THE SCOTTISH ATTAINMENT CHALLENGE
SCOTLAND: THE BEST PLACE IN THE WORLD TO LEARN

Clackmannanshire Council

Evidence Progression Pathways
NUMERACY AND MATHEMATICS –
Early – Second Level

Draft Update to Meet Benchmarks
October 2016

Clackmannanshire Council

Estimation and Rounding
Number and Number Processes

Progression Pathways

		Early		First			Second		
		Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Estimation and Rounding		• I have had experience of estimating/guessing 'How many …..'	• I understand and use the language of estimation • I can check estimate by counting	• I can estimate the position of any number up to 100 on a number line with decades clearly marked • I can check a solution by comparing with the estimate	• I can explain the rule for rounding up and down and round to the nearest ten • I can estimate answers to 2-digit sums using rounding and compare with the solution	• I can estimate the position of any number up to 100 on a number line/square • I understand and can round to the nearest 100 • I can estimate answers to 3-digit sums using rounding and compare with the solution	• I understand and can round to the nearest 100 • I understand and can round to the nearest 1000	• I can round any whole number to the nearest 10, 100, 1000 • I can estimate answers to 4-digit sums using rounding and compare with the solution • I can round a decimal fraction to the nearest whole number	• I can round whole numbers to any nearest graduation • I can round to any given number of decimal places • I can apply a range of rounding techniques in context
Number and Number Processes	**Word Sequences**	• I can say forward number word sequences (to at least 20) • I can say backward number word sequences (to at least 20) • I am beginning to work out the number word after and number word before	• I can say forward number word sequences (to at least 30) • I can say backward number word sequences (to at least 30) • I am beginning to recall number word after and number word before • I can say the next 2, 3, 4 numbers in a number word sequence	• I can say forward number word sequences (to at least 100) • I can say backward number word sequences (to at least 100) • I can quickly recall number word after and number word before (to at least 100) • I can say the next 2, 3, 4 numbers in a number word sequence (to at least 100) • I can count number of jumps from a to b • I can count in tens	• I can say the forward number word sequences in multiples of 2s, 10s, 5s, 3s and 4s and keep track of the counts on my fingers • I can say the backward number word sequences in multiples of 2s, 10s, 5s, 3s and 4s and keep track of the counts on my fingers • I can say the next number word before and after in a multiple number sequence in 2s, 10s, 5s, 3s and 4s • I can count on and back in 10s/1s on and off the decade	• I can increment in 100s, 10s and 1s on and off the hundred and decade • I can decrement in 100s, 10s and 1s on and off the hundred and decade	• I can say the forward number word sequences in multiples • I can say the backwards number word sequences in multiples	• I can confidently count forwards and backward from any number • I can increment and decrement in 1s, 10s and 100s and 1000s from any given number	• I can increment and decrement using a wide range of numbers
	Numerals	To at least 10; • I can read numeral sequences • I can sequence numerals • I can identify numerals • I can recognise numerals • I can work out the missing numeral on a numeral track	To at least 20; • I can sequence numerals • I can order numerals • I can identify numerals • I can recognise numerals • I can work out the missing numeral on a numeral track • I can count on/back from an unscreened numeral to find/locate a numeral on a screened numeral track	To at least a 100; • I can sequence numerals • I can order numerals • I can identify numerals • I can recognise numerals • I can count on and back from an unscreened numeral to find a given numeral on a screened numeral track • I can count on and back from an unscreened numeral to locate a given numeral on a numeral track • I can work out missing numerals on a hundred square	• I can recognise, sequence and order multiples of 100 (to at least 1000) • I can identify numerals (to at least 1000) • I can sequence decade numerals (to at least 1000) • I can sequence 3 digit numerals (to at least 1000) • I can order 3 digit numerals (to at least 1000) • I can describe the value of each digit in a numeral (to at least 100) • I can count on and back from a numeral to find/locate a given numeral on a hundred square (to at least 100)	• Given an empty number marked with 0 and 100, I can estimate where to place given numerals • I can describe the value of each digit in a numeral (to at least 1000) • I am beginning to work with numbers to at least 10, 000 •	• I can describe the value of each digit in a whole number • I can identify and read whole numbers • I can sequence whole numbers • I can order whole numbers • I can find/locate a given numeral on a screened numeral track arranged in multiples • I am beginning to work with decimal fractions as another way of recording fractions	• I can add negative and positive numbers to an empty number line • I can describe the value of each digit in a decimal fraction up to at least hundredths • I can identify and read decimal fractions • I can sequence decimal fractions • I can order decimal fractions	• I can work confidently with whole numbers, integers and decimal fractions

