Moor First School – Progression in Maths

Yellow Emerging	Yellow Expected	Yellow Greater Depth
Number, Place Value and rounding		
To count in steps of 50 and 100. Find 10 more than a given number. Recognise and name numbers to at least 1000. Compare numbers to 1000. I understand hundreds, tens and units. I am beginning to solve number problems and practical problems involving the above skills. I can count in multiples of 4. Find 10 less than a given number. I am beginning to recognise the place value of each digit in a 3 digit number.	I can count in multiples of 8. Find 100 more or less than a given number. Read and write (Inc. Spelling correctly) numbers to at least 1000 in numerals and words. I can compare and order numbers to 1000. I can recognise the place value of each digit in a 3 digit number. I can solve problems demonstrating a sound understanding of the above skills.	Count from 0 in multiples of 6, 25 and 1000 Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, ones) Compare and order numbers beyond 1000 Identify, represent and estimate numbers beyond 1000 using different representations Read and write numbers beyond up to 10,000 in numerals and in words Solve number problems and practical problems involving the ideas above

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Addition and Subtraction		
I can mentally add and subtract a 1 digit number to a 3 digit number. I can mentally add and subtract a multiple of ten to a 3 digit number. I can add and subtract 2 digit numbers using the column method. I am beginning to add and subtract 3 digit numbers using the column method (not stealing the tens). I am beginning to make sensible estimates for my calculations. I am beginning to apply my knowledge of the above skills to solve problems.	I can mentally add and subtract a multiple of 100 to a 3 digit number. I can add and subtract 3 digit numbers using the column method. I can use the inverse operations to check answers to calculations. (e.g. 734 – 252 =482 because 482+252= 734). I can apply my knowledge of the above skills to solve more complex problems, including finding missing numbers.	I can continue to practise both mental methods for addition and subtraction with increasingly large numbers. I can continue to practise both mental methods for addition and subtraction with increasingly large numbers. Use inverse operations to check answers to a calculation with numbers up to 4 digits. Begin to solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

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Multiplication and Division		
To recall and use the multiplication and division facts for the 3 times table. (E.g. 4x3=12 and 12÷3=4). To recall and use the multiplication and division facts for the 4 times table. (E.g. 6x4=24 and 24÷6=4). I am beginning to use the grid method to multiply a 2 digit number by 2, 3, 5 or 10. I can use a number line to divide a 2 digit number by 2, 3, 5 or 10. I am beginning to use the bus shelter method to divide a 2 digit number by 2, 3, 4, 5 or 10. Solve problems involving multiplication and division.	To recall and use the multiplication and division facts for the 8 times table. (E.g. 4x8=32 and 32÷8=4). I confidently use the grid method to multiply a 2 digit number by 2, 3, 4, 5, 8 or 10. I can use the bus shelter method to divide a 2 digit number by 2, 3, 4, 5, 8 or 10. Solve problems involving multiplication, division, missing numbers and scaling.	Recall and use multiplication and division facts for the 3, 4, 6 and 8, 9 and 11 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and formal written methods. Confidently solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
Fractions, decimals and percentages		
Understand when dividing into ten equal parts the answer will be in tenths. (E.g. 60÷10=6 so 1/10 of 60 is 6.) I can order and compare fractions with the same denominators. I can count up in tenths to find fractions of numbers. (E.g. What is 3/10 of 60? 60÷10=6. Then 3x6=18 so 3/10 of 60 is 18. Remember divide by the bottom number, times by the top.)	I can count down in tenths to find fractions of numbers. I can recognise, find and write fractions of numbers and shapes. I understand and can show equivalent fractions with small denominators. (E.g. 2/3 is equal to 4/6.) I can solve problems involving fractions.	Count up in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten and use these in a growing variety of problems. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with larger denominators and use these in a growing variety of problems. Recognise and use fractions as numbers: unit fractions and non-unit fractions with larger denominators and use these in a growing variety of problems. Recognise and show, using diagrams, families of

I am beginning to recognise, find and write fractions of numbers and shapes. I can add and subtract fractions with the same denominator within one whole. (e.g. 5/7+1/7=6/7)		equivalent fractions and use these in a growing variety of problems. Add fractions with the same denominator beyond one whole and use these in a growing variety of problems. Begin to recognise there is equivalence between fractions and decimals. Solve problems that involve all of the above.

Measurement		
I can accurately measure length, (m, cm, mm), mass (kg, g) and volume/capacity (l, ml). I can compare and add measurements of length, mass and volume. I am beginning to measure the perimeter of 2D shapes. I can add amounts of money. I can subtract amounts of money. Know the number of seconds in a minute and the number of days in each month, year and leap year. I am beginning to tell the time to the minute on an analogue clock. (e.g. "It's seventeen minutes past three."). Compare durations of events, for example to calculate time taken by particular events or tasks.	I can subtract measurements of length, mass and volume. I can measure the perimeter of 2D shapes. I can add and subtract amounts of money to give change using £ and p in practical contexts. I am beginning to tell the time on a 12 hour digital clock. Estimate and read time with increasingly accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours. To tell and write the time on an analogue clock, including using roman numerals from I to XII. I am beginning to tell and write the time on a digital clock.	I can measure and compare, selecting the appropriate tools and units; add and subtract using mixed units and equivalence of units e.g. 75cm and $\frac{1}{2}$ m. I can measure and calculate the perimeter of simple 2-D shapes accurately. I can add and subtract amounts of money including mixed units and give change in manageable amounts. I can confidently apply knowledge of time, including using Roman numerals, 12-hour and 24-hour, to a wide range of practical contexts; convert between 12-hour and 24-hour clocks. Estimate and read time with accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and days; Confidently use vocabulary such as a.m. / p.m., morning, afternoon, noon and midnight. Know and apply knowledge of the number of seconds in a minute and the number of days in each month, year and leap year to a wide range of applications. Confidently compare durations of events given in a range of formats.

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Geometry: Properties of Shapes		
I can draw 2D shapes. I recognise that angles are a property of shape or a description of a turn. I can make 3D shapes using modelling materials. I can identify right angles and recognise that two right angles make a half-turn, 3 make three quarters and 4 a complete turn. I can identify horizontal and vertical lines.	I can recognise 3D shapes in different orientations and describe them. I am able to identify if angles are greater than or less than a right angles. I can identify pairs of perpendicular and parallel lines.	Describe, with appropriate vocabulary, the properties of 2- D and 3-D shapes, when presented in a range of formats, using my knowledge of lengths and angles. Recognise that angles are a property of shape or a description of a turn and can be measured in degrees or as a fraction both clockwise and anticlockwise. Demonstrate secure understanding that two right angles = 180° = $\frac{1}{2}$ turn and three right angles = 270° = $\frac{3}{4}$ turn. Classify angles according to their size. Apply knowledge of horizontal, vertical, parallel and perpendicular lines to shape using correct mathematical vocabulary.
Statistics		
Interpret data from bar charts, pictograms and tables. I can solve one-step questions using information presented in scaled bar charts, pictograms and tables. I am beginning to solve two-step questions using information presented in scaled bar charts, pictograms and tables.	I can present data using bar charts, pictograms and tables. I can solve two-step questions using information presented in scaled bar charts, pictograms and tables.	Interpret and compare data presented in different formats, deriving simple conclusions. Solve increasingly complex multi-step questions deriving information from a range of charts and justify my solutions.