

Bangkok Christian College English Immersion Program Course Scope for Mathematics Mathayom 4 Semester 1/2025-2026 Teacher Andrew Joslin



Date	Contents	Comments/ Remarks
12-16 May	IGCSE Set notation and Venn diagrams	12 May – Viskha Buscha
19-23 May	IGCSE Set notation and Venn diagrams	
26-30 May	Basic Algebra Review	
2-6 Jun.	Basic Algebra Review	2-3 Jun. – Queen Mother's Birthday
9-13 Jun.	Quadratics Factorising and Completing the Square	
16-20 Jun.	Quadratics Mapping functions Sketching graphs	
23-27 Jun.	Quadratics The discriminant Modelling quadratic functions	
30 Jun 4 Jul.	Equations and Inequalities Linear and Non-linear	
7-11 Jul.	Equations and Inequalities Graphing Linear and Non-linear inequalities	10 Jul – Asalha Bucha
14-18 Jul.	Graphs and Transformations Cubics, Quartics, Reciprocals Intersections	
21-25 Jul.	Graphs and Transformations Shifting and Stretching graphs Transforming functions	
28 Jul. – 1 Aug. 4-8	Straight Line Graphs Equations of lines, parallel and perpendicular lines Straight Line Graphs	28 Jul. – King's Birthday
Aug.	Distance between two points Modelling with straight lines	
11-15 Aug.	Circles Equation of a circle Intersecting straight lines and circles	11-12 Aug. – Queen's Birthday
18-22 Aug.	Circles Tangent and chord properties Circles and triangles	
25-29 Aug.	Algebraic methods Algebraic fractions Polynomial and synthetic division	
1-5 Sept.	Algebraic methods The factor theorem The remainder theorem	
8-12 Sept. 15-19 Sept	Review Week Final Exam Week	_

This course scope is subject to change due to cancellation.

Apart from Sets and Venn diagrams all other topics will use Pearson Edexcel AS and A level Mathematics book: Pure Mathematics Year 1/AS



Course Scope for Course Scope for Statistics 1 Mathayom 4



Classes – Trigonometry/Architects and Engineers- Track 412 and 413 Semester 1/2025-2026 Teacher Vincent Illison

Date	e Contents	
Date		
	Mathematical modelling:	
	Students will understand what mathematical modelling is. Design a simple mathematical model.	
16-20 May	Measures of location and spread : Students will recognize different types of data. Calculate measures of central tendency such as the mean, median and mode.	16 May –
	Statistics book1 Chapter 1	Visakha Bucha
	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode. Students will understand modal class and calculate estimated means and use the correct statistical language.	
23-27 Mov	Measures of central tendency:	
25-27 May	Students will calculate measures of central tendency such as the mean, median and mode Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
30 May – 3 June	Measures of central tendency: Students will calculate measures of location such as quartiles and percentiles Students will understand modal class and calculate estimated means and use the correct statistical language. Measures of central tendency: Students will calculate measures of central tendency such as the	
	mean, median and mode Students will understand modal class and calculate estimated means and use the correct statistical language.	3 June – Queen's Birthday
	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode.Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Measures of central tendency:	
6-10 June	Students will calculate measures of central tendency such as the mean, median and mode.Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
13-17 June	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode	
	Students will understand modal class and calculate estimated means and use the correct statistical language.	

	Measures of central tendency:	
	Students will calculate measures of central tendency such as the mean, median and mode Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
	Representations of data -histograms	
	Students will be able draw and interpret histograms	
	Students will use the formula frequency density = frequency/class width.	
20-24 June	Book 1 chapter 3	
	Draw and interpret boxplots	
	Students will calculate lower quartile, upper quartile and IQR.	
	Students will compare boxplots and interpretate data.	
	Book 1 chapter 3	
	Representations of data – STEM AND LEAF DIAGRAMS Students will be able draw and interpret STEM AND LEAF DIAGRAMS	
	Students will be able to calculate LQ,UQ AND IQR.	
	Variance and Standard deviation	
27 June – 1	Students will calculate the spread of data by using formulae.	
July	Students will calculate estimates from tables.	
	Book 1 Chapter 2	
	Book 1 Chapter 3	
	Representations of data – STEM AND LEAF DIAGRAMS	
	Students will be able to recognize the shape of the distribution using diagrams, measures of location.	
	Students will be able to say if the diagram is symmetrical, have positive or negative skew.	
4-8 July	Comparing data	
	Students will be able to compare data by measure of location. Students will calculate mean and standard deviation.	
	Book 1 chapter 3	
	Book 1 chapter 2	
	Comparing data	
11-15 July	Students will be able to recognize the shape of the distribution using diagrams, measures of location. Students will be able calculate mean, variance and standard deviation.	Jul 13-15 Asalha Bucha / Bhuddist
	Venn diagrams	Lent Holidays

	Students will be able to use the correct notation. Students will calculate probabilities and use the correct vocabulary.	
	Book 1 chapter 3	
	Book 1 Chapter 4	
	Tree diagrams Students will be able to label branches with either/fractions or percentages	
18-22 July	Students will be able calculate probabilities, knowing probability adds to 1.	
, i i i i i i i i i i i i i i i i i i i	Statistics Book 1 chapter 4	
	Correlation and regression	
25-29 July	Students will be able to plot variables and recognise correlation. Students will be able to plot the line of best fit and estimate values.	Jul 28-29
	Book 1 chapter 5	King's Birthday
	Linear regression Students will be able to draw a line of best fit.	
	Students will be able to use the regression line and formula $y = a + bx$.	
	Calculating least squares linear regression	
1-5 Aug.	Students will be able to plot bivariate data.Students will be able to predict values of the dependent (response) variable for given values of the independent (explanatory) variable.	
	Statistics book 1 chapter 5	
8-12 Aug.	The product moment correlation coefficient Students will be able to recognize that the PMCC can take values between 1 and -1. Students will be able to use the formula. Statistics Book 1 chapter 5	Aug 12 – Queen's
	Finding the cumulative distribution function for a discrete random	Birthday
	variable Students will know that if a particular value of X is x, the probability that X is less than or equal to x is written $F(x)$.	
	Students will be know that $F(x)$ is found by adding together all the probabilities for those outcomes that are less than or equal to x.	
15-19 Aug.	Expected value of a discrete random variable.	
	Students will be able to recognize the expected value is sometimes referred to as the mean, denoted by μ .	
	Students will be able to write down the probability distribution of X.	
	Statistics book 1 chapter 6	
	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 .	
	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 . Students will know that the variance of X is usually written as Var (X).	
22-26 Aug.	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 . Students will know that the variance of X is usually written as Var (X). Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 .	

	Statistics book 1 chapter 6	
	Expected value and variance of a function of X Students will calculate the value of $g(X)$ using the formula $E(g(X)) = \sum g(x)P(X=x)$.	
	Students will calculate values from the probability distribution.	
29 Aug. – 2 Sept.	Expected value and variance of a function of X Students will calculate the value of $g(X)$ using the formula $E(g(X)) = \sum g(x)P(X=x)$.	
	Students will calculate values from the probability distribution.	
	Statistics book 1 chapter 6	
	Solving problems involving random variables Students will deduce the mean and variance from two random variables.	
	Students will rearrange to get an expression for X in terms of Y.	
5-9 Sept.	Solving problems involving random variables Students will deduce the mean and variance from two random variables.	
	Students will rearrange to get an expression for X in terms of Y.	
	Statistics book 1 chapter 6	
	Using discrete distribution as a model for the probability distribution of the outcomes of certain experiments. Students will follow the conditions for discrete uniform distribution .	
	Students will know each value is equally likely, in other words: $P(X=x) = 1/n$ for each x.	
12-16 Sept.	Using discrete distribution as a model for the probability distribution of the outcomes of certain experiments. Students will follow the conditions for discrete uniform distribution .	
	Students will know each value is equally likely, in other words: $P(X=x) = 1/n$ for each x.	
	Statistics book 1 chapter 6	
	The normal distribution Students will understand the normal distribution curve and its characteristics .	
	Students will know that the area under a continuous probability distribution is equal to 1.	
19-23 Sept	The normal distribution Students will understand the normal distribution curve and its characteristics .	
	Students will know that the area under a continuous probability distribution is equal to 1.	
	Statistics book 1 chapter 7	