Clackmannanshire Council

Estimation and Rounding
Number and Number Processes

Progression Pathways

		Early		First			Second		
		Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Number and Number Processes	**Number Structure**	• I can make finger patterns to 10 in different ways, without looking at my fingers • I can use finger patterns to keep track of temporal patterns (like beats of a drum or jumps) • I can copy and count flashed domino patterns	• I can partition and describe flashed domino patterns in different ways • I can make finger patterns to 10 in different ways without looking at my fingers • I can throw and describe finger patterns using 5, 10, doubles and near doubles • I have had experience of using ten frames to quickly see how many there are without counting	• I can recognise and describe five-wise tens frames • I can recognise and describe pair-wise tens frames • I can partition flashed tens frames in different ways • I can describe numbers in relation to 5 and 10	I can build and describe numbers to 20; • using doubles and near doubles • using ten • by partitioning through ten • using commutative relationships of number • I can build and describe numbers to 100 using 10s and 1s • I can round numbers to the nearest ten	• I can build and describe numbers to 100 in a variety of ways to aid mental calculations • I can build and describe numbers using 100s, 10s and 1s	• I can build and describe numbers to at least 1000 in a variety of ways • I can show my understanding of how the number line extends to include numbers less than zero	• I can build and describe numbers beyond 1000 in a variety of ways • I can apply my knowledge of tenths, hundredths and thousandths to writing fractions and percentages	• I can relate knowledge of number structures to fractions and decimal fractions

	Addition and Subtraction	• I can count perceived items • I can count items in one collection • I can count out a requested number of items • I can count items in a row forwards and backwards • I can count items in two collections • I can count items in two rows	• I can count items in two collections with the first collection is screened • I can count items in two collections when the second collection is screened • I can count items in two collections when both collections are screened • I can count items in a row forwards and backward when some of them are screened **Learners at this stage will count from one to count the first screened collection, rather than count-on from the number in the first screened collection**	• I can recall doubles to at least 20 • I can describe how I solve a variety of adding tasks. For example; 6 + 3 = ___ 4 + ___ = 9 ___ + 3 = 10 • I can describe how I solve a variety of subtraction tasks. For example; 11 – 2 = __ 8 - __ = 5 __ - 5 = 3 **An important strategy for children to develop at this stage is the ability to count-on and back, keep track of their counts, also called counting-on/counting-back-from.**	I can describe how I solve a variety of addition and subtraction tasks to 20; • using my knowledge of doubles and near doubles • by partitioning through ten • using compensation strategies • using my knowledge of commutativity • using my knowledge of inverse operations I can describe how I use my knowledge of number structures to; • add from a decade number • subtract to a decade number • add to a decade number • subtract from a decade number • add through a decade number • subtract through a decade number	• I can describe how I solve a variety of higher decade addition and subtraction tasks using my knowledge of tens and ones • I can describe how I solve a variety of higher decade addition and subtraction tasks through counting • I am beginning to use my understanding of number structures to develop and explain a range of non-count-by-ones strategies to solve tasks within 1000 • I am beginning to use the written algorithm to solve addition and subtraction calculations involving 3 digit numbers or more	• I can use my understanding of number structures to solve a range of mental addition and subtraction tasks within 1000 • I can use a range of strategies to add/subtract decimal fractions (tenths) • I can use both mental strategies and algorithms to solve a variety of addition and subtraction tasks • I can choose and justify the most efficient method for the problem given	• I can use my understanding of number structures to solve a range of mental addition and subtraction tasks beyond 1000 • I can use a range of strategies to add/subtract decimal fractions • I can use both mental strategies and algorithms to solve a variety of addition and subtraction tasks • I can choose and justify the most efficient method for the problem given	• I can evaluate a task, select the most effective strategy and solve a wide range of addition and subtraction tasks • I have explored adding and subtracting integers within context, e.g. thermometers

