# Bangkok Christian College English Immersion Program

## Course Scope for Physics (Introduction to Biology) Mathayom 4

## Semester 2/2025-2026 Teacher Steven Fournier

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Quick Review of Units 1: Velocity, Energy, Deep dive into some kinematic velocity questions. Worksheet 1. | |
| **27-31 October** | Unit 1: Velocity. Breaking questions. Solving multiple part questions continued. How velocity is converted to electricity. | |
| **3 - 7 November** | Physics Unit 2: Electricity. (pg. 59-95) Mains Electricity. Project 1: Making circuits. Look at complex systems and try to establish what is going on. Rectifiers, capacitors, inductor | |
| **10 - 14 November** | Physics Unit 2: Electricity. Current and Voltage. Electrical Resistance (Worksheet 2) Groupwork on making circuits. | |
| **17 - 21 November** | Test 1: Electricity and practice with past papers in prep for pearson exam. | |
| **24 – 28 November** | ***Pearson Exams Week*** or Project Work | |
| **1 – 5 December** | Physics Unit 3: Waves. Properties of waves. Pg 559-568. Review wavelength, types of waves, aspects of reflection and the Doppler effect. Physics Unit 3: Waves. The electromagnetic spectrum. Pg 568- 574. | |
| **8 – 12 December** | Physics Unit 3: Waves: The electromagnetic spectrum/light and sound pg 568-587. Quiz 1 online. Project 1 due. | |
| **15 – 19 December** | **Lab 1: Internal reflection using sims.** **https://phet.colorado.edu/sims/html/bending-light/latest/bending-light_en.html** **Making a prism to make a rainbow. or make a periscope** **https://www.youtube.com/watch?v=N0LqI77DFBY** **Make a report in a team with and demonstrate your prism making a rainbow.+ Physics Unit 3: Waves review → Test 1 and feedback** | |
| **22 – 26 December** | Finish outstanding work…***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Project 2: Use two or more of the units we have covered to demonstrate an idea or invention. (Groups 6 max) | |
| **12 – 16 January** | Review of Chapters 1-4 with IGCSE papers. Online quiz 2: Chapters 1-4 (like a mini BMAT) | |
| **19 - 23 January** | **Review of Chapter 1-4 with IGCSE past papers.** **Worksheet 2:** | |
| **26 – 30 January** | Test 2 on Waves<br><br>Presentation of projects on waves, completion of outstanding work. | |
| **2 – 6 February** | **Presenting projects continued if time, IGCSE content from Units 1-4 , Student interviews on concept questions and situational questions. (Presentation 1)** | |
| **9 – 13 February** | Student interviews (Presentation 1) continued + Online quiz/Test 3 Review of: Units 1-4<br><br>Mock exam + practice questions. Prep for Exam | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Physical Education Mathayom 4

## Semester 2/2025-2026 Teacher Benjamin Fishman

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **25 October** | Ice Breaker/What is a health goal? | School Starts |
| **28 October – 1 November** | Fitness Test<br>● Burpees<br>● 40 yard dash<br>● Max jump height | |
| **4 - 8 November** | Supplements 101<br>● Creatine<br>● Caffeine and why it's bad but actually good<br>● Multi-Vitamin | |
| **11 - 15 November** | Football<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **18 - 22 November** | Basketball<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **25 – 29 November** | ***Pearson Exams Week*** | |
| **2 – 6 December** | (Western) Boxing<br>● Why it's the safest but also the most dangerous<br>● How to wrap your wrists<br>● Other combat sports explained | |
| **9 – 13 December** | Western Boxing Drills<br>● Shadowboxing<br>● Footwork | |
| **16 – 20 December** | Western Boxing Drills<br>● Padwork | |
| **23 – 27 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **30 December – 3 January** | ***Christmas Holiday*** | |
| **6 – 10 January** | American Football<br>● Rules & Strategies<br>● 7 on 7 games | |
| **13 – 17 January** | Football 2.0<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **20 - 24 January** | Nutrition 101<br>● Calculating Caloric Maintenance<br>● Safe Weight loss/gain<br>● "Gaintaing" and why it literally never works except for you | |
| **27 – 31 January** | Re-do Fitness Test<br>● Burpees<br>● 40 yard dash<br>● Max jump height | Results will be compared to the beginning of the semester |
| **3 – 7 February** | Capture the Flag | |
| **10 – 14 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Physics Mathayom 4