Bangkok Christian College English Immersion Program Course Scope for General Science (Science and Tech) Mathayom 4 Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	
		Remarks
12 - 16 May	Physics:Introductions—Review of Newton's Three Laws, and pg 488-493 on speed, velocity R=D/T, interpreting graphs + worksheet (plus learning how to use formula triangles) Worksheet 1	
19 - 23 May	Discussions on acceleration (deceleration, constant speed, and acceleration) and how to interpret on a velocity vs time chart. Learning $a=(v - u)/t$ and understanding information from data. Introduce Project 1: Graphing a runner in velocity and acceleration. (Project 1 —Due in 3 weeks)	
26 – 30 May	Finish up to pg 501 and complete chapter questions in class. Prepare for Project on aspects of speed, acceleration, vectors, and interpreting data. Introduce Forces and Shape. Assign 504-512.	
2 – 6 June	Discuss balanced forces vs unbalanced forces. Different kinds of force (thrust, gravity, friction, air resistance, drag, circular force, torque, elastic) and calculating in Newtons. Finish 512- 528 Quiz 1 on Chapters 1, 2 and 3.	
9 – 13 June	Evaluate Project 1. Introduce Biology: Unit 1 Organisms and Life Processes, Pg 1-25. Relate Forces in Motion to life processes. Diffusion, Osmosis, ATP, use of oxygen.	
16 – 20 June	Discussion of variety in life, function, how viruses are not living. Complete mock tests in book on page 28 and Unit test on 29-30 Introduction to Unit 2Animal Physiology. Look at different systems: Breathing and Gas Exchange (pg 35-46), Food and Digestion, 48-63, and Blood and Circulation 64-75.	
23 – 27 June	Lab 1—heart rate after exercise, heart rate after eating. Creating different stimulus to affect heart rate. Project 2 : Presenting a body system: Students will be given a system: circulatory, digestion, nervous, endocrine, respiration, reproductive and expected to demonstrate their knowledge to their peers.	
30 June - 4 July	Quiz 2 on Biology Unit 1 and 2 (parts 1,2,3 to pg 75). Review Physics and Biology chapters (Forces in Motion, Organisms and Life Processes and Animal Physiology). Students missing work can catch up here.	
7 - 11 July	Midterm Tests/ Presentations of Project 2	
14 -18 July	Review Midterm, Biology Unit 2: Continue body systems: Coordination 77-89, Chemical coordination 91-95, Continued Presentation of Project 2 (last groups)	
21 – 25 July	Homeostasis and Excretion 97-102, and Reproduction 104-110.	
28 July- 1 August	Quiz 3 on all of animal physiology (80% 4,5,6,7) and discussion about different animal systems. Presentation 1: Introduce an animal/organism with a unique adaption.	
4 - 8 August	Unit 3 Plant Physiology: Project 3: Grow some plants with different variables to see effects on growth. OR Build a terrarium. Hypothesize and then use data to support or reject your hypothesis. Start plants and foods 121-135.	
11 – 15 August	Transport in plants (pg 136-143) Chemical coordination in plants (145-150) Looking at products used in photosynthesis and movements through the different levels of the cell (Worksheet 2)	
18 - 22 August	Lab 2—preparing slides of onion cells. Looking for key components in plant cells. Reproduction in plants. 151-160. Slight discussion into genetic breeds and GMO's	
25 - 29 August	Project 3 Presentations and Quiz 4 on Plants (pg 121-160)	
1 - 5 September	Physics: Unit 4: Energy. How is energy used in plants and animals, and how does it physically move through the environment. Looking at stored energy (chemical: fats) and how those are transferred into mechanical energy (hence movement). Talk about efficiency in plants, animals, solar cells and other mechanisms. (pg 590-595)	
8 - 12 September	Use Sankey diagrams, conservation of energy, and concepts of energy loss. Review for the finals.	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Science and Technology Mathayom 4 Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	Comments/ Remarks
12 - 16 May	Introductions—Review of Newton's Three Laws, and pg 488-493 on speed, velocity R=D/T, introduce interpreting graphs + worksheet (plus learning how to use formula triangles) Worksheet 1	
19 - 23 May	Discussions on acceleration (deceleration, constant speed, and acceleration) Learning $a=(v-u)/t$ and understanding information from data. Prepare for suvat equations. (Graphing with Nick)	
26 – 30 May	Finish up to pg 501 and complete chapter questions in class. Prepare for Project on aspects of speed, acceleration, vectors, and interpreting data. Introduce Project 1 : Graphing a runner in velocity and acceleration. (Project 1—Due in 3 weeks)	
2 – 6 June	Introduce Forces and Shape. Assign 504-512. Discuss balanced forces vs unbalanced forces. Different kinds of force (thrust, gravity, friction, air resistance, drag, circular force, torque, elastic) and calculating in Newtons. + Talk about the fundamental forces and how they play a role in all things (Gravity, Electromagnetism, Strong, Weak) Quiz 1 on Chapters 1 and 2.	
9 – 13 June	Pre read 514-525. Introduce kinematic equations, go into real world situations with breaking questions (thinking distance + breaking distance + frictional effects). Prepare for project presentations. Looking at terminal velocity. Introduce Projectile Motion.	
16 – 20 June	Project 1 due —presentations on graphing a runner and determining velocity and acceleration through different points in a run.	
23 – 27 June	Experiment: Projectile Motion: Project 2 : Use the soccer field or other area to judge the distance and time of a projectile to derive its initial velocity assuming little air resistance. Can also use a basketball.	
30 June - 4 July	Review Forces in Motion, Review 489-527 Do the Unit questions and past papers as	
July	Midterm Tests and some counselling on scores. Also a chance for students to	
7 - 11 July	catch up on missing assignments/projects or other required elements. + Project	
14 -18 July	2 creation time. Introduction to Energy: Pg 590-597. Discuss energy stores and transfers, the conservation of energy, and Sankey diagrams. Worksheet 2	
21 – 25 July	Pg 597-603, looking at aspects of heat, conduction, convection, effects on weather patterns, radiation, and experiments with heat.	
28 July- 1 August	Presentations of Project 2: Projectile motion.Also give Paper 1: How should Thailand use its heat/energy to increase productivity? Assigned. (three weeks to develop). Research aspects of heat related power (solar, wind, heating water, hydroelectric, capturing kinetic energy from rain). Also energy efficiency and its importance.	
4 - 8 August	Using Air flow to create work (Hot air rises (lift), replaced by low air vacuum.)	
11 – 15 August	Discussions on potential energy(pe=mgh), kinetic energy(ke= $1/2mv^2$), how a pendulum works (pe relationship to ke) Quiz 3 on Parts 1 and 2 + feedback. Introduction to Part 12, Pages 608-615.	
18 - 22 August	Aspects of Work. Work = Force x distance leading to Power = work/time. Worksheet 2 on potential energy, kinetic energy and work. Lab 2: Calculating work (going up stairs) in groups.	
25 - 29 August	Paper 1 : Introduction of Projects on converting energy in Thailand. Debate: What things should be improved with energy, what things should be eliminated? Oil/Coal burning factories, nuclear power, solar, hydro. (if time) about power creation and the future of power (nuclear, fusion, annihilation)	
1-5 Sontombor	Debate Lab 2 due. Unit questions 616-617, Lab 3—creating a bottle rocket (if time available) and Ouiz 4 on all of Energy	
8 - 12	Prep for final exam. Past papers on Forces in Motion and Energy. Work catch up for	
September	those missing assignments. Lab 3 due (if time)	
15 -19 September	Review + Mock tests + Interviews with students over marks, missing assignments and one to one feedback. Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Physics Mathayom 4 Semester 1/2025-2026 Teacher Nicholas Barrett



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction	
19 - 23 May	Speed, Velocity and Acceleration	
26 – 30 May	Distance-Time graphs and their interpretation	
2 – 6 June	Speed-Time graphs and their interpretation	
9 – 13 June	Test: Motion graphs	
16 – 20 June	Motion Graphs Project: (BTS Skytrain motion with extension tasks featuring displacement, vectors, and velocity)	
23 – 27 June	Motion Graphs Project: (BTS Skytrain motion with extension tasks featuring displacement, vectors, and velocity)	
30 June - 4 July	Mass, weight and gravity, centre of gravity and air resistance	
7 - 11 July	Newton's Three Laws and their applications	
14 -18 July	The fundamental characteristics of waves (e.g amplitude, frequency, period and more) vs. SHM	
21 – 25 July	Mechanical vs. Electromagnetic waves: the real-life applications of waves	
28 July- 1 August	Longitudinal vs Transverse waves	
4 - 8 August	Reflection and Refraction	
11 – 15 August	Snell's Law and the Critical angle of medium with a given refractive index	
18 - 22 August	Diffraction	
25 - 29 August	Experiment: Wave ripple tank and slinkys	
1 - 5 September	Momentum	
8 - 12 September	Changes in momentum and impulse	
15 -19 September	Final Exam Week	



Course Scope for Chemistry Mathayom 4



Semester 1/2025-2026

Teacher Sep Alamouti

Data	Contonto	Comments/
Date	Contents	Remarks
		Content and Assessment:
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 adhering to classroom rules and policies	Classroom Rules Handouts Chemistry Lab SOP Handout
		Content and Assessment:
	Intro: Lab Safety & Procedures	
	Identify and explain key laboratory safety rules and procedures.	Lab Safety Handout
19 - 23 May	Demonstrate proper handling of chemicals, glassware, and lab equipment to prevent accidents.	Formative:
	Interpret and apply safety symbols and hazard labels on chemical containers.	Lab Safety
	Locate and use emergency safety equipment, including eyewash stations, fire extinguishers, and safety showers.	
	Follow correct protocols for waste disposal and spill management in the laboratory.	
	Assess potential risks in lab activities and suggest appropriate safety	
	precautions.	
		Content and Assessment:
	Topic1: Maths in Chemistry	Measurement Handout
	Measure Mass and Volume Using Lab Equipment	
26 – 30 May	 Measure mass using an electronic balance and triple beam balance. Measure liquid volume using graduated cylinders, pipettes, and 	Formative:
·	 burettes with proper technique. Compare and select appropriate lab equipment for different measurement tasks. 	Measurements and data analysis in Chemistry lab
	Apply Units of Measurement and Significant Figures	
	 Use the International System of Units (SI) for measuring mass, volume, and length. Determine the correct number of significant figures in a given measurement or calculation. 	

	 Apply significant figures correctly when performing calculations involving addition, subtraction, multiplication, and division. Use scientific notation to express very large or very small numbers in chemistry calculations. 	
	Topic 1: Maths in Chemistry	Content and Assessment:
2 – 6 June	 Differentiate between accuracy and precision in scientific measurements. Identify and classify types of errors, including systematic and random errors. Calculate percentage error to evaluate the reliability of experimental results. Analyze sources of uncertainty in lab measurements and suggest ways to minimize them. 	 Formative: Measurements and data analysis in Chemistry lab Test Review Activities: 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. Students mark exemplar work using mark schemes.
	Record and Analyze Experimental Data Accurately	
	 Record observations and measurements in a structured lab notebook using appropriate units and significant figures. Organize and interpret experimental data using tables, graphs, and charts. Identify patterns and trends in experimental data to make scientific conclusions. Evaluate the reliability and limitations of collected data and suggest improvements. Dimensional Analysis Use conversion factors to convert between different units of measurement. 	
	 Apply dimensional analysis techniques to solve chemistry-related problems. Demonstrate proper use of significant figures in unit conversions and calculations. Solve multi-step problems involving unit conversions in chemical contexts. 	

	Intro & Topic 1 Test	
		Content and Assessment:
	Topic 2: Particles & Mixtures	
	2.1 - States of Matter	IGCSE Chemistry Student Textbook: Pages 2-13
	2.2 - Movement of Particles	Required Problems: 1-6 (Pages 12-13)
	understand the three states of matter in terms of the arrangement, movement and energy of the particles	
	understand the interconversions between the three states of matter in terms of:	Revision Textbook:
	• the names of the interconversions	Pages 1-4
9 – 13 June	• how they are achieved	X 1 D 1 N /4
	• the changes in arrangement, movement and energy of the particles.	Lab Book: N/A
	understand how the results of experiments involving the dilution of coloured solutions and diffusion of gases can be explained	
		Formative Assessments:
		States of Matter FormativeMovement of Particles Formative
		Exam Style Questions
		Content and Assessment:
	Topic 2: Particles & Mixtures	
		IGCSE Chemistry Student Textbook: Pages 14-23
	2.3 - Solutions & Solubility	Required Problems: 1-6 (Pages 22-23)
		Devicion Torthook
		Revision Textbook:
	know what is meant by the terms:	1 ages 5-7
16 – 20 June	• solvent	Lab Book: N/A
	• solution	
	• saturated solution "	
	know what is meant by the term solubility in the units g per 100 g of solvent	Formative Assessments:
	understand how to plot and interpret solubility curves	
	practical: investigate the solubility of a solid in water at a specific temperature	Solutions & Solubility Formative
		Evam Style Questions
		Laun Style Questions

		Content and Assessment:
	Tonia 2. Particlas & Mixtures	
	24 – Atoms	IGCSE Chemistry Student Textbook: Pages 24-29
	2.5 - Elements, Isotopes & Relative Atomic Mass	Required Problems: 1-9 (Pages 28-29)
		Revision Textbook:
	know what is meant by the terms 'atom' and 'molecule'	Pages 10-12
23 – 27 June	know the structure of an atom in terms of the positions, relative masses and relative charges of sub-atomic particles	
	know what is meant by the terms atomic number, mass number, isotopes and	Lab Book: N/A
	relative atomic mass (Ar)"	
	calculate the relative atomic mass of an element (Ar) from isotopic abundances	Formative Assessments:
		Atoms
		Elements, Isotopes & Relative Atomic Mass
		Exam Style Questions
		Content and Assessment:
	Topic 2: Particles & Mixtures	IGCSE Chemistry Student Textbook: Pages 14-23
	2.6 - Compounds, Molecules & Mixtures	Required Problems: 1-6 (Pages 22-23)
	2.7 - Filtration & crystallization	
	2.8 - Paper Chromatography	Revision Textbook:
	2.9 – Distillation	Pages 13-20
20 I (understand how to classify a substance as an element, compound or mixture	Lab Book:
30 June - 4 July	understand that a pure substance has a fixed melting and boiling point, but that a mixture may melt or boil over a range of temperatures"	r ages 2-0
-	describe these experimental techniques for the separation of mixtures:	Formative Assessments:
	• simple distillation	
	filtration	Compounds, Molecules & Mixtures
	• crystallisation	Filtration & crystallization Paper Chromatography
	• paper chromatography	Distillation
	understand how a chromatogram provides information about the composition of a mixture	
	understand how to use the calculation of Rf values to identify the components	Exam Style Questions
	of a mixture	
		Contant and Assessment:
	Tonic 2. Particles & Mixtures	Content and Assessment.
7 - 11 July	Topic 2. I utilities of minitures	Peper Chromatography Practical Guide and
		handout

