



Renfrewshire
Council

Numeracy & Mathematics
Skills Progression Through First Level

Estimation and Rounding		
MNU 1-01a		
I can share ideas with others to develop ways of estimating the answer to a calculation or problem, work out the actual answer, then check my solution by comparing it with the estimate.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can use concrete materials, a ten frame or a number line to describe whether a number is closer to 0 or 10 • I can estimate and describe a collection of objects and check by counting using language such as nearly/more/less than, e.g., I think there are nearly 20 cars/there are more than 10 blocks/fewer than 20 leaves, etc. • I can estimate a collection by grouping into 5s or 10s • I can order decade numbers 	<ul style="list-style-type: none"> • I can estimate where a 2-digit number would be on a blank number line (with the decade numbers marked) e.g., 26 would come between 20 and 30 • I can round whole numbers to the nearest 10 within 100 • I can round 3-digit numbers to the nearest 100 within 1 000 • I can use rounding to 10 to estimate if an answer is correct, e.g., $19 + 12$ rounded to 20 and 10 so the answer should be close to 30 	<ul style="list-style-type: none"> • I can round any whole number to the nearest 10 or 100 within 1 000 • I can use rounding to estimate the answer to a calculation • I can check how reasonable an answer is using rounding • I have explored why estimating and rounding is an important skill in real life

Number & Number Processes

MNU 1-02a

I have investigated how whole numbers are constructed, can understand the importance of zero within the system and can use my knowledge to explain the link between a digit, its place and its value.

Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none">• I can subitise numbers in tens frames• I can continue a forward number word sequence (FNWS) for numbers in the range 100 to 0• I can continue a backward number word sequence (BNWS) for numbers in the range 0 to 100• I can count the number of jumps forwards/backwards from a to b (e.g., from 18 to 21/ from 44 to 41)• I can count forwards and backwards using the sequence of decade numbers• I can recognise and identify numerals in the range 0 to 100• I can sequence and order numerals in the range 0 to 100• I can sequence on and off the decade using numeral cards• I can state the number 1 more than, 1 less than, 10 more than, 10 less than a given number within a 100• I understand the importance of zero as a place holder• I can recognise and build numbers up to 100 partitioned canonically using different resources e.g., bundling sticks, tens frames, Rekenrek, base 10	<ul style="list-style-type: none">• I understand the importance of zero as a place holder• I can continue forward and backward number word sequence (FNWS) (BNWS) in the range 0 to 1 000• I can continue a FNWS in 2s, 10s, 100s, 5s, 3s• I can continue a BNWS in 2s, 10s, 5s• I can recognise and identify numerals in the range 0 to 1 000• I can talk about the digits which make up a number and can work out what each digit represents• I can recognise and build numbers up to 1 000 partitioned canonically using different resources e.g., base 10, arrow cards, hundred dot cards and place value counters• I can use conceptual place value to increment and decrement on and off the decade by tens• I can use conceptual place value to increment and decrement by tens and ones• I can count forwards and backwards by 10s off the decade to 100• I can count by 100s to 1 000• I can count by 10s beyond 100• I can sequence multiples of 2, 3, 4, 5 and 10 (to the 10th multiple)	<ul style="list-style-type: none">• I understand the importance of zero as a place holder• I can continue a FNWS in 2s, 10s, 100s, 5s, 3s and 4s• I can continue a BNWS in 2s, 10s, 5s• I can talk about the digits which make up a number and can work out what each digit represents• I can sequence and order 3-digit numbers• I can recognise and build numbers up to 1 000 partitioned canonically using different resources e.g., base 10, arrow cards, hundred dot cards and place value counters• I can count by hundreds on and off the century• I can count by 10s off the decade beyond 100• I can state 1, 10, 100 more than/less than within 1 000

