



Bangkok Christian College English Immersion Program
Course Scope for Mathematics Mathayom 6
Semester 1/2025-2026 Teacher Vincent Illison
 Reviewing chapters 1-6, followed by chapters 7 and 8 to complete book 2.
 This will be followed by Statistics 1.



Date	Contents		Comments/ Remarks
16-20 May	Algebraic methods Students will know how to solve:	1.1 ALGEBRAIC FRACTIONS 1.2 DIVIDING POLYNOMIALS 1.3 THE FACTOR THEOREM	16 May – Visakha Bucha
23-27 May	Algebraic methods Students will know how to solve:	1.4 THE REMAINDER THEOREM 1.5 MATHEMATICAL PROOF 1.6 METHODS OF PROOF	
30 May – 3 June	Coordinate geometry in the (x,y) plane: Students will be able to find:	2.1 MIDPOINTS AND PERPENDICULAR BISECTORS 2.2 EQUATION OF A CIRCLE 2.3 INTERSECTIONS OF STRAIGHT LINES AND CIRCLES	3 June – Queen's Birthday
6-10 June	Coordinate geometry in the (x,y) plane Students will be able to know how to:	2.4 USE TANGENT AND CHORD PROPERTIES 2.5 CIRCLES AND TRIANGLES	
13-17 June	Trigonometric identities and equations Students will be able to know how to use:	3.1 EXPONENTIAL FUNCTIONS 3.2 LOGARITHMS 3.3 LAWS OF LOGARITHMS	
20-24 June	Trigonometric identities and equations Students will be:	3.4 SOLVING EQUATIONS USING LOGARITHMS 3.5 CHANGING THE BASE OF A LOGARITHM	
27 June – 1 July	The Binomial expansion Students will be solving: The Binomial expansion Students will be:	4.1 PASCAL'S TRIANGLE 4.2 FACTORIAL NOTATION 4.3 THE BINOMIAL EXPANSION 4.4 SOLVING BINOMIAL PROBLEMS 4.5 BINOMIAL ESTIMATION	
4-8 July	Sequences and series Students will be able to solve:	5.1 ARITHMETIC SEQUENCES 5.2 ARITHMETIC SERIES 5.3 GEOMETRIC SEQUENCES 5.4 GEOMETRIC SERIES	
11-15 July	Sequences and series Students will be able to:	5.5 SUM TO INFINITY 5.6 SIGMA NOTATION 5.7 RECURRENCE RELATIONS 5.8 MODELLING WITH SERIES	Jul 13-15 Asalha Bucha / Bhuddist Lent Holidays
18-22 July	Trigonometric identities and equations Students will be able to calculate:	6.1 ANGLES IN ALL FOUR QUADRANTS 6.2 EXACT VALUES OF TRIGONOMETRICAL RATIOS 6.3 TRIGONOMETRIC IDENTITIES	
25-29 July	Trigonometric identities and equations Students will be able to calculate:	6.4 SOLVE SIMPLE TRIGONOMETRIC EQUATIONS 6.5 HARDER TRIGONOMETRIC EQUATIONS 6.6 EQUATIONS AND IDENTITIES	Jul 28-29 King's Birthday
1-5 Aug. 8-12 Aug.	Differentiation Students will identify:	7.1 INCREASING AND DECREASING FUNCTIONS 7.2 STATIONARY POINTS	Aug 12 – Queen's Birthday
15-19 Aug.	Differentiation Students will identify:	7.3 SKETCHING GRADIENT FUNCTIONS 7.4 MODELLING WITH DIFFERENTIATION	
22-26 Aug.	Catch up with Assignments and review work.		
29 Aug. – 2 Sept.	Integration Students will be able to:	8.1 DEFINITE INTEGRALS 8.2 AREAS UNDER CURVES 8.3 AREAS UNDER THE x-AXIS	
5-9 Sept.	Integration Students will be able to:	8.4 AREAS BETWEEN CURVES AND LINES 8.5 AREAS BETWEEN TWO CURVES 8.6 THE TRAPEZIUM RULE	
12-16 Sept.	Review all chapters and catch up with incomplete assignments		
19-23 Sept	Prepare for exams		



Bangkok Christian College English Immersion Program
Course Scope for Mathematics for Business Mathayom 6 - 614



Semester 1/2025-2026 Teacher Vincent Illison

Date	Contents	Comments/ Remarks
16-20 May	<p>Algebra- Simultaneous equations.</p> <p>Students can solve simultaneous equations by rearranging equations in the form $ax + by = c$. They match up coefficients either “x” or “y” sometimes by multiplying one or both equations to get one of the coefficients the same value. They then add or subtract the equations to eliminate the terms with the same coefficient. They then substitute back into one of the equations to find the missing coefficient value. Students can also solve quadratic and linear equations by substitution methods.</p>	24 Oct – Chulalongkorn Day
23-27 May	<p>Algebra-Functions</p> <p>Students will know that a function takes an input, processes it and outputs a value.</p> <p>How to write functions such as $f(x) = 5x + 2$ or $f : x \rightarrow 5x + 2$.</p> <p>Students will substitute values into functions such as $f(2)$ or $f(-3)$.</p> <p>They will use composite functions and inverse functions.</p>	
30 May – 3 June	<p>Algebra-straight line graphs.</p> <p>Students will plot and identify straight line equations using horizontal and vertical axes.</p> <p>They'll recognize the gradient is the steepness of the line, which can be positive or negative.</p> <p>Use the formula to find the Gradient.</p> <p>Students will use the formula $y = mx + c$, to find the gradient and the y – intercept.</p> <p>They can also find the equation of the line through two points.</p> <p>Students will draw graphs through the use of tables.</p>	
6-10 June	<p>Shape and space- Parallel and Perpendicular lines.</p> <p>Students will know that all Parallel lines have the same Gradient.</p> <p>The “m” value is the same.</p> <p>Students will know the Perpendicular lines cross at a right angles, and if you multiply their gradients together you'll get -1</p>	
13-17 June	<p>Algebra-Quadratic graphs.</p> <p>Students will plot graphs from using tables and recognize the properties of $y = x^2$ graphs.</p> <p>They will recognize turning points and x intercepts with their coordinates.</p> <p>Students will plot graphs use the x^3 function through tables.</p>	
20-24 June	<p>Algebra-Real life graphs.</p> <p>Students will read information from graphs, such as distance-time, gradient = speed, flat sections where they've stopped, the steeper the graph the faster they're going and if the gradient is negative, it's coming back.</p>	
27 June – 1 July	<p>Algebra- Ratios.</p> <p>Students will write ratios as fractions.</p> <p>They will reduce ratios to its simplest form.</p> <p>Students will use calculator functions to solve ratios.</p> <p>They can use 1:n or n:1 to solve ratios.</p> <p>Students can calculate quantities once they've found 1 part.</p>	5 Dec – King Bhumibol Birthday

4-8 July	<p>Algebra-Direct and Inverse proportion.</p> <p>Students will know when:</p> <p>Two quantities, A and B, are in direct proportion (or just in proportion) if increasing one increases the other one proportionally. So if quantity A is doubled (or trebled, halved, etc.), so is quantity B.</p> <p>They will also know when:</p> <p>Two quantities, C and D, are in inverse proportion if increasing one quantity causes the other quantity to decrease proportionally. So if quantity C is doubled (or tripled, halved, etc.), quantity D is halved (or divided by 3, doubled etc.).</p>	12 Dec – Constitution Day
11-15 July	<p>Number- Percentages</p> <p>Students will be able to convert from percentages to fractions and decimals.</p> <p>They will be able to find the new amount after a percentage increase/decrease.</p> <p>Students will be able to find the original amount.</p>	23 Dec – Class Christmas Parties
18-22 July	<p>Number- Percentages</p> <p>Students will be able to convert from percentages to fractions and decimals.</p> <p>They will be able to find the new amount after a percentage increase/decrease.</p> <p>Express “x” as a percentage of “y”.</p> <p>Students will find the percentage change.</p> <p>They will also find the original value.</p> <p>Students will calculate simple interest and compound interest.</p>	26 – 30 Dec. Christmas Holiday
25-29 July	<p>Shape and space-Unit conversion.</p> <p>Students will convert between metric and imperial units.</p> <p>They will be able to convert area and volume.</p> <p>They will learn formulae for speed, density and pressure.</p>	2 Jan – New Year Observed
1-5 Aug.	<p>Shape and space-Geometry</p> <p>Students will learn all angle facts.</p> <p>They will also learn about angles around parallel lines.</p> <p>Students will understand alternate, allied and corresponding angles.</p> <p>They will understand about regular and irregular polygons.</p> <p>Calculate interior and exterior angles.</p> <p>Students will understand the properties of triangles and quadrilaterals.</p> <p>Learn about congruent shapes.</p>	16 Jan – Teacher's Day
8-12 Aug.	<p>Shape and space-The four transformations.</p> <p>Students will understand translation, rotation, reflection and enlargement.</p> <p>They can use vectors when moving shapes.</p> <p>Students can describe rotations, by using angle rotation, direction of rotation and centre of rotation.</p> <p>They will reflect shapes through an equation and mirror line.</p> <p>Students will enlarge shapes using scale factor and centre of enlargement.</p>	
15-19 Aug.	<p>Shape and space-Areas of triangles, Quadrilaterals and Circles.</p> <p>Students will learn and use the formulae to solve problems.</p> <p>They will calculate circumference and areas of circles.</p> <p>Students will also find areas of Segments and sectors.</p>	
22-26 Aug.	<p>Shape and space-3D Shapes- Surface area and Volume.</p> <p>Students will recognize vertices, faces and edges of 3D shapes.</p> <p>They will recognize and use formulae for Spheres, cones and cylinders.</p> <p>Students will calculate volumes of prisms.</p>	