		Paper Chromatography pre-lab & Post Lab Handout
	practical: investigate paper chromatography using inks/food colourings Topic 2 Test	Handout Lab Book: Pages 2-8 Topic 2 Test Review Sheet Test Review Activities: 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. Students mark exemplar work using mark schemes.
		Content and Assessment:
		IGCSE Chemistry Student Textbook: Pages 30-37 Required Problems: 1-8 (Pages 36-37)
14 -18 July		Revision Textbook: Page 24
11 10 0 41	Topic 3: The Periodic Table & Bonding	Leb Beele
	3.1 - The Periodic Table	Lao Book:
	 understand how elements are arranged in the Periodic Table: in order of atomic number in groups and periods. 	Formative Assessments:
		The Periodic Table
		Exam Style Questions
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
	3.2 - Electronic Structure	IGCSE Chemistry Student Textbook: Pages 30-37
21 – 25 July	understand how to deduce the electronic configurations of the first 20 elements from their positions in the Periodic Table	Required Problems: 1-8 (Pages 36-37)
	understand how the electronic configuration of a main group element is related to its position in the Periodic Table	Revision Textbook:
	understand why elements in the same group of the Periodic Table have similar chemical properties	Pages 25-26

	understand why the noble gases (Group 0) do not readily react	Formative Assessments:
		Electron Structure
		Exam Style Questions
		<u> </u>
		Content and Assessment:
		IGCSE Chemistry Student Textbook: Pages 30-37
		Required Problems: 1-8 (Pages 36-37)
		Revision Textbook:
28 July- 1	Topic 3: The Periodic Table & Bonding	Pages 27
August		Lab Book:
	3.3 - Metals & Non-Metals	Pages N/A
	identify an element as a metal or a non-metal according to its position in the	Formative Assessments:
	understand how to use electrical conductivity and the acid-base character of	Metals & Non-metals
	oxides to classify elements as metals or non-metals	
	Bonding	Exam Style Ouestions
	giant Covalent molecules	
		Contact and Accomments
		Content and Assessment:
		IGCSE Chemistry Student Textbook: Pages 75-84
		Required Problems: 1-6 (Pages 83-83)
		Revision Textbook:
	Topic 3: The Periodic Table & Bonding	Pages 29
4 - 8 August		Lab Book:
4 - 0 August		Pages N/A
		Formative Assessments:
	3.4 - Formation of Ions	Formation of ions
	understand how ions are formed by electron loss or gain	
	know the charges of these ions: • metals in Groups 1, 2 and 3	Exam Style Questions
	• non-metals in Groups 5, 6 and 7 • $\Delta \alpha^+ C \alpha^{2+} E \alpha^{2+} E \alpha^{3+} D \theta^{2+} T \alpha^{2+}$	Exam Style Questions
	hydrogen (H ⁺), hydroxide (OH ⁻), ammonium (NH ₄ ⁺), carbonate (CO ₃ ^{2–}), nitrate (NO ₃ ⁻⁾ aufente (CO ₃ ^{2–})	
	(1103), suitate (504).	
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
11 – 15 August		
		IGCSE Chemistry Student Textbook: Pages 75-84
		14505 / 5 07

	CO^{2} · · · · · · · · · · · · · · · · · · ·	
	• Cl ⁻ , Br ⁻ and l ⁻ using acidified silver nitrate solution	
	describe tests for these anions:	
	• Cu ²⁺ , Fe ²⁺ and Fe ³⁺ using sodium hydroxide solution.	
	describe tests for these cations:	
		Exam Style Questions
	• Cu ²⁺ is blue-green.	Chemical Tests
	• Ca ²⁺ is orange-red	Ionic Compounds
	• K ⁺ is lilac	Formative Assessments:
	• Na ⁺ is yellow	
18 - 22 August	• Li ⁺ is red	
	conduct electricity when molten and in aqueous solution know the colours formed in flame tests for these cations:	Pages 39-45
	know that ionic compounds do not conduct electricity when solid, but do	Lab Book:
	understand why compounds with giant ionic lattices have high melting and boiling points	
	electron transfer, limited to combinations of elements from Groups 1, 2, 3 and 5, 6, 7. only outer electrons need be shown	Pages 91-94
	write formulae for compounds formed between the ions listed above draw dot-and-cross diagrams to show the formation of ionic compounds by	Revision Textbook:
	3.6 – Ionic Compounds 3.7 Chemical Tests Tests	
		Required Problems: 1-8 (Pages 196-197)
	Topic 3: The Periodic Table & Bonding	Required Problems: 1-6 (Pages 83-84)
		Pages 190-197
		IGCSE Chemistry Student Textbook: Pages 75-84
		Content and Assessment:
		Exam Style Questions
		Ionic Bonding
		Formative Assessments:
		Pages N/A
		Pages 30-31
	3.5 – Ionic Bonding understand ionic bonding in terms of electrostatic attractions	Revision Textbook:
		Required Problems: 1-86. (Pages 83-84)

	Topic 3 Assessment & Feedback	 Test Review Activities: 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. Students mark exemplar work using mark schemes.
1 - 5 September	Topic 3: The Periodic Table & Bonding	Content & Assessment: Semester Project Handout and guideline
	Practical Project/Assessment	Semester project Rubric
		Content & Assessment:
8 - 12 September	Topic 3: The Periodic Table & Bonding	Semester Project Handout and guideline
	Practical Project/Assessment	Semester project Rubric
	Semester Review	Final Exam Review Sheet
15 -19 September	Final Exam Week	



Course Scope for Biology Mathayom 4



Semester 1/2025-2026 Teacher Rick Reinders

Date	Contents	Comments/ Remarks
12 - 16 May	Introduction lesson (Teams, Onenote, expectations, skills, rules etc)	
19 - 23 May	Unit 1: Nature and Variety of living things. 1.1 Characteristics of Living Organism Presentation	
26 – 30 May	Unit 1: Nature and Variety of living things. 1.1 Characteristics of Living Organism Worksheet	
2 – 6 June	Unit 1: Nature and Variety of living things. 1.2 The Variety of Living Organisms Presentation and Worksheet	
9 – 13 June	Unit 1: Nature and Variety of living things. 1.1.a Cell Structure Presentation	
16 – 20 June	Unit 1: Nature and Variety of living things. 1.1.d Level of Organization Presentation	
23 – 27 June	Unit 1: Nature and Variety of living things. 1.1.d Level of Organization Presentation	
30 June - 4 July	Unit 2: Chemistry of Life. 1.1.b Biological Molecules Presentation	
7 - 11 July	Unit 2: Chemistry of Life. 1.1.b ACTIVITY 1 Practical An Investigation into Temperature and Amylase	
14 -18 July	Unit 2: Chemistry of Life. 1.1.b ACTIVITY 2 Practical An investigation into the effects of pH	
21 – 25 July	Unit 2: Chemistry of Life. 1.1.c Respiration Presentation	
28 July- 1 August	Unit 2: Chemistry of Life. 1.1.c ACTIVITY 3 Practical Demonstration of the production of carbon dioxide by small living organisms	
4 - 8 August	Unit 2: Chemistry of Life. 1.1.c ACTIVITY 4 Practical Demonstration that heat is produced by respiration	
11 – 15 August	Unit 2: Chemistry of Life. 1.1.e ACTIVITY 5 Practical Demonstrating of diffusion in a jelly	
18 - 22 August	Unit 2: Chemistry of Life. 1.1.e Movement of Substance Presentation	
25 - 29 August	Unit 3: Nutrition in Organisms. 2.5.a Nutrition in Plants Presentation and worksheet	
1 - 5 September	Unit 3: Nutrition in Organisms. 2.5.b Nutrition in Humans Presentation and Worksheet	
8 - 12 September	Review for Final Exam Week	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Anatomy Mathayom 4 Semester 1/2025-2026 Teacher Rick Reinders



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction lesson (Teams, Onenote, expectations, skills, rules etc)	Kellar K5
19 - 23 May	Unit 1: Introduction to Human Anatomy Overview of human anatomy and its importance in medicine	
26 – 30 May	Anatomical terminology and body organization	
2 – 6 June	Body planes, directions, and cavities	
9 – 13 June	Unit 2: Skeletal System Structure and function of bones	
16 – 20 June	Major bones of the human body (axial and appendicular skeleton)	
23 – 27 June	Bone development and growth	
30 June - 4 July	Types of joints and their functions	
7 - 11 July	Common skeletal disorders (e.g., osteoporosis, arthritis)	
14 -18 July	<i>Unit 3: Muscular System</i> Types of muscle tissue (skeletal, smooth, cardiac)	
21 – 25 July	Structure and function of skeletal muscles	
28 July- 1 August	Mechanism of muscle contraction (sliding filament theory)	
4 - 8 August	Muscle fatigue and energy sources	
11 – 15 August	Muscle disorders and injuries	
18 - 22 August	Unit 4: Circulatory System Anatomy of the heart and blood vessels	
25 - 29 August	Blood composition and function	
1 - 5 September	Mechanism of blood circulation and blood pressure regulation	
8 - 12 September	Cardiovascular diseases (e.g., hypertension, heart attack)	
15-19 Sentember	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Computer Mathayom 4 Semester 1/2025-2026 Teacher James Cookson



Date	Contents	Comments/ Remarks
12 - 16 May	HTML Introduction	
19 - 23 May	HTML Images/Links	
26 – 30 May	HTML Lists/Tables	
2 – 6 June	CSS Introduction	
9 – 13 June	CSS Colors/Borders	
16 – 20 June	CSS Element Alignment	
23 – 27 June	Midterm Project Intro	
30 June - 4 July	Midterm Project	
7 - 11 July	Midterm Project	
14 -18 July	JavaScript Intro	
21 – 25 July	JavaScript- Data Types	
28 July- 1 August	JavaScript – String Methods	
4 - 8 August	JavaScript – If Statements	
11 – 15 August	JavaScript – Arrays	
18 - 22 August	JavaScript - Functions	
25 - 29 August	JavaScript - Loops	
1 - 5 September	Final Project	
8 - 12 September	Final Project	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Health and Physical Education Mathayom 4 Semester 1/2025-2026 Teacher Benjamin Peter Fishman



Date	Contents	Comments/
12 - 16 May	Teacher Introduction	Kemarks
19 - 23 May	Course Theme Introduction	
26 - 30 May	Biodata collection week	
2 – 6 June	Dodgeball overview	
9 – 13 June	Dodgeball drills	
16 – 20 June	Dodgeball scrimmage	
23 – 27 June	Dodgeball gauntlet	
30 June - 4 July	Combat sports overview	
7 - 11 July	Boxing drills	
14 -18 July	Nutrition lesson	
21 – 25 July	Nutrition quiz	
28 July- 1		
August	Ultimate Frisbee overview	
4 - 8 August	Ultimate Frisbee drills	
11 – 15 August	Ultimate Frisbee scrimmage	
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	



Course Scope for English Mathayom 4



Data	Contonto	Comments/
Date	Contents	
12 - 16 May	 Unit 1 Reading Preparation Part 1 Places to Visit Learning languages discussion Skimming and scanning Lexical words Sorting information Reading Comprehension-answering questions on <i>Honeycomb Hives</i> article 	12 May <u>Visakha</u> Bucha
19 - 23 May	 Unit 1 Reading Preparation Part 1 Places to Visit Matching adjectives in <i>Honeycomb Hives</i> article to correct definitions Countable and uncountable nouns Articles and partitives Correct usage of <i>some</i> and <i>any</i> 	
26 - 30 May	 Unit 1 Reading Preparation Part 2 Celebrities, Fame, and Entertainment Assessment-test on reading preparation Part 1 Assign Project # 1 book report Group discussion about the advantages and disadvantages of being a celebrity Listening and answering questions about a football press conference Identifying factual and abstract information from a text Identifying synonyms 	
2 - 6 June	 Unit 1 Reading Preparation Part 2 Celebrities, Fame, and Entertainment Reading and answering questions on <i>The Shadow Side of</i> <i>Celebrity</i> article Group discussion regarding privacy and social media Present simple verb tense Present continuous verb tense 	Queen's Birthday 2- 3 June
9 – 13 June	 Unit 1 Reading Preparation Part 3 History and Time Assessment- test on Reading Preparation Part 2 Group discussion about history Verifying text information as true, false, or not given Identifying facts, ideas, and opinions Reading and answering questions on <i>Biggest Dinosaur Ever</i> article 	