## Semester 2/2025-2026 Teacher Nicholas Barrett

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction to Semester Two | |
| **27-31 October** | Density, Viscosity and Pressure (of Fluids) | |
| **3 - 7 November** | Stoke's Law | |
| **10 - 14 November** | Fluids: Laminar and Turbulent Flow | |
| **17 - 21 November** | Upthrust and Drag in Fluids | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Hydraulics calculations | |
| **8 – 12 December** | Assessment: Fluid Dynamics | |
| **15 – 19 December** | Turning moments, couples and torque | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Moment equilibrium and the principle of moments | |
| **12 – 16 January** | Centre of mass and application of the three conditions of equilibrium | |
| **19 - 23 January** | Assessment: Moments and Equilibrium | |
| **26 – 30 January** | Energy resources and generation of electricity | |
| **2 – 6 February** | Project: Energy resources and generation of electricity | |
| **9 – 13 February** | Unit Test: Fluid dynamics, moments and energy resources | |
| **16 - 19 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Literature Studies Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | **Short Story- *Lamb to the Slaughter***<br>• **Introduction-**explanation of dark humor, discussion about how people respond to unexpected change<br>• **Vocabulary** | |
| **27 October – 31 October** | **Short Story- *Lamb to the Slaughter***<br>• Read story | |
| **3 - 7 November** | **Short Story- *Lamb to the Slaughter***<br>Read story<br>• Post-story class discussion<br>• Students answer questions | |
| **10 - 14 November** | **Assessment-*Lamb to the Slaughter test***<br>• *Introduction to Occurrence at Owl Creek Bridge***-**explanation of the US Civil War | |
| **17 - 21 November** | **Short story**-*An Occurrence at Owl Creek Bridge*<br>• Vocabulary<br>• Begin reading | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Short story**-*An Occurrence at Owl Creek Bridge*<br>• Read story | |
| **8 – 12 December** | **Short Story**-*An Occurrence at Owl Creek Bridge*<br>• Finish reading<br>• Post-reading class discussion<br>• Students answer questions | |
| **15 – 19 December** | **Assessment**- *An Occurrence at Owl Creek Bridge* test<br>**Short Story**-*Contents of a Dead Man's Pocket*<br>• **Introduction**-discussion about ambition, work/life balance, and risking one's life | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>• Read story | |
| **12 – 16 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>Read story | |
| **19 - 23 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>• Finish reading<br>• Post-reading class discussion<br>• Students answer questions | |
| **26 – 30 January** | **Assessment**-test on *Contents of a Dead Man's Pocket*<br>• Read and discuss *When I Heard the Learn'd Astronomer* poem | |
| **2 – 6 February** | **Assessment-** Test on *When I Heard the Learn'd Astronomer*<br>• Read and discuss *I Too*, poem by Langston Hughes | |
| **9 – 13 February** | **FINAL EXAM REVISION** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Speech Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | • Introduction to course/go over course outline<br>• Introduction to public speaking<br>• Public speaking tips/suggestions | |
| **27 October – 31 October** | Study of Martin Luther King's *I have a Dream* speech.<br>• Discussion of speech<br>• Students answer questions on the content of the speech/analysis and discussion as to why it is one of the greatest speeches of all time. | |
| **3 - 7 November** | • Presentation on informative speeches<br>• Study example informative speech<br>• Go over informative speech outline<br>• Assign informative speech | |
| **10 - 14 November** | ****Students give their informative speeches**** | |
| **17 - 21 November** | • Presentation on persuasive speeches<br>• Study sample persuasive speech<br>• Go over persuasive speech outline<br>• Assign persuasive speech | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | ** Students give their persuasive speeches ** | |
| **8 – 12 December** | • Presentation on entertainment speeches<br>• Study sample entertainment speech<br>• Assign entertainment speech | |
| **15 – 19 December** | ****Students give their entertainment speeches**** | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Assessment**- test on public speaking techniques, persuasive, and entertainment speeches<br>**Assign project**-students research a conspiracy theory and give a persuasive speech on whichever side they agree with<br>• Students work on their projects | |
| **12 – 16 January** | ** Students give their conspiracy theory persuasive speeches** | |
| **19 - 23 January** | ****Students finish giving their persuasive speeches****<br>• Introduction to debate<br>• Explanation of one-on-one debate activity<br>• Students prep for one- on-one debate | |
| **26 – 30 January** | • Students do their one-on-one debates<br>• Class votes on the winner in each debate | |
| **2 – 6 February** | • Introduction to one-on-one Interview project<br>• Students prep and deliver their one-on-one interviews in pairs<br>• Class fills out questionnaire provided by teacher to critique each pair interview<br>• Teacher announces results and leads class discussion | |
| **9 – 13 February** | ** Final Exam** | |
| **16 -20 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

