

Year 2 Math

Y2 Math AASL		
Number and algebra	1.1	Scientific Notation
	1.2	Arithmetic Sequence and series
	1.3	Geometric Sequences & Series
	1.4	Financial Application of Geometric Sequences and Series
	1.5	Exponent & Logarithm
	1.6	Deductive Proof
	1.7	Laws of Exponents & Laws of Logarithms
	1.8	Infinite Geometric Series
	1.9	Binomial Theorem
	N/A	
Functions	2.1	Straight Line Equation
	2.2	Function basics & Inverse
	2.3	Function Graph
	2.4	Graph Features
	2.5	Composite & Identity Functions
	2.6	Quadratic Function
	2.7	Solving Quadratic Equations & Inequalities
	2.8	Reciprocal & Rational Functions
	2.9	Exponential & Logarithmic Functions/Graphs
	2.10	Using Technology to Solve Equations
	2.11	Transformation
	N/A	
Geometry and Trigonometry	3.1	Geometry Basics
	3.2	Trigonometric Basics & Rules
	3.3	Right/Non-right Angled Trigonometry
	3.4	Circle & Radian
	3.5	Unit Circle
	3.6	Trigonometric Identities
	3.7	Trigonometric Graphs
	3.8	Solving Trigonometric Equations
Statistics and probability	4.1	Sample & Population
	4.2	Data Presentation
	4.3	Central Tendency & Quartiles
	4.4	Bivariate Statistics
	4.5	Probability Basics
	4.6	Probability Operations
	4.7	Discrete Random Variables
	4.8	Binomial Distribution
	4.9	Normal Distribution
	4.10	Regression
	4.11	Conditional Probability Operations
	4.12	z-score
	N/A	
Calculus	5.1	Limit & Derivative
	5.2	Increasing & Decreasing Functions
	5.3	Power Rules
	5.4	Tangents & Normals
	5.5	Anti-differentiation
	5.6	Derivative of Various Expressions/Functions &
	5.7	Second Derivative
	5.8	Maximum, Minimum, and Point of Inflexion
	5.9	Kinematics
	5.10	Indefinite Integral
	5.11	Definite Integral
	N/A	

Y2 Math AAHL 기본		
Number and algebra	1.1	Scientific Notation
	1.2	Arithmetic Sequence and series
	1.3	Geometric Sequences & Series
	1.4	Financial Application of Geometric Sequences and Series
	1.5	Exponent & Logarithm
	1.6	Deductive Proof
	1.7	Laws of Exponents & Laws of Logarithms
	1.8	Infinite Geometric Series
	1.9	Binomial Theorem
	1.10	Counting principles & Binomial Theorem for Fractional and Negative Indices
	1.11	Partial Fractions
	1.12	Complex Number Basics
	1.13	Modulus-argument Form & Euler Form
	1.14	Complex Number Operations and De Moivre's Theorem
	1.15	Proof by Mathematical Induction, Contradiction, and Counterexample
	1.16	Systems of Linear Equations
Functions	2.1	Straight Line Equation
	2.2	Function basics & Inverse
	2.3	Function Graph
	2.4	Graph Features
	2.5	Composite & Identity Functions
	2.6	Quadratic Function
	2.7	Solving Quadratic Equations & Inequalities
	2.8	Reciprocal & Rational Functions
	2.9	Exponential & Logarithmic Functions/Graphs
	2.10	Using Technology to Solve Equations
	2.11	Transformation
	2.12	Polynomial Functions
	2.13	Rational Functions (Extended)
	2.14	Odd/Even Functions & Finding Inverse with Domain Restriction
	2.15	Function Inequality
Geometry and Trigonometry	2.16	Absolute Value Function Graph & Higher Level Transformation
	3.1	Geometry Basics
	3.2	Trigonometric Basics & Rules
	3.3	Right/Non-right Angled Trigonometry
	3.4	Circle & Radian
	3.5	Unit Circle
	3.6	Trigonometric Identities
	3.7	Trigonometric Graphs
	3.8	Solving Trigonometric Equations
	3.9	Reciprocal Trigonometric Ratios
	3.10	Compound Angle Identities & Tangent Double Angle Identity
	3.11	Relationships between Trigonometric Functions
	3.12	Vector Basics
	3.13	Scalar Product
	3.14	Vector: Line
Statistics and probability	3.15	Coincident, Paralle, intersecting, and Skew Lines
	3.16	Vector Product
	3.17	Vector: Plane
	3.18	Line and Plane
	4.1	Sample & Population
	4.2	Data Presentation
	4.3	Central Tendency & Quartiles
	4.4	Bivariate Statistics
	4.5	Probability Basics
	4.6	Probability Operations
	4.7	Discrete Random Variables
	4.8	Binomial Distribution
	4.9	Normal Distribution
	4.10	Regression
Calculus	4.11	Conditional Probability Operations
	4.12	z-score
	4.13	Baye's Theorem
	4.14	Discrete Random Variables (Extended) & Continuous Random Variables
	5.1	Limit & Derivative
	5.2	Increasing & Decreasing Functions
	5.3	Power Rules
	5.4	Tangents & Normals
	5.5	Anti-differentiation
	5.6	Derivative of Various Expressions/Functions &
	5.7	Second Derivative
	5.8	Maximum, Minimum, and Point of Inflection
	5.9	Kinematics
	5.10	Indefinite Integral
	5.11	Definite Integral
	5.12	Continuity/Differentiability, First Principles, Convergence/Divergence, and Higher Derivatives
	5.13	Hopital's Rule
	5.14	Implicit Differentiation
	5.15	Derivative & Integral of Various Expressions/Functions (Extended)
	5.16	Integration by Substitution/Parts
	5.17	Area of Enclosed Region
	5.18	Differential Equations & Euler's Method
	5.19	Maclaurin Series

