



Broad Chalke CE VA Primary School

Calculation Policy

Mission Statement: With the love of God we learn, care, grow and share

This policy has been written in response to the New National Curriculum September 2014 and aims to ensure consistency in the mathematical written methods and approaches to calculation across years 1-6. Reception needs will be met through Development Matters and Early Learning Goals.

The document is organised according to age related expectation, however it may be necessary for teachers to consult with lower year groups for children in order to meet their needs at the stage these children are working at.

Whilst the New Curriculum for September 2014 does not feature Using and Applying, wherever possible, it is important for teachers to create real life contexts for learning in maths.

As part of a child's learning in calculation, they need to be taught how to select the best method according to the numbers. The hierarchy of thinking should be:

- Can I solve this problem in my head?
- Do I need some informal jottings to help me?
- Should I use a formal method of calculation?

Key stage one (years 1 and 2)

Children in Years 1 and 2 will be given a really solid foundation in the basic building blocks of mental and written arithmetic. Through being taught **place value**, they will develop an understanding of how numbers work, so that they are confident in 2-digit numbers and beginning to read and say numbers above 100. A focus on **number bonds**, first via practical hands-on experiences and subsequently using memorisation techniques, enables a good grounding in these crucial facts, and ensures that all children leave Y2 knowing the pairs of numbers which make all the numbers up to 10 at least. They will also have experienced and been taught pairs to 20. Their knowledge of number facts enables them to **add several single-digit numbers**, and to **add/subtract a single digit number to/from a 2-digit number**.

Another important conceptual tool is their ability to **add/subtract 1 or 10**, and to **understand which digit changes and why**. This understanding is extended to enable children to **add and subtract multiples of ten** to and from any 2-digit number. The most important application of this knowledge is their ability to **add or subtract any pair of 2- digit numbers by counting on or back in tens and ones**. Children may extend this to adding by **partitioning numbers into tens and ones**. Children will be taught to **count in 2s,3s, 5s and 10s**, and will have related this skill to repeated addition. They will have met, and begun to learn, the associated **2x, 3x, 5x and 10x tables**. Engaging in a practical way with the concept of repeated addition and the **use of arrays** enables children to develop a preliminary understanding of multiplication, and asking them to consider how many groups of a given number make a total will introduce them to the idea of division.

They will also be taught to **double and halve numbers**, and will thus experience scaling up or down as a further aspect of multiplication and division. Fractions will be introduced as numbers and as operators, specifically in relation to **halves, quarters and thirds**.



Lower Key Stage 2 (years 3 and 4)

In lower key stage 2, children build on the concrete and conceptual understandings they have gained in key stage 1 to develop a real mathematical understanding of the four operations, in particular developing **arithmetical competence in relation to larger numbers**.

In addition and subtraction, they are taught to use place value and number facts to add and subtract numbers mentally and will develop a range of strategies to enable them to **discard the 'counting in ones' or fingers-based methods** of the infants. In particular, they will learn to add and subtract multiples and near multiples of 10, 100 and 1000, and will become fluent in **complementary addition** as an accurate means of achieving fast and accurate answers to 3-digit subtractions. Standard written methods for adding larger numbers are taught, learned and consolidated, and written **column subtraction** is also introduced.

This key stage is also the period during which **all the multiplication and division facts** are thoroughly memorised, including all facts up to the 12 x 12 table. Efficient written methods for multiplying or dividing a 2-digit or 3-digit number by a single-digit number are taught, as are mental strategies for multiplication or division with large but friendly numbers (e.g. when dividing by 5 or multiplying by 20).

Children will develop their understanding of fractions, learning to **reduce a fraction to its simplest form** as well as **finding non-unit fractions of amounts** and quantities. The concept of a decimal number is introduced and children consolidate a firm understanding of **one-place decimals, multiplying and dividing whole numbers by 10 and 100**.

Upper Key Stage 2 (years 5 and 6)

Children move on from dealing mainly with whole numbers to performing arithmetic operations with both **decimals and fractions**. They will consolidate their use of written procedures in adding and subtracting whole numbers with **up to 6 digits** and also decimal numbers with **up to two decimal places**. Mental strategies for adding and subtracting increasingly large numbers will also be taught. These will draw upon children's robust understanding of place value and knowledge of number facts.

Efficient and flexible strategies for mental multiplication and division are taught and practised, so that children can perform appropriate calculations even when the numbers are large, such as $40,000 \times 6$ or $40,000 \div 8$. In addition, it is in Y5 and Y6 that children extend their knowledge and confidence in using written algorithms for multiplication and division.

