

Year 10 Mathematics Scope and Sequence 2021

Semester 1

Data driven focus areas.

5.3	Equations MA5.3-7NA	Properties of Geometrical Figures MA5.3-16MG	Single Variable and Bivariate Data Analysis MA5.3-18SP MA5.3-19SP	Circle Geometry MA5.3-17MG MA5.3-8NA
5.2	Equations MA5.2-8NA	Properties of Geometrical Figures MA5.2-14MG	Single Variable and Bivariate Data Analysis MA5.2-15SP MA5.2-16SP	Direct/Indirect Proportion MA5.2-5NA
5.1	Revise Equations MA4-10NA	Properties of Geometrical Figures MA5.1-11MG	Single Variable and Bivariate Data Analysis MA5.1-12SP	Linear Relationships MA5.1-6NA (5.1 students ONLY)
Time	Weeks 1-5	Weeks 6-10	Weeks 1-5	Weeks 6-10
Concepts	Solves linear and simple quadratic equations, linear inequalities and linear simultaneous equations, using analytical and graphical techniques	Describes and applies the properties of similar figures and scale drawings Calculates the angle sum of any polygon and uses minimum conditions to prove triangles are congruent or similar Proves triangles are similar, and uses formal geometric reasoning to establish properties of triangles and quadrilaterals TASK	uses statistical displays to compare sets of data, and evaluates statistical claims made in the media uses quartiles and box plots to compare sets of data, and evaluates sources of data investigates relationships between two statistical variables, including their relationship over time and using lines of best fit uses standard deviation to analyse data explores how data is used to inform decision-making	Recognise direct and indirect proportion, and solves problems involving direct proportion applies deductive reasoning to prove circle theorems and to solve related problems
Assessment Tasks - Major	Assessment Task 1 – Examination open book Notice: Term 1, Week 6 Due: Term 1, Week 8		Assessment Task 2 – Data Assignment Notice: Term 2, Week 4 Due: Term 2, Week 6	
Revision Excel book	Chapter 1 Chapter 3	Chapter 9	Chapter 11	Chapter 8 units 1-6

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Semester 2

Data driven focus areas.

5-3	Trigonometry MA5.3-15MG	Area and Surface Area M A5.3-13MG	Polynomials MA5.3-10NA Graphs of Physical Phenomena MA5.3-4NA	Non Linear Relationships MA5.3-9NA Functions and other graphs MA5.3-12NA
5-2	MA5.2-13MG	Area and Surface Area MA5.2-11MG	Probability MA5.2-17SP	
5-1	Revise Trigonometry MA5.1-10MG	Revise area surface area MA5.1-8MG	Probability MA5.1-13SP	Non-Linear Relationships 5.1 -7NA
Time	Weeks 1-5	Weeks 6-10	Weeks 1- Weeks 4-7	Weeks 8-10
Concepts	Applies Pythagoras' theorem, trigonometry relationships, the sine rule, the cosine rule and the area rule to solve problems, including problems involving three dimensions	Calculates the areas of composite shapes, and the surface areas of rectangular and triangular prisms Calculates the surface areas of right prisms, cylinders and related composite solids Applies formulas to find the surface areas of right pyramids, right cones, spheres and related composite solids	Calculates relative frequencies to estimate probabilities of simple and compound events Describes and calculates probabilities in multi-step chance experiments recognises, describes and sketches polynomials, and applies the factor and remainder theorems to solve problems draws, interprets and analysis graphs of physical phenomena	Uses function notation to describe and sketch functions Graphs simple non-linear relationships DESMOS TASK
Assessment Tasks - Major	Assessment Task 3 – Trigonometry/Area Surface Area Examination Formula Sheet Notice Term 3 Week 6 Due Term 3 Week 8		Assessment Task 4 – Yearly Exam Notice Via Exam timetable Due Term 4 Week 5	
Revision Excel Book	Chapter 5	Chapter 6	Chapter 10	Chapter 9 unit 6-9