S3 CfE Set 4 : August - September			
Topic	**Content**	**CfE**	**Website Resources**
Money	Currency conversion, VAT (as %)		http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/N4_Lifeskills/N4_Lifeskills_Foreign_Exchange_Practice.xlsm http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/Level_4/Level_4+_TJ_Ch4_MoneyMatters_Practice_VAT.xlsm
Time	Finding time intervals (in 12hr & 24hr), Adding, subtracting time (over midnight)	MNU 2-10b	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/S1_Time_Practice.xls
Perimeter	Finding perimeter of composite rectilinear within context Finding missing lengths with knowledge of parallel length	MNU 2-11c	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_2a_2b/Level_2_Perimeter_Area.xlsm
Distance, Speed, Time	Finding distance, speed or time (include time units in mins with mph) Include Scientific Notation	MNU 4-10b MTH 4-06b	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_DST.xlsm http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/S4_General_Sign_Fig_Scientific_Notation.xls
Measurement	scale (liquid vol), temperature (incl negative numbers		http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_2a_2b/Level_2_Liquid_Volume_Recap.xls
Ratios	Simplifying ratios, sharing using a given ratio (in context) Checking shared amounts	MNU 3-08a MNU 4-08a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Ratio.xlsm
Money	Hire Purchase, Decisions needed for better deal	MNU 4.09a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_2a_2b/Level_2_Money_Best_Deals.xlsm
Assessment	**Numeracy A – Late August**		

Topic	Content	CfE	Website Resources
Measurement	Angles to nearest degree with protractor, Length to nearest mm. Tolerance	MNU 4-01a	https://www.mathsisfun.com/geometry/protractor-using.html http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/N4_Lifeskills/N4_Lifeskills_Tolerance_Practice.xlsm
Statistics	Interpreting pie charts, bar graphs, line graphs, tables Evaluating sectors of pie charts (ie. 60/360x240=40people) Describing trends, relationships Making choices (money, phone contracts, savings %)	MNU 4-20a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Angles1.xlsm
Probability	Finding probability (in decimal) Comparing probabilities to make decisions	MNU 3-22a MNU 4-22a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Probability.xlsm https://www.khanacademy.org/math/probability/probability-geometry/probability-basics/e/understanding-probability
Assessment	**Numeracy B – Early September**		

S3 CfE Set 4 : September - October			
Topic	**Content**	**CfE**	**Resources**
Algebra	Collect Like terms Expand single bracket and factorise common factor Evaluate linear expressions Extend a linear number or diagrammatic pattern and determining its formula	MTH 4-14a MTH 4-14b MTH 4-13a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Algebra.xlsm http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Evaluating_Formulae.xlsm http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/S4_General_Past_Paper_Patterns.xls
Gradient	Calculate gradient given horizontal and vertical distances	MTH 4-13b	http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/N4_Lifeskills/N4_Lifeskills_Gradient_Practice.xlsm
Circle	Circumference and area of a circle	MTH 4-16b	http://www.mathsrevision.com/index_files/Maths/Presentations/S2_Presentations/S2_Circles_Practice.xls
Area & Volume	Area of a parallelogram, kite/rhombus, trapezium Surface area of a prism (cuboid/triangular) Volume of a prism	MTH 4-11b MTH 4-11c	http://www.mathsrevision.com/index_files/Maths/Presentations/S3_Presentations/S3_General_Area_Of_Quadrilaterals.xls http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/S4_3_General_Volume_Surface_Area_TJ.xls
Symmetry	Line and Rotational	MTH 3-19a	https://www.mathsisfun.com/geometry/symmetry.html
Assessment	**Late September**		

Topic	Content	CfE	Website Resources
Statistics	Frequency table with class intervals Determining statistics of a data set - mean, median, mode and range Using mean, median, mode, range to compare data sets Drawing Pie charts Calculate and interpret probability	MTH 4-20b MTH 4-21a MNU 3-22a	https://www.youtube.com/watch?v=L31ccw-yefc http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Statistics.xlsm https://www.youtube.com/watch?v=1oShnkmA_ww
Assessment	**Early October**		

S3 CfE Set 4 : October - November			
Topic	**Content**	**CfE**	**Website Resources**
Straight Line	Drawing and recognising a graph of a linear equation.	MTH 4-18a MTH 4-13c MTH 4-13d	https://www.youtube.com/watch?v=3SIZjceF09g
Algebra 2	Solving linear equations. Change the subject of a formula	MTH 4-15a Extension	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Equations.xlsm
Pythagoras' theorem	Given sides or from coordinates	MTH 4-16a	http://www.mathsrevision.com/index_files/Maths/Presentations/S3_Presentations/S3_3_Pythagoras_Theorem_Practice.xls
Scale Factors	Using a fractional scale factor to enlarge or reduce a shape.	MTH 3-17c MTH 4-17b	https://www.bbc.co.uk/education/guides/zpwycdm/revision/1
Angles	Basic angle properties including parallel lines, Triangles and quadrilaterals Circles properies - angle in a semi-circle - relationship between tangent and radius	MTH 4-17a	http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_Angles1.xlsm
Assessment	**Early November**		

Topic	Content	CfE	Website Resources
Trig	Calculating a side and angle in a right-angled triangle.	MTH 4-16a	http://www.mathsrevision.com/index_files/Maths/Presentations/S3_Presentations/S3_3_Credit_SOHCAHTOA_Revision.xls
Statistics 2	Constructing a scattergraph. Drawing and applying a best-fitting straight line.	MTH 4-21a MTH 4-13a & Extension	http://www.mathsrevision.com/index_files/Maths/Presentations/S4_Presentations/N4_Lifeskills/N4_Lifeskills_Scattergraphs.pps
Assessment	**Late November**		
Revision	All S3 topics covered	All Level 4 Topics	https://sahsmathematics.wikispaces.com/NATIONAL+4
Assessment	**December (AVU)**		