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| <ul style="list-style-type: none">• I can continue a FNWS in 2s, 5s and 10s to the tenth multiple• I can continue a BNWS in 2s, and 10s to the tenth multiple | | |
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Number & Number Processes		
MNU 1-03a Addition & Subtraction		
I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I have explored adding and subtracting by using concrete materials and pictorial representations, e.g., ten frames, Rekenreks, number lines, 100 square, drawings, etc. • I can solve addition and subtraction word problems through real life contexts • I can use a counting on strategy to add items in two screened collections within 100, with the second collection being no more than 6 • I can use a counting back strategy to subtract items from a screened collection within 100, with no more than 6 items being removed • I can solve simple missing number problems • I can find the difference by comparing two numbers where the difference is not more than 6 • I can combine and partition numbers to 10 using five and ten frames • I can describe how I see numbers within 10 and record partitions of a number • I can add and subtract within 20, using 5 and 10 as anchor numbers (use Rekenrek to support) • I can recall doubles and halves to 20 • I can recall 5 plus facts e.g. $5 + 1 = 6$, $5 + 2 = 7$, $5 + 3 = 8$, $5 + 4 = 9$ • I can recall subtraction for 5 plus facts e.g. $7 - ? = 5$, $8 - ? = 5$, $9 - ? = 5$ 	<ul style="list-style-type: none"> • I have explored adding and subtracting by using concrete materials and pictorial representations, e.g., ten frames, base 10, Rekenreks, number lines, 100 square, drawings, etc. • I can make fact families (inverse relationships) for number bonds to 20 • I can add a string of numbers e.g., find three numbers to make 18 • In a string of numbers I can find pairs to make 10 e.g. $1 + 5 + 5 + 9$ ($5 + 5 = 10$, $1 + 9 = 10$) • I can use doubles and near doubles to add mentally to 20 e.g., $8 + 9$ • I can add and subtract 0, 1 and 10 to and from a number • I can add and subtract tens to and from a 2-digit number • I can add 2-digit numbers through partitioning using resources to support • I can add 2-digit numbers where both collections are screened • I can subtract 2-digit numbers using resources to support • I can subtract two 2-digit numbers using screened collections 	<ul style="list-style-type: none"> • I can add and subtract a 1-digit number from a 2 or 3-digit number within the decade • I can add and subtract a 1-digit number from a 2 or 3-digit number across the decade • I can find the missing addend in 2-digit numbers using resources to support me • I can find the missing addend in 2-digit numbers using screened collections • I can add and subtract 10s or 100s from a 3-digit number • I can use an empty number line to add or subtract • I can solve addition and subtractions problems within 1 000 using a range of appropriate strategies • I can add or subtract 8 or 9 by rounding and adjusting • I can use a bar model to solve addition and subtraction word problems • I can select the correct operations when solving 2 step word problems

<ul style="list-style-type: none">• I can recall number bonds that make 10/20• I can recall 10 plus facts e.g., $10 + 2 = 12$, $10 + 3 = 13$, $10 + 4 = 14$• I can add and subtract multiples of 10 to/from any multiple of 10 within 100 e.g., $20 + 30$, $30 + 40$, $60 - 40$, $80 - 50$• I can demonstrate an understanding of the commutative law e.g., $6 + 3 = 3 + 6$	<ul style="list-style-type: none">• I can add two 2-digit numbers with and without regrouping using an empty number line• I can subtract two 2-digit numbers with and without regrouping using an empty number line• I can add to a decade and subtract from a decade• I can add to a decade (1-9)• I can subtract from a decade (1-9)• I can deconstruct word problems and select the correct operation to solve them• I can use a part-part total bar model to represent addition and subtraction problems	
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Number & Number Processes		
MNU 1-03a Multiplication & Division		
I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can skip count in 2s, 5s and 10s forwards and backwards (using visual resources, e.g., dot cards, Rekenrek, 100 bead bar, 100 square, number line, objects) • I can combine, count and describe equal groups using visual resources • I can determine the number of equal groups • I can determine the number in an equal share • I understand and can describe multiplication as repeated addition • I can describe visible arrays • I can build visible arrays • I can determine the number of dots in a visible array • I can record a multiplication calculation using the correct symbol • I can represent multiplication facts in a variety of ways, e.g., draw a picture, concrete resources, arrays 	<ul style="list-style-type: none"> • I can skip count in 2s, 5s, 10s, 3s and 4s forwards and backwards (using visual resources, e.g., dot cards, Rekenrek, 100 bead bar, objects, 100 square, number line) • I can solve multiplication problems by skip counting and record my jumps on a number line • Through exploration, I am beginning to understand the commutative law of multiplication • I can use arrays and make links between the 2/4 times tables and 5/10 times tables • I can record arrays as multiplication sentences • I can multiply and divide numbers by 10, using my knowledge of place value • I can determine the number in partially screened equal groups • I can determine the number in screened equal groups • I can determine the number of groups and the number in each group • I can determine the number of dots altogether in a screened array • I can determine the number of rows and dots in each row when the array is partially screened 	<ul style="list-style-type: none"> • I can skip count to help me solve multiplication and division problems (using an empty number line to record) • I understand the commutative law of multiplication • I can use arrays and make links between the 2/4, 5/10 and 3/6 times tables • I can recall multiplication facts for 2/ 5 and 10 to the tenth multiple • I can record arrays as multiplication and division sentences • I can multiply and divide numbers by 10 and 100, using my knowledge of place value • I can use my knowledge of multiplying by 10 or 100 to solve problems involving 2/3 digits, e.g., $5 \times 4 = 20$, $5 \times 40 = 200$ • Using facts I know, I am beginning to multiply 2-digit numbers by a single digit through partitioning using an area model • I can use my knowledge of multiplication and division to solve word problems • I can solve multiplication problems using facts I already know • I record multiplication and division facts as a fact family (inverse relationship) • I understand that some division problems have remainders and can record this correctly

