

**Year 2 Maths Programme  
of Study – 2014-2015**

**Each block is covered three times during the year, ensuring that each objective is delivered.**

<b>Block A</b>	Counting, partitioning and calculating
<b>Block B</b>	Securing number facts, understanding shape
<b>Block C</b>	Handling data and measures
<b>Block D</b>	Calculating, measuring and understanding shape
<b>Block E</b>	Securing number facts, relationships and calculating

**Block A Objectives**

- Present solutions to puzzles and problems in an organised way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences
- Read and write two-digit and three-digit numbers in figures and words; describe and extend number sequences and recognise odd and even numbers
- Count up to 100 objects by grouping them and counting in tens, fives or twos; explain what each digit in a two-digit number represents, including numbers where 0 is a place holder; partition two-digit numbers in different ways, including into multiples of 10 and 1
- Order two-digit numbers and position them on a number line; use the greater than > and less than < signs
- Estimate a number of objects; round two-digit numbers to the nearest 10
- Add or subtract mentally a one-digit number or a multiple of 10 to or from any two-digit number; use practical and informal written methods to add and subtract two-digit numbers
- Add or subtract mentally combinations of one-digit and two-digit numbers
- Understand that subtraction is the inverse of addition and vice versa; use this to derive and record related addition and subtraction number sentences
- Use the symbols +, -, ×, ÷ and = to record and interpret number sentences involving all four operations; calculate the value of an unknown in a number sentence (e.g.  $\square \div 2 = 6$ ,  $30 - \square = 24$ )

**Block B Objectives**

- Describe patterns and relationships involving numbers or shapes, make predictions and test these with examples
- Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence
- Derive and recall all addition and subtraction facts for each number to at least 10, all pairs with totals to 20 and all pairs of multiples of 10 with totals up to 100
- Understand that halving is the inverse of doubling and derive and recall doubles of all numbers to 20, and the corresponding halves
- Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10
- Read and write two-digit and three-digit numbers in figures and words; describe and extend number sequences and recognise odd and even numbers
- Use knowledge of number facts and operations to estimate and check answers to calculations
- Visualise common 2-D shapes and 3-D solids; identify shapes from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties
- Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry

in shapes

### Block C Objectives

- Follow a line of enquiry; answer questions by choosing and using suitable equipment and selecting, organising and presenting information in lists, tables and simple diagrams
- Answer a question by collecting and recording data in lists and tables; represent the data as block graphs or pictograms to show results; use ICT to organise and present data
- Use lists, tables and diagrams to sort objects; explain choices using appropriate language, including 'not'
- Estimate, compare and measure lengths, weights and capacities, choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments
- Read the numbered divisions on a scale and interpret the divisions between them (e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered); use a ruler to draw and measure lines to the nearest centimetre

### Block D Objectives

- Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence
- Add or subtract mentally a one-digit number or a multiple of 10 to or from any two-digit number; use practical and informal written methods to add and subtract two-digit numbers
- Estimate, compare and measure lengths, weights and capacities, choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments
- Read the numbered divisions on a scale, and interpret the divisions between them (e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered); use a ruler to draw and measure lines to the nearest centimetre
- Use units of time (seconds, minutes, hours, days) and know the relationships between them; read the time to the quarter hour; identify time intervals, including those that cross the hour
- Recognise and use whole, half and quarter turns, both clockwise and anticlockwise; know that a right angle represents a quarter turn
- Follow and give instructions involving position, direction and movement

### Block E Objectives

- Identify and record the information or calculation needed to solve a puzzle or problem; carry out the steps or calculations and check the solution in the context of the problem
- Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence
- Present solutions to puzzles and problems in an organised way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences
- Represent repeated addition and arrays as multiplication, and sharing and repeated subtraction (grouping) as division; use practical and informal written methods and related vocabulary to support multiplication and division, including calculations with remainders
- Use the symbols +, −, ×, ÷ and = to record and interpret number sentences involving all four operations; calculate the value of an unknown in a number sentence (e.g.  $\square \div 2 = 6$ ,  $30 - \square = 24$ )
- Understand that halving is the inverse of doubling and derive and recall doubles of all numbers to 20, and the corresponding halves
- Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10
- Find one half, one quarter and three quarters of shapes and sets of objects