

Math Analysis & Approaches SL Year 1 Subject Group Overview - Semester 1

Unit Name	Topic 1: Numbers & Algebra	Topic 2: Functions	Topic 3: Geometry & Trigonometry
Time Frame	4 Weeks	10 Weeks	2 Weeks *(will finish this topic during Semester 2)*
Standards/ IB Topics	Topic 1: SL 1.1 – 1.9	Topic 2: SL 2.1 – 2.10	Topic 3 : 3.1 – 3.3
Content Specific Information	1.1 Operations with numbers in scientific notation form 1.2 Arithmetic Sequences 1.3 Geometric Sequences 1.4 Financial Applications of Geometric Sequences 1.5 Laws of Exponents 1.6 Algebraic Proofs 1.7 Properties of Logs 1.8 Sum of Geometric Sequences 1.9 Binomial Theorem	2.1 Linear Equations, Parallel, Perpendicular Lines 2.2 Domain, Range, Inverses 2.3 Graphs of Functions 2.4 Key features of Graphs 2.5 Composite functions 2.6 Quadratic Functions 2.7 Quadratic Equations & Inequalities, discriminant 2.8 Rational Functions & Equations 2.9 Exponential & Log Functions 2.10 Solving all equations	3.1 Distance, midpoint, volume 3.2 Sine, Cosine, Tangent Ratios, Sine Rule, Cosine Rule & Area of a Triangle 3.3 SOH CAH TOA applications
Common Assessments/ Major Projects	Common Homework Quizzes Common Formative Assessments Common Summative Assessment	Common Homework Quizzes Common Formative Assessments Common Summative Assessment	Common Homework Quizzes Common Formative Assessments Common Summative Assessment
Resources	My IB Resources (www.ib.org) InThinking IB Resource IB QuestionBank GaDOE Frameworks Teacher Resources	My IB Resources (www.ib.org) InThinking IB Resource IB QuestionBank GaDOE Frameworks Teacher Resources	My IB Resources (www.ib.org) InThinking IB Resource IB QuestionBank GaDOE Frameworks Teacher Resources

Math Analysis & Approaches Year 1 - MHS Subject Group Overview - Semester 2

Unit Name	Topic 3 (Continued): Geometry & Trigonometry	Topic 4: Probability & Statistics	Internal Assessment	Matrices	Reassessments/Final Exam
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Time Frame	4 Weeks	6 Weeks	2 Weeks	3 Weeks	1 Week
Standards/ IB Topics	Topic 3: SL 3.3 – 3.8	Topic 4: SL 4.1 – 4.12	Students will work to complete their Math Exploration Paper	Pre-Calculus Standards MGSE9-12.N.VM.6 MGSE9-12.N.VM.7 MGSE9-12.N.VM.8 MGSE9-12.N.VM.9 MGSE9-12.N.VM.10 MGSE9-12.N.VM.12 MGSE9-12.A.REI.8 MGSE9-12.A.REI.9	All IB standards
Content Specific Information	3.4 Unit Circle 3.5 Sine, Cosine, Tangent in terms of unit circle, radians 3.6 Trig Identities 3.7 Circular Functions 3.8 Solving Trig Equations	4.1 Population, samples, outliers 4.2 Presentation of data, box-whisker plots, histograms 4.3 Measures of central tendency & dispersion, 4.4, 4.10 Linear Regression 4.5 Probability of Events 4.6, 4.11 Conditional, independent, dependent probability 4.7 Expected Value 4.8 Binomial distribution 4.9, 4.12 Normal distribution		Properties of Matrices Operations of Matrices Determinant Inverse Matrices Solving Systems using Matrices Cryptography	
Common Assessments / Major Projects	Common Homework Quizzes Common Formative Assessments Common Summative Assessment	Common Homework Quizzes Common Formative Assessments Common Summative Assessment	Internal Assessment	Common Homework Quizzes Common Formative Assessments Common Summative Assessment	
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