16 – 20 June	 Unit 1 Reading Preparation Part 3 History and Time Phrasal verbs Comparative and superlative adjectives Group survey activity to practice comparative and superlative 	
	Assessment- Test on Unit 1 Reading Preparation Part 3	
22 – 27 June	* Student Book Report presentations*	
30 June - 4 July	 Unit 2 Writing Preparation Part 4 Food and Drink Introduction to unit Group discussion on food/healthy eating Food vocabulary Students in Groups create their own menu 	
7 - 11 July	 Unit 2 Writing Preparation Part 4 Food and Drink Informal writing (informal register) Writing informal emails and letters (proper format for both) Analysis of two informal emails (which deserves higher marks and why?) Collocations Students write two informal emails to friends Present perfect verb tense 	10 July Asalha Bucha
14 - 18 July	 Unit 2 Writing Preparation Part 5 Colours Assessment- test on Unit 2 Writing Preparation Part 4 Assign Project # 2- students write a short story Group discussion about colors and their significance Discussion of students matching their writing with the context and purpose they are given Students in groups make notes about the layout and language features of letters, reports, and articles as well as the different types of audiences for these types of text Students read and then have group discussion on <i>Come Rain or Shine</i> article	
21 – 25 July	 Unit 2 Writing Preparation Part 5 Colours Students write <i>Sports Day</i> letter to their head teacher Idioms with colors in them (e.g. green with envy) Past simple and present perfect verb tenses Time expressions group activity 	
28 July - 1 August	 Unit 2 Writing Preparation Part 6 Speech and Communication Assessment- test on Unit 2 Writing Preparation Part 5 Students in groups discuss different types of social interactions, e.g. virtual vs. face to face Students in pairs discuss which in a list of qualities given contribute to good conversation/social interaction Presenting info in both formal and semi-formal contexts 	28 July King's Birthday

	 Paraphrasing and summarizing Students write summary of an article on dolphin communication 	
4 - 8 August	 Unit 2 Writing Preparation Part 6 Speech and Communication Students read and write a summary of How Babies Talk reading. Communication verbs Past continuous verb tense Proper usage of <i>would</i> and <i>used to</i> 	
11 – 15 August	Unit 3 Listening Preparation Part 1 The World of Work Assessment- Test on Writing Preparation Part 6 • Students present their short stories	12 August Mother's Day
18 - 22 August	 Unit 3 Listening Preparation Part 1 The World of Work Students discuss their ideal job Listening for the overall message Students discuss the differences between <i>hear</i> and <i>listen</i> Listening for detail-students practice by listening to a passage for dates, times, names, places, and events. Nouns related to the workplace, e.g. customer, work experience, staff WH questions inversion 	
25 - 29 August	Unit 3 Listening Preparation Part 2 Pets Assessment- test on The World of Work Part 1 Inversion Identifying key points and detail Identifying stated and implied viewpoints Collocations Prepositions of time	
1 - 5 September	Final Exam Review	
8 - 12 September	Final Exam Week	



Course Scope for Creative Writing Mathayom 4



Data	Contonta	Comments/
Date	Contents	Remarks
		12 May
12 - 16 May	Introduction to creative Writing	<u>Visakha</u>
	Assignment # 1-students write about an object	<u>Bucha</u>
10 - 23 May	• Students read their <i>object</i> essay	
17 - 25 Way	 Assignment # 2- students choose a picture and write about it 	
	Students read their <i>picture</i> essay	
26 - 30 May	Assignment # 3- students are given a choice of writing prompts in	
	which they choose one and write a story	
	• Students read their <i>Writing Prompt</i> stories	Queen's
2 - 6 June	• Assignment # 4-students write an essay about how to do	Birthday 2-
	something	3 June
0 12 June	• Students read their <i>How to do Something</i> essays	
9 – 13 June	 Assignment # 5- students create a character and describe their physical and montal characteristics based on prompts 	
	Discussion/introduction to dystopian stories	
16 – 20 June	 Assignment # 6- students write a dystopian story based on the 	
10 20 0000	character they created in Assignment # 5	
	Peer Review Activity	
	• Students choose a partner, are given peer review forms, and	
	peer review each other's dystopian essay	
22 – 27 June	• Students read their peer reviews to the class	
	• Students revise their essays based on their partner's peer	
	reviews	
	• Students read their revised Dystonian Essays	
	 Discussion on the benefits of a Peer review activity/students 	
30 June - 4	reflect on what they learned and how this activity helped their	
July	writing	
	• Assignment # 7-Superhero writing assignment- students create	
	a superhero and write a story	
7 11 T1	• Students read their superhave writing assignments	10 July
7 - 11 July	 Students read their supernero writing assignments Assignment # 8 Students write shout a memory 	Asalha Bucha
	Assignment # o-Students write about a memory Students read their memory assay	Bucha
	 Assignment # 8-The Lottery speech Writing Assignment- 	
	students pretend to be members of the town council of the	
14 - 18 July	community where <i>The Lottery</i> takes place. They write a speech	
	arguing whether or not the annual lottery should continue in the	
	future	

	• Students read their <i>Lottery</i> speeches.	
21 – 25 July	• Assignment # 9- Students write about a time in their lives when	
	they overcame adversity	
29 July 1	• Students read their Overcoming Adversity essays	28 July
20 July - 1 Angust	 Introduction to movie reviews 	King's
August	• Assignment # 10-students write a movie review	Birthday
4 - 8 August	 Students read their movie reviews 	
	• Assignment # 11- Group Project- students write a song parody	
		12 August
11 – 15 August		Mother's
	 Students present their song parodies 	Day
18 - 22 August	• Assignment # 12- Students are given essay writing prompts,	
	they choose one and write an essay	
25 - 29 August	• Students read their essay writing prompts essays	
	Final Exam Review	
1.5		
Sentember		
September	FINAL EXAM	
8 - 12		
Sentember		
September	Final Exam Week	



Course Scope for Literature Studies Mathayom 4



Date	Date Contents	
Date	Contents	Remarks
12 - 16 May	• Introduction to Short Stories/plot diagram with examples and practice	
	Short Story- The Veldt	Ducila
	Introduction to Science Fiction	
19 - 23 May	 Introduction to Seconde Fletion Introduction to Ray Bradbury 	
	• Introductory writing activity- students write about what their	
	own virtual reality would be like	
	Short Story- The Veldt	
26 - 30 May	Go over vocabulary	
	Begin reading story	
	Short Story- The Veldt	Queen's
2 - 6 June	Read Story	Birthday 2- 3 June
	Short Story- The Veldt	
9 – 13 June	Read story	
	Short Story- The Veldt	
16 – 20 June	Finish reading story	
	Students answer questions	
	Test on The Veldt	
	Short Story- The Lottery	
22 – 27 June	• Introduction to story- colloquialisms, American small-town	
	life, Shirley Jackson, The Holocaust	
	Go over vocabulary	
	Begin reading story	
30 June - 4	Short Story- The Lottery	
July	Read story	
		10 July
7 - 11 July	Short Story- The Lottery	Asalha
	Read story	Bucha
14 - 18 July	Short Story- The Lottery	
	Read story	
	Short Story- The Lottery	
21 – 25 July	• Finish reading story	
	Students answer questions	
28 July - 1		28 July
Angust	I est on 1 ne Lottery	King's
	Short Story-The Wite's Story	Birthday

	*Introduction to story-discussion of stories/movies	
	involving character transformation	
	* Intro writing assignment-students write about a time in	
	their lives when their perception of a person or situation	
	turned out to be wrong	
	Short Story-The Wife's Story	
4 - 8 August	• Go over vocabulary	
	• Begin reading story	
		12 August
11 – 15 August	Short Story-The Wife's Story	Mother's
	Read story	Day
	Short Story-The Wife's Story	
18 - 22 August	*Finish reading story	
10 - 22 August	*Students answer questions	
	* Test on The Wife's Story	
	Short Story- You Disappearing	
25 - 20 August	Introduction to Story	
25 - 27 August	 Discussion of Dystopian stories/genre 	
	Begin Reading Story	
	Short Story- You Disappearing	
1 - 5	Read story	
September	Students Answer questions	
	Final exam review	
8 - 12		
September	Final Exam Week	



Course Scope for Poetry and Song Lyrics Mathayom 4



Data	Contents	
Date	Contents	Remarks
12 - 16 May	• Introduction to poetry and song lyrics/poetic devices in music	<u>Visakha</u>
	The Beatles Song Lyrics Comparison Activity	<u>Bucha</u>
	Robert Frost The Road Not Taken	
19 - 23 May	• Introduction to Robert Frost	
•	• Students read poem and answer questions	
	Students share answers/class discussion	
26 - 30 Mov	• Test on The Bestles Good Day Sunshing She Said She Said	
20 - 30 May	• Test on The Beatles Good Day Sunshine, she said, she said, The Road not Taken poetic devices in music	
	Metallica-Nothing Flse Matters	
	Introduction to Metallica	
2 - 6 June	• Teacher plays song in class/class discussion	Queen's
2 - 0 June	 Students answer questions/teacher reviews answers/class 	Birthday 2
	discussion	3 June
	Dylan Thomas- Do Not go Gentle Into that Good Night	5 build
	Introduction to Dylan Thomas	
9 – 13 June	• Students read poem and answer questions	
	 Students share answers/class discussion 	
	Rudvard Kipling- If	
	Introduction to Rudvard Kipling	
16 – 20 June	• Students read poem and answer questions	
	• Students share answers/class discussion	
	Bob Marley-Redemption Song	
	• Introduction to Bob Marley	
22 – 27 June	• Teacher plays song in class/class discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
20 1 4		
30 June - 4	Project -Group Song Analysis Presentation	
July	*Students prepare and give their presentations.	
	Robin Trailer-Sway to my Beat	
7 - 11 July	*Introduction to Robin Trailer	10 July
/ II Guiy	*Teacher plays song/class discussion	Asalha
	*students answer questions/teacher reviews answers/class discussion	Bucha
	Langston Hughes- Harlem	
	Introduction to Langston Hughes	
14 - 18 July	Read poem/discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
21 – 25 July	Writing assignment-Students choose from several topics about a song	
U	of their choice such as : "Write about a song that would make a good	

I T		I
	movie," or "Write about a song that would make a good advertisement	
	for a certain product."	
	• Students write their essays and share in class	
	Living Colour- Cult of Personality	
30 T	Introduction to Living Colour	
28 July - 1	• Teacher plays song/class discussion	28 July
August	• Students answer questions/teacher reviews answers/class	King's
	discussion	Birthday
	Test on Sway to the Beat, Harlem and Cult of Personality	` _
	Stephen Dobyns- Loud Music	
	• Introduction to Stephen Dobyns	
4 - 8 August	• Read poem/discussion	
	 Students answer questions/teacher reviews answers/class 	
	discussion	
	Pink Floyd- Time	
	• Introduction to Pink Floyd	
11 15 August	 Teacher plays song/class discussion 	12 August
11 – 15 August	 Studente enguge questions/teacher reviews enguges/class 	12 August
	• Students answer questions/teacher reviews answers/class	Nother's
	Croop Day American List	Day
	Green Day-American Ialot	
10 22 4 4	• Introduction to Green Day	
18 - 22 August	• Teacher plays song/class discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
25 - 29 August		
	Practice Final Exam	
1 5		
1-5 Soutombou		
September	Final Exam	
0.10		
8 - 12		
September	Final Exam Week	



Course Scope for Economic and Geography Mathayom 4

Semester 1/2025-2026 Teacher Andrew Hailstone



D (Contents	
Date		
12 - 16 May	The War in Ukraine	12 May
12 - 10 May		Visakha Bucha
19 - 23 May	What is Globalization, definition, and cartoon	
26 - 30 May	Economic Globalization, definition, Agreements and Transportation	
2 - 6 June	Economic Globalization Automation and Education	Queen's Birthday 2-3 June
9 – 13 June	Economic Globalization Outsourcing	
16 - 20 June	Cultural Globalization; definition, Hybridization, Homogenization, Conflict	
10 – 20 June	Intensification	
	History of globalization; The Silk Road, Discovery of trade winds and ocean currents,	
22 – 27 June	Colonialism, Industrial Revolution, Post World War 2, End of Cold War, Explosion	
	of the Internet	
30 June - 4 July	The Pros of Globalization; an analysis	
7 11 July	The Pros of Globalization; an analysis	10 July
7 - 11 July		Asalha Bucha
14 - 18 July	The Cons of Globalization; an analysis	
21 – 25 July	The Cons of Globalization; an analysis	
28 July - 1	The Pros and Cons of Globalization assignment	28 July King's
August		Birthday
4 - 8 August	The state of Europe Post WW2	
11 - 15 Anomet		12 August
11 – 15 August	The Marshall Plan and the development of the European Community	Mother's Day
18 - 22 August	The Development of the European Community	
25 - 29 August	The Euro Zone Economic Crisis	
1 - 5 September	The Euro Zone Economic Crisis	
8 - 12		
September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Chemistry Mathayom 4 Semester 1/2025-2026 Teacher Sep Alamouti



