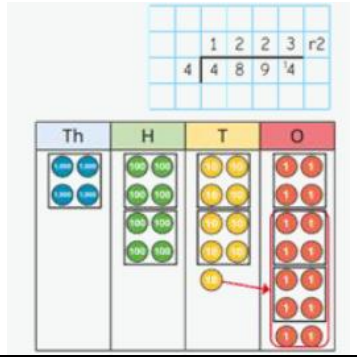
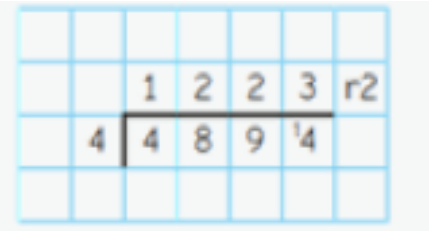
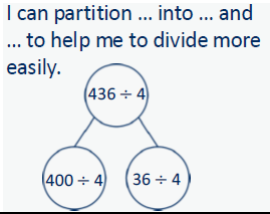
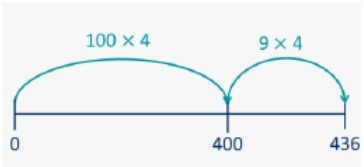
Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient, common multiple, common factor, cube number, prime number, square number, composite number, order of operations, powers of

Progression of Skills	Concrete	Pictorial	Abstract
Multiply by 10, 100 and 1000	Place value grid & counters When I multiply by 10/100/1000, the digits move… place value column to the left. … is 10/100/1000 times the size of … 	Use representations/drawings of place value grid & counters 	234 x 10 = 2340 234 x 100 = 23,400 234 x 1000 = 234,000 2.34 x 10 = 23.4 2.34 x 100 = 234 2.34 x 1000 = 2340
Multiply numbers up to 4 digits by a 2-digit number	Formal method – Long multiplication To multiply by a 2-digit number, first multiply by the ones, then multiply by the tens and then find the total. 		
Order of operations Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction. *When no brackets re shown and the operations have the same priority, work left to right.			

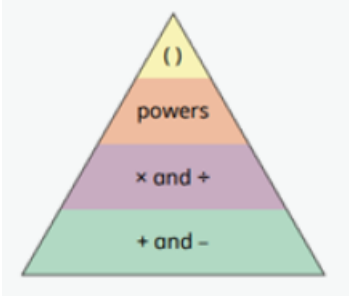
Multiply decimals by integers	Place value counters I know that … x … = …, so I also know that … x … = …. I need to exchange 10 … for 1 … 	Formal method – short multiplication (using representations, such as place value grid/counters, to support) 	Short multiplication 3.42 x 3 = 10.26 

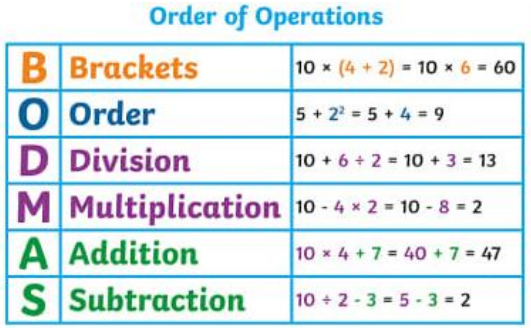
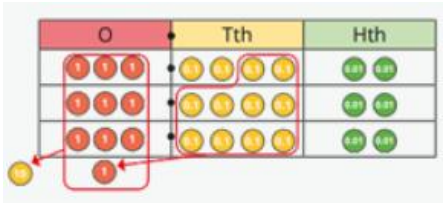
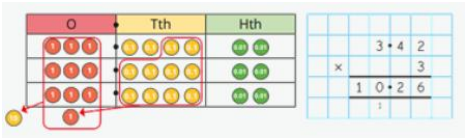
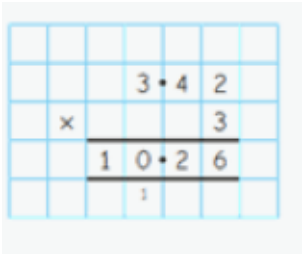
Year 6 Division

Key Vocabulary:
commutative, inverse, multiple, product, remainder, scaling, factor, factor pair, inverse, triple, efficient, common multiple, common factor, cube number, prime number, square number, composite number, order of operations, powers of

Progression of Skills	Concrete	Pictorial	Abstract
Divide by 10, 100 and 1000	Place value grid & counters When I divide by 10/100/1000, the digits move… place value column to the right. … is one-tenth/one-hundredth/one-thousandth the size of …		120 ÷ 10 = 12 120 ÷ 100 = 1.2 120 ÷ 1000 = 0.12
Short division	Base 10 or place-value counters 	Formal method – bus stop (using representations, such as place value grid/counters, to support) 	Bus stop (short division) 4894 ÷ 4 = 1223 r2 
Mental strategies	Part whole models, numberlines  		To divide by …, I can divide by … and then divide the result by … 436 ÷ 4 = 436 ÷ 2 ÷ 2 436 ÷ 2 = 218 218 ÷ 2 = 109

<table>
<tr>
<td>Order of operations

Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction.
*When no brackets re shown and the operations have the same priority, work left to right.</td>
<td colspan="3"> 


</td>
</tr>
<tr>
<td>Divide decimals by integers</td>
<td>Place value counters
I know that … ÷ … = …, so I also know that … ÷ … = ….
I need to exchange 10 … for 1 …
 
</td>
<td>Formal method – Bus stop (using representations, such as place value grid/counters, to support)
 
</td>
<td>Bus stop (short division)
5.32 ÷ 4 = 1.33
 
</td>
</tr>
</table>

*For Calculations not included in this policy, e.g. Fractions, Percentages, Time etc, please see the White Rose Calculation Policy.