Moor First School – Progression in Maths

Orange Emerging	Orange Expected	Orange Greater Depth
Number, Place Value and rounding		
To count in multiples of 25 and 1000. To count backwards through 0 to include negative numbers. I am beginning to recognise the place value of each digit in a 4 digit number. I am beginning to read roman numerals to 100 (I to C). I can count in multiples of 6. Find 1000 more or 1000 less than a given number. I am beginning to solve problems demonstrating a sound understanding of the above skills and with increasingly large positive numbers.	I can count in multiples of 7 and 9. I understand the place value of each digit in a 4 digit number. Compare and order numbers beyond 1000. I can round any number to the nearest 10, 100 or 1000. I can confidently read roman numerals to 100. I can independently solve problems demonstrating a sound understanding of the above skills and with increasingly large numbers.	Apply counting to decimals and multiples of 10 (e.g. 0.6, 70, and 900). Find multiples of 1000 and 10,000 more or less than a given number, including in the context of problems. Count forwards and backwards from numbers below zero, including in the context of problems. Recognise the place value of each digit in a five-digit number (ten thousands, thousands, hundreds, tens, and ones), including in the context of problems. Order and compare numbers up to 10,000, including in the context of problems. Round any number to the nearest 10, 100, 1000 and 10,000, including rounding to solve division problems and also using rounding to approximate. Solve number and practical problems that involve all of the above and with increasingly large positive numbers, that use an increasing number of steps and greater complexity Read and write Roman numerals to 100 (I to C).

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Addition and Subtraction		
I can mentally add and subtract a 1 digit number to a 4 digit number. I can add and subtract 4 digit numbers using the column method for addition and subtraction. I am beginning to apply my knowledge of the above skills to solve two-step addition and subtraction problems.	I can estimate and use the inverse operations to check answers to my calculations. I can mentally add and subtract a multiple of 100 to a 4 digit number. I can apply my knowledge of the above skills independently to solve two-step problems, including deciding which operations and methods to use and why	Add and subtract numbers beyond 4-digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate whether the answer is sensible and explain reasoning. Explain whether the last digit in an answer is mathematically correct. Solve addition and subtraction two-step problems efficiently in contexts, deciding which operations and methods to use and explaining choice of method.
Multiplication and Division		
To recall and use the multiplication and division facts for the 6 times table. (E.g. 6x7=42 and 42÷7=6). To recall and use the multiplication and division facts for the 7 and 9 times table. (E.g. 3x7=21 and 21÷7=3). I am beginning to use the grid method to multiply a 2 digit number by a 1 digit number. I am beginning to use the bus shelter method to divide a 2 digit number by a 1 digit number. Recognise and begin to use commutativity in mental calculations. (E.g. to understand	To recall and use the multiplication and division facts for all the times table. (Up to 12x12). I can use my times tables to multiply and divide mentally including multiplying 3 numbers together. I can use the grid method to multiply a 3 digit number by all numbers up to 12. I can use the bus shelter method to divide a 3 digit number by a 1 digit number. I can identify and use factor pairs.	Recall multiplication and division facts for multiplication tables up to 12 × 12 with speed. Use place value, known and derived facts to multiply and divide mentally with numbers greater than 12x12, including multiplying together three or more numbers. Find all factor pairs of a number and find multiples. Multiply two-digit digit by two-digit number using formal written layout.