Fractions and decimals are also added, subtracted, divided and multiplied, within the bounds of children's understanding of these more complicated numbers, and they will also calculate simple **percentages and ratios**.

Negative numbers will be added and subtracted.

Expectations for year groups

What follows in this policy are the expectations in calculation methods for children in year groups 1-6. The progression is split into stages on the progression in calculation document; the stage a child should be working at is made explicit for each year group.

Ratified by FGB: Summer 2016

Next Review due: Summer 2019



Year 1

Addition (stage one)

Key vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line

Key Skills for addition at Year 1

- Read and write numbers to 100 in numerals (1-20 in words)
- Count to and across 100
- Recall bonds to 10 and 20, and addition facts within 20 ('story of' 5, 6, 7, 8, 9 and 10)
- Count on in ones from a given 2-digit number
- Add two single-digit numbers by counting on
- Add three single-digit numbers spotting doubles or pairs to 10
- Count on in tens from any given 2-digit number
- Add 10 to any given 2-digit number
- Use number facts to add single-digit numbers to two-digit numbers, e.g. use $4 + 3$ to work out $24 + 3$, $34 + 3$...
- Add by putting the larger number first
- Recognise doubles to double 6

Subtraction (stage one)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is...

Key Skills for subtraction at Year 1

- Give a number, say one less
- Count back in ones to from 100 and from any single-digit or 2-digit number.
- Count back in tens from any 2-digit number
- Locate any number on a 1-100 grid or a beaded line 0-100.
- Know number bonds to 10, also know what is left if objects are taken from 10, e.g. 10 fingers, fold down 4, leaves 6 standing.
- Solve one-step problems involving subtraction, using concrete objects (bead strings, objects, cubes) and pictures, and missing number problems
- Recognise the $-$ and $=$ signs, and use these to read and write simple subtractions.



Multiplication (stage 1)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count

Key Skills for multiplication at Year 1

- Count in multiples of 2, 5 and 10
- Recognise doubles to double 6
- Solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Division (stage 1)

Key vocabulary share, share equally, one each, two each..., group, groups of, lots of, array

Key Skills for division at Year 1

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations arrays with the support of the teacher
- Through grouping and sharing small quantities, pupils begin to understand, division, and finding simple fractions of objects, numbers and quantities.
- They make connections between arrays, number patterns, and counting in twos, fives and tens.



Year 2

Addition (stage 2 and 3)

Vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line, sum, tens, units, partition, addition, column, tens boundary

Key Skills for addition at Year 2

- Locate any 2-digit number on a landmarked line and use this to compare numbers; record comparisons $<$ and $>$, e.g. $56 > 39$.
- Identify any number on the 1-100 number grid; understand that each number is a multiple of ten and some ones, e.g. 54 is 50 and 4 more.
- Add two single digit numbers ($8 + 7$) by counting up; add two 2-digit numbers which total less than 100 by counting on in tens and ones, e.g. $54 + 37$ as $54 + 30 + 7$.
- Know securely number pairs for all the numbers up to and including 12
- Count in steps of 2, 5, and 10 from 0.
- Know different unit patterns when not crossing a ten, e.g. $4 + 3 = 7$, $14 + 3 = 17$, $24 + 3 = 27$
- Begin to recognise unit patterns when crossing a ten, e.g. $5 + 6 = 11$
- Know pairs with a total of 20 and multiples of 10 to 100
- Count on in ones and tens from any given 2-digit number
- Add two or three single-digit numbers
- Add a single-digit number to any 2-digit number using number facts, including bridging multiples of 10. Add 10 and small multiples of 10 to any given 2-digit number
- Add any pair of 2-digit numbers
- Know that adding can be done in any order
- Solve problems with addition using concrete objects, pictorial representations, involving numbers, quantities and measures, applying written and mental methods

Subtraction (stage 2 and 3)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is..., difference, count on, strategy, partition, tens units

Key Skills for subtraction at Year 2

- Recognise that addition and subtraction are inverse operations and understand that $10 - 4 = 6$ as well as $6 + 4 = 10$.
- Count back in ones or tens to take away, e.g. $27 - 3 =$ or $54 - 20 =$.
- Begin to count up to find a difference between two numbers with a small gap ($42 - 38$). Know when to count on and when to count back
- Recall and use subtraction facts to 20 fluently
- And derive and use related fact to 100
- Subtract using concrete objects, pictorial representations, 100 squares, Dienes, Municon and mentally, including a 2-digit number and ones, a 2-digit numbers and tens, and two 2-digit numbers
- Use inverse to check calculations.