<p>29 Aug. – 2 Sept.</p> <p>5-9 Sept.</p>	<p>Shape and space-Triangle construction and loci.</p> <p>Students will construct sides and angles using a ruler and protractor.</p> <p>They will use loci and the locus of points which are a fixed distance from a given point, a fixed distance from a given line, equidistance from two given lines and equidistance from two given points.</p>	
<p>12-16 Sept.</p> <p>19-23 Sept</p>	<p>Finals</p>	<p>20 – 23 Feb. Final Exams</p>



Bangkok Christian College English Immersion Program
Course Scope for Project Science Science and Technology Mathayom 6
Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	Comments/ Remarks
12 - 16 May	As Level Physics Topic 1: Further Mechanics. Pg 8-22. Review Momentum, Collisions, Energy in collisions and real collisions. Introduce Project 1: Angular displacement	
19 - 23 May	As Level Physics Topic 1: Further Mechanics (continued) Pg 25-31. Circular Motion. Angular displacement, centripetal force, motion in amusement parks. (Worksheet 1: Questions from 1.1 and 1.2)	
26 – 30 May	More examples of rpm and radians calculations. Project 1: Create a device that exhibits motion and angular displacement. Groups are expected to demonstrate. Some class time given to prepare + Test 1 .	
2 – 6 June	Discussion on use of angular displacement in space to create zero gravity, Past paper practice (High Tier) on the topic and Presentation of Projects. Project 1 due	
9 – 13 June	As Level Physics Topic 3: Particle Physics. Intro (76-82) Looking at matter. The origins of how atoms were conceived, different advancements, electrons from atoms.	
16 – 20 June	Video/Online Quiz 1 : Reviewing how particles are made (quarks, neutrinos, positrons, protons made of 2 upquarks and a down to create +1, neutrons made up of 2 downs and an up to create 0)...expanding on our ideas of the known world.	
23 – 27 June	As Level Physics Topic 3: Partical accelerators: (pg 85-94) Usages in medical (radioactive isotopes) and the LHC (Large Hadron Collider) Relevance to future technologies Test 2 .	
30 June - 4 July	Start of Particle interaction and expand on creation, the bricks of matter and get to the standard model. Review for grade feedback and past papers on the particle physics.	
7 - 11 July	Review Topics 1 and 3: Time for outstanding work/projects. +Midterms	
14 -18 July	Reviewing Topic 3 and relating this to A level Topic 7 Astrophysics.(170-196) How a neutron star is formed, how stars are formed through particle interactions.	
21 – 25 July	7.1 Gravitational fields; (172-178) Worksheet 2: Gravity and its effects on possible colonization efforts. How the body interacts with gravity.	
28 July- 1 August	A level Topic 7 continued: 7.2 Starshine, (pg 175-181) expanding on stellar properties, classifying stars, Debate: Are we/Should we colonize other planets? (Also look at star naming sites)	
4 - 8 August	7.3 Hubble's law. Distances of stars using the Doppler effect, the age of the universe and future. Video Quiz 2 : The birth and death of the universe and how the big bang is controversial. (FermiLabs)	
11 – 15 August	Past papers on Topics 7.1, 7.2 and 7.3 and Test 3 Introduce Project 2:Space Advancement/Patents	
18 - 22 August	Project 2: Space Advancements, Patents and Future adaptations. Presentations and discussion on research funding for these ideas. Is space research better done by companies or by governments.	
25 - 29 August	Following current space efforts: Artemis program, New Gateway station, India and Japanese programs, the fate of the ISS, the fate of the Hubble telescope, the James Webb Telescopes achievements and the coming of the Nancy Grace Telescope.	
1 - 5 September	Prep + Mock Exam on Topics 1 (Further Mechanics), 3 (Particle Physics), and 7 (Astrophysics) (Test 4)	
8 - 12 September	Feedback from mock exam +Review of all topics and getting late work completed, plus counseling on scores.	
15 -19 September	Final Exams on all topics	



Bangkok Christian College English Immersion Program

Course Scope for Physics Mathayom 6

Semester 1/2025-2026 Teacher Nicholas Barrett



Date	Contents	Comments/ Remarks
12 - 16 May	Magnetic fields and interactions	
19 - 23 May	Induced magnetism	
26 – 30 May	Experiment: The interactions of ferromagnetic material	
2 – 6 June	Electromagnetism	
9 – 13 June	Forces on a current-carrying wire	
16 – 20 June	Electric Motors	
23 – 27 June	Electromagnetic Induction	
30 June - 4 July	Faraday's Law	
7 - 11 July	Lenz's Law	
14 -18 July	Generators	
21 – 25 July	Transformers	
28 July- 1 August	Experiment: Electromagnetic effects of Motors and Generators	
4 - 8 August	Test: Electromagnetism and Induction	
11 – 15 August	Electrostatic interactions and the triboelectric effect	
18 - 22 August	The triboelectric effect	
25 - 29 August	Coulomb's law and Electric fields	
1 - 5 September	Maxwell's equations and the unifying concept of electromagnetism	
8 - 12 September	Quantum Physics introduction, featuring the general form of Faraday's law	
15 -19 September	Final Exam	



Bangkok Christian College English Immersion Program



Course Scope for Chemistry Mathayom 6

Semester 1/2025-2026 Teacher Sep Alamouti

Date	Contents	Comments/ Remarks
12 - 16 May	<p>Intro: Classroom Rules & Semester Plan</p> <p>Identify and explain key classroom rules and expectations for behavior, participation, and academic integrity.</p> <p>Demonstrate respect for peers, teachers, and the learning environment through appropriate classroom conduct.</p> <p>Follow established procedures for asking questions, submitting assignments, and participating in discussions.</p> <p>Understand the consequences of not</p>	<p>Content and Assessment:</p> <p>Classroom Rules Handouts</p> <p>Chemistry Lab SOP Handout</p>
19 - 23 May	<p>Topic 6 : Organic Chemistry</p> <p>6.1 – Hydrocarbons</p> <p>know that a hydrocarbon is a compound of hydrogen and carbon only</p> <p>understand how to represent organic molecules using empirical formulae, molecular formulae, general formulae, structural formulae and displayed formulae</p> <p>know what is meant by the terms homologous series, functional group and isomerism</p> <p>understand how to name compounds relevant to this specification using the rules of International Union of Pure and Applied Chemistry (IUPAC) nomenclature</p> <p>**learners will be expected to name compounds containing up to six carbon atoms</p> <p>understand how to write the possible structural and displayed formulae of an organic molecule given its molecular formula</p> <p>understand how to classify reactions of organic compounds as substitution, addition and</p> <p>combustion *knowledge of reaction mechanisms is not required</p>	<p>Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 255-267</p> <p>Required Problems: 1-5 (pages 265-267)</p> <p>Revision Textbook: 118-122</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Hydrocarbons</p> <p>Exam Style Questions</p>
26 – 30 May	<p>Topic 6 : Organic Chemistry</p> <p>6.2 - Alkanes - Properties & Combustion</p> <p>know the general formula for alkanes</p> <p>explain why alkanes are classified as saturated hydrocarbons</p> <p>explain why alkenes are classified as unsaturated hydrocarbons</p> <p>describe the reactions of alkanes with halogens in the presence of ultraviolet radiation, limited to mono-substitution</p> <p>****knowledge of reaction mechanisms is not required</p> <p>know that a fuel is a substance that, when burned, releases heat energy</p>	<p>Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 277-281</p> <p>Required Problems: 1-4 (pages 281)</p> <p>Revision Textbook: 125-127</p>

	<p>know the possible products of complete and incomplete combustion of hydrocarbons with. oxygen in the air</p>	<p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Alkanes - Properties & Combustion</p> <p>Exam Style Questions</p>
2 – 6 June	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.3 – Crude Oil & Fractional Distillation</p> <p>know that crude oil is a mixture of hydrocarbons</p> <p>describe how the industrial process of fractional distillation separates crude oil into fractions</p> <p>know the names and uses of the main fractions obtained from crude oil: refinery gases, gasoline, kerosene, diesel, fuel oil and bitumen</p> <p>know the trend in colour, boiling point and viscosity of the main fractions</p> <p>know that a fuel is a substance that, when burned, releases heat energy</p> <p>know the possible products of complete and incomplete combustion of hydrocarbons with. oxygen in the air</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 268-276</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook: 122-123</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Crude Oil & Fractional Distillation</p> <p>Exam Style Questions</p>
9 – 13 June	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.4 - Cracking & Alkenes</p> <p>describe how long-chain alkanes are converted to alkenes and shorter-chain alkanes by catalytic cracking (using silica or alumina as the catalyst and a temperature in the range of 600–700 °C)</p> <p>explain why cracking is necessary, in terms of the balance between supply and demand for different fractions</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 282-286</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook: 128-129</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Cracking & Alkenes</p>