that you can swap numbers around and still get the same answer when adding and multiplying). I can use my times tables to multiply and divide mentally including by 0 and 1. I am beginning to identify factor pairs. Solve problems involving multiplication and division.	Solve harder problems involving multiplication, division, missing numbers and scaling.	Solve problems involving multiplying and adding, including using the associative and distributive laws to multiply two digit numbers by two digit number. Solve increasingly complex integer scaling problems and harder correspondence problems.
Fractions, decimals and percentages		
I am beginning to recognise families of common equivalent fractions. I can recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. Understand when we divide a 1-digit number by 10 all numbers move 1 place to the right and identify the value of each digit in the answer as units, tenths or hundredths. I am beginning to recognise and write decimal equivalents on any number of tenths or hundredths. I recognise that we get hundredths when we divide an object by a hundred. I can count up in hundredths. I am beginning to add and subtract fractions with the same denominator (e.g.	I can recognise and show, using diagrams, families of common equivalent fractions. I can recognise and write decimal equivalents on any number of tenths or hundredths. Understand dividing a 2-digit number by 10 and 100. I can add and subtract fractions with the same denominator (e.g. 5/7 + 4/7=1 whole and 2/7) I can count down in hundredths. I can compare decimal numbers up to 2 decimal places. I can round decimals with 1 decimal place to the nearest whole number. I am beginning to read, write and order	Recognise and show, using diagrams, families of common equivalent fractions and simplify where necessary. Count up and down quickly and confidently in tenths and hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Recognise and use thousandths Round decimals with two decimal places to the nearest whole number Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number or a fraction. Solve increasingly complex problems add and subtract fractions with the same denominator beyond one whole Recognise and use thousandths and relate them to tenths and hundredths Read and write decimal numbers up to one

5/7 + 4/7=1 whole and 2/7) I am beginning to solve simple money and measure problems involving fractions.	decimal numbers up to 2 decimal places. I can solve simple money and measure problems involving fractions and decimals to 2 decimal places. I can solve problems involving increasingly harder fractions to calculate and divide quantities where the answer is a whole number.	decimal place as fractions e.g. 0.4 = 4/10 Compare and order numbers with the same number of decimal places up to two decimal places and beyond 100. Solve simple problems involving number up to two decimal places. Use decimal equivalences of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$

Measurement		
I am beginning to convert between different units of measure (e.g. km to m; hr to min). I can measure and calculate the perimeter of rectilinear shapes in cm and m. I can find the area of shapes by counting squares. I can read and write times on an analogue and digital clock.	I can convert between different units of measure (e.g. km to m; hr to min). I can estimate, compare and calculate different measures including money in pounds and pence. I can solve problems involving converting between hours to minutes; minutes to seconds; years to months; weeks to days.	Be fluent in converting between different units of measure without prompts Measure and calculate the perimeter of rectilinear shapes with accuracy Begin to explore the perimeter of rectilinear shapes in centimetres and metres Estimate, with increasingly accuracy, different measures, including money in pounds and pence; calculate different measures, including money in pounds and pence confidently Be fluent in reading, writing and converting between analogue and digital clocks and begin to apply these skills to different situations Solve increasingly complex problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days without prompts

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Geometry: Properties of Shapes		
I can identify lines of symmetry in 2D shapes presented in different orientations. I can identify acute and obtuse angles. I can complete a simple symmetrical shape on a given line of symmetry. I can compare and order angles up to 2 right angles by size.	I can compare and classify geometric shapes including quadrilaterals and triangles, based on their properties and sizes.	Explain and justify the classification of geometric shapes using correct mathematical vocabulary. Confidently identify acute and obtuse angles using correct mathematical vocabulary. Identify all lines of symmetry in increasingly complex 2-D shapes Complete increasingly complex symmetric figure with respect to a specific line of symmetry.
Geometry: Position, Direction, Motion		
I can describe positions on a 2D grid as coordinates in the first quadrant. I can describe movements between positions as translations of a given unit (e.g. to the left/right and up/down).	I can plot given points and draw sides to complete a given polygon.	Describe positions on a 2-D grid as coordinates in the first quadrant with accuracy; describe movements between positions using correct mathematical vocabulary Plot specified points accurately, using correct notation; draw axes with accuracy
Statistics		
Interpret and present data using appropriate methods, including bar charts and time graphs.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables, line graphs and other graphs.	Accurately interpret and present discrete and continuous data using appropriate graphical methods, being able to explain and justify an answer. Solve increasingly complex comparison, sum and difference problems using information presented in a variety of ways

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