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Number and Number Processes
Multiples, factors and primes
Fractions, decimal fractions and percentages

Progression Pathways

	Early		First			Second		
	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**

Number and Number Processes	Multiplication and Division	• I have had experience of describing, organising and making equal groups • I have had experience of sharing and grouping	• I can describe, organise and make equal groups • I can describe, organise and partition equal shares	• I can combine and count equal groups • I can partition a collection into equal shares and establish the number of shares • I can partition a collection into equal shares and establish the number in each share • I can describe, build and count simple arrays	In at least 2s, 3s, 4s, 5s and 10s; • I can build, describe and count arrays • I can use multiplicative counting strategies to calculate the total of equal groups • I can use multiplicative counting strategies to calculate the number in each share/number of groups when a collection is shared equally • I am beginning to multiply multiples of ten up to fifty by 2,3,4,5 and 10 • I can multiply a 2-digit number by a single digit (no bridging)	• I can quickly build, describe and count arrays • I can quickly calculate the total of equal groups • I can quickly calculate the number in each share/ number of groups when a collection is shared equally • I can solve problems involving grouping and sharing • I can mentally multiply and divide whole numbers by at least 10 and 100 • I can multiply multiples of ten by 2, 3, 4, 5 and 10 • I can mentally multiply a 2-digit number by 2, 3, 4 or 5	• I can recall x/÷ facts • I can multiply and divide whole numbers by 10, 100, 1000 • I can calculate multiplication of multiples by a single digit, e.g. 6x60 • I can calculate multiples of 10 by multiples of 100 • I can multiply/divide decimal fractions by 10 • I can mentally multiply a two-digit number by a single digit • I can mentally multiply decimal fractions (tenths) by a single digit • I am developing mental and semi-formal written strategies for x and ÷	• I can use my knowledge of doubling and halving to mentally solve x and ÷ problems • I can multiply and divide decimal fractions by at least 10 and 100 • I can mentally divide a 3-digit number by a single digit • I have explored square numbers • I can use both mental strategies and algorithms • I can choose the most efficient method for the problem given	• I can solve more complex multiplication and division problems • I can multiply and divide whole numbers and decimal fractions by 10, 100 and 1000
Multiples, Factors and Primes							• I can identify common multiples for different whole numbers • I can identify factors using multiplication tables	• I can identify multiples of whole numbers • I can identify factors • I am beginning to work with prime numbers	
Fractions, decimal fractions and percentages		• I have experienced sharing and grouping within a relevant context	• I can share concrete objects equally within relevant contexts • I can group items into smaller sets of a given size • I can use concrete materials to investigate breaking a whole into parts (halves)	• I can use concrete materials to investigate breaking a whole into parts (halves and quarters)	• I can use concrete materials to investigate breaking a whole into parts (halves, quarters and thirds) • I can work out halves of numbers up to 20 and begin to recall them. • I can recognise and use simple fractional notation, in word and mathematical form • I understand the relationship between the numerator and denominator • I understand and can demonstrate how a whole is represented, e.g. 3 thirds = 1 whole, 4 quarters = 1 whole	• I can identify where simple fractions lie on an empty number line • I understand the relationship between division and simple fractions and use this knowledge to identify fractions of quantities • I have explored simple equivalences • I can find fractions of whole numbers, e.g ¼ of 16 • I can solve equal sharing problems with answers that are mixed numbers and fractions less than 1 (eighths, sixths, tenths) • I have an awareness of how to record fractions as decimal fractions (tenths)	• I can solve equal sharing problems with answers that are mixed numbers and fractions less than 1 • I can compare and order simple fractions • I can describe and record simple equivalences orally, in writing and through practical enquiry • I can convert between basic improper fractions and mixed numbers, e.g. 3/2 = 1½. 5/4 = 1¼ • I can find a fraction of an amount, e.g. 1/8 of 64 • I can identify where simple decimal fractions lie on a number line • I can convert fractions (tenths, hundredths) into decimal fractions	• I can work with thousandths • I can compare and order decimal fractions using knowledge of equivalence • I can simplify basic fractions • I can find fractions of an amount, e.g. 2/3 of 12, 7/9 of 72 • I can convert fractions into decimal fractions and percentages • I can apply understanding of the relationship between fractions, decimal fractions and percentages • I can use mental and written methods to find simple percentages of quantities	• I can calculate equivalences and simplify fractions fully • I can add and subtract proper fractions with the same denominator • I can work out any % of an amount using my knowledge of percentages e.g. 57% = 50%+5%+1%+1%. • I can solve real life and relevant problems using simple fractions, decimal fractions and percentages • I can multiply a whole number by a fraction • I have explored ratio

