

Scope and Sequence Document for: Mathematics 8

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| Year: | 8 | Exam week for this course: | 37 |
| Tutor | Mrs Ann Humphreys | Last date for submission of internal exams: | |
| Tutor qualifications: | B Sc(Hons) Chemistry, Lancaster PGCE | IGCSE/A level Exam board & Specification: No: | n/a |
| Resources required: | Key Maths book 8/2 revised, (2001), Baker, Hogan, Job and Verity, ISBN 9780748759859, Nelson Thornes; Geometry set; Scientific calculator. | | |

| Module No. | NSW week No. | Week beginning Monday the: | Contents of study |
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| 1 | 1 | 04/09/17 | Graphs CH1 - Construction and interpretation of straight line graphs |
| | 2 | 11/09/17 | Time, 24 hr clock time-tables, distance–time graphs, average speed TMA |
| 2 | 3 | 18/09/17 | Mental Arithmetic CH2 - Powers and roots TMA |
| | 4 | 25/09/17 | Estimating. Powers and Make your own slide rule |
| 3 | 5 | 02/10/17 | Statistic CH3 - Pie charts with protractors |
| | 6 | 09/10/17 | Design of questionnaire, Investigation and survey TMA |
| 4 | 7 | 16/10/17 | Algebra CH4 - Investigation of number patterns leading to algebraic rules Inverse operations |
| | 8 | 23/10/17 | Half Term |
| 4 | 9 | 30/10/17 | Substitution in harder expressions TMA |
| 5 | 10 | 06/11/17 | Negative numbers CH6 - Directed numbers, ordering, adding subtracting, |
| | 11 | 13/11/17 | Multiplying, dividing negative numbers Substitution in algebraic formulae, extending graphs TMA |
| 6 | 12 | 20/11/17 | Transformations CH5 - Reflection, translation, |
| | 13 | 27/11/17 | Centres of rotation, rotation and enlargement. Application to patterns, examples locally TMA |
| 9 | 14 | 04/12/17 | Fractions CH9 - Percentage as a fraction, and of a quantity TMA |
| 7 | 15 | 11/12/17 | Angles CH7 - Revision of angles. Parallel lines and angles, |
| | 16 | 18/12/17 | Christmas Holiday |
| | 17 | 25/12/17 | Christmas Holiday |
| | 18 | 01/01/18 | Christmas Holiday |
| 7 | 19 | 08/01/18 | Angles in a polygon, bearings to and from a point TMA |

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| 8 | 20 | 15/01/18 | Probability CH8 - Revision of probability as a measure of likelihood. Expectation. |
| | 21 | 22/01/18 | Sum of probabilities. Illustrating equally likely outcomes, sample space diagrams. TMA |
| 10 | 22 | 29/01/18 | Straight Lines CH10 - Patterns of points. Equations of lines, point of intersection |
| | 23 | 05/02/18 | Gradient and intercept forms. Investigation TMA |
| | 24 | 12/02/18 | Half Term |
| 11 | 25 | 19/02/18 | Ratio CH11 - Metric units of mass and volume leading to ratio |
| | 26 | 26/02/18 | Proportion. maps and scales TMA |
| 12 | 27 | 05/03/18 | Area CH12 - Area extended to Trapezium and compound shapes |
| | 28 | 12/03/18 | Enlargement extended to area. Scale factors of length and area TMA |
| 13 | 29 | 19/03/18 | Volume CH14 - Estimating volume/capacity of familiar objects. Extension to counting layers in a stack |
| | 30 | 26/03/18 | Easter Holiday |
| | 31 | 02/04/18 | Easter Holiday |
| | 32 | 09/04/18 | Easter Holiday |
| 13 | 33 | 16/04/18 | Volume of prisms. Practical packing of cuboids etc. TMA |
| 14 | 34 | 23/04/18 | Statistics2 CH13 - Revision of averages, which to use. Data which is continuous and rounded off by measurement. Grouping data Stem and leaf diagrams |
| | 35 | 30/04/18 | Frequency polygons stem and leaf diagrams used to compare data and interpolate data. TMA |
| | 36 | 07/05/18 | Revision |
| | 37 | 14/05/18 | Exam Year 8 |
| 15 | 38 | 21/05/18 | Algebra2 CH15 - Trial and improvement methods applied to linear and quadratic equations. Use of spreadsheet |
| | 39 | 28/05/18 | Half Term |
| 15 | 40 | 04/06/18 | Graphical representation of inequalities, open / closed intervals |
| | 41 | 11/06/18 | Solving linear inequalities. TMA |
| 16 | 42 | 18/06/18 | Graphs2 CH16 - Intersection of lines defined by equations, found graphically. Extensions to linear equations in general form. |
| | 43 | 25/06/18 | Problems leading to simultaneous equations solved graphically TMA |