Multiplication (stage 2)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, sets of, equal groups, times as big as, once, twice, three times...

Key Skills for multiplication at Year 2

- Count in steps of 2, 3 and 5 from zero and in 10s from any number
- Know the 2X, 5X and 10X tables and begin to say how many 10s are in 40 or how many 5s are in 30; recognise odd and even answers
- Write and calculate number statements using x and = signs
- Show that multiplication can be done in any order
- Solve a range of problems involving multiplication, using concrete objects, arrays, repeated addition, Numicon, mental methods and multiplication facts

Division (stage 2)

Key vocabulary share, share equally, one each, two each..., group, equal groups of, lots of, array, divide, divided by, divided into, division, grouping, number line, left, left over

- **Key Skills for division at Year 2**
- Count in steps of 2, 3, and 5 from 0
- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the x, \div and = signs.
- Show that multiplication of two numbers can be done in any order (commutative law) and division of one number by another cannot.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.



Year 3

Addition (stage 4 and 5)

Key vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line, sum, tens, units, partition, addition, column, tens boundary, hundreds boundary, increase, vertical, 'carry', expanded, compact

Key Skills for addition at Year 3

- Know pairs with each total to 20
- Know pairs of multiples of 10 with a total of 100
- Add any two 2-digit numbers by counting on in 10s and 1s or by using partitioning
- Add multiples and near multiples of 10 and 100
- Add 1, 10, 100 to 3-digit numbers
- Understand place value in 3-digit numbers
- Perform place value additions without a struggle. (e.g. $300 + 8 + 50 = 358$)
- Use place value and number facts to add a 1-digit or 2-digit number to a 3-digit number (e.g. $104 + 56$ is 160 since $104 + 50 = 154$ and $6 + 4 = 10$ and $676 + 8$ is 684 since $8 = 4 + 4$ and $76 + 4 + 4 = 84$)
- Add pairs of 'friendly' 3-digit numbers mentally, e.g. $320 + 450$
- Begin to add amounts of money using partitioning.
- Solve problems with addition using number facts, place value, missing numbers.

Subtraction (stage 4)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is..., difference, count on, strategy, partition, tens units, take and make, exchange, digit, value, hundreds

Key Skills for subtraction at Year 3

- Understand place value in 3-digit numbers; add and subtract 1s, 10s or 100s without difficulty; use this to add and subtract multiples of 1, 10, 100 to/from 3-digit numbers.
- Mentally subtract any pair of 2 digit numbers, e.g. $75 - 58$
- Recognise that there are two ways of completing subtractions, either by counting up (using ENL) or by counting back, e.g. $54 - 3$ (counting up)
- Subtract mentally using place value and number bonds, e.g. $347 - 5$, $347 - 40$, $347 - 100$)



Multiplication (stage 3 and 4)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, sets of, equal groups, times as big as, once, twice, three times..., partition, grid method, multiple, product, tens, units, value

Key Skills for multiplication at Year 3

- Understand that multiplication is commutative, e.g. 4×8 is the same as 8×4 .
- Know the 2x, 3x, 5x and 10x times tables. All tables need to be learned to 12th multiple.
- Multiply any 2-digit number by 10 or a single-digit number by 100;
- Understand the effect of multiplying whole numbers by 10 and 100.
- Multiply a 1 digit number by a 2 digit number starting to use the grid
- Solve multiplication problems involving missing numbers

Division (stage 3 and 4)

Key vocabulary share, share equally, one each, two each..., group, equal groups of, lots of, array, divide, divided by, divided into, division, grouping, number line, left, left over, inverse, short division, 'carry', remainder, multiple

Key Skills for division at Year 3

- Recall and use division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables
- Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers divided by one digit
- Solve problems, in contexts, and including missing number problems, involving division.
- Pupils develop efficient mental methods, for example, using division facts (e.g. using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts ($30 \times 2 = 60$, so $60 \div 3 = 20$ and $20 = 60 \div 3$).
- Pupils develop reliable written methods for division, starting with calculations of 2- digit numbers by 1-digit numbers using an ENL.
- Halve even numbers up to 50 and multiples of ten to 100
- Perform divisions within the tables including those with remainders, e.g. $38 \div 5$.



