

SPRING TERM MATHEMATICS OVERVIEW – YEAR 5

Daily Mathematics Lesson – 1 hour (one/two lessons each week to be a discrete arithmetic lesson)

1 x 30 minute discrete times tables lesson – Y5 target - 99 challenge/Platinum (TTRS/use of tackling times table cards for early morning work)

BLOCKS	NATIONAL CURRICULUM OBJECTIVES KEY OBJECTIVES	SMALL STEPS	READY TO PROGRESS CRITERIA	Linked Step
Multiplication & Division 3 weeks	❖ multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers ❖ multiply and divide numbers mentally drawing upon known facts ❖ 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 ❖ multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 ❖ solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates ❖ solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	• Multiply up to a 4-digit by a 1-digit • Multiply a 2-digit by a 2-digit (area model) • Multiply a 2-digit by a 2-digit • Multiply a 3-digit by a 2-digit • Multiply a 4-digit by a 2-digit • Solve problems with multiplication • Short division • Divide a 4-digit by a 1-digit • Divide with remainders • Efficient division • Solve problems with multiplication and division	5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5MD-3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. 5MD-4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	• All 11 steps in this block relate to this criterion • Multiply up to a 4-digit by a 1-digit number • Multiply a 2-digit by a 2-digit (area model) • Multiply a 2-digit by a 2-digit number • Multiply a 3-digit by a 2-digit number • Multiply a 4-digit by a 2-digit number • Short division • Divide a 4-digit number by a 1-digit number • Divide with remainders

End of block assessment

Fractions 2 weeks	❖ add and subtract fractions with the same denominator and denominators that are multiples of the same number ❖ multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	• Multiply a unit fraction by an integer • Multiply a non-unit fraction by integer • Multiply a mixed number by an integer • Calculate a fraction of a quantity • Fraction of an amount • Find the whole • Use fractions as operators	5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5F-1 Find non-unit fractions of quantities.	• All 7 steps in this block relate to this criterion • Calculate a fraction of a quantity • Fraction of an amount	End of block
Decimals & Percentages 3 weeks	❖ read and write decimal numbers as fractions [for example, $0.71 = 71/100$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents ❖ round decimals with two decimal places to the nearest whole number and to one decimal place ❖ read, write, order and compare numbers with up to three decimal places ❖ recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal ❖ solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ & those fractions with a denominator of a multiple of 10 or 25	• Decimals up to 2 decimal places • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths) • Equivalent fractions and decimals • Thousandths as fractions • Thousandths as decimals • Thousandths on a place value chart • Order and compare decimals (same number of decimal places) • Order and compare any decimals with up to 3 decimal places • Round to the nearest whole number • Round to 1 decimal place • Understand percentages • Percentages as fractions • Percentages as decimals • Equivalent fractions, decimals and percentages	5NPV-1 Know that 10 tenths are equivalent to 1 one, 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and 0.1 is 10 times the size of 0.01 5NPV-2 Recognise place value of each digit in numbers with up to 2 decimal places, compose/decompose numbers with up to 2 decimal places using standard and non-standard partitioning. 5NPV-3 Reason about the location of any number up to 2 decimals places in the linear number system, including previous & next multiple of 1 and 0.1 & rounding to nearest of each. 5NPV-4 Divide 1 into 2, 4, 5 and 10 equal parts, read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. 5F-3 Recall equivalents for $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{5}$ & $\frac{1}{10}$ and for multiples of these proper fractions.	• Decimals up to 2 decimal places • Decimals up to 2 decimal places • Order and compare decimals (same number of decimal places) • Order and compare any decimals with up to 3 decimal places • Round to the nearest whole number • Round to 1 decimal place • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths) • Equivalent fractions, decimals and percentages • Equivalent fractions and decimals	End of block assessment

Perimeter and Area 2 weeks	❖ convert between different units of metric measure ❖ understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints ❖ use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling ❖ measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ❖ calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes ❖ estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]	• Perimeter of rectangles • Perimeter of rectilinear shapes • Perimeter of polygons • Area of rectangles • Area of compound shapes • Estimate area	5G-2 Compare areas and calculate the area of rectangles (including squares) using standard units.	• Area of rectangles • Area of compound shapes	End of block assessment
Statistics 2 weeks	❖ complete, read and interpret information in tables, including timetables ❖ solve comparison, sum and difference problems using information presented in a line graph	• Draw line graphs • Read and interpret line graphs • Read and interpret tables • Two-way tables • Read and interpret timetables			End of block assessment