		Exam Style Questions
16 – 20 June	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.5 - Air Pollution</p> <p>know the possible products of complete and incomplete combustion of hydrocarbons with oxygen in the air"</p> <p>understand why carbon monoxide is poisonous, in terms of its effect on the capacity of blood to transport oxygen</p> <p>*** references to haemoglobin are not required</p> <p>know that, in car engines, the temperature reached is high enough to allow nitrogen and oxygen from air to react, forming oxides of nitrogen</p> <p>explain how the combustion of some impurities in hydrocarbon fuels results in the formation of sulfur dioxide</p> <p>understand how sulfur dioxide and oxides of nitrogen contribute to acid rain</p> <p style="text-align: center;">Unit Test 1</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 125,</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook:</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Air Pollution</p> <p>Exam Style Questions</p>
23 – 27 June	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.6 – Alkenes-Reaction of Alkenes</p> <p>know that alkenes contain the functional group $>C=C<$</p> <p>know the general formula for alkenes</p> <p>explain why alkenes are classified as unsaturated hydrocarbons</p> <p>understand how to draw the structural and displayed formulae for alkenes with up to four carbon atoms in the molecule, and name the unbranched-chain isomers</p> <p>knowledge of cis/trans or E/Z notation is not required"</p> <p>describe the reactions of alkenes with bromine to produce dibromoalkanes</p> <p>describe how bromine water can be used to distinguish between an alkane and an alkene</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 282-286</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook: 128-129</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Alkenes-Reaction of Alkenes</p> <p>Exam Style Questions</p>
30 June - 4 July	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.7 – Alcohols</p> <p>know that alcohols contain the functional group $-OH$</p> <p>understand how to draw structural and displayed formulae for methanol, ethanol, propanol (propan-1-ol only) and butanol (butan-1-ol only), and name each compound</p> <p>****the names propanol and butanol are acceptable"</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 287-292</p> <p>Required Problems: 1-2 (pages 282)</p>

	<p>know that ethanol can be oxidised by:</p> <ul style="list-style-type: none"> • burning in air or oxygen (complete combustion) • reaction with oxygen in the air to form ethanoic acid (microbial oxidation) • heating with potassium dichromate(VI) in dilute sulfuric acid to form ethanoic acid" 	<p>Revision Textbook: 132-134</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Alcohols</p> <p>Exam Style Questions</p>
7 - 11 July	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.8 - Production of Ethanol</p> <p>Know that ethanol can be manufactured by:</p> <ul style="list-style-type: none"> • reacting ethene with steam in the presence of a phosphoric acid catalyst at a temperature of about 300 °C and a pressure of about 60–70 atm • the fermentation of glucose, in the absence of air, at an optimum temperature of about 30 °C and using the enzymes in yeast <p>Understand the reasons for fermentation, in the absence of air, and at an optimum temperature</p> <p style="text-align: center;">Unit Test 2</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 287-292</p> <p>Required Problems: 1-2 (pages 292)</p> <p>Revision Textbook: 132-134</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Production of Ethanol</p> <p>Exam Style Questions</p>
14 -18 July	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.9 - Carboxylic Acids</p> <p>know that carboxylic acids contain the functional group</p> <p>understand how to draw structural and displayed formulae for unbranched-chain carboxylic acids with up to four carbon atoms in the molecule, and name each compound"</p> <p>describe the reactions of aqueous solutions of carboxylic acids with metals and metal carbonates"</p> <p>know that vinegar is an aqueous solution containing ethanoic acid</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 293-296</p> <p>Required Problems: 1-2 (pages 295-296)</p> <p>Revision Textbook: 135-136</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Carboxylic Acids</p> <p>Exam Style Questions</p>
21 – 25 July	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.10 – Esters</p> <p>know that esters contain the functional group</p> <p>know that ethyl ethanoate is the ester produced when ethanol and ethanoic acid react in the presence of an acid catalyst</p> <p>understand how to write the structural and displayed formulae of ethyl ethanoate</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 297-301</p> <p>Required Problems: 1-4 (pages 301)</p>

	<p>understand how to write the structural and displayed formulae of an ester, given the name or formula of the alcohol and carboxylic acid from which it is formed and vice versa"</p> <p>know that esters are volatile compounds with distinctive smells and are used as food flavourings and in perfumes</p>	<p>Revision Textbook: 137</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Esters</p> <p>Exam Style Questions</p>
28 July- 1 August	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.11 - Addition Polymers</p> <p>know that an addition polymer is formed by joining up many small molecules called monomers"</p> <p>understand how to draw the repeat unit of an addition polymer, including poly(ethene), poly(propene), poly(chloroethene) and (poly)tetrafluoroethene"</p> <p>understand how to deduce the structure of a monomer from the repeat unit of an addition polymer and vice versa"</p> <p>explain problems in the disposal of addition polymers, including:</p> <ul style="list-style-type: none"> • their inertness and inability to biodegrade • the production of toxic gases when they are burned." 	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 302-312</p> <p>Required Problems: 1-5 (pages 311-312)</p> <p>Revision Textbook: 140-141</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Addition Polymers</p> <p>Exam Style Questions</p>
4 - 8 August	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>6.12 - Condensation Polymers</p> <p>know that condensation polymerisation, in which a dicarboxylic acid reacts with a diol, produces a polyester and water</p> <p>understand how to write the structural and displayed formula of a polyester, showing the repeat unit, given the formulae of the monomers from which it is formed including the reaction of ethanedioic acid and ethanediol</p> <p>know that some polyesters, known as bio polyesters, are biodegradable</p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 302-312</p> <p>Required Problems: 1-5 (pages 311-312)</p> <p>Revision Textbook: 142</p> <p>Lab Book: N/A</p> <p>Formative Assessments:</p> <p>Condensation Polymers</p> <p>Exam Style Questions</p>
11 – 15 August	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p>Unit Test 3</p>	<p style="text-align: center;">Content and Assessment:</p> <p>Topic 3 Test Review Sheet</p> <p>Test Review Activities:</p> <ul style="list-style-type: none"> • Review keywords relating to the previous topics. • Multiple-choice questions to review prior knowledge. • Re-teach previously identified challenging topics, anticipating where errors/misconceptions arise. • Modelling how to answer questions. <p>Students mark exemplar work using mark schemes.</p>
18 - 22 August	<p style="text-align: center;">Topic 6 : Organic Chemistry</p> <p><i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p style="text-align: center;">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p>

		<p>Pages 297-301</p> <p>Required Problems: 1-4 (pages 301)</p> <p>Revision Textbook:</p> <p>Lab Book: Pages 69-73</p> <p>Formative Assessments:</p> <p>prepare a sample of an ester such as ethyl ethanoate</p> <p>Exam Style Questions</p>
25 - 29 August	<p>Topic 6 : Organic Chemistry</p> <p><i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p>Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 297-301</p> <p>Required Problems: 1-4 (pages 301)</p> <p>Revision Textbook:</p> <p>Lab Book: Pages 69-73</p> <p>Formative Assessments:</p> <p>prepare a sample of an ester such as ethyl ethanoate</p> <p>Exam Style Questions</p>
1 - 5 September	<p>Topic 6 : Organic Chemistry</p> <p><i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p>Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 297-301</p> <p>Required Problems: 1-4 (pages 301)</p> <p>Revision Textbook:</p> <p>Lab Book: Pages 69-73</p> <p>Formative Assessments:</p> <p>prepare a sample of an ester such as ethyl ethanoate</p> <p>Exam Style Questions</p>
8 - 12 September	<p>Topic 6 : Organic Chemistry</p> <p>Semester Review</p>	<p>Content and Assessment:</p> <p>Semester Review</p> <p>Review Activities:</p> <ul style="list-style-type: none"> Review keywords relating to the topics.