	<ul style="list-style-type: none">• I can divide collections by sharing equally, e.g., share 20 crayons between 5 children. How many each?• I can divide collections by grouping them into equal sets, e.g., 20 children, 5 in each group. How many groups?• I am beginning to understand the link between multiplication and division (inverse relationship)• I am beginning to use the division symbol when grouping and sharing• I can represent and solve simple division problems using a bar model• I can represent and solve word problems in a variety of ways	<ul style="list-style-type: none">• I am beginning to divide up to 2-digit numbers by a single digit using a bar model• I can represent and solve multiplication and division problems in a variety of ways
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Fractions, Decimal Fractions & Percentages

MNU 1-07a

Having explored fractions by taking part in practical activities, I can show my understanding of:
how a single item can be shared equally, the notation and vocabulary associated with fractions, where simple fractions lie on the number line.

MNU 1-07b

Through exploring how groups of items can be shared equally, I can find a fraction of an amount by applying my knowledge of division.

MTH 1-07c

Through taking part in practical activities including use of pictorial representations, I can demonstrate my understanding of simple fractions which are equivalent.

Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can investigate what a fraction is using concrete materials and pictorial representations e.g., using Cuisenaire rods, Numicon, objects, counters, ten frames • I recognise where fractions are used in everyday life e.g., when measuring in baking and construction • I can recognise the written fraction $\frac{1}{2}$ and $\frac{1}{4}$ • I can find half of a collection of objects by sharing in two equal groups • I can find a quarter of a collection of objects by sharing in four equal groups • I can split shapes or objects into halves and quarters • I can show where $\frac{1}{2}$ and $\frac{1}{4}$ would go on a number line 	<ul style="list-style-type: none"> • I can investigate what a fraction is using concrete materials and pictorial representations e.g. using Cuisenaire rods, Numicon, objects, counters, ten frames • I understand that a fraction can be part of a whole or an equal share of a collection • I can create fraction strips by folding into halves, thirds and quarters • I can create a fraction wall using my fraction strips to make comparisons e.g., $\frac{2}{4} = \frac{1}{2}$, $\frac{1}{3} > \frac{1}{4}$ • I can use the correct notation for unit and non-unit fractions up to quarters e.g., $\frac{2}{3}$, $\frac{3}{4}$ • I can find a half, quarter or third of a collection of objects by sharing concrete objects in equal groups • I can use a bar model to find a $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ of a quantity • I can show where $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ would go on a number line • I can count in halves e.g., 0, $\frac{1}{2}$, 1, $1\frac{1}{2}$ 	<ul style="list-style-type: none"> • I can use the correct notation for fractions to tenths e.g., $\frac{1}{2}$, $\frac{2}{3}$, $\frac{5}{8}$ • I can combine fractions of the same denominator to make a whole e.g., $\frac{4}{4} = 1$ or $\frac{1}{3} + \frac{2}{3} = 1$ • I understand that for unit fractions the greater the denominator the smaller the fraction • I can explain the role of the numerator and the denominator • I can use a fraction wall to compare and order fractions on a number line • I can use a fraction wall to demonstrate understanding of simple equivalent fractions • I understand that a fraction can be part of a whole or an equal share of a collection • I can represent a fraction in multiple ways e.g., on a number line or using a pictorial representation • I can find unit fractions of a quantity using multiplication and division facts alongside a bar model