Year 4

Addition (stage 6)

Key vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line, sum, tens, units, partition, addition, column, tens boundary, hundreds boundary, increase, vertical, 'carry', expanded, compact, thousands, hundreds, digits, inverse

Key Skills for addition at Year 4

- Select appropriate method, mental, jottings, written—and explain why
- Add any two 2-digit numbers by partitioning or counting on
- Know by heart/quickly derive number bonds to 100 (e.g. $32 + 68$) and to £1 ($64p + 36p$)
- Add to the next hundred, pound and whole number. (e.g. $234 + 66 = 300$, $3.4 + 0.6 = 4$)
- Perform place value additions without a struggle. (e.g. $300 + 8 + 50 + 4000 = 4358$)
- Add multiples and near multiples of 10, 100 and 1000.
- Add £1, 10p, 1p to amounts of money
- Use place value and number facts to add 1-, 2-, 3-and 4-digit numbers where a mental calculation is 'appropriate' (e.g. $4004 + 156$ by knowing that $6+4=10$ and that $4004+150=4154$ so total is 4160)
- Perform inverse operations to check
- Solve 2-step problems in context
- Continue to practise a wide range of mental addition strategies e.g. round and adjust, near doubles, numbers bonds, partitioning and recombining

Subtraction (stage 5)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is..., difference, count on, strategy, partition, tens units, take and make, exchange, digit, value, hundreds, inverse

Key Skills for subtraction at Year 4

- Mentally subtract any pair of two digit numbers.
- Subtract 3 digit numbers from 3 digit numbers using counting on, e.g. $426 - 278$ by jumping along a line from 278 to 426
- Practise mental subtraction strategies, e.g. Round and adjust ($37 - 9$), using place value
- Use counting on in the context of money and also when subtracting from numbers ending in zeros e.g. $4000 - 372$
- Count backwards through zero, using negative numbers



Multiplication (stage 5)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, sets of, equal groups, times as big as, once, twice, three times..., partition, grid method, multiple, product, tens, units, value, inverse

Key Skills for multiplication at Year 4

- Multiply 1 and 2 digit numbers by 10, 100 and 1000; to understand place value in decimal numbers with one place.
- Know and recite 2x, 3x, 4x, 5x, 9x, 10x times tables up to 12th multiple; include multiplying by 0 (e.g. $5 \times 0 = 0$, $7 \times 0 = 0$) or by 1 (e.g. $5 \times 1 = 5$, $\frac{1}{2} \times 1 = \frac{1}{2}$).
- Multiply 1- digit numbers by 2-digit or friendly 3-digit numbers using grid method.
- Find doubles to double 100 and beyond, using partitioning
- Begin to double amounts of money
- Use doubling as strategy for multiplying by 2, 4, 8
- Count in multiples of 6, 7, 9, 25 and 1000

Division (stage 5)

Key vocabulary share, share equally, one each, two each..., group, equal groups of, lots of, array, divide, divided by, divided into, division, grouping, number line, left, left over, inverse, short division, 'carry', remainder, multiple, divisible by, factor

Key Skills for division at Year 4

- Use a written method to divide a 2-digit or a 3-digit number by a single-digit number.
- Give remainders as whole numbers.
- Recall multiplication and division facts for all numbers up to 12×12 .
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying and dividing by 10 and 100 and 1.
- Pupils practise to become fluent in the formal written method of short division with exact answers when dividing by a one-digit number
- Pupils practise mental methods and extend this to three-digit numbers to derive facts, for example $200 \times 3 = 600$ so $600 \div 3 = 200$
- Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as three cakes shared equally between 10 children.



Year 5

Addition (stage 7)

Key vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line, sum, tens, units, partition, addition, column, tens boundary, hundreds boundary, increase, vertical, 'carry', expanded, compact, thousands, hundreds, digits, inverse, decimal places, decimal point, tenths, hundredths, thousandths.

Key Skills for addition at Year 5

- Locate 5 and 6 digit numbers on a landmarked line; use this to compare/order numbers.
- Round to ten, a hundred, a thousand or ten thousand.
- Use rounding to check accuracy
- Understand a one-place decimal number as a number of tenths and a two-place decimal number as a number of hundredths.
- Add or subtract 0.1 or 0.01 to/from any decimal number with confidence, e.g. $5.83 + 0.01$ or $4.83 - 0.1$
- Add and subtract mentally with confidence – where the numbers are less than 100 or the calculation relies upon simple addition and place value.
- Confidently add numbers with more than 4-digits using a secure written method, including adding 'piles' of numbers
- Use inverse to check calculations

Subtraction (stage 6)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is..., difference, count on, strategy, partition, tens units, take and make, exchange, digit, value, hundreds, inverse, tenths, hundredths, decimal point, decimal