		<ul style="list-style-type: none">• Multiple-choice questions to review prior knowledge.• Re-teach previously identified challenging topics, anticipating where errors/misconceptions arise.• Modelling how to answer questions. Students mark exemplar work using mark schemes.
15 -19 September	Final Exam Week	-----



Bangkok Christian College English Immersion Program
Course Scope for Biology Mathayom 6
Semester 1/2025-2026 Teacher Rick Reinders



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction lesson (Teams, Onenote, teacher, rules, etc)	
19 - 23 May	Digestive and Excretory Systems, Nutrients, 7 classes of nutrients, organic nutrients, vitamins, minerals, and water	
26 – 30 May	Research nutrients and diet	
2 – 6 June	Malnourishment (3 types)	
9 – 13 June	Malnutrition Project: Beriberi, Osteoporosis, Rickets, Kwashiorkor	
16 – 20 June	Malnutrition Project: Beriberi, Osteoporosis, Rickets, Kwashiorkor	
23 – 27 June	Digestive System, Alimentary Canal, Oral Cavity, Pharynx and Esophagus	
30 June - 4 July	Digestive System, Stomach: mechanical and chemical digestion of food	
7 - 11 July	Digestive System, Liver, Gallbladder, Pancreas, Small Intestine, Large Intestine	
14 -18 July	Urinary System, Excretory organs, The Renal System	
21 – 25 July	Urinary System, Structure of Kidneys, Nephrons, water regulation	
28 July- 1 August	Urinary System, Elimination of Urine	
4 - 8 August	Laboratory: Kidney dissection	
11 – 15 August	Excretory Project, Comparison human excretory system with another organism	
18 - 22 August	Reproductive System: Mitosis and Meiosis, Spermatogenesis, Oogenesis, Hormones, Fertilization	
25 - 29 August	Male Reproductive System, Anatomy, Scrotum, Testes, Structure of Sperm cells, Epididymis, Vas Deferens, Seminal Vesicles, Glands, Urethra – Penis	
1 - 5 September	The Female Reproductive System, ovaries, fallopian tubes, uterus, and vagina, mammary glands, hormones involved in lactation. the menstrual, endometrium.	
8 - 12 September	Gestation, fertilization, cleavage, implantation, pregnancy, embryo during pregnancy, the effects of unnecessary drug use on development	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Computer Studies Mathayom 6

Semester 1/2025-2026 Teacher James Cookson



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction to A.I. for Programming	
19 - 23 May	HTML + CSS review	
26 – 30 May	AI with HTML + CSS	
2 – 6 June	JavaScript Fundamentals Review 1	
9 – 13 June	JavaScript Fundamentals Review 2	
16 – 20 June	AI with JavaScript 1	
23 – 27 June	AI with JavaScript 2	
30 June - 4 July	Midterm Project	
7 - 11 July	Introduction to React	
14 -18 July	Building Simple Interfaces with React	
21 – 25 July	AI with React 1	
28 July- 1 August	AI with React 2	
4 - 8 August	Introduction to Node.js	
11 – 15 August	Basic RESTful API with Node.js	
18 - 22 August	AI with Node.js 1	
25 - 29 August	AI with Node.js 2	
1 - 5 September	Final AI Full Stack Project	
8 - 12 September	Final AI Full Stack Project	
15 -19 September	Final AI Full Stack Project	



Bangkok Christian College English Immersion Program

Course Scope for Health and Physical Education Mathayom 6

Semester 1/2025-2026 Teacher Benjamin Peter Fishman



Date	Contents	Comments/ Remarks
12 - 16 May	Teacher Introduction	
19 - 23 May	Course Theme Introduction	
26 – 30 May	Biodata collection week	
2 – 6 June	Football scrimmage	
9 – 13 June	Football fast break drills	
16 – 20 June	Football 1 st touch control drills	
23 – 27 June	Football footwork drills	
30 June - 4 July	Football corner kicks drill	
7 - 11 July	Football formations overview	
14 -18 July	Nutrition Lesson	
21 – 25 July	Nutrition quiz	
28 July- 1 August	Combat sports overview	
4 - 8 August	Boxing footwork drills	
11 – 15 August	Boxing drills	
18 - 22 August	Local Sports project intro	
25 - 29 August	Local Sports project	
1 - 5 September	Local Sports project presentation	
8 - 12 September	Course theme debrief	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Literature Studies Mathayom 6

Semester 1/2025-2026 Teacher George (Djurdje) Spasojevic



Date	Contents	Comments/ Remarks
12 - 16 May	Semester outline and class expectations. Getting to know the students.	12 May Visakha Bucha
19 - 23 May	Maritas Bargain by Malcolm Gladwell.	
26 - 30 May	Central ideas in Maritas Bargain.	
2 - 6 June	Central ideas and text analysis in Maritas Bargain.	Queen's Birthday 2-3 June
9 - 13 June	Marita's Bargain Test.	
16 - 20 June	Don't Eat the Fortunes Cookie, speech by Michael Lewis.	
22 - 27 June	Don't Eat the Fortunes Cookie, speech by Michael Lewis.	
30 June - 4 July	Pair activity for the speech. Analysis.	
7 - 11 July	Writing activity.	10 July Asalha Bucha
14 - 18 July	The Secret to Raising Smart Kids, by Carol S. Dweck. Reading	
21 - 25 July	The Secret to Raising Smart Kids, by Carol S. Dweck. Reading	
28 July - 1 August	Analyze and evaluate the structure.	28 July King's Birthday
4 - 8 August	Analyze and evaluate the structure.	
11 - 15 August	Determine the meaning of words and phrases as they are used in a text.	12 August Mother's Day
18 - 22 August		
25 - 29 August	M6 Final project – Literary Analysis	
1 - 5 September	M6 Final project – Literary Analysis	
8 - 12 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Current World Events Mathayom 6

Semester 1/2025-2026 Teacher Andrew Hailstone



Date	Contents	Comments/ Remarks
12 - 16 May	Analysis of own individual political beliefs and positions	12 May Visakha Bucha
19 - 23 May	Analysis of classical Left-wing positions	
26 - 30 May	Analysis of classical Right-wing positions	
2 - 6 June	Analysis of classical centre positions	Queen's Birthday 2-3 June
9 - 13 June	Test of political positions ideas	
16 - 20 June	Group work; whereby they team up with students with as similar positions as them as is possible	
22 - 27 June	Group work development of political manifesto for their political party for the election exercise	
30 June - 4 July	Group work development of political manifesto for their political party for the election exercise	
7 - 11 July	Group work development of political manifesto for their political party for the election exercise	10 July Asalha Bucha
14 - 18 July	Election analysis of the group work	
21 - 25 July	Analysis of the situation in Syria and its origins	
28 July - 1 August	Analysis of the situation in Syria and its origins	28 July King's Birthday
4 - 8 August	Introduction of the concepts of empathy and sympathy	
11 - 15 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	12 August Mother's Day
18 - 22 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
25 - 29 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
1 - 5 September	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
8 - 12 September	Test on positions and review	
	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Reading News Mathayom 6

Semester 1/2025-2026 Teacher Andrew Hailstone



Date	Contents	Comments/ Remarks
12 - 16 May	Topical News Media Story Analysis, note taking and then answering questions.	12 May <u>Visakha</u> <u>Bucha</u>
19 - 23 May	Topical News Media Story Analysis, note taking and then answering questions.	
26 - 30 May	Topical News Media Story Analysis, note taking and then answering questions.	
2 - 6 June	Topical News Media Story Analysis, note taking and then answering questions.	Queen's Birthday 2-3 June
9 - 13 June	Topical News Media Story Analysis, note taking and then answering questions.	
16 - 20 June	Topical News Media Story Analysis, note taking and then answering questions.	
22 - 27 June	Topical News Media Story Analysis, note taking and then answering questions.	
30 June - 4 July	Topical News Media Story Analysis, note taking and then answering questions.	
7 - 11 July	Topical News Media Story Analysis, note taking and then answering questions.	10 July Asalha Bucha
14 - 18 July	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
21 - 25 July	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
28 July - 1 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	28 July King's Birthday
4 - 8 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
11 - 15 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	12 August Mother's Day
18 - 22 August	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
25 - 29 August	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
1 - 5 September	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
8 - 12 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for English Rhetoric and Composition Mathayom 6

Semester 1/2025-2026 Teacher Rick Diaz



Date	Contents	Comments/ Remarks
12 - 16 May	Course Introduction – Teams, resources, assignments, policies, and expectations	12 May Visakha Bucha
19 - 23 May	Decoding Information: Facts, Details, and Opinions	
26 - 30 May	Primary Sources – Finding and using original documents, objects, or artifacts created during the period being studied, offering a firsthand perspective	
2 - 6 June	Secondary Sources – Finding and using analyses, interpretations, or evaluations of information presented in primary sources.	Queen's Birthday 2-3 June
9 – 13 June	Summarizing Information - Identifying the main points, supporting arguments, and overall conclusion	
16 – 20 June	Paraphrasing Information - Rewording someone else's ideas or information in your own words while maintaining the original meaning	
22 – 27 June	Avoiding Plagiarism when Summarizing and Paraphrasing Citation (properly cite your sources and ensure that all borrowed ideas and wording are clearly attributed to their original author)	
30 June - 4 July	Informative Writing – Instructions: Conveying information in a way that's easily understood and followed, leading to the successfully complete a task or a desired outcome	
7 - 11 July	Informative Writing – Directions: Clear communication and anticipating the needs of your audience, guiding them from point A to point B with enough detail to avoid confusion	10 July Asalha Bucha
14 - 18 July	Persuasive Writing - Purposes of Persuasive Writing Rhetoric and Strategies - Logos, pathos and ethos	
21 – 25 July	Persuasive Writing - Effective Persuasion Essentials, Persuasive Language, Organizational Structures, Persuasive Strategies	
28 July - 1 August	Persuasive Writing - Persuasive Essays I - Text Structure of a Persuasive Essay, Structure & Language Supplementals	28 July King's Birthday
4 - 8 August	Persuasive Writing - Persuasive Essays II (Writing a persuasive essay)	
11 – 15 August	Persuasive Advertising - Qualities of a Good Ad	12 August Mother's Day
18 - 22 August	Persuasive Advertising - Propaganda Techniques in Advertising (Language, Images)	
25 - 29 August	Persuasive Advertising – Creating a persuasive Advertisement	
1 - 5 September	↑ GAP WEEK ↓ (Movable due to unforeseen / unannounced schedule changes) ↑May – August↓	
8 - 12 September	Final Exam Week – Non core classes not on the testing schedule	



