

Block 1

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Scientific Notation	MTH 4-06b		4G Ch3 S3 ² Ch1 S3 ³ Ch1			
Distributive Law	MTH 4-14a	(U1:1.3) (U1:1.4) U1:1.1	3G Ch7 S3 ² Ch3 S3 ³ Ch3	Like terms and evaluating algebraic expressions (3-14a) was part of Unit 2. Starter questions would be sufficient for good classes; less able should revise these using 3G p85 TJ(E) p94.	E&F Q1,3	
Money Topics	MNU 4-09a; 4-09b		3G Ch11,15 S3 ² Ch4 S3 ³ Ch4	Wages, profit/loss, HP, Foreign Exch.	Num Q1,3,10,12,14,16	*
Significant figures			S3 ² Ch1 S3 ³ Ch1			
Further Equations	MTH 4-15a	U2:1.2	3G Ch7 S3 ² Ch3 S3 ³ Ch3	$ax + b = cx + d$ type sufficient for National 4. Fourth level could go well beyond this depending on ability of class.	Rel Q3	*

Block 2

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Pythagoras	MTH 4-16a	U2:2.1	3G Ch13 S3 ² Ch8 S3 ³ Ch8	Pupils need to be able to find both the Hypotenuse and a shorter side. More-able pupils should also consider the converse of Pythagoras.	Rel Q6,10	*
Fractions	MNU 4-07b	U3:1.2	3G Ch11 S3 ² Ch1 S3 ³ Ch1	Potential Nat5 pupils should meet MNU4-07b and also division. At Nat4 pupils should know equivalences and be able to calculate "fractions of". Additional work required beyond these sources.	Num Q17,18 Move to block 4	*
Probability	MTH 4-22a	U1:3.5 U3:2.3	3G Ch18 S3 ² Ch12 S3 ³ Ch12	Include expected frequency	E&F Q5 (Q15)	
Integers & basic Problem Solving				Integers can be covered from a variety of resources. All of this could be covered by carefully chosen starter questions over an extended period.	Num Q2,8	*
Order of Operations	MNU 4-03b		S3 ² Ch1 S3 ³ Ch1	At same time spend some time checking squares, square root and powers.		
Circle	MTH 4-16b	U1:2.1	3G Ch9 4G Ch10 S4 ² Ch1 S3 ³ Ch10	Circumference and area.	E&F Q7	
Common Factor	MTH 4-14b	U1:1.2	4G Ch15 S3 ² Ch5 S3 ³ Ch5	Unit test only requires 4m + 28 type but all types should be covered, particularly, for the benefit of pupils who may wish to progress to Nat 5.	E&F Q2	

Block 3

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Perimeter & Area		U1:2.2 U3:1.2	3G Ch14 S4 ² Ch1 S3 ³ Ch1	Parallelogram, Kite, Trapezium and composite shapes. Part of the work here should include plotting 3 points on a Cartesian diagram and then finding the fourth point to complete a quadrilateral. (worksheet required)	Num Q5 E&F Q8	*
Ratio & Direct Proportion	MNU 4-08a	U3:1.2	4G Ch11;Ch2 S3 ² Ch1;Ch7 S3 ³ Ch1;Ch7	Ratio does not appear as an E & O Little Direct Proportion in S3 ³ Ch7	Num Q7	*
Gradient	MTH 4-13b	U1:2.5	4G Ch6 S4 ³ Ch7		E&F Q6	
Straight line	MTH 4-13c; 4-13d	U2:1.1	4G Ch6 S4 ² Ch8 S4 ³ Ch7	Drawing and recognising	Rel Q1,2	

Block 4

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Patterns	MTH 4-13a	U1:1.5 U1:1.6	3G Ch17 4G Ch14 S4 ² Ch5 S3 ³ Ch1	Extending; Fibonacci, triangular; diagrammatic; formulae.	E&F Q5	*
Using Formulae					E&F Q4	
Change of Subject				Both 1 and 2-step questions e.g. $D=ST$, $m = 4n + 5$ types	Rel Q4,5	
(Rotational) Symmetry	MTH 4-19a	U1:2.6	4G Ch3 S4 ² Ch9		E&F Q11	

Block 5

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Data in a diagram (1)	MTH 4-21a; 4-20a	U1:3.5 U3:2.1 U3:2.2	3G Ch12 S3 ² Ch6 S3 ³ Ch6	Bar charts and Pie charts. Pupils need to be able to interpret both and do need to be able to draw a Pie Chart	Num Q13,15 E&F Q14	
Angles	MTH 4-17a	U2:2.3	3G Ch2 4G Ch12 S3 ² Ch10 S3 ³ Ch10	Alternate, corresponding, triangles, quadrilaterals, semi-circle	Rel Q8,9	
Statistics	MTH 4-20b	U1:3.2 U1:3.3 U1:3.1	3G Ch12 S3 ² Ch12 S3 ³ Ch12	Mean, median, mode, range	E&F Q13	*
Prisms	MTH 4-11b; 4-11c	U1:2.3 U1:2.4	3G Ch11 S3 ² Ch1 S3 ³ Ch1	Terms: nets, surface area (cuboid), volume (area of base x height) is sufficient but naturally volume of cuboid (cylinder) should be covered	E&F Q9,10	

Block 6

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Data in a diagram (2)	MTH 4-21a; 4-20a	U2:4.1 U2:4.2	3G Ch12 S3 ² Ch6 S3 ³ Ch6	Scattergraph, line of best fit, (stem & leaf)	Rel Q13	
Time Management	MNU 4-10a		3G Ch10 S3 ² Ch9 S3 ³ Ch9	More than timetables etc?	Num Q4	
Distance, Speed & Time	MNU 4-10b		3G Ch10 S3 ² Ch9 S3 ³ Ch9		Num Q6	*
Trigonometry	MTH 4-16a	U2:3.1 U2:3.2	3G Ch16 4G Ch13 S3 ² Ch11 S4 ² Ch10 S3 ³ Ch11		Rel Q11,12	*

Block 7

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Measurement & tolerance	MTH 4-11a; MNU 4-01a		4G Ch16	Other resources required. Pupils need to practise reading scales and using the information. Q9 must be correct 1/1. Pupils need to be able to measure a line and an angle accurately for the Unit test questions.	Num Q9,11	
Transformations	MTH 4-18a; 4-18b		3S4 ² Ch9	Other resources required. For test purposes, enlargement and reduction using scale factors like $\frac{5}{2}$ or $\frac{3}{4}$	Rel Q7	
Using Percentages			Various	Convert simple fractions to percentages to allow comparison.	Num Q17,18	*
Frequency Tables			Various		E&F Q12	

Block 8

Topic	4th Level	National 4	Resources	Comment	Assessment Questions	AVU
Financial product comparison	MNU 4-09c		Internet search	This can be developed over a few or many periods depending on the time available		
Similar Figures	(MTH 3-17c) MTH 4-17b					
Maths in the workplace	MTH 4-12a			This can be developed over a few or many periods depending on the time available		