Date	Contents	Comments/	
	Intro: Classroom Pulas & Somostar Plan	Kemarks	
12 - 16 May	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 adhering to classroom rules and policies	Content and Assessment: Classroom Rules Handouts Chemistry Lab SOP Handout	
19 - 23 May	Intro: Lab Safety & Procedures Identify and explain key laboratory safety rules and procedures. Demonstrate proper handling of chemicals, glassware, and lab equipment to prevent accidents. Interpret and apply safety symbols and hazard labels on chemical containers. Locate and use emergency safety equipment, including eyewash stations, fire extinguishers, and safety showers. Follow correct protocols for waste disposal and spill management in the laboratory. Assess potential risks in lab activities and suggest appropriate safety precautions.	Content and Assessment: Lab Safety Handout Formative: Lab Safety	
26 – 30 May	 Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. Determine the correct number of significant figures in a given measurement or calculation. 	Content and Assessment: Measurement Handout Formative: Measurements and data analysis in Chemistry lab	
2 – 6 June	 Explain Measurement Uncertainties and Errors Differentiate between accuracy and precision in scientific measurements. Identify and classify types of errors, including systematic and random errors. Calculate percentage error to evaluate the reliability of experimental results. Analyze sources of uncertainty in lab measurements and suggest ways to minimize them. 	 Content and Assessment: Formative: Measurements and data analysis in Chemistry lab Test Review Activities: 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. Students mark exemplar work using mark schemes. 	

	 Record and Analyze Experimental Data Accurately Record observations and measurements in a structured lab notebook using appropriate units and significant figures. Organize and interpret experimental data using tables, graphs, and charts. Identify patterns and trends in experimental data to make scientific conclusions. Evaluate the reliability and limitations of collected data and suggest improvements. Dimensional Analysis Use conversion factors to convert between different units of measurement. Apply dimensional analysis techniques to solve chemistry-related problems. Demonstrate proper use of significant figures in unit conversions and calculations. Solve multi-step problems involving unit conversions in chemical contexts. 	
	Touis 2. Doutiday 8 Minterne	Content and Assessment:
9 – 13 June	 Copic 2: Particles & Mixtures 2.1 - States of Matter 2.2 - Movement of Particles understand the three states of matter in terms of the arrangement, movement and energy of the particles understand the interconversions between the three states of matter in terms of: • the names of the interconversions • how they are achieved • the changes in arrangement, movement and energy of the particles. understand how the results of experiments involving the dilution of coloured solutions and diffusion of gases can be explained 	IGCSE Chemistry Student Textbook: Pages 2-13 Required Problems: 1-6 (Pages 12-13) Revision Textbook: Pages 1-4 Lab Book: N/A Formative Assessments: • States of Matter Formative • Movement of Particles Formative Exam Style Questions
16 – 20 June	Copic 2: Particles & Mixtures 2.3 - Solutions & Solubility know what is meant by the terms: • solvent • solute • solute • solution • saturated solution." know what is meant by the term solubility in the units g per 100 g of solvent understand how to plot and interpret solubility curves practical: investigate the solubility of a solid in water at a specific temperature	IGCSE Chemistry Student Textbook: Pages 14-23 Required Problems: 1-6 (Pages 22-23) Revision Textbook: Pages 5-7 Lab Book: N/A Formative Assessments: Solutions & Solubility Formative Exam Style Questions
	Topic 2: Particles & Mixtures	Content and Assessment:
23 – 27 June	 2.4 – Atoms 2.5 - Elements, Isotopes & Relative Atomic Mass know what is meant by the terms 'atom' and 'molecule' know the structure of an atom in terms of the positions, relative masses and relative charges of sub-atomic particles know what is meant by the terms atomic number, mass number, isotopes and relative atomic mass (Ar)" calculate the relative atomic mass of an element (Ar) from isotopic abundances 	IGCSE Chemistry Student Textbook: Pages 24-29 Required Problems: 1-9 (Pages 28-29) Revision Textbook: Pages 10-12 Lab Book: N/A Formative Assessments: Atoms Elements, Isotopes & Relative Atomic Mass Exam Style Ouestions

30 June - 4 July	Topic 2: Particles & Mixtures 2.6 - Compounds, Molecules & Mixtures 2.7 - Filtration & crystallization 2.8 - Paper Chromatography 2.9 - Distillation understand how to classify a substance as an element, compound or mixture understand that a pure substance has a fixed melting and boiling point, but that a mixture may melt or boil over a range of temperatures" describe these experimental techniques for the separation of mixtures: • simple distillation • filtration • filtration • crystallisation • paper chromatography understand how a chromatogram provides information about the composition of a mixture understand how to use the calculation of Rf values to identify the components of a mixture	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 14-23 Required Problems: 1-6 (Pages 22-23) Revision Textbook: Pages 13-20 Lab Book: Pages 2-8 Formative Assessments: Compounds, Molecules & Mixtures Filtration & crystallization Paper Chromatography Distillation Exam Style Questions
7 - 11 July	Topic 2: Particles & Mixtures practical: investigate paper chromatography using inks/food colourings Topic 2 Test	Content and Assessment: Peper Chromatography Practical Guide and handout Paper Chromatography pre-lab & Post Lab Handout Lab Book: Pages 2-8 Topic 2 Test Review Sheet Test Review Activities: • 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. Students mark exemplar work using mark schemes.
14 -18 July	Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 30-37 Required Problems: 1-8 (Pages 36-37) Revision Textbook: Page 24 Lab Book: Pages N/A Formative Assessments: The Periodic Table Exam Style Questions
21 – 25 July	Topic 3: The Periodic Table & Bonding 3.2 - Electronic Structure understand how to deduce the electronic configurations of the first 20 elements from their positions in the Periodic Table understand how the electronic configuration of a main group element is related to its position in the Periodic Table understand why elements in the same group of the Periodic Table have similar chemical properties understand why the noble gases (Group 0) do not readily react	Content and Assessment: IGCSE Chemistry Student Textbook: Pages 30-37 Required Problems: 1-8 (Pages 36-37) Revision Textbook: Pages 25-26 Formative Assessments: Electron Structure Exam Style Questions

		1
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
	3.3 - Metals & Non-Metals	IGCSE Chemistry Student Textbook:
28 July- 1	identify an element as a metal or a non-metal according to its position in the Periodic Table understand how to use electrical conductivity and the acid-base character of	Pages 30-37 Required Problems: 1-8 (Pages 36-37) Revision Textbook: Pages 27
August	oxides to classify elements as metals or non-metals	Lab Book: Pages N/A Formative Assessments:
	compare and contrast ionic Bonding, Covalent bonding, Metallic Bonding and giant Covalent molecules	Metals & Non-metals Exam Style Questions
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
		IGCSE Chemistry Student Textbook:
	3.4 - Formation of Ions	Required Problems: 1-6 (Pages 83-83) Revision Textbook:
4 - 8 August	understand how ions are formed by electron loss or gain know the charges of these ions:	Pages 29 Lab Book: Pages N/A
	metals in Groups 1, 2 and 3 inon-metals in Groups 5, 6 and 7	Formative Assessments: Formation of ions
	• Ag ⁺ , Cu ²⁺ , Fe ²⁺ , Fe ³⁺ , Pb ²⁺ , Zn ²⁺ hydrogen (H ⁺), hydroxide (OH ⁻), ammonium (NH ₄ ⁺), carbonate (CO ₃ ²⁻), nitrate (NO ₃ ⁻), sulfate (SO ₄ ²⁻).	Exam Style Questions
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
11 – 15	3.5 – Ionic Bonding	IGCSE Chemistry Student Textbook: Pages 75-84 Required Problems: 1-86. (Pages 83-84) Revision Textbook:
August	understand ionic bonding in terms of electrostatic attractions	Pages 30-31 Lab Book: Pages N/A Formative Assessments: Ionic Bonding
	Topic 3: The Periodic Table & Bonding	
	3.6 – Ionic Compounds 3.7 Chemical Tests Tests	Content and Assessments
	write formulae for compounds formed between the ions listed above draw dot-and-cross diagrams to show the formation of ionic compounds by electron transfer, limited to combinations of elements from Groups 1, 2, 3 and 5, 6, 7. only outer electrons need be shown	IGCSE Chemistry Student Textbook: Pages 75-84 Pages 190-197
	understand why compounds with giant ionic lattices have high melting and boiling points	Required Problems: 1-6 (Pages 83-84) Required Problems: 1-8 (Pages 196-197)
18 - 22 August	know that ionic compounds do not conduct electricity when solid, but do conduct electricity when molten and in aqueous solution know the colours formed in flame tests for these cations:	Revision Textbook: Pages 91-94
	 Li⁺ is red Na⁺ is yellow K⁺ is lilac Ca²⁺ is orange-red 	Lab Book: Pages 39-45
	 Cu²⁺ is blue-green. describe tests for these cations: NH₄⁺ using sodium hydroxide solution and identifying the gas evolved 	Formative Assessments: Ionic Compounds Chemical Tests
	• Cu ²⁺ , Fe ²⁺ and Fe ³⁺ using sodium hydroxide solution.	Exam Style Questions
	• Cl ⁻ , Br ⁻ and I ⁻ using acidified silver nitrate solution	
	• SO ₄ ²⁻ using acidified barium chloride solution	
	• CO_3^{2-} using hydrochloric acid and identifying the gas evolved.	

		Topic 3 Test Review Sheet
	Topic 3: The Periodic Table & Bonding	Content and Assessment:
		Test Review Activities:
25 - 29 August	Topic 3 Assessment & Feedback	 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. Students mark exemplar work using mark schemes.
	Topic 3: The Periodic Table & Bonding	Content & Assessment:
1 - 5 September	Practical Project/Assessment	Semester Project Handout and guideline Semester project Rubric
	¥	Contont & Aggggments
		Content & Assessment:
8 - 12 Sentember	Topic 3: The Periodic Table & Bonding	Semester Project Handout and guideline
September	Practical Project/Assessment	Semester project Rubric
	Semester Review	Final Exam Review Sheet
15 -19 September	Final Exam Week	



Course Scope for Biology Mathayom 4



Semester 1/2025-2026 Teacher Rick Reinders

Date	Contents	
12 - 16 May	Introduction lesson (Teams, Onenote, expectations, skills, rules etc)	
19 - 23 May	Unit 1: Nature and Variety of living things. 1.1 Characteristics of Living Organism Presentation	
26 – 30 May	Unit 1: Nature and Variety of living things. 1.1 Characteristics of Living Organism Worksheet	
2 – 6 June	Unit 1: Nature and Variety of living things. 1.2 The Variety of Living Organisms Presentation and Worksheet	
9 – 13 June	Unit 1: Nature and Variety of living things. 1.1.a Cell Structure Presentation	
16 – 20 June	Unit 1: Nature and Variety of living things. 1.1.d Level of Organization Presentation	
23 – 27 June	Unit 1: Nature and Variety of living things. 1.1.d Level of Organization Presentation	
30 June - 4 July	Unit 2: Chemistry of Life. 1.1.b Biological Molecules Presentation	
7 - 11 July	Unit 2: Chemistry of Life. 1.1.b ACTIVITY 1 Practical An Investigation into Temperature and Amylase	
14 -18 July	Unit 2: Chemistry of Life. 1.1.b ACTIVITY 2 Practical An investigation into the effects of pH	
21 – 25 July	Unit 2: Chemistry of Life. 1.1.c Respiration Presentation	
28 July- 1 August	Unit 2: Chemistry of Life. 1.1.c ACTIVITY 3 Practical Demonstration of the production of carbon dioxide by small living organisms	
4 - 8 August	Unit 2: Chemistry of Life. 1.1.c ACTIVITY 4 Practical Demonstration that heat is produced by respiration	
11 – 15 August	Unit 2: Chemistry of Life. 1.1.e ACTIVITY 5 Practical Demonstrating of diffusion in a jelly	
18 - 22 August	Unit 2: Chemistry of Life. 1.1.e Movement of Substance Presentation	
25 - 29 August	Unit 3: Nutrition in Organisms. 2.5.a Nutrition in Plants Presentation and worksheet	
1 - 5 September	Unit 3: Nutrition in Organisms. 2.5.b Nutrition in Humans Presentation and Worksheet	
8 - 12 September	Review for Final Exam Week	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Physics Mathayom 4 Semester 1/2025-2026 Teacher Nicholas Barrett