Bangkok Christian College English Immersion Program
Course Scope for Chemistry Mathayom 6
Semester 1/2025-2026 Teacher Sep Alamouti



Date	Contents	Comments/ Remarks
12 - 16 May	Intro: Classroom Rules & Semester Plan Identify and explain key classroom rules and expectations for behavior, participation, and academic integrity. Demonstrate respect for peers, teachers, and the learning environment through appropriate classroom conduct. Follow established procedures for asking questions, submitting assignments, and participating in discussions. Understand the consequences of not	Content and Assessment: Classroom Rules Handouts Chemistry Lab SOP Handout
19 - 23 May	Topic 6 : Organic Chemistry 6.1 – Hydrocarbons know that a hydrocarbon is a compound of hydrogen and carbon only understand how to represent organic molecules using empirical formulae, molecular formulae, general formulae, structural formulae and displayed formulae know what is meant by the terms homologous series, functional group and isomerism understand how to name compounds relevant to this specification using the rules of International Union of Pure and Applied Chemistry (IUPAC) nomenclature **learners will be expected to name compounds containing up to six carbon atoms understand how to write the possible structural and displayed formulae of an organic molecule given its molecular formula understand how to classify reactions of organic compounds as substitution, addition and combustion *knowledge of reaction mechanisms is not required	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 255-267 Required Problems: 1-5 (pages 265-267) Revision Textbook: 118-122 Lab Book: N/A Formative Assessments: Hydrocarbons Exam Style Questions
26 – 30 May	Topic 6 : Organic Chemistry 6.2 - Alkanes - Properties & Combustion know the general formula for alkanes explain why alkanes are classified as saturated hydrocarbons explain why alkenes are classified as unsaturated hydrocarbons describe the reactions of alkanes with halogens in the presence of ultraviolet radiation, limited to mono-substitution ****knowledge of reaction mechanisms is not required know that a fuel is a substance that, when burned, releases heat energy know the possible products of complete and incomplete combustion of hydrocarbons with. oxygen in the air	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 277-281 Required Problems: 1-4 (pages 281) Revision Textbook: 125-127 Lab Book: N/A Formative Assessments: Alkanes - Properties & Combustion Exam Style Questions
2 – 6 June	Topic 6 : Organic Chemistry 6.3 – Crude Oil & Fractional Distillation know that crude oil is a mixture of hydrocarbons describe how the industrial process of fractional distillation separates crude oil into fractions know the names and uses of the main fractions obtained from crude oil: refinery gases, gasoline, kerosene, diesel, fuel oil and bitumen know the trend in colour, boiling point and viscosity of the main fractions know that a fuel is a substance that, when burned, releases heat energy know the possible products of complete and incomplete combustion of hydrocarbons with. oxygen in the air	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 268-276 Required Problems: 1-4 (pages 275-276) Revision Textbook: 122-123 Lab Book: N/A Formative Assessments: Crude Oil & Fractional Distillation Exam Style Questions

<p>9 – 13 June</p>	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.4 - Cracking & Alkenes</p> <p>describe how long-chain alkanes are converted to alkenes and shorter-chain alkanes by catalytic cracking (using silica or alumina as the catalyst and a temperature in the range of 600–700 °C)</p> <p>explain why cracking is necessary, in terms of the balance between supply and demand for different fractions</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 282-286</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook: 128-129</p> <p>Lab Book: N/A</p> <p>Formative Assessments: Cracking & Alkenes</p> <p>Exam Style Questions</p>
<p>16 – 20 June</p>	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.5 - Air Pollution</p> <p>know the possible products of complete and incomplete combustion of hydrocarbons with oxygen in the air"</p> <p>understand why carbon monoxide is poisonous, in terms of its effect on the capacity of blood to transport oxygen</p> <p>*** references to haemoglobin are not required</p> <p>know that, in car engines, the temperature reached is high enough to allow nitrogen and oxygen from air to react, forming oxides of nitrogen</p> <p>explain how the combustion of some impurities in hydrocarbon fuels results in the formation of sulfur dioxide</p> <p>understand how sulfur dioxide and oxides of nitrogen contribute to acid rain</p> <p align="center">Unit Test 1</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 125,</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook:</p> <p>Lab Book: N/A</p> <p>Formative Assessments: Air Pollution</p> <p>Exam Style Questions</p>
<p>23 – 27 June</p>	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.6 – Alkenes-Reaction of Alkenes</p> <p>know that alkenes contain the functional group $>C=C<$</p> <p>know the general formula for alkenes</p> <p>explain why alkenes are classified as unsaturated hydrocarbons</p> <p>understand how to draw the structural and displayed formulae for alkenes with up to four carbon atoms in the molecule, and name the unbranched-chain isomers</p> <p>knowledge of cis/trans or E/Z notation is not required"</p> <p>describe the reactions of alkenes with bromine to produce dibromoalkanes</p> <p>describe how bromine water can be used to distinguish between an alkane and an alkene</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 282-286</p> <p>Required Problems: 1-4 (pages 275-276)</p> <p>Revision Textbook: 128-129</p> <p>Lab Book: N/A</p> <p>Formative Assessments: Alkenes-Reaction of Alkenes</p> <p>Exam Style Questions</p>
<p>30 June - 4 July</p>	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.7 – Alcohols</p> <p>know that alcohols contain the functional group $-OH$</p> <p>understand how to draw structural and displayed formulae for methanol, ethanol, propanol (propan-1-ol only) and butanol (butan-1-ol only), and name each compound</p> <p>****the names propanol and butanol are acceptable"</p> <p>know that ethanol can be oxidised by:</p> <ul style="list-style-type: none"> • burning in air or oxygen (complete combustion) • reaction with oxygen in the air to form ethanoic acid (microbial oxidation) • heating with potassium dichromate(VI) in dilute sulfuric acid to form ethanoic acid" 	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 287-292</p> <p>Required Problems: 1-2 (pages 282)</p> <p>Revision Textbook: 132-134</p> <p>Lab Book: N/A</p> <p>Formative Assessments: Alcohols</p> <p>Exam Style Questions</p>
<p>7 - 11 July</p>	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.8 - Production of Ethanol</p> <p>Know that ethanol can be manufactured by:</p> <ul style="list-style-type: none"> • reacting ethene with steam in the presence of a phosphoric acid catalyst at a temperature of about 300 °C and a pressure of about 60–70 atm • the fermentation of glucose, in the absence of air, at an optimum temperature of about 30 °C and using the enzymes in yeast <p>Understand the reasons for fermentation, in the absence of air, and at an optimum temperature</p> <p align="center">Unit Test 2</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 287-292</p> <p>Required Problems: 1-2 (pages 292)</p> <p>Revision Textbook: 132-134</p> <p>Lab Book: N/A</p> <p>Formative Assessments: Production of Ethanol</p> <p>Exam Style Questions</p>

14 -18 July	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.9 - Carboxylic Acids</p> <p>know that carboxylic acids contain the functional group understand how to draw structural and displayed formulae for unbranched-chain carboxylic acids with up to four carbon atoms in the molecule, and name each compound" describe the reactions of aqueous solutions of carboxylic acids with metals and metal carbonates" know that vinegar is an aqueous solution containing ethanoic acid</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 293-296 Required Problems: 1-2 (pages 295-296)</p> <p>Revision Textbook: 135-136 Lab Book: N/A Formative Assessments: Carboxylic Acids Exam Style Questions</p>
21 – 25 July	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.10 – Esters</p> <p>know that esters contain the functional group know that ethyl ethanoate is the ester produced when ethanol and ethanoic acid react in the presence of an acid catalyst understand how to write the structural and displayed formulae of ethyl ethanoate understand how to write the structural and displayed formulae of an ester, given the name or formula of the alcohol and carboxylic acid from which it is formed and vice versa" know that esters are volatile compounds with distinctive smells and are used as food flavourings and in perfumes</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 297-301 Required Problems: 1-4 (pages 301)</p> <p>Revision Textbook: 137 Lab Book: N/A Formative Assessments: Esters Exam Style Questions</p>
28 July- 1 August	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.11 - Addition Polymers</p> <p>know that an addition polymer is formed by joining up many small molecules called monomers" understand how to draw the repeat unit of an addition polymer, including poly(ethene), poly(propene), poly(chloroethene) and (poly)tetrafluoroethene" understand how to deduce the structure of a monomer from the repeat unit of an addition polymer and vice versa" explain problems in the disposal of addition polymers, including:</p> <ul style="list-style-type: none"> • their inertness and inability to biodegrade • the production of toxic gases when they are burned." 	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 302-312 Required Problems: 1-5 (pages 311-312)</p> <p>Revision Textbook: 140-141 Lab Book: N/A Formative Assessments: Addition Polymers Exam Style Questions</p>
4 - 8 August	<p align="center">Topic 6 : Organic Chemistry</p> <p>6.12 - Condensation Polymers</p> <p>know that condensation polymerisation, in which a dicarboxylic acid reacts with a diol, produces a polyester and water</p> <p>understand how to write the structural and displayed formula of a polyester, showing the repeat unit, given the formulae of the monomers from which it is formed including the reaction of ethanedioic acid and ethanediol</p> <p>know that some polyesters, known as bio polyesters, are biodegradable</p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 302-312 Required Problems: 1-5 (pages 311-312)</p> <p>Revision Textbook: 142 Lab Book: N/A Formative Assessments: Condensation Polymers Exam Style Questions</p>
11 – 15 August	<p align="center">Topic 6 : Organic Chemistry</p> <p>Unit Test 3</p>	<p align="center">Content and Assessment:</p> <p>Topic 3 Test Review Sheet Test Review Activities:</p> <ul style="list-style-type: none"> • Review keywords relating to the previous topics. • Multiple-choice questions to review prior knowledge. • Re-teach previously identified challenging topics, anticipating where errors/misconceptions arise. • Modelling how to answer questions. <p>Students mark exemplar work using mark schemes.</p>
18 - 22 August	<p align="center">Topic 6 : Organic Chemistry</p> <p><i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p align="center">Content and Assessment:</p> <p>IGCSE Chemistry Student Textbook:</p> <p>Pages 297-301 Required Problems: 1-4 (pages 301)</p> <p>Revision Textbook: Lab Book: Pages 69-73 Formative Assessments: prepare a sample of an ester such as ethyl ethanoate Exam Style Questions</p>