		<ul style="list-style-type: none">• I can count forwards and backwards in halves and quarters from different starting points e.g., from $5\frac{1}{2}$
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Money		
MNU 1-09a I can use money to pay for items and can work out how much change I should receive.		
MNU 1-09b I have investigated how different combinations of coins and notes can be used to pay for goods or be given in change.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can talk about how and why money is used in everyday life and act out related scenarios • I can recognise, name and order coins to £2 • I know that 100p = £1 • I can use addition and subtraction skills to calculate the total value of two or more coins • I can use a variety of coin and note combinations, to pay for items to at least £1 • I can use the minimum number of coins to make given amount up to at least 20p • I can calculate change from 20p 	<ul style="list-style-type: none"> • I can recognise, name and order coins and notes to £20 • I can make and record amounts of money in pounds and pence e.g., £1 and 49p is the same as 149p • I can use a variety of coin and note combinations, to pay for items to at least £5 • I can use addition and subtraction skills to calculate the total value of two or more amounts within £1 • I can calculate change from up to £2 by counting on to find the difference and model this on an empty number-line, e.g. change from 50p coin after spending 38p: 38p + 2p to get to 40p and another 10p to get to 50p, change would be 12p. 	<ul style="list-style-type: none"> • I can Identify, order and use all coins and notes to £20 • I can use a variety of coin and note combinations, to pay for items to £10 • I can use addition skills to calculate the total spent in a shopping situation • can record amounts accurately in different ways using the correct notation, for example, 357p = £3.57 or 7p = £0.07 • I can calculate change from £10 using a counting on approach and record my thinking on an empty number line • I have an awareness of how goods can be paid for using cards and digital technology

Time		
<p>MNU 1-10a I can tell the time using 12 hour clocks, realising there is a link with 24 hour notation, explain how it impacts on my daily routine and ensure that I am organised and ready for events throughout my day.</p> <p>MNU 1-10b I can use a calendar to plan and be organised for key events for myself and my class throughout the year.</p> <p>MNU 1-10c I have begun to develop a sense of how long tasks take by measuring the time taken to complete a range of activities using a variety of timers.</p>		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can engage in discussion about why time is important in our lives • I can recognise analogue and digital clocks and talk about their differences • I can recognise, show and read the time on digital and analogue clocks – o'clock and half past • I can recognise, show and read the time on analogue clocks – quarter past and quarter to • I can relate fractions to time, e.g., halves in relation to the time half past • I can talk about different time devices that people use • I can write given times in 2 ways – using words and as a digital time, e.g., 12 o'clock/12.00 half past 1/1.30 • I can state that there are 60 minutes in one hour and 30 minutes in half an hour • I can engage in discussion about days, months and seasons and relate this to how they are shown on different calendars 	<ul style="list-style-type: none"> • I can recognise, show and read the time on digital and analogue clocks – o'clock and half past quarter past and quarter to • I can write given times in 2 ways – using words and as a digital time, e.g., 11 o'clock/11:00am half past 1/1:30pm • I can match and convert analogue time and a digital time, e.g., quarter past two = 2:15 • I know there are 60 minutes in an hour and can use this fact to work out the minutes in half an hour, quarter of an hour and three quarters of an hour (make links to fractions) • I can use the notation am and pm correctly • I can place important events of the year in the correct month in a calendar • I can explain how digital time is represented, i.e., which digits represent the hours and which represent the minutes • I can categorise days and months in a variety of ways – seasons, number of days, events • I can state that there are 24 hours in one day and know that there are 7 days in a week and 12 months in a year 	<ul style="list-style-type: none"> • I can tell the time on digital 12 hour and analogue clocks using half past, quarter past and quarter to • I can match an analogue time and digital time • I can recognise and show time on analogue and digital clocks using half past, quarter past and quarter to using analogue and digital 12 hour clock • I can identify 24 hour notation on a mobile phone or computer • I know the ordinal number for each month, e.g., January = 1st month, February = 2nd month etc. • I know how many days there are in each month and how many days are in a year, including leap years • I can calculate durations in days and weeks by using a calendar • I can estimate what I can do in lengths of time, checking my estimates using a variety of different devices and units of time • I can confidently estimate, measure and compare how long it will take to do certain tasks or actions using appropriate standard