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction	
19 - 23 May	Speed, Velocity and Acceleration	
26 – 30 May	Distance-Time graphs and their interpretation	
2 – 6 June	Speed-Time graphs and their interpretation	
9 – 13 June	Test: Motion graphs	
16 – 20 June	Motion Graphs Project: (BTS Skytrain motion with extension tasks featuring displacement, vectors, and velocity)	
23 – 27 June	Motion Graphs Project: (BTS Skytrain motion with extension tasks featuring displacement, vectors, and velocity)	
30 June - 4 July	Mass, weight and gravity, centre of gravity and air resistance	
7 - 11 July	Newton's Three Laws and their applications	
14 -18 July	The fundamental characteristics of waves (e.g amplitude, frequency, period and more) vs. SHM	
21 – 25 July	Mechanical vs. Electromagnetic waves: the real-life applications of waves	
28 July- 1 August	Longitudinal vs Transverse waves	
4 - 8 August	Reflection and Refraction	
11 – 15 August	Snell's Law and the Critical angle of medium with a given refractive index	
18 - 22 August	Diffraction	
25 - 29 August	Experiment: Wave ripple tank and slinkys	
1 - 5 September	Momentum	
8 - 12 September	Changes in momentum and impulse	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Anatomy Mathayom 4 Semester 1/2025-2026 Teacher Rick Reinders



Date	Contents	Comments/ Remarks
12 - 16 May	Introduction lesson (Teams, Onenote, expectations, skills, rules etc)	
19 - 23 May	Unit 1: Introduction to Human Anatomy Overview of human anatomy and its importance in medicine	
26 – 30 May	Anatomical terminology and body organization	
2 – 6 June	Body planes, directions, and cavities	
9 – 13 June	Unit 2: Skeletal System Structure and function of bones	
16 – 20 June	Major bones of the human body (axial and appendicular skeleton)	
23 – 27 June	Bone development and growth	
30 June - 4 July	Types of joints and their functions	
7 - 11 July	Common skeletal disorders (e.g., osteoporosis, arthritis)	
14 -18 July	<i>Unit 3: Muscular System</i> Types of muscle tissue (skeletal, smooth, cardiac)	
21 – 25 July	Structure and function of skeletal muscles	
28 July- 1 August	Mechanism of muscle contraction (sliding filament theory)	
4 - 8 August	Muscle fatigue and energy sources	
11 – 15 August	Muscle disorders and injuries	
18 - 22 August	Unit 4: Circulatory System Anatomy of the heart and blood vessels	
25 - 29 August	Blood composition and function	
1 - 5 September	Mechanism of blood circulation and blood pressure regulation	
8 - 12 September	Cardiovascular diseases (e.g., hypertension, heart attack)	
15 -19 September	Final Exam Week	



Course Scope for Creative Writing Mathayom 4



Data	Contents	Comments/
Datt		Remarks
12 - 16 May	 Introduction to creative Writing Assignment # 1-students write about an object 	12 May Visakha Bucha
19 - 23 May	 Students read their <i>object</i> essay Assignment # 2- students choose a picture and write about it 	
26 - 30 May	Students read their <i>picture</i> essay Assignment # 3- students are given a choice of writing prompts in which they choose one and write a story	
2 - 6 June	 Students read their <i>Writing Prompt</i> stories Assignment # 4-students write an essay about how to do something 	Queen's Birthday 2- 3 June
9 – 13 June	 Students read their <i>How to do Something</i> essays Assignment # 5- students create a character and describe their physical and mental characteristics based on prompts 	
16 – 20 June	 Discussion/introduction to dystopian stories Assignment # 6- students write a dystopian story based on the character they created in Assignment # 5 	
22 – 27 June	 Peer Review Activity Students choose a partner, are given peer review forms, and peer review each other's dystopian essay Students read their peer reviews to the class Students revise their essays based on their partner's peer reviews 	
30 June - 4 July	 Students read their revised Dystopian Essays Discussion on the benefits of a Peer review activity/students reflect on what they learned and how this activity helped their writing Assignment # 7-Superhero writing assignment- students create a superhero and write a story 	
7 - 11 July	 Students read their superhero writing assignments Assignment # 8-Students write about a memory 	10 July Asalha Bucha
14 - 18 July	 Students read their <i>memory</i> essay Assignment # 8-<i>The Lottery</i> speech Writing Assignment- students pretend to be members of the town council of the community where <i>The Lottery</i> takes place. They write a speech arguing whether or not the annual lottery should continue in the future 	
21 – 25 July	 Students read their <i>Lottery</i> speeches. Assignment # 9- Students write about a time in their lives when they overcame adversity 	

28 July - 1 August	 Students read their Overcoming Adversity essays Introduction to movie reviews Assignment # 10-students write a movie review 	28 July King's Birthday
4 - 8 August	 Students read their movie reviews Assignment # 11- Group Project- students write a song parody 	
11 – 15 August	 Students present their song parodies 	12 August Mother's Day
18 - 22 August	 Assignment # 12- Students are given essay writing prompts, they choose one and write an essay 	
25 - 29 August	 Students read their essay writing prompts essays Final Exam Review 	
1 - 5 September	FINAL EXAM	
8 - 12 September	Final Exam Week	



Course Scope for Economic and Geography Mathayom 4

Semester 1/2025-2026 Teacher Andrew Hailstone



Data	Contonto	Comments/
Date	Contents	Remarks
12 16 Mov	The War in Ukraine	12 May
12 - 10 May		Visakha Bucha
19 - 23 May	What is Globalization, definition, and cartoon	
26 - 30 May	Economic Globalization, definition, Agreements and Transportation	
2 - 6 June	Economic Globalization Automation and Education	Queen's Birthday 2-3 June
	Economic Globalization Outsourcing	
9 – 13 June		
16 20 Land	Cultural Globalization; definition, Hybridization, Homogenization, Conflict	
10 – 20 June	Intensification	
	History of globalization; The Silk Road, Discovery of trade winds and ocean currents,	
22 – 27 June	Colonialism, Industrial Revolution, Post World War 2, End of Cold War, Explosion	
	of the Internet	
30 June - 4 July	The Pros of Globalization; an analysis	
		10 1 1
7 - 11 July	The Pros of Globalization; an analysis	10 July
14 18 July	The Cons of Globalization: on analysis	Asama Ducha
14 - 18 July	The Cons of Globalization; an analysis	
21 – 25 July		20 L 1 - W' - L
28 July - 1	The Pros and Cons of Globalization assignment	28 July King's
August	The state of Europe Dest WW2	Birthday
4 - 8 August	The state of Europe Post w w2	12 August
11 – 15 August	The Marshall Plan and the development of the European Community	Mother's Day
18 - 22 August	The Development of the European Community	
25 - 29 August	The Euro Zone Economic Crisis	
1 - 5 September	The Euro Zone Economic Crisis	
8 - 12		
September	Final Exam Week	



Course Scope for English Mathayom 4



Data	Contonts	Comments/
Date	Contents	Remarks
12 - 16 May	 Unit 1 Reading Preparation Part 1 Places to Visit Learning languages discussion Skimming and scanning Lexical words Sorting information Reading Comprehension-answering questions on <i>Honeycomb Hives</i> article 	12 May Visakha Bucha
19 - 23 May	 Unit 1 Reading Preparation Part 1 Places to Visit Matching adjectives in <i>Honeycomb Hives</i> article to correct definitions Countable and uncountable nouns Articles and partitives Correct usage of <i>some</i> and <i>any</i> 	
26 - 30 May	 Unit 1 Reading Preparation Part 2 Celebrities, Fame, and Entertainment Assessment-test on reading preparation Part 1 Assign Project # 1 book report Group discussion about the advantages and disadvantages of being a celebrity Listening and answering questions about a football press conference Identifying factual and abstract information from a text Identifying synonyms 	
2 - 6 June	 Unit 1 Reading Preparation Part 2 Celebrities, Fame, and Entertainment Reading and answering questions on <i>The Shadow Side of</i> <i>Celebrity</i> article Group discussion regarding privacy and social media Present simple verb tense Present continuous verb tense 	Queen's Birthday 2- 3 June
9 – 13 June	 Unit 1 Reading Preparation Part 3 History and Time Assessment- test on Reading Preparation Part 2 Group discussion about history Verifying text information as true, false, or not given Identifying facts, ideas, and opinions Reading and answering questions on <i>Biggest Dinosaur Ever</i> article 	
16 – 20 June	 Unit 1 Reading Preparation Part 3 History and Time Phrasal verbs Comparative and superlative adjectives Group survey activity to practice comparative and superlative adjectives 	

	Assessment- Test on Unit 1 Reading Preparation Part 3	
22 – 27 June	* Student Book Report presentations*	
30 June - 4 July	 Unit 2 Writing Preparation Part 4 Food and Drink Introduction to unit Group discussion on food/healthy eating Food vocabulary Students in Groups create their own menu 	
7 - 11 July	 Unit 2 Writing Preparation Part 4 Food and Drink Informal writing (informal register) Writing informal emails and letters (proper format for both) Analysis of two informal emails (which deserves higher marks and why?) Collocations Students write two informal emails to friends Present perfect verb tense 	10 July Asalha Bucha
	Unit 2 Writing Preparation Part 5 Colours	
14 - 18 July	 Assessment- test on Unit 2 Writing Preparation Part 4 Assign Project # 2- students write a short story Group discussion about colors and their significance Discussion of students matching their writing with the context and purpose they are given Students in groups make notes about the layout and language features of letters, reports, and articles as well as the different types of audiences for these types of text Students read and then have group discussion on <i>Come Rain or</i> <i>Shine</i> article 	
	Unit 2 Writing Preparation Part 5 Colours	
21 – 25 July	 Students write <i>Sports Day</i> letter to their head teacher Idioms with colors in them (e.g. green with envy) Past simple and present perfect verb tenses Time expressions group activity 	
	Unit 2 Writing Preparation Part 6 Speech and Communication	
28 July - 1 August	 Assessment- test on Unit 2 Writing Preparation Part 5 Students in groups discuss different types of social interactions, e.g. virtual vs. face to face Students in pairs discuss which in a list of qualities given contribute to good conversation/social interaction Presenting info in both formal and semi-formal contexts Paraphrasing and summarizing Students write summary of an article on dolphin communication 	28 July King's Birthday