<p>25 - 29 August</p>	<p>Topic 6 : Organic Chemistry <i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p>Content and Assessment: IGCSE Chemistry Student Textbook: Pages 297-301 Required Problems: 1-4 (pages 301) Revision Textbook: Lab Book: Pages 69-73 Formative Assessments: prepare a sample of an ester such as ethyl ethanoate Exam Style Questions</p>
<p>1 - 5 September</p>	<p>Topic 6 : Organic Chemistry <i>practical: prepare a sample of an ester such as ethyl ethanoate</i></p>	<p>Content and Assessment: IGCSE Chemistry Student Textbook: Pages 297-301 Required Problems: 1-4 (pages 301) Revision Textbook: Lab Book: Pages 69-73 Formative Assessments: prepare a sample of an ester such as ethyl ethanoate Exam Style Questions</p>
<p>8 - 12 September</p>	<p>Topic 6 : Organic Chemistry Semester Review</p>	<p>Content and Assessment: Semester Review Review Activities:</p> <ul style="list-style-type: none"> • Review keywords relating to the topics. • Multiple-choice questions to review prior knowledge. • Re-teach previously identified challenging topics, anticipating where errors/misconceptions arise. • Modelling how to answer questions. <p>Students mark exemplar work using mark schemes.</p>
<p>15 -19 September</p>	<p>Final Exam Week</p>	<p>-----</p>



Bangkok Christian College English Immersion Program

Course Scope for Biology Mathayom 6

Semester 1/2025-2026 Teacher Rick Reinders



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction lesson (Teams, Onenote, teacher, rules, etc)	
19 - 23 May	Digestive and Excretory Systems, Nutrients, 7 classes of nutrients, organic nutrients, vitamins, minerals, and water	
26 – 30 May	Research nutrients and diet	
2 – 6 June	Malnourishment (3 types)	
9 – 13 June	Malnutrition Project: Beriberi, Osteoporosis, Rickets, Kwashiorkor	
16 – 20 June	Malnutrition Project: Beriberi, Osteoporosis, Rickets, Kwashiorkor	
23 – 27 June	Digestive System, Alimentary Canal, Oral Cavity, Pharynx and Esophagus	
30 June - 4 July	Digestive System, Stomach: mechanical and chemical digestion of food	
7 - 11 July	Digestive System, Liver, Gallbladder, Pancreas, Small Intestine, Large Intestine	
14 -18 July	Urinary System, Excretory organs, The Renal System	
21 – 25 July	Urinary System, Structure of Kidneys, Nephrons, water regulation	
28 July- 1 August	Urinary System, Elimination of Urine	
4 - 8 August	Laboratory: Kidney dissection	
11 – 15 August	Excretory Project, Comparison human excretory system with another organism	
18 - 22 August	Reproductive System: Mitosis and Meiosis, Spermatogenesis, Oogenesis, Hormones, Fertilization	
25 - 29 August	Male Reproductive System, Anatomy, Scrotum, Testes, Structure of Sperm cells, Epididymis, Vas Deferens, Seminal Vesicles, Glands, Urethra – Penis	
1 - 5 September	The Female Reproductive System, ovaries, fallopian tubes, uterus, and vagina, mammary glands, hormones involved in lactation. the menstrual, endometrium.	
8 - 12 September	Gestation, fertilization, cleavage, implantation, pregnancy, embryo during pregnancy, the effects of unnecessary drug use on development	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Physics Mathayom 6

Semester 1/2025-2026 Teacher Nicholas Barrett



Date	Contents	Comments/ Remarks
12 - 16 May	Magnetic fields and interactions	
19 - 23 May	Induced magnetism	
26 – 30 May	Experiment: The interactions of ferromagnetic material	
2 – 6 June	Electromagnetism	
9 – 13 June	Forces on a current-carrying wire	
16 – 20 June	Electric Motors	
23 – 27 June	Electromagnetic Induction	
30 June - 4 July	Faraday's Law	
7 - 11 July	Lenz's Law	
14 -18 July	Generators	
21 – 25 July	Transformers	
28 July- 1 August	Experiment: Electromagnetic effects of Motors and Generators	
4 - 8 August	Test: Electromagnetism and Induction	
11 – 15 August	Electrostatic interactions and the triboelectric effect	
18 - 22 August	The triboelectric effect	
25 - 29 August	Coulomb's law and Electric fields	
1 - 5 September	Maxwell's equations and the unifying concept of electromagnetism	
8 - 12 September	Quantum Physics introduction, featuring the general form of Faraday's law	
15 -19 September	Final Exam	



Bangkok Christian College English Immersion Program

Course Scope for Current World Events Mathayom 6

Semester 1/2025-2026 Teacher Andrew Hailstone



Date	Contents	Comments/ Remarks
12 - 16 May	Analysis of own individual political beliefs and positions	12 May Visakha Bucha
19 - 23 May	Analysis of classical Left-wing positions	
26 - 30 May	Analysis of classical Right-wing positions	
2 - 6 June	Analysis of classical centre positions	Queen's Birthday 2-3 June
9 - 13 June	Test of political positions ideas	
16 - 20 June	Group work; whereby they team up with students with as similar positions as them as is possible	
22 - 27 June	Group work development of political manifesto for their political party for the election exercise	
30 June - 4 July	Group work development of political manifesto for their political party for the election exercise	
7 - 11 July	Group work development of political manifesto for their political party for the election exercise	10 July Asalha Bucha
14 - 18 July	Election analysis of the group work	
21 - 25 July	Analysis of the situation in Syria and its origins	
28 July - 1 August	Analysis of the situation in Syria and its origins	28 July King's Birthday
4 - 8 August	Introduction of the concepts of empathy and sympathy	
11 - 15 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	12 August Mother's Day
18 - 22 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
25 - 29 August	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
1 - 5 September	Analysis of student's responses regarding pictures from the Syrian conflict and the elicitation of sympathy/empathy	
8 - 12 September	Test on positions and review	
	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Computer Studies Mathayom 6

Semester 1/2025-2026 Teacher James Cookson



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction to A.I. for Programming	
19 - 23 May	HTML + CSS review	
26 – 30 May	AI with HTML + CSS	
2 – 6 June	JavaScript Fundamentals Review 1	
9 – 13 June	JavaScript Fundamentals Review 2	
16 – 20 June	AI with JavaScript 1	
23 – 27 June	AI with JavaScript 2	
30 June - 4 July	Midterm Project	
7 - 11 July	Introduction to React	
14 -18 July	Building Simple Interfaces with React	
21 – 25 July	AI with React 1	
28 July- 1 August	AI with React 2	
4 - 8 August	Introduction to Node.js	
11 – 15 August	Basic RESTful API with Node.js	
18 - 22 August	AI with Node.js 1	
25 - 29 August	AI with Node.js 2	
1 - 5 September	Final AI Full Stack Project	
8 - 12 September	Final AI Full Stack Project	
15 -19 September	Final AI Full Stack Project	



