[Year 2]

Biology

Q5 SL				
theme	level of organization			
	molecules	cells	organisms	ecosystem
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
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
interactions and interdependence	C 1.1 enzymes and metabolism C 1.2 cell reperation C 1.3 photosynthesis	~~C 2.1 chemical signalling*~~ **C 2.2 neural signallining**	**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
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

Q5 HL				
theme	level of organization			
	molecules	cells	organisms	ecosystem
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
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
interactions and interdependence	C 1.1 enzymes and metabolism C 1.2 cell reperation C 1.3 photosynthesis	**C 2.1 chemical signalling*** **C 2.2 neural signallining**	**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
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

Chemistry

Chemistry Q5 SL			
Topic #	Topic	Subtopic #	Subtopic
Structure 1	Models of particulate nature of matter	Structure 1.4	Counting particles by mass: The mole
Structure 2	Models of bonding and structure	Structure 2.2	The covalent model
Structure 3	Classification of matter	Structure 3.1	The periodic table: Classification of elements
		Structure 3.2	Functional groups: Classification of organic compounds
Reactivity 2	How much, how fast and how far?	Reactivity 2.1	How much? The amount 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

Chemistry Q5 HL			
Topic #	Topic	Subtopic #	Subtopic
Structure 3	Classification of matter	Structure 3.2	Functional groups: Classification of organic compounds
Reactivity 2	How much, how fast and how far?	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

Physics

Physics	Week 1	Week 2	Week 3	Week 4
Y2 HL	B.5 Current and Circuits	D. Fields	C. Wave Behaviour	A.5 Relativity
Y2 SL	B.5 Current and Circuits	D. Fields	C. Wave Behaviour	E.1 Structure of atom

Economics

2026 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

BM

Business Management Year 2
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)**
Unit 2: Human resource management
2.1 Introduction to human resource management
2.2 Organizational structure
2.3 Leadership and management
2.4 Motivation and demotivation
2.5 Organizational (corporate) culture **(HL only)**
2.6 Communication
2.7 Industrial/employee relations **(HL only)**
Unit 3: Finance and accounts (Review)
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)**

IB Psychology Y2 SL Summer Course

20 Days | 1 hour per class

Week / Day	Unit Category	Daily Topics
W1 D1	Human Relationships : Review	Social Identity Theory
W1 D2		Social identity and group membership
W1 D3		Conformity
W1 D4		Group behaviour
W1 D5		Applications: prejudice, discrimination, social influence
W2 D6	Health & Well-being	Stress response and stressors
W2 D7		Coping strategies and stress management
W2 D8		Health behaviour and social learning
W2 D9		Risk factors and prevalence of mental health problems
W2 D10		Prevention strategies and lifestyle factors
W3 D11	Health and Well-being : Abnormal Psychology	Symptoms and diagnosis (MDD or PTSD)
W3 D12		Cognitive explanations of disorders
W3 D13		Biological explanations (genetics / neurotransmitters)
W3 D14		Environmental explanations (stress, life events)
W3 D15		Treatments: CBT and medication
W4 D16	Development	Brain development and neuroplasticity
W4 D17		Stage theory – Piaget
W4 D18		Sociocultural theory – Vygotsky (ZPD, scaffolding)
W4 D19		Attachment theory – Bowlby
W4 D20		Cultural influences on development

IB Psychology Y2 HL Summer Course

20 Days | 1.5 hours per class

Week / Day	Unit Category	Daily Topics
W1 - D1	Health & Well-being	Stress response: physiological stress, stressors, coping strategies
W1 - D2		Social learning and health behaviour: modelling of health habits
W1 - D3		Prevalence of health problems and risk factors
W1 - D4		Prevention strategies and public health interventions
W1 - D5	Health + HL Extension	Technology and mental health: social media, technoference, digital wellbeing
W2 - D6	Health & Well-being : Abnormal Psychology -MDD	Diagnosis of depression: symptoms, DSM criteria
W2 - D7		Cognitive explanations: Beck's theory and negative schemas
W2 - D8		Biological explanations: genetics and neurotransmitters
W2 - D9		Environmental explanations: stressful life events and vulnerability
W2 - D10		Treatments: antidepressants and cognitive behavioural therapy
W3 - D11	Development	Neuroplasticity and brain maturation
W3 - D12		Stage theory: Piaget's cognitive development
W3 - D13		Sociocultural theory: Vygotsky, ZPD, scaffolding
W3 - D14		Attachment theory: Bowlby and early relationships
W3 - D15		Enculturation and acculturation in cultural

Math AA

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
	N/A	
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 & Differentiation Rules
	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		
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
	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 Inflexion
	5.9	Kinematics
	5.10	Indefinite Integral
	5.11	Definite Integral
	5.12	Continuity/Differentiability, First Principles, Convergence/Divergence, and Higher Derivatives
	5.13	Hospital'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 Adv		
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
	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 Inflexion
	5.9	Kinematics
	5.10	Indefinite Integral
	5.11	Definite Integral
	5.12	Continuity/Differentiability, First Principles, Convergence/Divergence, and Higher Derivatives
	5.13	Hospital'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

Math AI

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 Trignometry	3.1	Geometry Basics
	3.2	Trigonmetry 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	Hypothese, 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
	5.17	Phase Portrait + Distinct/Real/Complex/Imaginary Eigenvalues + Equilibrium Points & Stable Populations & Saddle Points
	5.18	Euler's method (Extended)

AI의 경우, 학생들의 진도가 학교마다 크게 상이한 경우가 많으므로 상황에 따라 융통성 있게 진도를 수정할 수도 있습니다.

TOEFL Intensive Course

Week	Session	Main Topic	Vocabulary Focus	Grammar Focus	Skill Focus	Practice
Week 1	Day 1	Introduction to TOEFL Reading	Academic verbs	Complex sentence structure	Identifying main idea vs supporting details	Short academic passage analysis
Week 1	Day 2	Academic Paragraph Structure	Transition words	Subordinate clauses	Recognizing argument structure	Paragraph summary practice
Week 1	Day 3	Inference and Author's Purpose	Evaluation language	Relative clauses	Inference questions	TOEFL style MC reading questions
Week 2	Day 4	Cause and Effect in Academic Texts	Cause effect verbs	Participial phrases	Identifying causal relationship	Passage mapping exercise
Week 2	Day 5	Comparison and Contrast	Comparison markers	Parallel structure	Comparison analysis	Sentence completion questions
Week 2	Day 6	Academic Evidence and Reasoning	Research vocabulary	Academic Writing	Identifying supporting evidence	TOEFL reading set practice
Week 3	Day 7	Integrated Writing Strategy	Reporting verbs	Paraphrasing structures	Reading listening integration	Note taking and writing response
Week 3	Day 8	Academic Paragraph Writing	Argument vocabulary	Topic sentence formation	Developing supporting evidence	Academic paragraph writing
Week 3	Day 9	Coherence and Cohesion	Linking devices	Sentence variety	Logical flow in writing	Editing and revision practice
Week 4	Day 10	Advanced Reading Strategies	Academic collocations	Complex sentence analysis	Eliminating distractors	Timed reading practice
Week 4	Day 11	Writing Under Time Pressure	Academic phrasing	Sentence clarity and conciseness	Essay organization	Timed writing task
Week 4	Day 12	TOEFL Mini Simulation	Review of key vocabulary	Grammar review	Test strategy	TOEFL MOCK