**Course Scope for Economic and Geography 2 Mathayom 4**

**Semester 2/2025-2026 Teacher Andrew Hailstone**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | Decolonization | |
| **27 October – 31 October** | Nation Creation | |
| **3 - 7 November** | Civil Wars | |
| **10 - 14 November** | Nation States Definitions | |
| **17 - 21 November** | Nation States Yugoslavia and Rwanda | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Nation States Ukraine and China | |
| **8 – 12 December** | Nation States Ireland, UK and France | |
| **15 – 19 December** | Nationalism | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Multi-Culturalism | |
| **12 – 16 January** | The Collapse of the Soviet Union | |
| **19 - 23 January** | Soviet based causes | |
| **26 – 30 January** | Ordering of events | |
| **2 – 6 February** | US based causes | |
| **9 – 13 February** | Ordering of events | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Poetry and Song Lyrics Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | • Review course outline and expectations<br>• **The Beatles *A Day in the Life***-discussion of song/students answer questions | |
| **27 October – 31 October** | **Robert Frost-*Nothing Gold Can Stay***<br>• Discussion of poem<br>• Students answer questions | |
| **3 - 7 November** | **Rush-*The Trees***<br>• Discussion of song<br>• Students answer questions<br>**Assign Project**- Students in groups make a music video to a song of their choice | |
| **10 - 14 November** | **Robert Hayden-*Those Winter Sundays***<br>• Discussion of poem<br>• Students answer questions | |
| **17 - 21 November** | **Assessment**- Test on *A Day in the Life*, *Nothing Gold can Stay*, *The Trees*, and *Those Winter Sundays*<br>Green Day-*Good Riddance*<br>• Discussion of song<br>• Students answer questions | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Steve Coleman- *I Wanna Hear a Poem***<br>• Introduction to slam poetry<br>• Discussion of poem<br>• Students answer questions | |
| **8 – 12 December** | **Jake Miller *White Night***<br>• Discussion of song<br>• Students answer questions | |
| **15 – 19 December** | ** Music video group project presentations** | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Emily Dickinson-*Success is Counted Sweetest***<br>• Discussion of poem<br>• Students answer questions | |
| **12 – 16 January** | **The Smashing Pumpkins *Bullet With Butterfly Wings***<br>• Discussion of song<br>• Students answer questions | |
| **19 - 23 January** | **Assessment-** Test on *I Wanna Hear a Poem*, *White Night*, *Success is Counted Sweetest, Bullet With Butterfly wings, Good Riddance* | |
| **26 – 30 January** | **Bob Marley-*Redemption Song***<br>• Introduction to history of Reggae music/Bob Marley<br>• Discussion of song<br>• Students answer questions | |
| **2 – 6 February** | **FINAL EXAM REVISION** | |
| **9 – 13 February** | **FINAL EXAM** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for Mathematics Mathayom 4 Track 2**
**Semester 2/2025-2026 Teacher Andrew Joslin**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20-24 Oct** | **Simultaneous Equations**<br>Linear<br>Non Linear | 24 Oct - School Opens |
| **27-31 Oct** | **Straight line graphs**<br>Vertical and horizontal<br>Graphing from a table of values | |
| **3 - 7 Nov** | **Straight line graphs**<br>Equations of lines<br>Gradient intercept form, General form | |
| **10-14 Nov** | **Straight line graphs**<br>Graphing lines from equations<br>Lines of symmetry | |
| **17-21 Nov** | **Inequalities**<br>Linear Inequalities<br>Regions | |
| **24-28 Nov** | **Graphs and Transformations**<br>Sketching Cubic and reciprocal graphs | |
| **1-5 Dec** | **Transformation Geometry**<br>Translations<br>Rotations<br>Reflections<br>Enlargements | 5 Dec. - King's Birthday |
| **8-12 Dec** | **Graphs and Transformations**<br>The inverse of a transformation<br>Combined transformations | 10 Dec. - Constitution Day |
| **15-19 Dec** | **Transformation Geometry**<br>Stretches<br>Shifting and stretching graphs<br>Transforming functions | |
| **22-26 Dec** | | 25-26 Dec- Christmas Holiday |
| **29 Dec - 2 Jan** | | 29 Dec – 2 Jan Christmas Holiday |
| **5- 9 Jan** | **Trigonometry**<br>Labelling sides of a right-angled triangle<br>The tri ratios<br>Problem solving | |
| **12-16 Jan** | Trigonometry<br>The first quadrant of a unit circle<br>True bearings | 16 Jan – Teacher's Day |
| **19-23 Jan** | **Trigonometry**<br>The Unit Circle<br>Area of a triangle using sine | |
| **26-30 Jan** | **Trigonometry**<br>The sine rule<br>The cosine rule<br>Problem solving with the sine and cosine rules | |
| **2-6 Feb** | **Radian Measure**<br>Radian and degree conversion<br>Length of arc using radians | |
| **9-13 Feb** | **Review** | |
| **16-20 Feb** | **Final Exam Week** | |

# Bangkok Christian College English Immersion Program

**Course Scope for Computer Mathayom 4**

**Semester 2/2025-2026 Teacher James Cookson**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction to Blender (3D modelling software) | |
| **27-31 October** | Blender – Exploring Object mode | |
| **3 - 7 November** | Blender – Exploring Edit mode | |
| **10 - 14 November** | Blender – Creating 3D models 1 | |
| **17 - 21 November** | Blender – Creating 3D models 2 | |
| **24 – 28 November** | Blender – Creating 3D models 3 | |
| **1 – 5 December** | Blender – Exploring Sculpt mode | |
| **8 – 12 December** | Blender – Creating Landscapes | |
| **15 – 19 December** | Blender – Midterm Project | |
| **22 – 26 December** | Blender – Midterm Project | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Blender – Introduction to Animation | |
| **12 – 16 January** | Blender – Walking Animation 1 | |
| **19 - 23 January** | Blender – Walking Animation 2 | |
| **26 – 30 January** | Blender – Importing/Exporting models | |
| **2 – 6 February** | Blender – Final Project | |
| **9 – 13 February** | Blender – Final Project | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for General Science Mathayom 4