Bangkok Christian College English Immersion Program

Course Scope for Literature Studies Mathayom 6

Semester 1/2025-2026 Teacher George (Djurdje) Spasojevic



Date	Contents	Comments/ Remarks
12 - 16 May	Semester outline and class expectations. Getting to know the students.	12 May Visakha Bucha
19 - 23 May	Maritas Bargain by Malcolm Gladwell.	
26 - 30 May	Central ideas in Maritas Bargain.	
2 - 6 June	Central ideas and text analysis in Maritas Bargain.	Queen's Birthday 2- 3 June
9 - 13 June	Marita's Bargain Test.	
16 - 20 June	Don't Eat the Fortunes Cookie, speech by Michael Lewis.	
22 - 27 June	Don't Eat the Fortunes Cookie, speech by Michael Lewis.	
30 June - 4 July	Pair activity for the speech. Analysis.	
7 - 11 July	Writing activity.	10 July Asalha Bucha
14 - 18 July	The Secret to Raising Smart Kids, by Carol S. Dweck. Reading	
21 - 25 July	The Secret to Raising Smart Kids, by Carol S. Dweck. Reading	
28 July - 1 August	Analyze and evaluate the structure.	28 July King's Birthday
4 - 8 August	Analyze and evaluate the structure.	
11 - 15 August	Determine the meaning of words and phrases as they are used in a text.	12 August Mother's Day
18 - 22 August		
25 - 29 August	M6 Final project – Literary Analysis	
1 - 5 September	M6 Final project – Literary Analysis	
8 - 12 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Health and Physical Education Mathayom 6

Semester 1/2025-2026 Teacher Benjamin Peter Fishman



Date	Contents	Comments/ Remarks
12 - 16 May	Teacher Introduction	
19 - 23 May	Course Theme Introduction	
26 – 30 May	Biodata collection week	
2 – 6 June	Football scrimmage	
9 – 13 June	Football fast break drills	
16 – 20 June	Football 1 st touch control drills	
23 – 27 June	Football footwork drills	
30 June - 4 July	Football corner kicks drill	
7 - 11 July	Football formations overview	
14 -18 July	Nutrition Lesson	
21 – 25 July	Nutrition quiz	
28 July- 1 August	Combat sports overview	
4 - 8 August	Boxing footwork drills	
11 – 15 August	Boxing drills	
18 - 22 August	Local Sports project intro	
25 - 29 August	Local Sports project	
1 - 5 September	Local Sports project presentation	
8 - 12 September	Course theme debrief	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for Reading News Mathayom 6

Semester 1/2025-2026 Teacher Andrew Hailstone



Date	Contents	Comments/ Remarks
12 - 16 May	Topical News Media Story Analysis, note taking and then answering questions.	12 May Visakha Bucha
19 - 23 May	Topical News Media Story Analysis, note taking and then answering questions.	
26 - 30 May	Topical News Media Story Analysis, note taking and then answering questions.	
2 - 6 June	Topical News Media Story Analysis, note taking and then answering questions.	Queen's Birthday 2-3 June
9 - 13 June	Topical News Media Story Analysis, note taking and then answering questions.	
16 - 20 June	Topical News Media Story Analysis, note taking and then answering questions.	
22 - 27 June	Topical News Media Story Analysis, note taking and then answering questions.	
30 June - 4 July	Topical News Media Story Analysis, note taking and then answering questions.	
7 - 11 July	Topical News Media Story Analysis, note taking and then answering questions.	10 July Asalha Bucha
14 - 18 July	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
21 - 25 July	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
28 July - 1 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	28 July King's Birthday
4 - 8 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	
11 - 15 August	Topical News Media Story Analysis, note taking and then making their own questions based on the content and creating answers for the questions.	12 August Mother's Day
18 - 22 August	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
25 - 29 August	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
1 - 5 September	Choose their own Topical News Media Story that will be analyzed and then create questions and answers for the story.	
8 - 12 September	Final Exam Week	



Bangkok Christian College English Immersion Program

Course Scope for English Rhetoric and Composition Mathayom 6

Semester 1/2025-2026 Teacher Rick Diaz



Date	Contents	Comments/ Remarks
12 - 16 May	Course Introduction – Teams, resources, assignments, policies, and expectations	12 May Visakha Bucha
19 - 23 May	Decoding Information: Facts, Details, and Opinions	
26 - 30 May	Primary Sources – Finding and using original documents, objects, or artifacts created during the period being studied, offering a firsthand perspective	
2 - 6 June	Secondary Sources – Finding and using analyses, interpretations, or evaluations of information presented in primary sources.	Queen's Birthday 2-3 June
9 - 13 June	Summarizing Information - Identifying the main points, supporting arguments, and overall conclusion	
16 - 20 June	Paraphrasing Information - Rewording someone else's ideas or information in your own words while maintaining the original meaning	
22 - 27 June	Avoiding Plagiarism when Summarizing and Paraphrasing Citation (properly cite your sources and ensure that all borrowed ideas and wording are clearly attributed to their original author)	
30 June - 4 July	Informative Writing – Instructions: Conveying information in a way that's easily understood and followed, leading to the successfully complete a task or a desired outcome	
7 - 11 July	Informative Writing – Directions: Clear communication and anticipating the needs of your audience, guiding them from point A to point B with enough detail to avoid confusion	10 July Asalha Bucha
14 - 18 July	Persuasive Writing - Purposes of Persuasive Writing Rhetoric and Strategies - Logos, pathos and ethos	
21 - 25 July	Persuasive Writing - Effective Persuasion Essentials, Persuasive Language, Organizational Structures, Persuasive Strategies	
28 July - 1 August	Persuasive Writing - Persuasive Essays I - Text Structure of a Persuasive Essay, Structure & Language Supplementals	28 July King's Birthday
4 - 8 August	Persuasive Writing - Persuasive Essays II (Writing a persuasive essay)	
11 - 15 August	Persuasive Advertising - Qualities of a Good Ad	12 August Mother's Day
18 - 22 August	Persuasive Advertising - Propaganda Techniques in Advertising (Language, Images)	
25 - 29 August	Persuasive Advertising – Creating a persuasive Advertisement	
1 - 5 September	↑ GAP WEEK ↓ (Movable due to unforeseen / unannounced schedule changes) ↑May – August↓	
8 - 12 September	Final Exam Week – Non core classes not on the testing schedule	



Bangkok Christian College English Immersion Program
Course Scope for Project Science Science and Technology Mathayom 6
Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	Comments/ Remarks
12 - 16 May	As Level Physics Topic 1: Further Mechanics. Pg 8-22. Review Momentum, Collisions, Energy in collisions and real collisions. Introduce Project 1: Angular displacement	
19 - 23 May	As Level Physics Topic 1: Further Mechanics (continued) Pg 25-31. Circular Motion. Angular displacement, centripetal force, motion in amusement parks. (Worksheet 1: Questions from 1.1 and 1.2)	
26 - 30 May	More examples of rpm and radians calculations. Project 1: Create a device that exhibits motion and angular displacement. Groups are expected to demonstrate. Some class time given to prepare + Test 1 .	
2 - 6 June	Discussion on use of angular displacement in space to create zero gravity, Past paper practice (High Tier) on the topic and Presentation of Projects. Project 1 due	
9 - 13 June	As Level Physics Topic 3: Particle Physics. Intro (76-82) Looking at matter. The origins of how atoms were conceived, different advancements, electrons from atoms.	
16 - 20 June	Video/Online Quiz 1 : Reviewing how particles are made (quarks, neutrinos, positrons, protons made of 2 upquarks and a down to create +1, neutrons made up of 2 downs and an up to create 0)...expanding on our ideas of the known world.	
23 - 27 June	As Level Physics Topic 3: Partical accelerators: (pg 85-94) Usages in medical (radioactive isotopes) and the LHC (Large Hadron Collider) Relevance to future technologies Test 2 .	
30 June - 4 July	Start of Particle interaction and expand on creation, the bricks of matter and get to the standard model. Review for grade feedback and past papers on the particle physics.	
7 - 11 July	Review Topics 1 and 3: Time for outstanding work/projects. +Midterms	
14 -18 July	Reviewing Topic 3 and relating this to A level Topic 7 Astrophysics.(170-196) How a neutron star is formed, how stars are formed through particle interactions.	
21 - 25 July	7.1 Gravitational fields; (172-178) Worksheet 2: Gravity and its effects on possible colonization efforts. How the body interacts with gravity.	
28 July- 1 August	A level Topic 7 continued: 7.2 Starshine, (pg 175-181) expanding on stellar properties, classifying stars, Debate: Are we/Should we colonize other planets? (Also look at star naming sites)	
4 - 8 August	7.3 Hubble's law. Distances of stars using the Doppler effect, the age of the universe and future. Video Quiz 2 : The birth and death of the universe and how the big bang is controversial. (FermiLabs)	
11 - 15 August	Past papers on Topics 7.1, 7.2 and 7.3 and Test 3 Introduce Project 2:Space Advancement/Patents	
18 - 22 August	Project 2: Space Advancements, Patents and Future adaptations. Presentations and discussion on research funding for these ideas. Is space research better done by companies or by governments.	
25 - 29 August	Following current space efforts: Artemis program, New Gateway station, India and Japanese programs, the fate of the ISS, the fate of the Hubble telescope, the James Webb Telescopes achievements and the coming of the Nancy Grace Telescope.	
1 - 5 September	Prep + Mock Exam on Topics 1 (Further Mechanics), 3 (Particle Physics), and 7 (Astrophysics) (Test 4)	
8 - 12 September	Feedback from mock exam +Review of all topics and getting late work completed, plus counseling on scores.	
15 -19 September	Final Exams on all topics	



Bangkok Christian College English Immersion Program
Course Scope for Mathematics Mathayom 6
Semester 1/2025-2026 Teacher Vincent Illison
 Reviewing chapters 1-6, followed by chapters 7 and 8 to complete book 2.
 This will be followed by Statistics 1.