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Money
Time

Progression Pathways

	Early	First	Second

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Money	• I have had experience of handling money and understand where it is used in everyday life	• I can recognise and name coins • I can count out amounts to 10 using 1p coins • I can work out total cost to at least 10p • I am beginning to work out change from 10p	• I can order coins from the least in value to the most • I can use 1p, 2p, 5p, 10p and 20p coins to pay for items • I can work out change from at least 20p	• I can make use of mental strategies to find the total cost of items up to £1 • I can make use of mental strategies to calculate change up to £1 • I can use different combinations of coins and notes to make the same amounts of money	• I know the role of £ and p signs and the need for two decimal places in written amounts of money • I can use rounding to estimate totals • I know that combinations of coins and notes can be used to give change for goods • I can calculate total cost and change involving £s and p • I can convert from pounds and pence to pence and vice-versa	• I can investigate and use effective mental strategies to carry out straightforward calculations involving money and money problems • I can select appropriate strategies to solve simple money problems	• I can select appropriate strategies to solve money problems • I can compare costs from different retailers for products or services • I can interpret sales information from different retailers • I can compare costs to determine what is affordable within a given spend • I understand the costs, benefits and risks of bank cards • I understand the importance of budgeting	• I can budget own personal spending for an event or given scenario • I understand the terms profit and loss in real life contexts • I can use appropriate calculations to work out profit and loss in buying and selling activities • I can select appropriate strategies to solve money problems
Time	• I can recall/discuss order of events • I can use before and after to place events in correct sequence • I can place events in time sequence	• I know the sequence of the days of the week • I can name the months of the year in order • I can name the seasons • I can tell the time on the hour and half past	• I can identify times on the hour, half past, quarter past and quarter to on both analogue and digital clacks • I can calculate durations in whole hours	• I can use analogue and digital clocks to tell the time in 5 minute intervals • I can read a simple 12hr timetable • I can use a variety of timers to understand the length of a minute • I can calculate durations in half and quarter hour intervals	• I can use analogue and digital clocks to tell the time using minutes past and minutes to • I know that there are 60 minutes in an hour and can apply this knowledge in addition and subtraction of time duration calculations • I can make the link between 24hr and 12hr clock • I can use and apply my knowledge of the Calendar to work out durations and plan events • I can record dates in a variety of formats • I can express time in a variety of formats	• I can calculate time intervals • I can use 24hr clock to show and read times • I can convert between 12 hour and 24-hour time	• I can use and create timetables set out in both 12 and 24-hour clock times • I can change minutes to seconds, hours to minutes and vice-versa • I can select and utilise the most appropriate unit of time • I can solve time problems by using and applying skills previously learned	• I have investigated common units and different ways that time/speed can be measured against each other