	Unit 2 Writing Preparation Part 6 Speech and Communication	
4 - 8 August	 Students read and write a summary of How Babies Talk reading. Communication verbs Past continuous verb tense Proper usage of <i>would</i> and <i>used to</i> 	
	Unit 3 Listening Preparation Part 1 The World of Work	
11 – 15 August	Assessment- Test on Writing Preparation Part 6	12 August
	• Students present their short stories	Mother's
	Unit 3 Listening Preparation Part 1 The World of Work	
18 - 22 August	 Students discuss their ideal job Listening for the overall message Students discuss the differences between <i>hear</i> and <i>listen</i> Listening for detail-students practice by listening to a passage for dates, times, names, places, and events. Nouns related to the workplace, e.g. customer, work experience, staff <i>WH</i> questions inversion 	
25 - 29 August	Unit 3 Listening Preparation Part 2 Pets Assessment- test on The World of Work Part 1 Inversion Identifying key points and detail Identifying stated and implied viewpoints Collocations Prepositions of time	
1 - 5 September	Final Exam Review	
8 - 12		
September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for General Science (Science and Tech) Mathayom 4 Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	Comments/
		Remarks
12 - 16 May	Physics:Introductions—Review of Newton's Three Laws, and pg 488-493 on speed, velocity R=D/T, interpreting graphs + worksheet (plus learning how to use formula triangles) Worksheet 1	
19 - 23 May	Discussions on acceleration (deceleration, constant speed, and acceleration) and how to interpret on a velocity vs time chart. Learning $a=(v - u)/t$ and understanding information from data. Introduce Project 1: Graphing a runner in velocity and acceleration. (Project 1 —Due in 3 weeks)	
26 – 30 May	Finish up to pg 501 and complete chapter questions in class. Prepare for Project on aspects of speed, acceleration, vectors, and interpreting data. Introduce Forces and Shape. Assign 504-512.	
2 – 6 June	Discuss balanced forces vs unbalanced forces. Different kinds of force (thrust, gravity, friction, air resistance, drag, circular force, torque, elastic) and calculating in Newtons. Finish 512- 528 Quiz 1 on Chapters 1, 2 and 3.	
9 – 13 June	Evaluate Project 1. Introduce Biology: Unit 1 Organisms and Life Processes, Pg 1-25. Relate Forces in Motion to life processes. Diffusion, Osmosis, ATP, use of oxygen.	
16 – 20 June	Discussion of variety in life, function, how viruses are not living. Complete mock tests in book on page 28 and Unit test on 29-30 Introduction to Unit 2Animal Physiology. Look at different systems: Breathing and Gas Exchange (pg 35-46), Food and Digestion, 48-63, and Blood and Circulation 64-75.	
23 – 27 June	Lab 1—heart rate after exercise, heart rate after eating. Creating different stimulus to affect heart rate. Project 2 : Presenting a body system: Students will be given a system: circulatory, digestion, nervous, endocrine, respiration, reproductive and expected to demonstrate their knowledge to their peers.	
30 June - 4 July	Quiz 2 on Biology Unit 1 and 2 (parts 1,2,3 to pg 75). Review Physics and Biology chapters (Forces in Motion, Organisms and Life Processes and Animal Physiology). Students missing work can catch up here.	
7 - 11 July	Midterm Tests/ Presentations of Project 2	
14 -18 July	Review Midterm, Biology Unit 2: Continue body systems: Coordination 77-89, Chemical coordination 91-95, Continued Presentation of Project 2 (last groups)	
21 – 25 July	Homeostasis and Excretion 97-102, and Reproduction 104-110.	
28 July- 1 August	Quiz 3 on all of animal physiology (80% 4,5,6,7) and discussion about different animal systems. Presentation 1: Introduce an animal/organism with a unique adaption.	
4 - 8 August	Unit 3 Plant Physiology: Project 3: Grow some plants with different variables to see effects on growth. OR Build a terrarium. Hypothesize and then use data to support or reject your hypothesis. Start plants and foods 121-135.	
11 – 15 August	Transport in plants (pg 136-143) Chemical coordination in plants (145-150) Looking at products used in photosynthesis and movements through the different levels of the cell (Worksheet 2)	
18 - 22 August	Lab 2—preparing slides of onion cells. Looking for key components in plant cells. Reproduction in plants. 151-160. Slight discussion into genetic breeds and GMO's	
25 - 29 August	Project 5 Presentations and Quiz 4 on Plants (pg 121-160)	
1 - 5 September	Physics: Unit 4: Energy. How is energy used in plants and animals, and how does it physically move through the environment. Looking at stored energy (chemical: fats) and how those are transferred into mechanical energy (hence movement). Talk about efficiency in plants, animals, solar cells and other mechanisms. (pg 590-595)	
8 - 12 September	Use Sankey diagrams, conservation of energy, and concepts of energy loss. Review for the finals.	
15 -19 September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Science and Technology Mathayom 4 Semester 1/2025-2026 Teacher Steven Fournier



Date	Contents	Comments/ Remarks
12 - 16 May	Introductions—Review of Newton's Three Laws, and pg 488-493 on speed, velocity $R=D/T$, introduce interpreting graphs + worksheet (plus learning how to use formula triangles) Worksheet 1	
19 - 23 May	Discussions on acceleration (deceleration, constant speed, and acceleration) Learning $a=(v - u)/t$ and understanding information from data. Prepare for suvat equations. (Graphing with Nick)	
26 – 30 May	Finish up to pg 501 and complete chapter questions in class. Prepare for Project on aspects of speed, acceleration, vectors, and interpreting data. Introduce Project 1 : Graphing a runner in velocity and acceleration. (Project 1—Due in 3 weeks)	
2 – 6 June	Introduce Forces and Shape. Assign 504-512. Discuss balanced forces vs unbalanced forces. Different kinds of force (thrust, gravity, friction, air resistance, drag, circular force, torque, elastic) and calculating in Newtons. + Talk about the fundamental forces and how they play a role in all things (Gravity, Electromagnetism, Strong, Weak) Quiz 1 on Chapters 1 and 2.	
9 – 13 June	Pre read 514-525. Introduce kinematic equations, go into real world situations with breaking questions (thinking distance + breaking distance + frictional effects). Prepare for project presentations. Looking at terminal velocity. Introduce Projectile Motion.	
16 – 20 June	Project 1 due —presentations on graphing a runner and determining velocity and acceleration through different points in a run.	
23 – 27 June	Experiment: Projectile Motion: Project 2 : Use the soccer field or other area to judge the distance and time of a projectile to derive its initial velocity assuming little air resistance. Can also use a basketball.	
30 June - 4 July	Review Forces in Motion, Review 489-527 Do the Unit questions and past papers as prep for Ouiz 2: Review on Forces in Motion . Prepare for Midterm.	
7 - 11 July	Midterm Tests and some counselling on scores. Also a chance for students to catch up on missing assignments/projects or other required elements. + Project 2 creation time.	
14 -18 July	Introduction to Energy: Pg 590-597. Discuss energy stores and transfers, the conservation of energy, and Sankey diagrams. Worksheet 2	
21 – 25 July	Pg 597-603,looking at aspects of heat, conduction, convection, effects on weather patterns, radiation, and experiments with heat.	
28 July- 1 August	Presentations of Project 2: Projectile motion. Also give Paper 1: How should Thailand use its heat/energy to increase productivity? Assigned. (three weeks to develop). Research aspects of heat related power (solar, wind, heating water, hydroelectric, capturing kinetic energy from rain). Also energy efficiency and its importance.	
4 - 8 August	Using Air flow to create work (Hot air rises (lift), replaced by low air vacuum.)	
11 – 15 August	Discussions on potential energy(pe=mgh), kinetic energy(ke= $1/2mv^2$), how a pendulum works (pe relationship to ke) Quiz 3 on Parts 1 and 2 + feedback. Introduction to Part 12, Pages 608-615.	
18 - 22 August	Aspects of Work. Work = Force x distance leading to Power = work/time. Worksheet 2 on potential energy, kinetic energy and work. Lab 2: Calculating work (going up stairs) in groups.	
25 - 29 August	Paper 1 : Introduction of Projects on converting energy in Thailand. Debate: What things should be improved with energy, what things should be eliminated? Oil/Coal burning factories, nuclear power, solar, hydro. (if time) about power creation and the future of power (nuclear, fusion, annihilation)	
1 - 5 September	Debate Lab 2 due. Unit questions 616-617, Lab 3 —creating a bottle rocket (if time available) and Quiz 4 on all of Energy	
8 - 12 September	Prep for final exam. Past papers on Forces in Motion and Energy. Work catch up for those missing assignments. Lab 3 due (if time)	
15 -19 September	Review + Mock tests + Interviews with students over marks, missing assignments and one to one feedback. Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Computer Mathayom 4 Semester 1/2025-2026 Teacher James Cookson



Date	Contents	Comments/ Remarks
12 - 16 May	HTML Introduction	
19 - 23 May	HTML Images/Links	
26 – 30 May	HTML Lists/Tables	
2 – 6 June	CSS Introduction	
9 – 13 June	CSS Colors/Borders	
16 – 20 June	CSS Element Alignment	
23 – 27 June	Midterm Project Intro	
30 June - 4 July	Midterm Project	
7 - 11 July	Midterm Project	
14 -18 July	JavaScript Intro	
21 – 25 July	JavaScript- Data Types	
28 July- 1 August	JavaScript – String Methods	
4 - 8 August	JavaScript – If Statements	
11 – 15 August	JavaScript – Arrays	
18 - 22 August	JavaScript - Functions	
25 - 29 August	JavaScript - Loops	
1 - 5 September	Final Project	
8 - 12 September	Final Project	
15 -19 September	Final Exam Week	



Course Scope for Literature Studies Mathayom 4



Data	Date Contents	
Date		
	• Introduction to Short Stories/plot diagram with examples and	12 May
12 - 16 May	practice	Visakha
		Bucha
	Short Story- The Veldt	
10 22 M	Introduction to Science Fiction	
19 - 23 May	Introduction to Ray Bradbury	
	• Introductory writing activity- students write about what their	
	Short Story The Velt	
26 - 20 May	Short Story- The Velat	
20 - 30 May	• Go over vocabulary	
	• Begin reading story	
2 6 June	Short Story- The Velat	Queen's
2 - 0 June	Read Story	Birthday 2-
	Short Story- The Veldt	5 June
9 – 13 June	Read story	
	i itela story	
	Short Story- The Veldt	
16 – 20 June	Finish reading story	
	Students answer questions	
	Test on The Veldt	
	Short Story- The Lottery	
22 – 27 June	• Introduction to story- colloquialisms, American small-town	
	life, Shirley Jackson, The Holocaust	
	Go over vocabulary	
	Begin reading story	
30 June - 4	Short Story- The Lattery	
July	Read story	
	• Read story	10 July
7 - 11 July	Short Story- The Lottery	Asalha
v	Read story	Bucha
14 - 18 July	Short Story- The Lottery	
	Read story	
	Short Story- The Lottery	
21 – 25 July	• Finish reading story	
	Students answer questions	
	Test on The Lottery	
28 July - 1 August	Short Story-The Wife's Story	28 July
	*Introduction to story-discussion of stories/movies	King's
	involving character transformation	Birthday

		_
	* Intro writing assignment-students write about a time in	
	their lives when their perception of a person or situation	
	turned out to be wrong	
	Short Story-The Wife's Story	
4 - 8 August	Go over vocabulary	
	Begin reading story	
11 – 15 August	Short Story-The Wife's StoryRead story	12 August Mother's Day
	Short Story-The Wife's Story	•
18 - 22 August	*Finish reading story	
10 - 22 August	*Students answer questions	
	* Test on The Wife's Story	
	Short Story- You Disappearing	
25 - 29 August	Introduction to Story	
e e e e e e e e e e e e e e e e e e e	 Discussion of Dystopian stories/genre 	
	Begin Reading Story	
	Short Story- You Disappearing	
1 - 5	Read story	
September	 Students Answer questions 	
	Final exam review	
8 - 12		
September	Final Exam Week	



Bangkok Christian College English Immersion Program Course Scope for Mathematics Mathayom 4 Semester 1/2025-2026 Teacher Andrew Joslin



Date	Contents	Comments/ Remarks
12-16 May	IGCSE Set notation and Venn diagrams	12 May – Viskha Buscha
19-23 May	IGCSE Set notation and Venn diagrams	
26-30 May	Basic Algebra Review	
2-6 Jun.	Basic Algebra Review	2-3 Jun. – Queen Mother's Birthday
9-13 Jun.	Quadratics Factorising and Completing the Square	
16-20 Jun.	Quadratics Mapping functions Sketching graphs	
23-27 Jun.	Quadratics The discriminant Modelling quadratic functions	
30 Jun 4 Jul.	Equations and Inequalities Linear and Non-linear	
7-11 Jul.	Equations and Inequalities Graphing Linear and Non-linear inequalities	10 Jul – Asalha Bucha
14-18 Jul.	Graphs and Transformations Cubics, Quartics, Reciprocals Intersections	
21-25 Jul.	Graphs and Transformations Shifting and Stretching graphs Transforming functions	
28 Jul. – 1 Aug. 4-8	Straight Line Graphs Equations of lines, parallel and perpendicular lines Straight Line Graphs	28 Jul. – King's Birthday
Aug.	Distance between two points Modelling with straight lines	
11-15 Aug.	Circles Equation of a circle Intersecting straight lines and circles	11-12 Aug. – Queen's Birthday
18-22 Aug.	Circles Tangent and chord properties Circles and triangles	
25-29 Aug.	Algebraic methods Algebraic fractions Polynomial and synthetic division	
1-5 Sept.	Algebraic methods The factor theorem The remainder theorem	
8-12 Sept. 15-19 Sept	Review Week Final Exam Week	

This course scope is subject to change due to cancellation.