Date	Contents		Comments/ Remarks
16-20 May	Algebraic methods Students will know how to solve:	1.1 ALGEBRAIC FRACTIONS 1.2 DIVIDING POLYNOMIALS 1.3 THE FACTOR THEOREM	16 May – Visakha Bucha
23-27 May	Algebraic methods Students will know how to solve:	1.4 THE REMAINDER THEOREM 1.5 MATHEMATICAL PROOF 1.6 METHODS OF PROOF	
30 May – 3 June	Coordinate geometry in the (x,y) plane: Students will be able to find:	2.1 MIDPOINTS AND PERPENDICULAR BISECTORS 2.2 EQUATION OF A CIRCLE 2.3 INTERSECTIONS OF STRAIGHT LINES AND CIRCLES	3 June – Queen's Birthday
6-10 June	Coordinate geometry in the (x,y) plane Students will be able to know how to:	2.4 USE TANGENT AND CHORD PROPERTIES 2.5 CIRCLES AND TRIANGLES	
13-17 June	Trigonometric identities and equations Students will be able to know how to use:	3.1 EXPONENTIAL FUNCTIONS 3.2 LOGARITHMS 3.3 LAWS OF LOGARITHMS	
20-24 June	Trigonometric identities and equations Students will be:	3.4 SOLVING EQUATIONS USING LOGARITHMS 3.5 CHANGING THE BASE OF A LOGARITHM	
27 June – 1 July	The Binomial expansion Students will be solving: The Binomial expansion Students will be:	4.1 PASCAL'S TRIANGLE 4.2 FACTORIAL NOTATION 4.3 THE BINOMIAL EXPANSION 4.4 SOLVING BINOMIAL PROBLEMS 4.5 BINOMIAL ESTIMATION	
4-8 July	Sequences and series Students will be able to solve:	5.1 ARITHMETIC SEQUENCES 5.2 ARITHMETIC SERIES 5.3 GEOMETRIC SEQUENCES 5.4 GEOMETRIC SERIES	
11-15 July	Sequences and series Students will be able to:	5.5 SUM TO INFINITY 5.6 SIGMA NOTATION 5.7 RECURRENCE RELATIONS 5.8 MODELLING WITH SERIES	Jul 13-15 Asalha Bucha / Bhuddist Lent Holidays
18-22 July	Trigonometric identities and equations Students will be able to calculate:	6.1 ANGLES IN ALL FOUR QUADRANTS 6.2 EXACT VALUES OF TRIGONOMETRICAL RATIOS 6.3 TRIGONOMETRIC IDENTITIES	
25-29 July	Trigonometric identities and equations Students will be able to calculate:	6.4 SOLVE SIMPLE TRIGONOMETRIC EQUATIONS 6.5 HARDER TRIGONOMETRIC EQUATIONS 6.6 EQUATIONS AND IDENTITIES	Jul 28-29 King's Birthday
1-5 Aug. 8-12 Aug.	Differentiation Students will identify:	7.1 INCREASING AND DECREASING FUNCTIONS 7.2 STATIONARY POINTS	Aug 12 – Queen's Birthday
15-19 Aug.	Differentiation Students will identify:	7.3 SKETCHING GRADIENT FUNCTIONS 7.4 MODELLING WITH DIFFERENTIATION	
22-26 Aug.	Catch up with Assignments and review work.		
29 Aug. – 2 Sept.	Integration Students will be able to:	8.1 DEFINITE INTEGRALS 8.2 AREAS UNDER CURVES 8.3 AREAS UNDER THE x-AXIS	
5-9 Sept.	Integration Students will be able to:	8.4 AREAS BETWEEN CURVES AND LINES 8.5 AREAS BETWEEN TWO CURVES 8.6 THE TRAPEZIUM RULE	
12-16 Sept.	Review all chapters and catch up with incomplete assignments		
19-23 Sept	Prepare for exams		



Bangkok Christian College English Immersion Program
Course Scope for Mathematics for Business Mathayom 6 - 614
Semester 1/2025-2026 Teacher Vincent Illison



Date	Contents	Comments/ Remarks
16-20 May	Algebra- Simultaneous equations. Students can solve simultaneous equations by rearranging equations in the form $ax + by = c$. They match up coefficients either "x" or "y" sometimes by multiplying one or both equations to get one of the coefficients the same value. They then add or subtract the equations to eliminate the terms with the same coefficient. They then substitute back into one of the equations to find the missing coefficient value. Students can also solve quadratic and linear equations by substitution methods.	24 Oct – Chulalongkorn Day
23-27 May	Algebra-Functions Students will know that a function takes an input, processes it and outputs a value. How to write functions such as $f(x) = 5x + 2$ or $f : x \rightarrow 5x + 2$. Students will substitute values into functions such as $f(2)$ or $f(-3)$. They will use composite functions and inverse functions.	
30 May – 3 June	Algebra-straight line graphs. Students will plot and identify straight line equations using horizontal and vertical axes. They'll recognize the gradient is the steepness of the line, which can be positive or negative. Use the formula to find the Gradient. Students will use the formula $y = mx + c$, to find the gradient and the y – intercept. They can also find the equation of the line through two points. Students will draw graphs through the use of tables.	
6-10 June	Shape and space- Parallel and Perpendicular lines. Students will know that all Parallel lines have the same Gradient. The "m" value is the same. Students will know the Perpendicular lines cross at a right angles, and if you multiply their gradients together you'll get -1	
13-17 June	Algebra-Quadratic graphs. Students will plot graphs from using tables and recognize the properties of $y = x^2$ graphs. They will recognize turning points and x intercepts with their coordinates. Students will plot graphs use the x^3 function through tables.	
20-24 June	Algebra-Real life graphs. Students will read information from graphs, such as distance-time, gradient = speed, flat sections where they've stopped, the steeper the graph the faster they're going and if the gradient is negative, it's coming back.	
27 June – 1 July	Algebra- Ratios. Students will write ratios as fractions. They will reduce ratios to its simplest form. Students will use calculator functions to solve ratios. They can use 1:n or n:1 to solve ratios. Students can calculate quantities once they've found 1 part.	5 Dec – King Bhumibol Birthday
4-8 July	Algebra-Direct and Inverse proportion. Students will know when: Two quantities, A and B, are in direct proportion (or just in proportion) if increasing one increases the other one proportionally . So if quantity A is doubled (or trebled, halved, etc.), so is quantity B. They will also know when:	12 Dec – Constitution Day

	Two quantities, C and D, are in <u>inverse proportion</u> if <u>increasing</u> one quantity causes the other quantity to <u>decrease proportionally</u> . So if quantity C is <u>doubled</u> (or tripled, halved, etc.), quantity D is <u>halved</u> (or divided by 3, doubled etc.).	
11-15 July	Number- Percentages Students will be able to convert from percentages to fractions and decimals. They will be able to find the new amount after a percentage increase/decrease. Students will be able to find the original amount.	23 Dec – Class Christmas Parties
18-22 July	Number- Percentages Students will be able to convert from percentages to fractions and decimals. They will be able to find the new amount after a percentage increase/decrease. Express “x” as a percentage of “y”. Students will find the percentage change. They will also find the original value. Students will calculate simple interest and compound interest.	26 – 30 Dec. Christmas Holiday
25-29 July	Shape and space-Unit conversion. Students will convert between metric and imperial units. They will be able to convert area and volume. They will learn formulae for speed, density and pressure.	2 Jan – New Year Observed
1-5 Aug.	Shape and space-Geometry Students will learn all angle facts. They will also learn about angles around parallel lines. Students will understand alternate, allied and corresponding angles. They will understand about regular and irregular polygons. Calculate interior and exterior angles. Students will understand the properties of triangles and quadrilaterals. Learn about congruent shapes.	16 Jan – Teacher's Day
8-12 Aug.	Shape and space-The four transformations. Students will understand translation, rotation, reflection and enlargement. They can use vectors when moving shapes. Students can describe rotations, by using angle rotation, direction of rotation and centre of rotation. They will reflect shapes through an equation and mirror line. Students will enlarge shapes using scale factor and centre of enlargement.	
15-19 Aug.	Shape and space-Areas of triangles, Quadrilaterals and Circles. Students will learn and use the formulae to solve problems. They will calculate circumference and areas of circles. Students will also find areas of Segments and sectors.	
22-26 Aug.	Shape and space-3D Shapes- Surface area and Volume. Students will recognize vertices, faces and edges of 3D shapes. They will recognize and use formulae for Spheres, cones and cylinders. Students will calculate volumes of prisms.	
29 Aug. – 2 Sept. 5-9 Sept.	Shape and space-Triangle construction and loci. Students will construct sides and angles using a ruler and protractor. They will use loci and the locus of points which are a fixed distance from a given point, a fixed distance from a given line, equidistance from two given lines and equidistance from two given points.	
12-16 Sept. 19-23 Sept	Finals	20 – 23 Feb. Final Exams