Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Number Strand

Code	Objectives
Multi-digit Numbers	
	Students can:
KS2-N1-1	Demonstrate recognition of multi-digit numbers, involving reading, writing and ordering numbers up to 9 digits.
Multiples and Factors	
	Students can:
KS2-N2-1	Demonstrate recognition of multiples and factors; and demonstrate recognition of prime numbers and composite numbers.
KS2-N2-2	Find all the factors of a number.
KS2-N2-3	Demonstrate recognition of common multiples and common factors.
KS2-N2-4	Use the listing method to find common multiples and common factors of two numbers.
KS2-N2-5	Use the listing method and short division to find the least common multiple and the highest common factor of two numbers.
Fractions	
	Students can:
KS2-N3-1	Perform the interconversion between an improper fraction and a mixed number.
KS2-N3-2	Demonstrate recognition of equivalent fractions through expanding fractions and reducing fractions.
KS2-N3-3	Compare the magnitude of fractions, involving comparing fractions and whole numbers (three numbers at most, one whole number at most and denominators of fractions with different denominators should not exceed 12).
Decimals	
	Students can:
KS2-N4-1	Record numbers with decimals.
KS2-N4-2	Demonstrate recognition of the tenth, hundredth, thousandth and ten thousandth places in decimals.
KS2-N4-3	Perform the interconversion between a decimal and a fraction.
KS2-N4-4	Compare the magnitude of decimals, involving comparing decimals and whole numbers (three numbers at most and one whole number at most).

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Code	Objectives
	Four Arithmetic Operations
	Students can:
KS2-N5-1	Perform the four arithmetic operations of whole numbers, including: (a) multiplication and division of three numbers at most, and use the commutative and associative properties of multiplication, multiplication up to 3-digit numbers by 2-digit numbers, division up to 3-digit numbers by 2-digit numbers; and (b) mixed operations of four numbers at most, involving using brackets and the distributive property of multiplication.
KS2-N5-2	Perform the four arithmetic operations of fractions (three numbers at most and one whole number at most), including (a) addition and subtraction, involving using brackets (denominators of fractions with different denominators should not exceed 12); (b) multiplication and division (operations of three fractions should involve one mixed number at most); and (c) mixed operations, involving using brackets (mixed operations of multiplication and division of three fractions should involve one mixed number at most).
KS2-N5-3	Perform the four arithmetic operations of decimals (decimals of two decimal places at most), including: (a) addition and subtraction of three numbers at most, involving using brackets; (b) multiplication and division of two numbers (decimals involved are confined to those of 1 decimal place); and (c) mixed operations of three numbers, involving using brackets (decimals involved in multiplication and division are confined to those of 1 decimal place). (One whole number at most for the above)
KS2-N5-4	Solve problems involving the four arithmetic operations of whole numbers.
KS2-N5-5	Solve problems involving the four arithmetic operations of fractions (not involving problems of division of fractions on finding the original numbers).
KS2-N5-6	Solve problems involving the four arithmetic operations of decimals, including problems on money.
KS2-N5-7	Estimate the result of calculations.

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Code	Objectives
	Percentages
	Students can:
KS2-N6-1	Demonstrate recognition of percentages.
KS2-N6-2	Perform the interconversion between a percentage and a fraction.
KS2-N6-3	Perform the interconversion between a percentage and a decimal.
KS2-N6-4	Solve simple problems on percentages, including: (a) finding percentages; and (b) finding the value of a percentage of a quantity.

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Measures Strand

Code	Objectives
	Time
	Students can:
KS2-M1-1	Record the duration of time for different activities and perform the interconversion between units of time.
	Perimeter
	Students can:
KS2-M2-1	Measure and compare the perimeters of 2-D shapes.
KS2-M2-2	Find the perimeters of squares and rectangles.
KS2-M2-3	Demonstrate recognition of the relationship between circumference and diameter.
KS2-M2-4	Apply the formula of circumference (Take π as 3.14 or $\dfrac{22}{7}$).
	Area
	Students can:
KS2-M3-1	Compare the areas of 2-D shapes directly or using improvised units.
KS2-M3-2	Measure and compare the areas of 2-D shapes using "square centimetre" (cm^2) or "square metre" (m^2).
KS2-M3-3	Find the areas of squares, rectangles, parallelograms, trapeziums, triangles, polygons and circles.
	Volume
	Students can:
KS2-M4-1	Measure and compare the volumes of solids using "cubic centimetre" (cm^3) or "cubic metre" (m^3).
KS2-M4-2	Find the volumes of cubes and cuboids.
KS2-M4-3	Demonstrate recognition of the relationship between capacity and volume, involving the relationship between "cubic centimetre" (cm^3) and "litre" (L) / "millilitre" (mL).
KS2-M4-4	Find the volumes of irregular solids by displacement of water.
	Speed
	Students can:
KS2-M5-1	Record speeds using "metres per second" (m/s) or "kilometres per hour" (km/h).
KS2-M5-2	Solve simple problems of speed.

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Code	Objectives
	Angle
	Students can:
KS2-M6-1	Measure and compare the sizes of angles in "degree" (°).

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Shape and Space Strand

Code	Objectives
	3-D Shapes
	Students can:
KS2-S1-1	Demonstrate recognition of the properties of cones, pyramids, cylinders, prisms and spheres, involving vertices, edges and faces of 3-D shapes (not involving cross sections and nets).
	2-D Shapes
	Students can:
KS2-S2-1	Demonstrate recognition of the properties of 2-D shapes, including triangles, quadrilaterals, pentagons, hexagons, squares, rectangles, rhombuses, parallelograms, trapeziums and circles (not involving the inclusion relations between different types of triangles and the inclusion relations between different types of quadrilaterals).
	Directions and Positions
	Students can:
KS2-S3-1	Demonstrate recognition of the eight compass points.
	Symmetry
	Students can:
KS2-S4-1	Identify symmetric 2-D shapes; and find 1 or 2 axes of symmetry of the symmetric 2-D shapes.

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Data Handling Strand

Code	Objectives
	Bar Charts
	Students can:
KS2-D1-1	Interpret bar charts with a one-to-ten, one-to-fifty or one-to-hundred representation.
KS2-D1-2	Construct bar charts using a one-to-ten, one-to-fifty or one-to-hundred representation.
	Broken Line Graphs
	Students can:
KS2-D2-1	Interpret broken line graphs (data involved should not exceed 5 digits).
KS2-D2-2	Construct broken line graphs (data involved should not exceed 5 digits).
	Pie Charts
	Students can:
KS2-D3-1	Interpret pie charts involving simple calculations.
	Averages
	Students can:
KS2-D4-1	Find the average of a group of data.
KS2-D4-2	Solve simple problems of averages.

Basic Competency Descriptors for
Key Stage 2 Mathematics Curriculum

Algebra Strand

Code	Objectives
	Elementary Algebra
	Students can:
KS2-A1-1	Use algebraic expressions to represent the operations of and relations between quantities that are described in words and involve unknown quantities.
	Simple Equations
	Students can:
KS2-A2-1	Demonstrate recognition of equations.
KS2-A2-2	Solve simple equations (not involving collecting like terms).
KS2-A2-3	Solve problems by using simple equations.