Apart from Sets and Venn diagrams all other topics will use Pearson Edexcel AS and A level Mathematics book: Pure Mathematics Year 1/AS



Bangkok Christian College English Immersion Program Course Scope for Health and Physical Education Mathayom 4 Semester 1/2025-2026 Teacher Benjamin Peter Fishman



Date	Contents	Comments/
12 - 16 May	Teacher Introduction	Kennar KS
19 - 23 May	Course Theme Introduction	
26 - 30 May	Biodata collection week	
2 – 6 June	Dodgeball overview	
9 – 13 June	Dodgeball drills	
16 – 20 June	Dodgeball scrimmage	
23 – 27 June	Dodgeball gauntlet	
30 June - 4 July	Combat sports overview	
7 - 11 July	Boxing drills	
14 -18 July	Nutrition lesson	
21 – 25 July	Nutrition quiz	
28 July- 1		
August	Ultimate Frisbee overview	
4 - 8 August	Ultimate Frisbee drills	
11 – 15 August	Ultimate Frisbee scrimmage	
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	



Course Scope for Poetry and Song Lyrics Mathayom 4



Date		Comments/
	Contents	Remarks
10 17 77		12 May
12 - 16 May	• Introduction to poetry and song lyrics/poetic devices in music	Visakha Ducha
	Ine Beatles Song Lyrics Comparison Activity Debort Frost The Road Nat Taken	Bucha
	Introduction to Pohert Frost	
19 - 23 May	 Students read noem and answer questions 	
	 Students read poem and answer questions Students share answers/class discussion 	
26 - 30 May	• Test on The Beatles Good Day Sunshine, She Said, She Said,	
	The Road not Taken, poetic devices in music	
	Metallica-Nothing Else Matters	
	Introduction to Metallica	
2 - 6 June	• Teacher plays song in class/class discussion	Queen's
	• Students answer questions/teacher reviews answers/class	Birthday 2-
	discussion	3 June
	Dylan Thomas- Do Not go Genile Into Indi Good Night	
9 – 13 June	 Introduction to Dynair Thomas Students read norm and answer questions 	
	 Students read poem and answer questions Students share answers/class discussion 	
	Students share answers/class discussion	
	Introduction to Rudvard Kipling	
16 – 20 June	Students read poem and answer questions	
	 Students read poend and unswer questions Students share answers/class discussion 	
	Bob Marley- <i>Redemption Song</i>	
	Introduction to Bob Marley	
22 – 27 June	• Teacher plays song in class/class discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
30 June - 4		
July	Project -Group Song Analysis Presentation	
	*Students prepare and give their presentations.	
	Robin Trailer-Sway to my Beat	10 July
7 - 11 July	*Theoduction to Robin Traner *Teacher plays song/class discussion	10 July Asalba
	*students answer questions/teacher reviews answers/class discussion	Bucha
	Langston Hughes- Harlem	2
	• Introduction to Langston Hughes	
14 - 18 July	Read poem/discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
	Writing assignment-Students choose from several topics about a song	
	of their choice such as : "Write about a song that would make a good	
21 – 25 July	movie," or "Write about a song that would make a good advertisement	
	tor a certain product."	
	Students write their essays and share in class	

1		
28 July - 1	Living Colour- Cult of Personality	
	 Introduction to Living Colour 	
	 Teacher plays song/class discussion 	28 July
August	• Students answer questions/teacher reviews answers/class	King's
	discussion	Birthday
	Test on Sway to the Beat, Harlem and Cult of Personality	
	Stephen Dobyns- Loud Music	
4 9 4 4	Introduction to Stephen Dobyns	
4 - 8 August	Read poem/discussion	
	• Students answer questions/teacher reviews answers/class	
	discussion	
	Pink Floyd- Time	
11 – 15 August	Introduction to Pink Floyd	
	• Teacher plays song/class discussion	12 August
	• Students answer questions/teacher reviews answers/class	Mother's
	discussion	Day
	Green Day-American Idiot	
	Introduction to Green Day	
18 - 22 August	 Teacher plays song/class discussion 	
	• Students answer questions/teacher reviews answers/class	
	discussion	
25 - 29 August		
	Practice Final Exam	
1 5		
1 - 5 Sontombor		
September	Final Exam	
8 12		
8 - 12 September		
	Final Exam Week	



Course Scope for Course Scope for Statistics 1 Mathayom 4



Classes – Trigonometry/Architects and Engineers- Track 412 and 413 Semester 1/2025-2026 Teacher Vincent Illison

Date	Contents	Comments/
		Remarks
16-20 May	Mathematical modelling:	
	Students will understand what mathematical modelling is. Design a simple mathematical model.	
	Measures of location and spread : Students will recognize different types of data. Calculate measures of central tendency such as the mean, median and mode.	16 May –
	Statistics book1 Chapter 1	Visakha Bucha
	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode. Students will understand modal class and calculate estimated means and use the correct statistical language.	
23-27 May	Measures of central tendency:	
25-27 May	Students will calculate measures of central tendency such as the mean, median and mode Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
30 May – 3 June	Measures of central tendency: Students will calculate measures of location such as quartiles and percentiles Students will understand modal class and calculate estimated means and use the correct statistical language. Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode Students will enclose the descent and estimated means	3 June –
	and use the correct statistical language.	Birthday
	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode.Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Measures of central tendency:	
6-10 June	Students will calculate measures of central tendency such as the mean, median and mode.Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
13-17 June	Measures of central tendency: Students will calculate measures of central tendency such as the mean, median and mode	
	Students will understand modal class and calculate estimated means and use the correct statistical language.	

	Measures of central tendency:	
	Students will calculate measures of central tendency such as the mean, median and mode Students will understand modal class and calculate estimated means and use the correct statistical language.	
	Statistics book 1 Chapter 2	
	Representations of data -histograms	
	Students will be able draw and interpret histograms	
	Students will use the formula frequency density = frequency/class width.	
20-24 June	Book 1 chapter 3	
	Draw and interpret boxplots	
	Students will calculate lower quartile, upper quartile and IQR.	
	Students will compare boxplots and interpretate data.	
	Book 1 chapter 3	
	Representations of data – STEM AND LEAF DIAGRAMS Students will be able draw and interpret STEM AND LEAF DIAGRAMS	
	Students will be able to calculate LQ,UQ AND IQR.	
	Variance and Standard deviation	
27 June – 1	Students will calculate the spread of data by using formulae.	
July	Students will calculate estimates from tables.	
	Book 1 Chapter 2	
	Book 1 Chapter 3	
	Representations of data – STEM AND LEAF DIAGRAMS	
	Students will be able to recognize the shape of the distribution using diagrams, measures of location.	
	Students will be able to say if the diagram is symmetrical, have positive or negative skew.	
4-8 July	Comparing data	
	Students will be able to compare data by measure of location.Students will calculate mean and standard deviation.	
	Book 1 chapter 3	
	Book 1 chapter 2	
	Comparing data	
11-15 July	Students will be able to recognize the shape of the distribution using diagrams, measures of location. Students will be able calculate mean, variance and standard deviation.	Jul 13-15 Asalha Bucha / Bhuddist
	Venn diagrams	Lent Holidays

	Students will be able to use the correct notation. Students will calculate probabilities and use the correct vocabulary.	
	Book 1 chapter 3	
	Book 1 Chapter 4	
	Tree diagrams	
18-22 July	Students will be able calculate probabilities, knowing probability adds to 1	
	Statistics Book 1 chapter 4	
	Correlation and regression	
25-29 July	Students will be able to plot variables and recognise correlation. Students will be able to plot the line of best fit and estimate values.	Jul 28-29
	Book 1 chapter 5	King's Birthday
	Linear regression Students will be able to draw a line of best fit.	
	Students will be able to use the regression line and formula $y = a + bx$.	
	Calculating least squares linear regression	
1-5 Aug.	Students will be able to plot bivariate data.Students will be able to predict values of the dependent (response) variable for given values of the independent (explanatory) variable.	
	Statistics book 1 chapter 5	
8-12 Aug.	The product moment correlation coefficient Students will be able to recognize that the PMCC can take values between 1 and -1. Students will be able to use the formula. Statistics Book 1 chapter 5	Aug 12 – Queen's
	Finding the cumulative distribution function for a discrete random	Birthday
	variable Students will know that if a particular value of X is x, the probability that X is less than or equal to x is written $F(x)$.	
15-19 Aug.	Students will be know that $F(x)$ is found by adding together all the probabilities for those outcomes that are less than or equal to x.	
	Expected value of a discrete random variable.	
	Students will be able to recognize the expected value is sometimes referred to as the mean, denoted by $\boldsymbol{\mu}.$	
	Students will be able to write down the probability distribution of X.	
	Statistics book 1 chapter 6	
	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 .	
	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by δ^2 . Students will know that the variance of X is usually written as Var (X).	
22-26 Aug.	Statistics book 1 chapter 6 Variance of a discrete random variable Students will know that the variance is sometimes denoted by ð². Students will know that the variance of X is usually written as Var (X). Variance of a discrete random variable Students will know that the variance is sometimes denoted by ð².	

	Statistics book 1 chapter 6	
	Expected value and variance of a function of X Students will calculate the value of $g(X)$ using the formula $E(g(X)) = \sum g(x)P(X=x)$.	
29 Aug. – 2 Sept.	Students will calculate values from the probability distribution.	
	Expected value and variance of a function of X Students will calculate the value of $g(X)$ using the formula $E(g(X)) = \sum g(x)P(X=x)$.	
	Students will calculate values from the probability distribution.	
	Statistics book 1 chapter 6	
	Solving problems involving random variables Students will deduce the mean and variance from two random variables.	
	Students will rearrange to get an expression for X in terms of Y.	
5-9 Sept.	Solving problems involving random variables Students will deduce the mean and variance from two random variables.	
	Students will rearrange to get an expression for X in terms of Y.	
	Statistics book 1 chapter 6	
	Using discrete distribution as a model for the probability distribution of the outcomes of certain experiments. Students will follow the conditions for discrete uniform distribution .	
12-16 Sept.	Students will know each value is equally likely, in other words: $P(X=x) = 1/n$ for each x.	
	Using discrete distribution as a model for the probability distribution of the outcomes of certain experiments. Students will follow the conditions for discrete uniform distribution .	
	Students will know each value is equally likely, in other words: $P(X=x) = 1/n$ for each x.	
	Statistics book 1 chapter 6	
	The normal distribution Students will understand the normal distribution curve and its characteristics.	
19-23 Sept	Students will know that the area under a continuous probability distribution is equal to 1.	
	The normal distribution Students will understand the normal distribution curve and its characteristics .	
	Students will know that the area under a continuous probability distribution is equal to 1.	
	Statistics book 1 chapter 7	