Y2 Math AAHL 심화		
Number and algebra	1.1	Scientific Notation
	1.2	Geometric Sequences & Series
	1.3	Sigma Notation
	1.4	Exponent Laws & Solving Equations
	1.5	Log Laws & Solving Equations
	1.6	Deductive Proof
	1.7	Laws of Exponents & Laws of Logarithms
	1.8	Infinite Geometric Series
	1.9	Binomial Theorem
	1.10	Counting principles & binomial theorem for fractional and negative indices
	1.11	Partial Fractions
	1.12	Complex Number Basics
	1.13	Modulus-argument Form & Euler Form
	1.14	Complex Number Operations and De Moivre's Theorem
	1.15	Proof by Mathematical Induction, Contradiction, and Counterexample
	1.16	Systems of Linear Equations
Functions	2.1	Straight Line Equation
	2.2	Function basics & Inverse
	2.3	Function Graph
	2.4	Graph Features
	2.5	Composite & Identity Functions
	2.6	Quadratic Function
	2.7	Solving Quadratic Equations & Inequalities
	2.8	Reciprocal & Rational Functions
	2.9	Exponential & Logarithmic Functions/Graphs
	2.10	Using Technology to Solve Equations
	2.11	Transformation
	2.12	Polynomial Functions
	2.13	Rational Functions (Extended)
	2.14	Odd/Even Functions & Finding Inverse with Domain Restriction
	2.15	Function Inequality
	2.16	Absolute Value Function Graph & Higher Level Transformation
Geometry and Trigonometry	3.1	Geometry Basics
	3.2	Trigonometric Basics & Rules
	3.3	Right/Non-right Angled Trigonometry
	3.4	Circle & Radian
	3.5	Unit Circle
	3.6	Trigonometric Identities
	3.7	Trigonometric Graphs
	3.8	Solving Trigonometric Equations
	3.9	Reciprocal Trigonometric Ratios
	3.10	Compound Angle Identities & Tangent Double Angle Identity
	3.11	Relationships between Trigonometric Functions
	3.12	Vector Basics
	3.13	Scalar Product
	3.14	Vector: Line
	3.15	Coincident, Parallel, Intersecting, and Skew Lines
	3.16	Vector Product
	3.17	Vector: Plane
	3.18	Line and Plane
Statistics and probability	4.1	Sample & Population
	4.2	Data Presentation
	4.3	Central Tendency & Quartiles
	4.4	Bivariate Statistics
	4.5	Probability Basics
	4.6	Probability Operations
	4.7	Discrete Random Variables
	4.8	Binomial Distribution
	4.9	Normal Distribution
	4.10	Regression
	4.11	Conditional Probability Operations
	4.12	z-score
	4.13	Baye's Theorem
	4.14	Discrete Random Variables (Extended) & Continuous Random Variables
Calculus	5.1	Limit & Derivative
	5.2	Increasing & Decreasing Functions
	5.3	Power Rules
	5.4	Tangents & Normals
	5.5	Anti-differentiation
	5.6	Derivative of Various Expressions/Functions & Differentiation Rules
	5.7	Second Derivative
	5.8	Maximum, Minimum, and Point of Inflection
	5.9	Kinematics
	5.10	Indefinite Integral
	5.11	Definite Integral
	5.12	Continuity/Differentiability, First Principles, Convergence/Divergence, and Higher Derivatives
	5.13	L'Hopital's Rule
	5.14	Implicit Differentiation
	5.15	Derivative & Integral of Various Expressions/Functions (Extended)
	5.16	Integration by Substitution/Parts
	5.17	Area of Enclosed Region
	5.18	Differential Equations & Euler's Method
	5.19	Maclaurin Series
Paper 3	Paper 3 Questions 경향성 : Calculus / Vector / Complex Numbers 관련하여 많이 출제!	
	이미 Topic이 익숙한 심화반의 경우 앞선 Unit들을 빠르게 끝내고 Paper 3 내용 대비	