S3 CfE Set 4 : January - February			
Topic	**Content**	**CfE**	**Website Resources**
Decimals and Rounding	▪ add and subtract numbers given to two decimal places ▪ multiply or divide a number given to two decimal places by a single-digit whole number ▪ multiply or divide a number given to two decimal places by multiples of 10, 100 and 1000 ▪ round answers to the nearest significant figure or three decimal places	N5 Numeracy	https://www.bbc.com/education/subjects/zb27hyc
Fractions and Percentages	▪ find percentages and fractions of shapes and quantities ▪ recognise and use mixed fractions, eg 3½, ⅓, 4¼, 1/8, 2/6 ▪ add and subtract simple fractions, eg ½ + ¼ and ⅔ - ⅓ ▪ find the number of fractional parts in a mixed number, eg 2½ = 5 halves ▪ calculate compound percentage increase and decrease ▪ express a quantity as a percentage of another quantity ▪ convert equivalences between fractions, decimal fractions and percentages	N5 Numeracy	

Topic	Content	CfE	Website Resources
Speed, Distance & Time	▪ calculate speed, time and distance	N5 Numeracy	http://www.machinehead-software.co.uk/bike/speed_distance_time_calc.html
Area and Volume	▪ calculate volume (cylinder, triangular prism), area (triangles and composite shapes) and perimeter (circumference)	N5 Numeracy	https://www.bbc.com/education/guides/z2mtyrd/revision/2 https://www.bbc.com/education/guides/z26nb9q/revision/2
Ratio and Proportion	▪ calculate ratio including dimensions from scale drawings, eg scale of 1:10 ▪ calculate direct and indirect proportion	N5 Numeracy	https://www.bbc.com/education/topics/zxw76sg
Reading Scales	To the nearest marked, minor unnumbered division on an instrument for length, weight, volume and temperature	N5 Numeracy	https://www.youtube.com/watch?v=6JyDRJBJQgU
Interpreting and justifying measurements or calculations	Identifying relevant measurements and results of calculations to make a decision. Using evidence from the results of measurements or calculations to justify decisions	N5 Numeracy	
Assessment	**N5 Numeracy A – Early February**		

Topic	Content	CfE	Website Resources
Graphs and Charts	♦ a table with at least five categories of information ♦ a chart where all the values are not given or where the scale is not obvious, eg comparative/compound bar chart ♦ a graph where part of the axis is missing or the scale is not obvious, eg conversion line graph ♦ a diagram, eg stem and leaf, scatter diagram or a map	N5 Numeracy	Stem & Leaf: https://www.mathsisfun.com/data/stem-leaf-plots.html Scatter diagram: https://www.mathsisfun.com/data/scatter-xy-plots.html
Make and justify decisions using data	♦ make decisions based on patterns, trends or relationships in data ♦ use evidence from the interpretation of data to justify decisions ♦ understand the effects of bias and sample size	N5 Numeracy	
Make and justify decisions using probability	♦ recognise patterns, trends and relationships and use these to state the probability of an event happening ♦ use evidence from the interpretation of probability to justify decisions ♦ analyse the probability of combined events, identifying the effects of bias and describing probability through the use of percentages, decimal fractions, fractions and ratio to make and justify decisions	N5 Numeracy	Comparing Probabilities (fractions): https://www.youtube.com/watch?v=WqnXhCEgW20 Comparing Probabilities (decimals): https://www.youtube.com/watch?v=00lQay8YJns
Assessment	**N5 Numeracy B – Late February**		

S3 CfE Set 4 : March - June			
Topic	**Content**	**CfE**	**Website Resources**
Working with surds	♦ Simplification ♦ Rationalising denominators	MTH 4-06a	https://www.bbc.com/bitesize/guides/z9jtw6f/revision/1 (3 sections)
Simplifying expressions using the laws of indices	♦ Multiplication and division using positive and negative indices including fractions ♦ Calculations using scientific notation ♦ $(a^m)^n = a^{mn}$	MTH 4-06a	https://www.bbc.com/bitesize/guides/zqtv6yc/revision/1 (6 sections) Video: https://www.bbc.com/bitesize/clips/z84nvcw
Expanding brackets	♦ a(bx + c) + d(ex + f) ♦ ax(bx + c) ♦ (ax + b)(cx + d) ♦ (ax + b)(cx^2 + dx + e) where a, b, c, d, e, f are integers	MTH 4-14a	https://www.bbc.com/bitesize/guides/z2yg87h/revision/1 (2 sections)
Factorising an algebraic expression	♦ Common factor ♦ Difference of squares $p^2 x^2 – a^2$ ♦ Common factor with difference of squares ♦ Trinomials with unitary x^2 coefficient ♦ Trinomials with non-unitary x^2 coefficient ♦ Quadratic formula	MTH 4-14b	https://www.bbc.com/bitesize/guides/zmvrd2p/revision/1 (4 sections) Video: https://www.bbc.com/bitesize/clips/z84nvcw
Completing the square	♦ Convert $y = x^2 + bx + c$ to $y = (x + p)^2 + q$		https://www.bbc.com/bitesize/guides/zxcjrwx/revision/1 (2 sections)