<ul style="list-style-type: none"> • I can sequence and recall the order of days, months and seasons and link them to events throughout the year • I can write the date in different formats • I can state that there are 24 hours in one day and know that there are 7 days in a week and 12 months in a year • I can calculate simple durations and start and finish times (involving whole hours) • I can estimate what I can do in different given lengths of time, checking my estimate using a variety of different times and units of time 	<ul style="list-style-type: none"> • I understand how long a minute is and what can be done in this time • I can calculate simple durations and start and finish times (involving whole and half hours) 	<p>time measurements – seconds, minutes and hours</p> <ul style="list-style-type: none"> • I can use and interpret 12 hour timetables to work out simple durations and start and finish times, e.g., tv guides and simple transport timetables, school book fayre • I can calculate simple durations and start and finish times (involving whole hours, half hours and 15 minute intervals)
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Measurement		
<p>MNU 1-11a I can estimate how long or heavy an object is, or what amount it holds, using everyday things as a guide, then measure or weigh it using appropriate instruments and units.</p> <p>MNU 1-11b I can estimate the area of a shape by counting squares or other methods.</p>		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can talk about measurement using a range of vocabulary, e.g., smaller, taller, longer, shorter, lighter, heavier • I can compare and order lengths and heights of different objects by stating which is longer, shorter or taller • I can select and use different non-standard units such as, cubes, paper clips, pencils to estimate and measure length • I can compare and order the weight of different objects by holding them in my hands, stating which is heavier or lighter • I can compare and order the weight of different objects using a pan balance, stating which is heavier or lighter • I can select and use different non-standard units such as, cubes, beanbags, dominoes to estimate and measure the weight of objects • I can compare and order the capacity of different containers using words like more, less, larger, smaller • I can compare and order area using words like larger and smaller • I can select and use different non-standard units to estimate and measure area by covering or 	<p>Length</p> <ul style="list-style-type: none"> • I can make comparisons and talk about measurement using a variety of vocabulary, e.g., smaller, taller, longer, shorter, • I have explored the need for standard units • I know the appropriate units for short/long objects • I can state that 1 metre is 100 centimetres • I can estimate length with increasing accuracy using standard units e.g., less than a metre, about a metre and more than a metre • I can estimate and select appropriate measuring device to measure length accurately, e.g., ruler/measuring tape/metre stick • I can state length/height using centimetres, metres or both, e.g., 174cm is 1 metre and 74cm or 3m 54cm is 354cm • I can select and use appropriate measuring devices, e.g., ruler, metre stick, to draw lines that are exactly x cm or x metres <p>Weight</p> <ul style="list-style-type: none"> • I understand that I can measure the mass of lighter objects using grams and heavier objects using kilograms 	<p>Length</p> <ul style="list-style-type: none"> • I can estimate length with increasing accuracy using standard units e.g., less than a metre, about a metre and more than a metre • I know that $\frac{1}{4}$m =25cm and $\frac{1}{2}$m = 50cm • I can measure length and height more accurately by reading measurements using fractions, e.g., one and a half centimetres • I can convert between metres and centimetres and vice versa • I can measure and record length in millimetres • I know that 10mm is 1cm, 100cm and 1000mm in a metre • I can measure accurately to the nearest m/cm/mm • I can convert between cm and mm e.g., 5cm = 50mm and vice versa • I can make accurate use of a range of instruments, including rulers, measuring tapes and metre sticks when measuring lengths using the most appropriate instrument for the task