		Early		First			Second		
		Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Measurements	**Length**	• I have used non-standard units to measure the length of something • I have experienced comparing 2 lengths • I am beginning to use the language of - long, short, shorter, longer	• I can use non-standard units to estimate and measure length • I can order more than 2 lengths • I can use the language long, short, shorter, longer when discussing length	• I can measure and estimate in metres • I can measure and estimate in ½ metres	• I can convert m to cm • I can measure using m and cm • I can measure in ¼ metres	• I can record the measurement of length in a number of ways • I can compare and order lengths of objects using cm and m • I can read scales accurately organised in simple graduations	• I can measure and estimate the length, width and height of an object using cm and mm • I can measure and estimate distance using km	• I can convert m to cm and cm to m • I can convert cm to mm and mm to cm • I can convert m to km and km to m	• I have shown an awareness of imperial units of length • I can solve problems involving length
	Perimeter						• I know perimeter is the distance around the outside • I can calculate accurately the perimeter of regular shapes using mm/cm or m	• I can calculate accurately the perimeter of irregular shapes using mm, cm or m	• I can draw shapes accurately with a given perimeter • I can calculate the perimeter using a word formula
	Area		• I know that area is the amount of surface space covered by a shape • I can compare areas that are the same shape • I can use non-standard units to measure the area of a variety of sizes and shapes	• I understand the need for standard units of measure • I can find and draw the area of a shape by counting squares	• I can use square grids to estimate then measure the areas of a variety of simple 2D shapes to at least the nearest half square • I can create shapes with a given area to at least the nearest half square	• I recognise that different shapes can have the same area	• I can measure the area of regular shapes using cm² • I can measure the area of regular shapes using ½ cm²	• I can calculate the area of squares and rectangles using the formula A = l x b • I can measure larger areas using m²	• I can explain why there are four ½m² in 1m² • I can calculate the area of right angled triangles by using the formula • I can calculate the area of composite shapes using knowledge of squares, rectangles and triangles • I have explored the relationship between the hectare and km²
	Weight	• I have used non-standard units to measure weight • I have experienced comparing 2 weights by hand/scales • I am beginning to use the language of weight, e.g. heavy, light, heavier, lighter	• I can use non-standard units to estimate and measure weight • I can order more than 2 weights • I can use the language heavy, heavier, heaviest, light, lighter, lightest when discussing weight	• I can measure and estimate using kilograms • I can measure and estimate using grams	• I can estimate and measure in kg and ½kg • I know 1000g is 1kg • I know that ½ kg = 500g	• I can record the measurement of weight in a number of ways • I can compare and order the weight of objects using g and kg • I can read scales accurately organised in simple graduations	• I know that ¼ kg = 250g • I can estimate and weigh objects using a variety of gram weights • I can read scales accurately using kg and g	• I can choose the appropriate unit of measure when estimating the weight of objects • I can convert kg to g and vice-versa • I can order weights written in different units • I can read scales accurately	• I have shown an awareness of imperial units of weight
	Volume/Capacity	• I have experienced measuring volume using non-standard units • I understand the language of full and empty	• I can use non-standard units to estimate and measure volume • I can compare non-standard volumes • I have an understanding of the conservation of volume	• Measure and estimate using litres	• Know and convert 1000ml to 1litre • Measure and estimate using ml • Know and convert 500ml to ½ litre • Measure and estimate using ½ litres	• I can record the measurement of volume/capacity in a number of ways • I can compare and order volume using ml and l • I can read scales accurately organised in simple graduations	• I know and convert 250ml to ¼ litre • I can measure & estimate using ¼ litre (250ml) • I can read scales accurately using l and ml	• I can convert l to ml and vice-versa • I can read scales accurately • I can measure & estimate using cm cubed (cm3) • I can convert cm3 to ml • I know that capacity is maximum volume	• I can convert cm³ to ml to l • I can calculate volume of cubes and cuboids using V=lbh • I can calculate volume of a composite shape (cubes and cuboids) • I have shown an awareness of imperial units of volume