Y2 Math AI HL		
Number and Algebra	1.1	Scientific Notation
	1.2	Arithmetic Sequence and Series
	1.3	Geometric Sequence and Series
	1.4	Financial Application of Geometric Sequences and Series
	1.5	Exponent & Logarithm
	1.6	Approximation & Estimation
	1.7	Amortization & Annuities
	1.8	System of Linear Equations & Polynomial Equations
	1.9	Laws of Logarithms
	1.10	Simplifying Expressions
	1.11	Infinite Geometric Series
	1.12	Complex Number Basics
	1.13	Modulus-argument Form & Euler Form
	1.14	Matrix Basics
	1.15	Eigenvalues & Eigenvectors + Matrix Operations
Functions	2.1	Straight Line Equation
	2.2	Function basics & Inverse
	2.3	Function Graph
	2.4	Graph Features
	2.5	Modelling with Different Functions
	2.6	Mathematical Modelling Skills
	2.7	Composite Functions & Inverse Functions
	2.8	Transformation
	2.9	Mathematical Modelling Skills (Extended)
	2.10	Scaling & Linearization
Geometry and Trigonometry	3.1	Geometry Basics
	3.2	Trigonometry Basics + Cosine & Sine Rules + Area of Triangle
	3.3	Pythagoras' Theorem + Angles of Elevation & Depression
	3.4	Circle, Arc, & Sector
	3.5	Equations of Perpendicular Bisectors
	3.6	Voronoi Diagrams
	3.7	Radians
	3.8	Unit Circle & Trigonometric Operations
	3.9	2D Geometric Transformation Using Matrices & Geometric Interpretation of The Determinant of A Transformation Matrix
	3.10	Vector basics
	3.11	Vector: Line
	3.12	Vector Applications to Kinematics
	3.13	Vector Operations
	3.14	Graph Theory
	3.15	Graph and Matrices
	3.16	Applications of Graph Theory
Statistics and Probability	4.1	Sample & Population
	4.2	Data Presentation
	4.3	Central Tendency & Quartiles
	4.4	Bivariate Statistics
	4.5	Probability Basics
	4.6	Probability Operations
	4.7	Discrete Random Variables
	4.8	Binomial Distribution
	4.9	Normal Distribution
	4.10	Regression
	4.11	Hypotheses, p-values, and Various Tests
	4.12	Data Collection, Data Organization, Reliability, and Validity
	4.13	Regression (Extended)
	4.14	Unbiased Estimation & Transformation of A Variable
	4.15	Linear Combination of Normal Random Variables & Central Limit Theorem
	4.16	Confidence Intervals
	4.17	Poisson Distribution
	4.18	Critical Values & Regions + Type I & II Errors + More Statistical Tests
	4.19	Transition Matrices & Markov Chains
Calculus	5.1	Limit & Derivative
	5.2	Increasing & Decreasing Functions
	5.3	Power Rule
	5.4	Tangents & Normals
	5.5	Anti-differentiation
	5.6	Maximum & Minimum
	5.7	Optimisation
	5.8	Trapezoidal Rule
	5.9	Derivatives of Different Functions, Chain Rule, Quotient Rule, and Related Rates
	5.10	Second Derivative
	5.11	Definite & Indefinite Integration
	5.12	Area of Enclosed Region & Volumes of Revolution
	5.13	Kinematic Calculus
	5.14	Differential Equation
	5.15	Slope Fields
	5.16	Euler's Method & Numerical Solution of Coupled System * 5.16에서 coupled system 관련 진도는 나가지 않고 Euler's method만 할 예정
	5.17	Phase Portrait + Distinct/Real/Complex/Imaginary Eigenvalues + Equilibrium Points & Stable Populations & Saddle Points
	5.18	Euler's method (Extended)
학생들 레벨에 따라 Statistics & Probability가 조금 오래 걸리게 되면 학생들이 학교에서 배운 내용이나 전반적인 이해도를 고려하여 4.4 & 4.10 & 4.13 & 4.19 & 5.8 & 5.11~5.16 중 선택하여 관련 진도를 축소 및 생략시킬 예정입니다.		