### Semester 2/2025-2026 Teacher Steven Fournier

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Physics Unit 2: Electricity. Pg 529-545. Mains Electricity. Power= Current x Voltage, Ohm's Law (V=IR) Worksheet 1 on Ohm's Law. | |
| **27-31 October** | Physics Unit 2: Electricity. Pg 545-558. Finish up electricity, look at circuits, make online with Phet, Project 1: Doing an experiment with a battery. | |
| **3 - 7 November** | **Physics lab 1: Work. Comparing physical work to electrical work Test 1 on Electricity.** | |
| **10 - 14 November** | Biology Unit 3: Plant Physiology: pg 145-162. Chemical Coordination, reproduction. | |
| **17 - 21 November** | **Biology Unit 3: Plant Physiology Online Quiz 2, submit Lab 1**<br>**Project 2 on Energy: How plants give us energy (food chain, motion of energy).** | |
| **24 – 28 November** | ***Pearson Exams Week*** + Continuing Plant Physiology | |
| **1 – 5 December** | Test 3: Plant Physiology. Check progress of seeds (Lab 2) Physics: Unit 3: Waves. Properties of Waves (pg 559-568) Test 2 + Feedback. Lab on Plants under a microscope. | |
| **8 – 12 December** | Test 3: Plant Physiology. Check progress of seeds (Lab 2) Physics: Unit 3: Waves. Properties of Waves (pg 559-568) | |
| **15 – 19 December** | Test 1 + Feedback. Lab on Plants under a microscope. | |
| **22 – 26 December** | Biology Unit 3, Physics Unit 2, Plant worksheets due, ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Physics Unit3: Waves: The electromagnetic spectrum (568-575). Worksheet 3: uses of the electromagnetic spectrum. Project 1 due.** | |
| **12 – 16 January** | Physics: Unit 3: Waves. Properties of Waves (pg 559-568) Project 3: Demonstration of Sound or Light (Build a musical Instrument) | |
| **19 - 23 January** | Physics Unit 3: Light and Sound waves. Test 3: Waves. Review: | |
| **26 – 30 January** | Feedback on Test 3 + Presentation of Projects for Waves (Project 3) | |
| **2 – 6 February** | Chemistry Unit 1: 276-290 review, moving forward into empirical formula, stoichiometry, + energetics (if time) pg 413-428.Chemistry Supplemental: Batteries. How they work, storing energy, transferring energy. Project 2: Doing an experiment with a battery. Making your own circuit. | |
| **9 – 13 February** | Review of Work Done: Mock Exam (Test 4) on Biology, Chemistry, and Physics. | |
| **16 - 19 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | **Unit 2 Writing Preparation**<br>**Part 6 Speech and Communication**<br>• Finding equivalent expressions<br>• Paraphrasing and summarizing<br>• Communication verbs | Lessons taken from Ed Excel textbook English as a Second Language student book |
| **27 October – 31 October** | **Unit 2 Writing Preparation**<br>**Part 6 Speech and Communication**<br>• Past continuous verb tense<br>• Past continuous and past simple tenses<br>• *Would* and *used to*<br>**Assessment**: Test on Writing Prep Part 6<br>**Assign Project**: Students choose a scene from their favorite movie and perform it with an additional imagined scene | |
| **3 - 7 November** | **Unit 3 Listening Preparation**<br>**Part 1 The World of Work**<br>• Discussion of students' ideal job<br>• Listening for the overall message<br>• Different types of speech<br>• Listening for detail | |
| **10 - 14 November** | **Unit 3 Listening Preparation**<br>**Part 1 The World of Work**<br>• Nouns focusing on the corporate world<br>• WH questions and question tags<br>• Sentence Inversions<br>**Assessment**: Test on Listening Preparation Part 1 | |
| **17 - 21 November** | **Unit 3 Listening Preparation**<br>**Part 2 Pets**<br>• Identifying key points and detail<br>• Identifying stated and implied viewpoints<br>• Health and training collocations | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Unit 3 Listening Preparation**<br>**Part 2 Pets**<br>• Prepositions and prepositional phrases<br>• Prepositions of time<br>• Prepositions of place and movement<br>**Assessment:** Test on Listening Preparation Part 2 | |
| **8 – 12 December** | **Listening Preparation**<br>**Part 3 Games**<br>• Statements and implications<br>• Facts and opinions<br>• Adjectives and adverbs<br>• Adverbs of frequency | |

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| **15 – 19 December** | **Listening Preparation**<br>**Part 4 Shopping**<br>• Identifying important information and details<br>• Verbs and expressions related to shopping<br>• Phrasal verbs (separable and non-separable) | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Speaking Preparation**<br>**Part 1 Fashion**<br>• Pronunciation skills<br>• Intonation and stress<br>• Long and short vowels<br>• Adjectives related to fashion | |
| **12 – 16 January** | **Speaking Preparation**<br>**Part 1 Fashion**<br>• Past perfect, past continuous, and past simple tenses<br><br>**Assessment:** test on Speaking Preparation Part 1 | |
| **19 - 23 January** | **Reading Practice**<br>**Travel and Hospitality**<br>• Distinguishing between facts, opinions, and ideas<br>• Practicing word limits in answers<br>• Summarizing<br>• Nouns and verbs related to buildings<br>• Conditionals (zero, first, second, and third) | |
| **26 – 30 January** | **Writing Practice**<br>**Work and Jobs**<br>• Email writing language conventions<br>• Phrasal verbs related to the workplace<br>• Perfect continuous tenses<br>**Assessment**: Test on Reading and Writing Practice | |
| **2 – 6 February** | **Listening Practice**<br>**Sport and Fitness**<br>• Phrasal verbs related to sport and fitness<br>• Modals in past tense<br>• Modals of speculation and deduction | |
| **9 – 13 February** | **FINAL EXAM REVISION** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | **Unit 2 Writing Preparation**<br>**Part 6 Speech and Communication**<br>• Finding equivalent expressions<br>• Paraphrasing and summarizing<br>• Communication verbs | Lessons taken from Ed Excel textbook English as a Second Language student book |
| **27 October – 31 October** | **Unit 2 Writing Preparation**<br>**Part 6 Speech and Communication**<br>• Past continuous verb tense<br>• Past continuous and past simple tenses<br>• *Would* and *used to*<br>**Assessment**: Test on Writing Prep Part 6<br>**Assign Project**: Students choose a scene from their favorite movie and perform it with an additional imagined scene | |
| **3 - 7 November** | **Unit 3 Listening Preparation**<br>**Part 1 The World of Work**<br>• Discussion of students' ideal job<br>• Listening for the overall message<br>• Different types of speech<br>• Listening for detail | |
| **10 - 14 November** | **Unit 3 Listening Preparation**<br>**Part 1 The World of Work**<br>• Nouns focusing on the corporate world<br>• WH questions and question tags<br>• Sentence Inversions<br>**Assessment**: Test on Listening Preparation Part 1 | |
| **17 - 21 November** | **Unit 3 Listening Preparation**<br>**Part 2 Pets**<br>• Identifying key points and detail<br>• Identifying stated and implied viewpoints<br>• Health and training collocations | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Unit 3 Listening Preparation**<br>**Part 2 Pets**<br>• Prepositions and prepositional phrases<br>• Prepositions of time<br>• Prepositions of place and movement<br>**Assessment:** Test on Listening Preparation Part 2 | |
| **8 – 12 December** | **Listening Preparation**<br>**Part 3 Games**<br>• Statements and implications<br>• Facts and opinions<br>• Adjectives and adverbs | |