<p>filling with smaller objects, e.g., How many books fit on the desk?</p> <ul style="list-style-type: none"> • I can explain my results and record my findings in a simple table • I am beginning to understand the appropriate measuring devices that can be used, e.g., ruler, metre stick, measuring jugs, scales • I can explore and investigate a variety of practical problems by estimating and measuring using a range of everyday objects 	<ul style="list-style-type: none"> • I can state that 1 000 grams = 1 kilogram and that $\frac{1}{2}$ kilogram = 500g • I can use a pan balance and weights to measure the mass of an object • I can estimate, measure and record mass using standard units – grams and kilograms • I can state the mass using grams, kilograms or both • I can estimate and make comparisons, e.g., more than 1kg, about 1kg and less than 1kg • I can interpret practical problems and decide which unit of measure to use, e.g., cm, metres, grams, kilograms, litres, millimetres <p>Volume/Capacity</p> <ul style="list-style-type: none"> • I understand that I can measure smaller volumes of liquid using millilitres and larger volumes using litres • I can record measurements using standard units, l and ml • I can estimate and make comparisons, e.g., more than 1 litre, about 1 litre and less than 1 litre • I know there are 1 000 millilitres in a litre • I can use a measuring jug to measure volumes of liquid accurately <p>Area</p>	<p>Weight</p> <ul style="list-style-type: none"> • I can measure mass more accurately by reading measurements using fractions, e.g., $2\frac{1}{2}$ kg is halfway between 2kg and 3kg • I know that $\frac{1}{4}$ kg = 250 grams and $\frac{1}{2}$ kg = 500 grams and 1kg is 1 000 grams • I can make accurate use of a range of scales when measuring mass using the most appropriate instrument for the task • I can read a variety of scales accurately and record to the nearest gram/kilogram <p>Volume/Capacity</p> <ul style="list-style-type: none"> • I can measure volume more accurately by reading measurements using fractions, e.g., $2\frac{1}{2}$ l is halfway between 2l and 3l • I know that $\frac{1}{4}$ l = 250 ml and $\frac{1}{2}$ l = 500 ml and 1l is 1 000 ml • I can read a measuring jug accurately and record to the nearest ml/l • I can estimate and measure volume accurately using litres/millilitres and both together <p>Area</p> <ul style="list-style-type: none"> • I can select and compare using appropriate vocabulary to describe area, e.g., surface, greater, smaller • I can use squares and half squares to read and measure the area of different shapes
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	<ul style="list-style-type: none">• I can select and use appropriate vocabulary to compare and describe area, e.g., area, surface, greater, smaller• I can select and use different non-standard units to estimate and measure area by covering or filling with smaller objects, e.g., How many post it notes fit on the book?• I can use squares to read and measure the area of different shapes accurately, e.g., the area of the shape is 7 squares• I can create shapes with a specified area, e.g., draw shapes that have an area of 10 squares• I can create shapes that have the same area but a different appearance• I am beginning to understand that an array can help me to calculate the area of a rectangle or square, e.g., 3 rows of 4 squares makes 12 squares	<p>accurately, e.g., the area of the shape is 7 squares</p> <ul style="list-style-type: none">• I can create shapes with a specified area, e.g., draw a range of shapes that have an area of 19 squares• I understand shapes can have the same area but a different appearance and I can create my own• I can calculate the area of rectangles and squares using an array e.g., 3 rows of 4 squares makes 12 squares• I can use notation for area measured in cm correctly• I can use notation for area measured in $\frac{1}{2}$ cm correctly
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Mathematics – its impact on the world, past, present and future

MTH 1-12a

I have discussed the important part that numbers play in the world and explored a variety of systems that have been used by civilisations throughout history to record numbers

Pathway 1

- I can investigate and share understanding of the importance of numbers in learning, life and work.
- I can investigate and share understanding of a variety of number systems used throughout history

Pathway 2

- I can investigate and share understanding of the importance of numbers in learning, life and work.
- I can investigate and share understanding of a variety of number systems used throughout history

Pathway 3

- I can investigate and share understanding of the importance of numbers in learning, life and work.
- I can investigate and share understanding of a variety of number systems used throughout history

Patterns & Relationships		
MTH 1-13a I can continue and devise more involved repeating patterns or designs, using a variety of media.		
MTH 1-13b Through exploring number patterns, I can recognise and continue simple number sequences and can explain the rule I have applied.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can continue and create repeating patterns involving shapes, pictures and symbols • I can count forwards and backwards in 2s, 5s and 10s from any whole number up to 100 • I can state the next three numbers in a number sequence (1s, 2s) • I can find missing numbers in number sequences 	<ul style="list-style-type: none"> • I can continue and create repeating patterns involving shapes, pictures and symbols • I can count forwards and backwards in 2s, 5s and 10s from any whole number up to 100 • I can use a hundred square to see and describe patterns in number • I can state the next three numbers in a number sequence (5s, 10s) • I can find missing numbers in number sequences 	<ul style="list-style-type: none"> • I can count forwards and backwards in 2s, 5s and 10s from any whole number up to 100 • I can use a multiplication table and hundred square to see and describe patterns in number • I can use my knowledge of addition, subtraction, doubling and halving to describe, create and continue number patterns • I can explain the rule for simple counting patterns • I can apply the rule for a number sequence to extend the pattern