Year 2 Biology

Y2 Biology SL & HL (* HL only)				
Theme	Level of organization			
	Molecules	Cells	Organisms	Ecosystem
A Unity and diversity	A 1.1 Water A 1.2 Nucleic acid	A 2.1 Origins of cells* A 2.2 Cell structure A 2.3 Virus*	A 3.1 Diversity of organisms A 3.2 Classification and cladistics*	A 4.1 Evolution and speciation A 4.2 Conservation of biodiversity
B Forms and functions	B 1.1 Carbohydrates and lipids B 1.2 Proteins	B 2.1 Membranes and membrane transport B 2.2 Organelles and compartmentalization B 2.3 Cell specialization	B 3.1 Gas exchange B 3.2 Transport B 3.3 Muscle and motility*	B 4.1 Adaptations to environment B 4.2 Ecological niches
C Interactions and interdependence	C 1.1 Enzymes and metabolism C 1.2 Cell respiration C 1.3 Photosynthesis	C 2.1 Chemical signalling* C 2.2 Neural signalling	C 3.1 Integration of body systems C 3.2 Defence against disease	C 4.1 Populations and communities C 4.2 Transfers of energy and matter
D Continuity and change	D 1.1 DNA replication D 1.2 Protein synthesis D 1.3 Mutations and gene editing	D 2.1 Cell and nuclear division D 2.2 Gene expression* D 2.3 Water potential	D 3.1 Reproduction D 3.2 Inheritance D 3.3 Homeostasis	D 4.1 Natural selection D 4.2 Stability and change D 4.3 Climate change

Year 2 Chemistry

Y2 Chemistry SL			
Topic #	Topic	Subtopic #	Subtopic
Structure 1	Models of the particulate nature of matter	Structure 1.1	Introduction to the particulate nature of matter
		Structure 1.2	The nuclear atom
		Structure 1.3	Electron configurations
		Structure 1.4	Counting particles by mass: The mole
		Structure 1.5	Ideal gases
Structure 2	Models of bonding and structure	Structure 2.1	The ionic model
		Structure 2.2	The covalent model
		Structure 2.3	The metallic model
		Structure 2.4	From models to materials
Structure 3	Classification of matter	Structure 3.1	The periodic table: Classification of elements
		Structure 3.2	Functional groups: Classification of organic compounds
Reactivity 1	What drives chemical reactions?	Reactivity 1.1	Measuring enthalpy change
		Reactivity 1.2	Energy cycles in reactions
		Reactivity 1.3	Energy from fuels
Reactivity 2	How much, how fast and how far?	Reactivity 2.1	How much? The amount of chemical change
		Reactivity 2.2	How fast? The rate of chemical change
		Reactivity 2.3	How far? The extent of chemical change
Reactivity 3	What are the mechanisms of chemical change?	Reactivity 3.1	Proton transfer reactions
		Reactivity 3.2	Electron transfer reactions
		Reactivity 3.3	Electron sharing reactions
		Reactivity 3.4	Electron-pair sharing reactions