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| | • Adverbs of frequency | |
| **15 – 19 December** | **Listening Preparation**<br>**Part 4 Shopping**<br>• Identifying important information and details<br>• Verbs and expressions related to shopping<br>• Phrasal verbs (separable and non-separable) | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Speaking Preparation**<br>**Part 1 Fashion**<br>• Pronunciation skills<br>• Intonation and stress<br>• Long and short vowels<br>• Adjectives related to fashion | |
| **12 – 16 January** | **Speaking Preparation**<br>**Part 1 Fashion**<br>• Past perfect, past continuous, and past simple tenses<br><br>**Assessment:** test on Speaking Preparation Part 1 | |
| **19 - 23 January** | **Reading Practice**<br>**Travel and Hospitality**<br>• Distinguishing between facts, opinions, and ideas<br>• Practicing word limits in answers<br>• Summarizing<br>• Nouns and verbs related to buildings<br>• Conditionals (zero, first, second, and third) | |
| **26 – 30 January** | **Writing Practice**<br>**Work and Jobs**<br>• Email writing language conventions<br>• Phrasal verbs related to the workplace<br>• Perfect continuous tenses<br>**Assessment**: Test on Reading and Writing Practice | |
| **2 – 6 February** | **Listening Practice**<br>**Sport and Fitness**<br>• Phrasal verbs related to sport and fitness<br>• Modals in past tense<br>• Modals of speculation and deduction | |
| **9 – 13 February** | **FINAL EXAM REVISION** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Literature Studies Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | **Short Story- *Lamb to the Slaughter***<br>• **Introduction-**explanation of dark humor, discussion about how people respond to unexpected change<br>• **Vocabulary** | |
| **27 October – 31 October** | **Short Story- *Lamb to the Slaughter***<br>• Read story | |
| **3 - 7 November** | **Short Story- *Lamb to the Slaughter***<br>Read story<br>• Post-story class discussion<br>• Students answer questions | |
| **10 - 14 November** | **Assessment-*Lamb to the Slaughter test***<br>• *Introduction to Occurrence at Owl Creek Bridge*-explanation of the US Civil War | |
| **17 - 21 November** | **Short story**-*An Occurrence at Owl Creek Bridge*<br>• Vocabulary<br>• Begin reading | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Short story**-*An Occurrence at Owl Creek Bridge*<br>• Read story | |
| **8 – 12 December** | **Short Story**-*An Occurrence at Owl Creek Bridge*<br>• Finish reading<br>• Post-reading class discussion<br>• Students answer questions | |
| **15 – 19 December** | **Assessment**- *An Occurrence at Owl Creek Bridge* test<br>**Short Story**-*Contents of a Dead Man's Pocket*<br>• **Introduction**-discussion about ambition, work/life balance, and risking one's life | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>• Read story | |
| **12 – 16 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>Read story | |
| **19 - 23 January** | **Short Story**-*Contents of a Dead Man's Pocket*<br>• Finish reading<br>• Post-reading class discussion<br>• Students answer questions | |
| **26 – 30 January** | **Assessment**-test on *Contents of a Dead Man's Pocket*<br>• Read and discuss *When I Heard the Learn'd Astronomer* poem | |
| **2 – 6 February** | **Assessment-** Test on *When I Heard the Learn'd Astronomer*<br>• Read and discuss *I Too*, poem by Langston Hughes | |
| **9 – 13 February** | **FINAL EXAM REVISION** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Speech Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | • Introduction to course/go over course outline<br>• Introduction to public speaking<br>• Public speaking tips/suggestions | |
| **27 October – 31 October** | Study of Martin Luther King's *I have a Dream* speech.<br>• Discussion of speech<br>• Students answer questions on the content of the speech/analysis and discussion as to why it is one of the greatest speeches of all time. | |
| **3 - 7 November** | • Presentation on informative speeches<br>• Study example informative speech<br>• Go over informative speech outline<br>• Assign informative speech | |
| **10 - 14 November** | ****Students give their informative speeches**** | |
| **17 - 21 November** | • Presentation on persuasive speeches<br>• Study sample persuasive speech<br>• Go over persuasive speech outline<br>• Assign persuasive speech | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | ** Students give their persuasive speeches ** | |
| **8 – 12 December** | • Presentation on entertainment speeches<br>• Study sample entertainment speech<br>• Assign entertainment speech | |
| **15 – 19 December** | ****Students give their entertainment speeches**** | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Assessment**- test on public speaking techniques, persuasive, and entertainment speeches<br>**Assign project**-students research a conspiracy theory and give a persuasive speech on whichever side they agree with<br>• Students work on their projects | |
| **12 – 16 January** | ** Students give their conspiracy theory persuasive speeches** | |
| **19 - 23 January** | ****Students finish giving their persuasive speeches****<br>• Introduction to debate<br>• Explanation of one-on-one debate activity<br>• Students prep for one- on-one debate | |
| **26 – 30 January** | • Students do their one-on-one debates<br>• Class votes on the winner in each debate | |
| **2 – 6 February** | • Introduction to one-on-one Interview project<br>• Students prep and deliver their one-on-one interviews in pairs<br>• Class fills out questionnaire provided by teacher to critique each pair interview<br>• Teacher announces results and leads class discussion | |
| **9 – 13 February** | ** Final Exam** | |
| **16 -20 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for English for Poetry and Song Lyrics Mathayom 4**
**Semester 2/2025-2026 Teacher Jeff Tedlow**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | • Review course outline and expectations<br>• **The Beatles *A Day in the Life***-discussion of song/students answer questions | |
| **27 October – 31 October** | **Robert Frost-*Nothing Gold Can Stay***<br>• Discussion of poem<br>• Students answer questions | |
| **3 - 7 November** | **Rush-*The Trees***<br>• Discussion of song<br>• Students answer questions<br>**Assign Project**- Students in groups make a music video to a song of their choice | |
| **10 - 14 November** | **Robert Hayden-*Those Winter Sundays***<br>• Discussion of poem<br>• Students answer questions | |
| **17 - 21 November** | **Assessment**- Test on *A Day in the Life*, *Nothing Gold can Stay*, *The Trees*, and *Those Winter Sundays*<br>Green Day-*Good Riddance*<br>• Discussion of song<br>• Students answer questions | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | **Steve Coleman- *I Wanna Hear a Poem***<br>• Introduction to slam poetry<br>• Discussion of poem<br>• Students answer questions | |
| **8 – 12 December** | **Jake Miller *White Night***<br>• Discussion of song<br>• Students answer questions | |
| **15 – 19 December** | ** Music video group project presentations** | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Emily Dickinson-*Success is Counted Sweetest***<br>• Discussion of poem<br>• Students answer questions | |
| **12 – 16 January** | **The Smashing Pumpkins *Bullet With Butterfly Wings***<br>• Discussion of song<br>• Students answer questions | |
| **19 - 23 January** | **Assessment-** Test on *I Wanna Hear a Poem*, *White Night*, *Success is Counted Sweetest, Bullet With Butterfly wings, Good Riddance* | |
| **26 – 30 January** | **Bob Marley-*Redemption Song***<br>• Introduction to history of Reggae music/Bob Marley<br>• Discussion of song<br>• Students answer questions | |
| **2 – 6 February** | **FINAL EXAM REVISION** | |
| **9 – 13 February** | **FINAL EXAM** | |
| **16 -20 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