	Early		First			Second		
	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Mathematics – its impact on the world, past, present and future	• I have explored numbers all around us	• I have explored numbers all around us	• I have investigated our number system	• I have investigated our number system	• I have investigated our number system	• I have researched historical number systems and how they have changed over time	• I have researched historical number systems and how they have changed over time	• I have researched historical number systems and how they have changed over time
Patterns and Relationships	• I recognise simple patterns in the environment	• I can create simple patterns • I can recognise, discuss, duplicate and create simple numeric sequences	• I can apply my knowledge of number facts to identify more complex patterns and sequences	• I can explain rules and justify decisions	• I am continuing to apply my knowledge of number facts to identify more complex patterns and sequences	• I can work with and use well known named number patterns, e.g. Fibonacci • I can extend, create and explain the rules for repeating patterns and simple number sequences	• I can explain a rule from a more complex sequence and extend that sequence • I can make sense of number patterns involving the four operations	
Expressions and Equations	• I can solve word problems using practical materials	• I can solve word problems using practical materials • I am beginning to translate a word problem into a number sentence • I can use +,- and = to form and solve a number sentence	• I can translate a word problem into a number sentence	• I can use numbers and symbols to record the counting tasks I have solved • I can interpret a written calculation (e.g. 42+8=) and mentally calculate the answer • I can use commutative and associative properties to simplify calculations, e.g. 3+15=15+3 or 5+3+7=(7+3)+5 • I can use the fact that +/- are inverse processes to solve problems • I can interpret and solve written calculations where symbols are used for unknown numbers or operators (e.g. 7+□=12 or 12□6=6)	• I can calculate the missing numbers in statements where symbols are used for unknown numbers or operators (e.g. 44+□=50 or what is the value of □?, 64□6=70 what is □?) • I can use the fact that add/subtract and multiply/divide are inverse processes to solve problems • I can use symbols equal to, not equal to, less than and greater than in a simple number sentence • I am beginning to work with function machines	• I can calculate the missing numbers in more complex statements where symbols are used for unknown numbers or operators • I can create equations to keep track of the sequence of steps required to solve a problem when necessary	• I am beginning to use substitution • I am beginning to use letters to express a rule as a formula	• I can add, subtract, multiply or divide similarly on both sides on a number sentence or equation • I can collect like terms to simplify, e.g. 5a + 3b – 7a – 4b • I can substitute values into formulae • I can solve simple equations with variables on one side of the equal sign involving very simple single or double operations, e.g. x-4=7 or 2n+3=9 • I can solve simple in-equations (e.g. x-4>7) • I can use letters to express a rule as a formula

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Properties of 2D shapes and 3D objects
Angle, symmetry and transformation