Y2 Chemistry HL			
Topic #	Topic	Subtopic #	Subtopic
Structure 1	Models of the particulate nature of matter	Structure 1.1	Introduction to the particulate nature of matter
		Structure 1.2	The nuclear atom
		Structure 1.3	Electron configurations
		Structure 1.4	Counting particles by mass: The mole
		Structure 1.5	Ideal gases
Structure 2	Models of bonding and structure	Structure 2.1	The ionic model
		Structure 2.2	The covalent model
		Structure 2.3	The metallic model
		Structure 2.4	From models to materials
Structure 3	Classification of matter	Structure 3.1	The periodic table: Classification of elements
		Structure 3.2	Functional groups: Classification of organic compounds
Reactivity 1	What drives chemical reactions?	Reactivity 1.1	Measuring enthalpy change
		Reactivity 1.2	Energy cycles in reactions
		Reactivity 1.3	Energy from fuels
Reactivity 2	How much, how fast and how far?	Reactivity 2.1	How much? The amount of chemical change
		Reactivity 2.2	How fast? The rate of chemical change
		Reactivity 2.3	How far? The extent of chemical change
Reactivity 3	What are the mechanisms of chemical change?	Reactivity 3.1	Proton transfer reactions
		Reactivity 3.2	Electron transfer reactions
		Reactivity 3.3	Electron sharing reactions
		Reactivity 3.4	Electron-pair sharing reactions
			*HL은 각 subtopic마다 추가진도가 있음

Year 2 Physics

Y2 Physics SL & HL					
Topic	Sub-topic				
A. Space, time and motion	A.1 Kinematics	A.2 Forces and momentum	A.3 Work, energy and power	A.4 Rigid body mechanics	A.5 Galilean and special relativity (HL only)
B. The particulate nature of matter	B.1 Thermal energy transfers	B.2 Greenhouse effect	B.3 Gas laws	B.4 Thermodynamics (HL only)	B.5 Current and circuits
C. Wave behaviour	C.1 Simple harmonic motion	C.2 Wave model	C.3 Wave phenomena	C.4 Standing waves and resonance	C.5 Doppler effect
D. Fields	D.1 Gravitational fields	D.2 Electric and magnetic fields	D.3 Motion in electromagnetic fields	D.4 Induction (HL only)	
E. Nuclear and quantum physics	E.1 Structure of the atom	E.2 Quantum physics (HL only)	E.3 Radioactive decay	E.4 Fission	E.5 Fusion and stars
T. Tools for physics	T.1 Mathematical tools (Vectors & Scalars)	T.2 Experimental tools (Units, Measurements & Uncertainties)			

Year 2 Economics

2025 Q5 Economics 진도표	
4.1	Benefits of international trade
4.2	Types of trade protection
4.3	Arguments for and against trade control and protection
4.4	Economic integration
4.5	Exchange rates
4.6	Balance of payments
4.7	Sustainable development
4.8	Measuring development
4.9	Barriers to economic growth and/or economic development
4.10	Barriers to economic growth and/or economic development
** 남은 시간들에는 Y1에 했던 어려운 컨셉들 (market power, macroeconomic polices 등 review 진행합니다	

Year 2 Psychology

Year 2 Psychology HL		
Week	Key Unit	Daily Lesson
W1	Review of Research Methods	D1 Evaluating Research
		D2 Re-thinking Ecological validity
	Practicing Critical Thinking	D3 How to apply CT skills
		D4 How to apply CT skills 2
	Getting used to ERQ	D5 Practicing ERQ writing
W2	HL extension : Animal studies	D6 Animal studies & Methods
		D7 Animlas studies : Values & Ethics
	HL extension: Technology and Cognitive Processes	D8 Digitalization & Memory
		D9 Google effect & Transactive Memory
	HL extension ERQ writing	D10 Practice ERQ writing
W3	Option 1 : Abnormal Psych	D11 Defining Normacy
		D12 Defining Normacy 2
		D13 Validlity and Reliability in Diagnosis
	Abnormal Psych ERQ writing	D14 Validity and Reliability in Diagnosis
		D15 Practice ERQ writing
W4	Option 1 : Abnormal Psych	D16 Etiology of Depression
		D17 Etiology of Depression 2
		D18 Treatment of Depression
	Abnormal Psych ERQ Writing	D19 Treatment of Depression 2
		D20 Practice ERQ writing

*From W3 : Topics may vary according to the majority students' option choices.