**Course Scope for Economic and Geography 2 Mathayom 4**

**Semester 2/2025-2026 Teacher Andrew Hailstone**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20 -24 October** | Decolonization | |
| **27 October – 31 October** | Nation Creation | |
| **3 - 7 November** | Civil Wars | |
| **10 - 14 November** | Nation States Definitions | |
| **17 - 21 November** | Nation States Yugoslavia and Rwanda | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Nation States Ukraine and China | |
| **8 – 12 December** | Nation States Ireland, UK and France | |
| **15 – 19 December** | Nationalism | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Multi-Culturalism | |
| **12 – 16 January** | The Collapse of the Soviet Union | |
| **19 - 23 January** | Soviet based causes | |
| **26 – 30 January** | Ordering of events | |
| **2 – 6 February** | US based causes | |
| **9 – 13 February** | Ordering of events | |
| **16 -20 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Mathematics Mathayom 4 Track 1

## Semester 2/2025-2026 Teacher Andrew Joslin

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20-24 Oct** | **Equations and Inequalities**<br>Graphing Linear and Non-linear inequalities<br>Regions | 24 Oct -<br>School Opens |
| **27-31 Oct** | **Graphs and Transformations**<br>Cubics, Quartics, Reciprocals<br>Intersections | |
| **3 - 7 Nov** | **Graphs and Transformations**<br>Shifting and Stretching graphs<br>Transforming functions | |
| **10-14 Nov** | **Straight Line Graphs**<br>Equations of lines, parallel and perpendicular lines | |
| **17-21 Nov** | **Straight Line Graphs**<br>Distance between two points | |
| **24-28 Nov** | **Trigonometric Ratios**<br>Review of Sine, Cosine and Tangent<br>The Cosine Rule | |
| **1-5 Dec** | **Trigonometric Ratios**<br>The Sine Rule<br>Areas of Triangles | 5 Dec. -<br>King's Birthday |
| **8-12 Dec** | **Trigonometric Ratios**<br>Solving Triangle problems | 10 Dec. -<br>Constitution Day |
| **15-19 Dec** | **Radians**<br>Radian Measure<br>The Unit Circle | |
| **22-26 Dec** | | 25-26 Dec-<br>Christmas<br>Holiday |
| **29 Dec - 2 Jan** | | 29 Dec – 2 Jan<br>Christmas<br>Holiday |
| **5- 9 Jan** | **Trigonometric Ratios**<br>Graphs of Sine, Cosine and Tangent<br>Transforming Trigonometric Graphs | |
| **12-16 Jan** | **Radians**<br>Arc Length<br>Areas of Sectors and Segments | 16 Jan –<br>Teacher's Day |
| **19-23 Jan** | **Differentiation**<br>Gradients of Curves<br>Finding the derivative<br>Differentiating $x^n$ | |
| **26-30 Jan** | **Differentiation**<br>Differentiating Quadratics<br>Differentiating functions | |
| **2-6 Feb** | **Differentiation**<br>Gradients, tangents and normal<br>Second order Derivatives | |
| **9-13 Feb** | **Review** | |
| **16-20 Feb** | **Final Exam Week** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for Mathematics Mathayom 4 Track 2**
**Semester 2/2025-2026 Teacher Andrew Joslin**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20-24 Oct** | **Simultaneous Equations**<br>Linear<br>Non Linear | 24 Oct - School Opens |
| **27-31 Oct** | **Straight line graphs**<br>Vertical and horizontal<br>Graphing from a table of values | |
| **3 - 7 Nov** | **Straight line graphs**<br>Equations of lines<br>Gradient intercept form, General form | |
| **10-14 Nov** | **Straight line graphs**<br>Graphing lines from equations<br>Lines of symmetry | |
| **17-21 Nov** | **Inequalities**<br>Linear Inequalities<br>Regions | |
| **24-28 Nov** | **Graphs and Transformations**<br>Sketching Cubic and reciprocal graphs | |
| **1-5 Dec** | **Transformation Geometry**<br>Translations<br>Rotations<br>Reflections<br>Enlargements | 5 Dec. - King's Birthday |
| **8-12 Dec** | **Graphs and Transformations**<br>The inverse of a transformation<br>Combined transformations | 10 Dec. - Constitution Day |
| **15-19 Dec** | **Transformation Geometry**<br>Stretches<br>Shifting and stretching graphs<br>Transforming functions | |
| **22-26 Dec** | | 25-26 Dec- Christmas Holiday |