Progression Pathways

		Early		First			Second		
		Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Properties of 2D shapes and 3D objects	**2D Shape**	• I can sort 2D shapes	• I can recognise properties of 2D shapes, e.g. edges and vertices • I can name triangle, circle, square and rectangle	• I know the properties of common 2D shapes, e.g. edges and vertices • I have extended my understanding of 2D shapes to be able to name pentagons, hexagons and octagons	• I know the properties of pentagons, hexagons and octagons, e.g. edges and vertices	• I have developed my understanding of the properties of shape through tiling and tessellation • I can sketch/draw 2D shapes	• I have extended the range of regular and irregular 2D shapes that I can work with and name e.g. parallelogram, trapezium, rhombus, isosceles triangles, equilateral triangles etc.	• I have extended my knowledge of 2D shapes through links to symmetry, angles, parallel lines etc.	• I know that the radius is half the diameter and can use this knowledge to draw circles using a pair of compasses • I continue to extend my knowledge of 2D shapes through links to symmetry, angles, parallel lines etc.
	3D Objects	• I can build with 3D objects	• I can sort 3D objects	• I can recognise and name simple 3D objects • I can recognise the properties of 3D objects e.g. vertices, faces and edges	• I can name 3D objects, e.g. cube, cuboid, cone, sphere, cylinder, triangular prism, square-based pyramid	• I can state the properties of common 3D objects	• I can use and create nets for common 3D objects	• I have extended the range of 3D objects that I can work with and name, e.g. hexagonal prism, dodecahedron • I have extended my knowledge of properties of 3D objects	• I have further extended my knowledge of nets of 3D shapes
Angle, symmetry and transformation	**Angle**	• I can use simple directions to describe positions	• I can use simple directions to describe positions	• I am aware of the purpose of a compass and can discuss where and when they can be used	• I know the compass points • I know and can demonstrate how to turn a quarter, half and full turn clockwise and anti-clockwise • I can describe simple journeys	• I know that a 90-degree turn is equivalent to a quarter turn • I can describe more complex journeys • I can identify right angles in the environment and well-known 2D shapes	• I know the criteria for and can identify acute, obtuse, straight and reflex angles • I can name the 8 compass points and link with angles between them using 3 figure bearings	• I can name angles using 3 capital letters • I can draw and measure to 2-degree accuracy	• I can measure and draw 3 figure compass bearings • I can draw simple triangles given angles and sides • I know that complementary angles add up to 90 degrees and supplementary angles add up to 180 degrees and can use this knowledge to calculate missing angles
	Symmetry		• I understand what symmetrical means and can create pictures and patterns	• I can recognise symmetrical patterns and shapes in the environment • I can complete a basic shape to make it symmetrical	• I can find at least 1 line of symmetry within a shape/pattern • I can complete a shape to make it symmetrical	• I can complete more complex shapes and patterns to make them symmetrical	• I can identify lines of symmetry of irregular shapes drawn on squared grids	• I can identify and draw up to 4 lines of symmetry	• I can complete and create symmetrical shapes and pictures and patterns with vertical, horizontal and diagonal lines of symmetry
	Transformation	• I can use language of position to describe where objects are	• I can use the language of direction to describe and direct in real life contexts	• I can use the language of direction to describe and direct	• I understand the purpose of a grid and can use references to describe positions on the grid	• I can create a grid and give instruction of how to describe or find a position on the grid	• I can complete symmetrical shapes on a co-ordinate grid • I can create shapes on a co-ordinate grid	• I can move shapes on a co-ordinate grid	
	Scale								• I can interpret and use a scale on a basic drawing • I can make a basic scale drawing • I can construct a scale drawing with angles

Clackmannanshire Council

Data Analysis
Ideas of Chance and Uncertainty

Progression Pathways

	Early		First			Second		
	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**	**Phase 8**
Data Analysis	• I can sort objects into different categories using criteria/own criteria	• I can display data in a variety of different ways, e.g. tally chart, pictograph • I can interpret a simple tally chart or pictograph • I can ask and answer questions about specific presented information	• I can use tally marks to represent quantity and total them at the end • I can complete a bar graph using information given • I can ask and answer questions about specific presented information and use this to inform choices and decisions	• I can create simple tables and charts • I know and can select the most effective way to gather data for a particular purpose • I can conduct a survey • I can ask and answer questions about specific presented information and use this to inform choices and decisions	• I can organise data into graphs, tables and charts • I can construct a bar graph which has a title, two axes labelled, bars evenly spaced etc. • I can use technology to display gathered data • I can extract information from a table or a chart • I can ask and answer questions about specific presented information and use this to inform choices and decisions	• I can interpret information presented in simple table and bar graphs to show awareness of significance of the data	• I can display data in a variety of more complex ways, e.g. line graphs, frequency graphs • I can interpret information from line and frequency graphs • I can select appropriate questions and formats for a survey to gather information required	• I can calculate the mean, mode, median and range from a set of data • I can interpret information from a variety of sources, e.g. pie charts, graphs, spreadsheets etc. • I know how methods of collecting information may affect the data collected and can discuss the reliability of the data presented • I can create a pie chart with graduations given
Ideas of Chance and Uncertainty			• I am beginning to use and understand the vocabulary of probability	• I can use and understand vocabulary of probability	• I can discuss events of chance and probability	• I can conduct experiments involving chance and probability	• I can predict and explain outcomes using appropriate vocabulary	