Year 2 Geography

Year 1 Geo Core		
Week	Key Unit	Daily lesson
W1	1.1 Changing Population : Population and Economic development Patterns	D1 Population distribution
		D2 Classification of Economic development & their global patterns
		D3 Changes in Population - Different Migration models
		D4 Changes in Population - Uneven distribution case study / Megacity growth
		D5 Changes in Population- Megacity growth
W2	1.2 Changing Populaiton : Changing Populations and places	D6 Population Change: Demographic indicators, changes in Population structure
		D7 Population Change: changes in population strucutres & DTM
		D8 Contrasting Case studies of Population changes
		D9 Megacity : Consequences & Challenges (+Case study)
		D10 Migration : Forced & Refugees (+Case study)
W3	1.3 Changing Population : Population Challenges and Opportunities	D11 Global and Regional Population trends : Ageing population & Sex Ratio
		D12 Population Management Policies : Ageing, Pronatalist, Antinatalist (+Case studies)
		D13 Population Management Policies : Problems/ Demographic Dividend
		D14 : Population as a resource : Demographic dividend (+Case studies)
		D15 Unit Test (Past paper Exam)
W4	2.1 Causes of Global Climate Change	D16 Changes in the global energy balance
		D17 Albedo & Feedback loops
		D18 Enhanced Greenhous Effect
		D19 Global Pattern of Carbon Emission
		D20 Lesson Quiz: Past paper exam
** from time to time, pop quiz (questions from the past papers) may given to the students.		

Year 2 Business and Management

Business Management Year 2	
Unit 3: Finance and accounts	
3.1	Introduction to finance
3.2	Sources of finance
3.3	Costs and revenues
3.4	Final accounts
3.5	Profitability and liquidity ratio analysis
3.6	Efficiency ratio analysis (HL only)
3.7	Cash flow
3.8	Investment appraisal
3.9	Budgets (HL only)
Unit 4: Marketing	
4.1	Introduction to marketing
4.2	Marketing planning
4.3	Sales forecasting (HL only)
4.4	Market research
4.5	The seven Ps of the marketing mix
4.6	International marketing (HL only)
Unit 5: Operations management	
5.1	Introduction to operations management
5.2	Operations methods
5.3	Lean production and quality management (HL only)
5.4	Location
5.5	Break-even analysis
5.6	Production planning (HL only)
5.7	Crisis management and contingency planning (HL only)
5.8	Research and development (HL only)
5.9	Management information systems (HL only)

Year 2 Eng A Lang & Lit

SATUS 여름방학 English Lang & Lit 강의 진도표

Y2 Objective

Preparation for finals: Refining Essential Exam Skills and Techniques + Reviewing Non-literary Text Types for Paper 1

Week	Day	Curriculum	Notes
1	1	Review: Paper 1 Overview	Paper 1
	2	Literary Analysis: Advertisement	
	3	Literary Analysis: Cartoon	
	4	Literary Analysis: Comic	
	5	Literary Analysis: Infographics	
2	6	Literary Analysis: Website	
	7	Literary Analysis: Online Articles (Magazine)	
	8	Literary Analysis: Online Articles (Scientific)	
	9	Literary Analysis: Opinion Column	
	10	Literary Analysis: Speech	
3	11	Review: Paper 2 Overview	Paper 2
	12	Literature: Persepolis	
	13	Literature: Persepolis	
	14	Literature: Medea	
	15	Literature: Medea	
	16	Literature: The World's Wife	
4	17	Literature: The World's Wife	
	18	Paper 2 Writing	
	19	Paper 2 Writing	
	20	Paper 2 Writing	