Expressions & Equations		
<p>MTH 1-15a I can compare, describe and show number relationships, using appropriate vocabulary and the symbols for equals, not equal to, less than and greater than.</p> <p>MTH 1-15b When a picture or symbol is used to replace a number in a number statement, I can find its value using my knowledge of number facts and explain my thinking to others.</p>		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I can compare numbers to decide which is bigger or smaller for numbers up to 100 • I can demonstrate that I know what equals means by completing a statement using the = symbol, e.g., $2 + 3 = 4 + 1$ • I understand and can accurately use the terms 'equal to', 'not equal to', 'less than', 'greater than' 	<ul style="list-style-type: none"> • I can compare numbers to decide which is bigger or smaller, beyond 100 • I can find the value of missing symbols, e.g., $\Delta + 4 = 8$ • I can demonstrate that I know what 'not equal to' means by completing a statement using the \neq symbol, e.g., $2 + 3 \neq 4 + 2$ 	<ul style="list-style-type: none"> • I can understand and accurately uses the terms 'equal to', 'not equal to', 'less than', 'greater than', and the related symbols ($=$, \neq, $<$, $>$) when comparing quantities • I can complete a statement by inserting $>$ or $<$ to make it true, e.g., $789 \dots 547$ • I can complete a statement by adding a number to make it true, e.g., $259 > \dots$ • I can apply my understanding of the equals sign as a balance, and knowledge of number facts, to solve simple algebraic problems where a picture or symbol is used to represent a number, e.g., $x + 17 = 30$ and $y \times 6 = 30$ • I have investigated inverse operations and know that doing the 'opposite' in some calculations, e.g., $3 \times _ = 21$ so $21 \div 3$ would find the missing number • I can use a function machine involving simple equations

Properties of 2D Shapes & 3D Objects		
MTH 1-16a I have explored simple 3D objects and 2D shapes and can identify, name and describe their features using appropriate vocabulary.		
MTH 1-16b I can explore and discuss how and why different shapes fit together and create a tiling pattern with them.		
Pathway 1	Pathway 2	Pathway 3
<ul style="list-style-type: none"> • I have explored and can name a range of 2D shapes/3D objects and can find examples in the real world • I can make a 3D object using a variety of modelling and construction materials • I can recognise and identify common 3D objects (cubes, cuboids, cylinders, cones, pyramids, and spheres) • I can sort 2D and 3D objects using my own and others' criteria • I can identify 2D shapes within 3D objects • I can use the terms faces, edges and vertices when describing a 3D shape/objects • I can make 2D shapes by cutting, printing, drawing, geo boards and using ICT • I can use the terms sides and vertices when discussing 2D shapes • I have explored what new shapes I can create by putting together two or more 2D shapes 	<ul style="list-style-type: none"> • I can recognise/identify a range of 2D shapes and 3D objects • I have explored what new shapes I can create by putting together two or more 2D shapes • I can name 3D objects and 2D shapes and sort them according to their properties • I can recognise and identify common 3D objects (cubes, cuboids, cylinders, cones, pyramids, and spheres) • I can describe 2D shapes using the terms of sides, edges and vertices • I can describe 3D objects using the terms of faces, edges and vertices • I can identify 3D objects from drawings • I can draw or make different examples of a 2D shape • I can discuss and name the different 2D shapes which feature as faces of a 3D object • I can identify examples of tiling in the environment • I can explore and identify which shapes can tile and create a tiling pattern 	<ul style="list-style-type: none"> • I can describe the properties of a range of common 2D shapes and 3D objects including side, face, edge, vertex, base and angle • I can recognise and identify common 2D shapes (circles, triangles, squares, rectangles, regular and irregular polygons including pentagons and hexagons) • I can recognise and create a range of 2D shapes in different orientations and sizes • I can identify a right angled triangle • I can use knowledge of right angles to help compare and describe the angles in 2D shapes and 3D objects • I can use my extended knowledge of shape to create a variety of tiling patterns incorporating 2 different shapes

Angle, Symmetry & Transformation

MTH 1-17a

I can describe, follow and record routes and journeys using signs, words and angles associated with direction and turning.