Key Skills for subtraction at Year 5

- Count backwards through zero, using negative numbers
- Add or subtract 0.1 or 0.01 to/from any decimal number with confidence, e.g. $5.83 + 0.01$ or $4.83 - 0.1$
- Children need to utilise and consider a range of subtraction strategies, jottings and written methods before choosing how to calculate
- Subtract larger numbers using column subtraction or by counting up
- Begin to subtract decimal numbers using counting up: 6.2



Multiplication (stage 6 and 7)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, sets of, equal groups, times as big as, once, twice, three times..., partition, grid method, multiple, product, tens, units, value, inverse, square, factor, integer, decimal, short/long multiplication, 'carry'

Key Skills for multiplication at Year 5

- Know and recite all times tables including division facts.
- Multiply 2- and 3-digit numbers by numbers ≤ 12 using grid method; multiply 2-digit by 2-digit numbers using grid method.
- Identify multiples and factors, using knowledge of multiplication tables up to 12×12
- Scale up or down by a factor of 2, 5 or 10
- Multiply integers and decimals by 10, 100, 1000
- Recognise and use squared, cubes and their notations

Division (stage 5 and 6)

Key vocabulary share, share equally, one each, two each..., group, equal groups of, lots of, array, divide, divided by, divided into, division, grouping, number line, left, left over, inverse, short division, 'carry', remainder, multiple, divisible by, factor quotient, prime number, prime factors, composite number (non-prime)

Key Skills for division at Year 5

- Recall multiplication and division facts for all numbers up to 12×12 (as in Y4).
- Multiply and divide numbers mentally, drawing upon known facts.
- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- Solve problems involving multiplication and division where larger numbers are decomposed into their factors.
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- Use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
- Work out whether a number up to 100 is prime, and recall prime numbers to 19
- Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- Use multiplication and division as inverses. Interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (e.g. $98 \div 4 = 24 \text{ r } 2 = 24\frac{1}{2} = 24.5 \approx 25$).



Year 6

Addition (stage 8)

Key vocabulary add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line, sum, tens, units, partition, addition, column, tens boundary, hundreds boundary, increase, vertical, 'carry', expanded, compact, thousands, hundreds, digits, inverse, decimal places, decimal point, tenths, hundredths, thousandths.

Key Skills for addition at Year 6

- Add mentally with confidence using larger numbers and calculations of increasing complexity
- Add several large numbers using written addition
- Add several large or decimal numbers using written addition
- Perform mental calculations, including with mixed operations and large numbers, using a range of strategies
- Solve multi-step problems
- Use estimation and inverse to check the validity of an answer

Subtraction (stage 7)

Key vocabulary equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is..., difference, count on, strategy, partition, tens units, take and make, exchange, digit, value, hundreds, inverse, tenths, hundredths, decimal point, decimal

Key Skills for subtraction at Year 6

- Subtract mentally with confidence – where the numbers are less than 100 or the calculation relies upon simple subtraction and place value. Examples include: $6,723-400$, $72-46$, $100-64$
- Subtract large numbers using column subtraction or counting up, e.g. $1323 - 758$
- Subtract decimal numbers using counting up
- Use negative numbers in context and calculate intervals across zero
- Children need to utilise and consider a range of mental subtraction strategies, jottings and written methods before deciding how to calculate
- Decide which methods to use and explain why



Multiplication (stage 8)

Key vocabulary groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, sets of, equal groups, times as big as, once, twice, three times..., partition, grid method, multiple, product, tens, units, value, inverse, square, factor, integer, decimal, short/long multiplication, 'carry', tenths, hundredths, decimal

Key Skills for multiplication at Year 6

- Recall multiplication facts up to 12×12
- Use short multiplication to multiply a 1-digit number by a number with up to 4 digits
- Use long multiplication to multiply a 2-digit by a number with up to 4 digits
- Use short multiplication to multiply a 1-digit number by a number with one or two decimal places, including amounts of money.
- Multiply fractions and mixed numbers by whole numbers.
- Multiply fractions by proper fractions.
- Use percentages for comparison and calculate simple percentages.
- Estimate answers using rounding and approximation

Division (stage 6 and 7)

Key vocabulary as previously, & common factor

Key Skills for division at Year 6

- Recall and use multiplication and division facts for all numbers to 12×12 for more complex calculations
- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Use short division where appropriate.
- Perform mental calculations, including with mixed operations and large numbers.
- Identify common factors, common multiples and prime numbers.
- Solve problems involving all 4 operations.
- Use estimation to check answers to calculations and determine accuracy, in the context of a problem.
- Use written division methods in cases where the answer has up to two decimal places.
- Solve problems which require answers to be rounded to specified degrees of accuracy.