Curriculum Knowledge & Skills Progression

Mathematics

James Perry September 2021

For Reception, this Progression document is based on the Early Learning Goals in the EYFS Statutory Framework.

For Years 1 to 6, it is based on the NCETM Curriculum Prioritisation guidance for 2021-22 for Years 1 to 6.

Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Verbally count beyond 20, recognising the pattern of the counting system.	Previous Reception experiences and counting within 100	Numbers 10 to 100	Adding and subtracting across 10	Review of column addition and subtraction	Decimal fractions	Calculating using knowledge of structures (1)
Subitise (recognising quantities without counting) up to 5.	Comparison of quantities and part–whole relationships	Calculations within 20	Numbers to 1,000	Numbers to 10,000	Money	Multiples of 1,000
Link the number symbol (numeral) with its cardinal number value.	Numbers 0 to 5	Fluently add and subtract within 10	Right angles	Perimeter	Negative numbers	Numbers up to 10,000,000
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	Recognise, compose, decompose and manipulate 2D and 3D shapes	Addition and subtraction of two-digit numbers (1)	Manipulating the additive relationship and securing mental calculation	3, 6, 9 times tables	Short multiplication and short division	Draw, compose and decompose shapes
Have a deep understanding of numbers to 10, including the composition of each number.	Numbers 0 to 10	Introduction to multiplication	Column addition	7 times table and patterns	Area and scaling	Multiplication and division
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	Additive structures	Introduction to division structures	2, 4, 8 times tables	Understanding and manipulating multiplicative relationships	Calculating with decimal fractions	Area, perimeter, position and direction

Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.	Addition and subtraction facts within 10	Shape	Column subtraction	Coordinates	Factors, multiples and primes	Fractions and percentages
	Numbers 0 to 20	Addition and subtraction of two-digit numbers (2)	Unit fractions	Review of fractions	Fractions	Statistics
	Unitising and coin recognition	Money	Non-unit fractions	Fractions greater than 1	Converting units	KS2 tests
	Position and direction	Fractions	Parallel and perpendicular sides in polygons	Symmetry in 2D shapes	Angles and transformations	Ratio and proportion
	Time	Time	Time	Time		Calculating using knowledge of structures (2)
		Position and direction		Division with remainders		Solving problems with two unknowns
		Multiplication and division – doubling, halving, quotitive and partitive division				Order of operations
		Sense of measure – capacity, volume, mass				Mean average

For further details on the Progression of Mathematics involving specific knowledge, skills and concept, we follow the NCTEM Progression Maps
https://www.ncetm.org.uk/classroom-resources/progression-maps-for-key-stages-1-and-2/

Each of the below categories has been divided into sub categories to illustrate progression in key areas.

All programmes of study statements are included and some appear twice. This is indicated in the text. This occurs where:

- The statement has central relevance to more than one sub category within a topic;
- The statement has central relevance to more than one mathematics topic. This is done to reflect the aims of the curriculum that *pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems* (Mathematics programmes of study: key stages 1 and 2 page 3). However, the connections made are not intended to be exhaustive and teachers should seek to support pupils in making other connections.

Progression Maps

Number and Place Value	**Ratio and Proportion**	**Statistics**
Addition and Subtraction	**Measurement**	**Algebra**
Multiplication and Division	**Geometry - properties of shapes**	
Fractions (including decimals and percentages)	**Geometry - position and direction**	