

### Scope and Sequence Document for: Mathematics 8

Year:	8	
Tutor	Ann Humphreys	
Tutor qualifications:	B Sc(Hons) Chemistry, Lancaster PGCE	
Resources required:	Key Maths book 8/2 revised, (2001), Baker, Hogan, Job and Verity, ISBN 9780748759859, Nelson Thornes; <sup>1</sup> Geometry set; Scientific calculator.	

Module No.	NSW week No.	Week beginning Monday the:	Contents of study
1	1	03/09/18	<b>Graphs CH1</b> - Construction and interpretation of straight line graphs
	2	10/09/18	Time, 24 hr clock time-tables, distance–time graphs, average speed <b>TMA</b>
2	3	17/09/18	<b>Mental Arithmetic CH2</b> - Powers and roots <b>TMA</b>
	4	24/09/18	Estimating. Powers and Make your own slide rule
3	5	01/10/18	<b>Statistic CH3</b> - Pie charts with protractors
	6	08/10/18	Design of questionnaire, Investigation and survey <b>TMA</b>
4	7	15/10/18	<b>Algebra CH4</b> - Investigation of number patterns leading to algebraic rules Inverse operations
	8	22/10/18	Half Term
4	9	29/10/18	Substitution in harder expressions <b>TMA</b>
5	10	05/11/18	<b>Negative numbers CH6</b> - Directed numbers, ordering, adding subtracting,
	11	12/11/18	Multiplying, dividing negative numbers Substitution in algebraic formulae, extending graphs <b>TMA</b>
6	12	19/11/18	<b>Transformations CH5</b> - Reflection, translation,
	13	26/11/18	Centres of rotation, rotation and enlargement. Application to patterns, examples locally <b>TMA</b>
9	14	03/12/18	<b>Fractions CH9</b> - Percentage as a fraction, and of a quantity <b>TMA</b>
7	15	10/12/18	<b>Angles CH7</b> - Revision of angles. Parallel lines and angles,
	16	17/12/18	Christmas Holiday

<sup>1</sup> Out of print but can be purchased from Amazon as pre-used  
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	17	24/12/18	Christmas Holiday
	18	31/12/18	Christmas Holiday
7	19	07/01/19	Angles in a polygon, bearings to and from a point TMA
8	20	14/01/19	<b>Probability CH8</b> - Revision of probability as a measure of likelihood. Expectation.
	21	21/01/19	Sum of probabilities. Illustrating equally likely outcomes, sample space diagrams. TMA
10	22	28/01/19	<b>Straight Lines CH10</b> - Patterns of points. Equations of lines, point of intersection
	23	04/02/19	Gradient and intercept forms. Investigation TMA
	24	11/02/19	Half Term
11	25	18/02/19	<b>Ratio CH11</b> - Metric units of mass and volume leading to ratio
	26	25/02/19	Proportion. maps and scales TMA
12	27	04/03/19	<b>Area CH12</b> - Area extended to Trapezium and compound shapes
	28	11/03/19	Enlargement extended to area. Scale factors of length and area TMA
13	29	18/03/19	<b>Volume CH14</b> - Estimating volume/capacity of familiar objects. Extension to counting layers in a stack
	30	25/03/19	Volume of prisms. Practical packing of cuboids etc. TMA
14	31	01/04/19	<b>Statistics2 CH13</b> - Revision of averages, which to use. Data which is continuous and rounded off by measurement. Grouping data Stem and leaf diagrams
	32	08/04/19	Easter Holiday
	33	15/04/19	Easter Holiday
	34	22/04/19	Easter Holiday
14	35	29/04/19	Frequency polygons stem and leaf diagrams used to compare data and interpolate data. TMA
	36	06/05/19	<b>Revision</b>
	37	13/05/19	Exam Year 8
15	38	20/05/19	<b>Algebra2 CH15</b> - Trial and improvement methods applied to linear and quadratic equations. Use of spreadsheet
	39	27/05/19	Half Term
15	40	03/06/19	Graphical representation of inequalities, open / closed intervals
	41	10/06/19	Solving linear inequalities. TMA
16	42	17/06/19	<b>Graphs2 CH16</b> - Intersection of lines defined by equations, found graphically. Extensions to linear equations in general form.
	43	24/06/19	Problems leading to simultaneous equations solved graphically TMA