Pathway 1

- I can use positional vocabulary left/right, whole/half/quarter turn
- I can give and follow directions using simple language of movement and position and record these in my own way
- I have begun to follow and give simple instructions to find an object in the learning environment, e.g., classroom or outdoor learning area
- I can create and follow simple instructions for journeys involving turns and directions

Pathway 2

- I can give and follow directions using an extended range of vocabulary and record these in a variety of ways (clockwise/anticlockwise)
- I can recognise and use the four main compass points to follow directions (N,S,E,W)
- I can follow and give instructions for movement including quarter turns and know that a quarter turn is also known as a right angle turn
- I can use my knowledge of turning to work out what compass point I will be facing after a particular turn or series of turns
- I know that an angle is a measure of turn or rotation
- I explored that right angles can be made by turning in different directions from different starting points

Pathway 3

- I know that angles are measured in degrees and a right angle is 90°
- I can identify a right angle and recognise how it is represented
- I can identify examples of right angles in the environment and well known 2D shapes
- I can use informal methods to estimate, compare and describe the size of angles in relation to a right angle

Angle, Symmetry & Transformation		
MTH 1-18a		
I have developed an awareness of where grid reference systems are used in everyday contexts and can use them to locate and describe position.		
Pathway 1	Pathway 2	Pathway 3
		<ul style="list-style-type: none"> • I can identify where and why grid references are used • I understand that horizontal location comes before vertical location • I can describe a location given a grid reference • I can plot a location given a grid reference

Angle, Symmetry & Transformation		
MTH 1-19a		
I have explored symmetry in my own and the wider environment and can create and recognise symmetrical pictures, patterns and shapes.		
Pathway 1	Pathway 2	Pathway 3
	<ul style="list-style-type: none"> • I can recognise symmetry in patterns, pictures, nature and 2D shapes • I can create my own symmetrical pictures and patterns and recognise when a shape or pattern is symmetrical • I can complete a pattern or shape so that it is symmetrical • I can talk about what it means for a shape or pattern to be symmetrical 	<ul style="list-style-type: none"> • I can identify symmetry in patterns, pictures, nature and 2D shapes • I can create symmetrical pictures and designs with more than one line of symmetry

Data & Analysis

MTH 1-20a

I have explored a variety of ways in which data is presented and can ask and answer questions about the information it contains.

MTH 1-20b

I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others' criteria.

MTH 1-21a

Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams, using simple labelling and scale.

Pathway 1

- I can gather and sort data for a given purpose, e.g., group tally marks
- I can recognise and discuss the key features of different ways data is represented such as title, key and scales
- I can extract and interpret key information from a variety of data including tables, Venn diagrams, bar charts and pictographs
- I can display data clearly and accurately by creating pictographs and bar charts using a scale of one (templates can be used)

Pathway 2

- I can extract key information from a variety of data including tables, Carroll/Venn digrams, bar charts and pictographs
- I can recognise and discuss the key features of different ways data is represented such as title, key and scales
- I can gather and sort data for a given purpose e.g., tally marks
- I can display data clearly and accurately by creating pictographs, tables, Carroll/Venn diagrams and bar charts using appropriate labelling and scale (templates can be used)

Pathway 3

- I can extract key information from a variety of data including Venn/Carroll diagrams, tables, bar/pie charts and pictographs
- I can recognise and discuss the key features of different ways data is represented such as title, key, axes and scales
- I can gather and sort data for a given purpose, for example a survey, questionnaire or tally marks
- I can interpret data from a graph when totals represented are in between numbers marked on the scale
- I can interpret data from a bar graphs where the scale is one or greater
- I can interpret a pictogram where one picture represents more than one response
- I can display data clearly and accurately by creating Venn/Carroll diagrams, tables, bar/pie charts and pictographs using [appropriate labelling \(title\) and scale](#)

Ideas of Chance & Uncertainty**MNU 1-22a**

I can use appropriate vocabulary to describe the likelihood of events occurring, using the knowledge and experiences of myself and others to guide me.

Pathway 1

Pathway 2

Pathway 3

- I understand that probability means the likelihood of an event occurring
- I can use language such as even chance (or 50/50), likely and unlikely to describe probability
- I can order the likelihood of different events occurring from least likely to most likely

- I understand that probability means the likelihood of an event occurring
- I can use language such as even chance (or 50/50), likely and unlikely to describe probability
- I can order the likelihood of different events occurring from least likely to most likely
- I can carry out simple experiments and compare the outcomes with my predictions, e.g., predict what will happen when you toss a coin 20 times. (Carry out the experiment and record your results, comparing them with what you predicted)