| **29 Dec - 2 Jan** | | 29 Dec – 2 Jan Christmas Holiday |
| **5- 9 Jan** | **Trigonometry**<br>Labelling sides of a right-angled triangle<br>The tri ratios<br>Problem solving | |
| **12-16 Jan** | Trigonometry<br>The first quadrant of a unit circle<br>True bearings | 16 Jan – Teacher's Day |
| **19-23 Jan** | **Trigonometry**<br>The Unit Circle<br>Area of a triangle using sine | |
| **26-30 Jan** | **Trigonometry**<br>The sine rule<br>The cosine rule<br>Problem solving with the sine and cosine rules | |
| **2-6 Feb** | **Radian Measure**<br>Radian and degree conversion<br>Length of arc using radians | |
| **9-13 Feb** | **Review** | |
| **16-20 Feb** | **Final Exam Week** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Architects and Engineers Track 412 and 413

## Semester 2 -2025-2026 Teacher Vincent Ellison

| Date | Contents | Comments/ Remarks |
|---|---|---|
| 26th October – 29th | Calculate percentage increase/decrease of various amounts.<br>Use the multiplier and know an increase is great than 1 and a decrease is less than 1. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed. |
| 26th October – 29th | How to express "x" as a percentage of "y".<br>Will be able to find the percentage change. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed |
| 26th October – 29th | Will be able to find the original value.<br>Will be able to calculate values using simple and compound interest. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed |
| 1st November-5th November | Convert from unit to another using metric or imperial units.<br>Convert area and volume measurements. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed |
| 1st November-5th November | Solve problems using formulae that includes speed, density and pressure.<br>Be able to solve real life problems. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed |
| 1st November-5th November | Able to calculate angles on triangle, on a straight line, angles around a point and angles in a Quadrilateral.<br>Able to calculate angles that include Parallel lines. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in teams-general-file<br>Assignments to be completed |
| 8th November - 12th November | Translate shapes in the "x" and "y" axes. | Starters/Diagnostic questions.<br>Pupil involvement<br>Powe-point with examples to put in |

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| | **Use vectors to translate shapes.** | **teams-general-file**<br>**Assignments to be completed** |
| **8th November -12th November** | **Rotate shapes by using angle, direction and centre of rotation**<br>**Describe their new rotation position** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **8th November - 12th November** | Reflect shapes through mirror lines.<br>Draw their new shapes through reflection or equations. | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **8th November - 12th November** | **Be able to enlarge shapes by using scale factor and centre of enlargement.**<br>**Describe their enlargements.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **22nd November -26th** | **How to find areas using triangles and quadrilaterals.**<br>**Know to substitute and rearrange formulae for given values.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **22nd November -26th** | **How to find areas of circles by using the formula.**<br>**How to find circumference, sectors and segments of circles.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **22nd November -26th** | **Able to work through exam style questions, relating to previous work.**<br>**Check their methods are clear** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **29th November – 3rd December** | **Identify faces, edges and vertices.**<br>**Use formula to calculate surface areas.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **29th November – 3rd December** | **How to find volumes of cylinders, spheres, pyramids and cones**<br><br>**Use formulae to calculate values.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |

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| **29th November – 3rd December** | **Able to work through exam style questions, relating to previous work.**<br><br>**Check their methods are clear.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **6th December – 10th December** | **Able to find volumes of frustums by using the formula** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **6th December – 10th December** | **Be able to know how enlargements affect areas.**<br><br>**Projections show 3D- Different viewpoints.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **13th December – 17th December** | **Construct triangles using pencil, ruler protractor and compass.**<br><br>**Use SSS,ASA,SAS AND RHS.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **13th December – 17th December** | **Use the four rules when doing Loci** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **13th December – 17th December** | **able to work through exam style questions, relating to previous work**<br><br>**check their methods are clear.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **20th December – 23rd December** | **Constructing accurate angles** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **20th December – 23rd** | **Drawing the perpendicular** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in** |

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| **December** | • **Students will be able to read and use f(x) notation when working with functions.**<br>• **Students will be able to recognize domain and range.** | **teams-general-file**<br>**Assignments to be completed** |
| **4th January – 7th January** | **How to use the key words, "FROM" "NORTH LINE" "CLOCKWISE"**<br>**DO REAL LIFE PROBLEMS BY DRAWING DIAGRAMS FROM WORDED QUESTIONS.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **4th January – 7th January** | **Able to use the rule $a^2 + b^2 = c^2$ to find lengths of sides in 2-d RIGHT ANGLED TRIANGLES .**<br>**Able to USE THEIR CALCULATORS to solve questions.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **4th January – 7th January** | **Able to use SIN, COS and TAN in right angled triangles to find lengths of sides or unknown angles using the 3 ratios.**<br>**Able to use inverse sin -1 etc to find angles.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **10th January – 14th January** | **Using Sine and cosine rule** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **10th January – 14th January** | **3D Pythagoras** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **10th January – 14th January** | **Be able to identify sine and cosine formulae.**<br>**Be able to find lengths of sides in 3D shapes.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |

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| **17th January – 21st January** | Know that an angle between line and plane can be used to form a right angled triangle.<br><br>Use trigonometry and Pythagoras to find length of side or angle . | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **17th January – 21st January** | **Cosine and sine rules can also be used.**<br><br>**Able to find lengths or angles with these ratios.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **17th January – 21st January** | **Able to solve problems with real life problems.** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **24th January – 28th January** | **Use vector notation** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **24th January – 28th January** | **Use vector notation** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **24th January – 28th January** | **Use vector notation** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **7th February – 11th February - Week** | **Problem solving/exam style questions 1** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
| **7th February – 11th February - Week** | **Problem solving/exam style questions 2** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file** |

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| | | **Assignments to be completed** |
| **7th February – 11th February - Week** | **Problem solving/exam style questions 3** | **Starters/Diagnostic questions.**<br>**Pupil involvement**<br>**Powe-point with examples to put in teams-general-file**<br>**Assignments to be completed** |
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# Bangkok Christian College English Immersion Program

## Course Scope for General Science Mathayom 4

### Semester 2/2025-2026 Teacher Steven Fournier

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Physics Unit 2: Electricity. Pg 529-545. Mains Electricity. Power= Current x Voltage, Ohm's Law (V=IR) Worksheet 1 on Ohm's Law. | |
| **27-31 October** | Physics Unit 2: Electricity. Pg 545-558. Finish up electricity, look at circuits, make online with Phet, Project 1: Doing an experiment with a battery. | |
| **3 - 7 November** | **Physics lab 1: Work. Comparing physical work to electrical work Test 1 on Electricity.** | |
| **10 - 14 November** | Biology Unit 3: Plant Physiology: pg 145-162. Chemical Coordination, reproduction. | |
| **17 - 21 November** | **Biology Unit 3: Plant Physiology Online Quiz 2, submit Lab 1**<br>**Project 2 on Energy: How plants give us energy (food chain, motion of energy).** | |
| **24 – 28 November** | ***Pearson Exams Week*** + Continuing Plant Physiology | |
| **1 – 5 December** | Test 3: Plant Physiology. Check progress of seeds (Lab 2) Physics: Unit 3: Waves. Properties of Waves (pg 559-568) Test 2 + Feedback. Lab on Plants under a microscope. | |
| **8 – 12 December** | Test 3: Plant Physiology. Check progress of seeds (Lab 2) Physics: Unit 3: Waves. Properties of Waves (pg 559-568) | |
| **15 – 19 December** | Test 1 + Feedback. Lab on Plants under a microscope. | |
| **22 – 26 December** | Biology Unit 3, Physics Unit 2, Plant worksheets due, ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Physics Unit3: Waves: The electromagnetic spectrum (568-575). Worksheet 3: uses of the electromagnetic spectrum. Project 1 due.** | |
| **12 – 16 January** | Physics: Unit 3: Waves. Properties of Waves (pg 559-568) Project 3: Demonstration of Sound or Light (Build a musical Instrument) | |
| **19 - 23 January** | Physics Unit 3: Light and Sound waves. Test 3: Waves. Review: | |
| **26 – 30 January** | Feedback on Test 3 + Presentation of Projects for Waves (Project 3) | |
| **2 – 6 February** | Chemistry Unit 1: 276-290 review, moving forward into empirical formula, stoichiometry, + energetics (if time) pg 413-428.Chemistry Supplemental: Batteries. How they work, storing energy, transferring energy. Project 2: Doing an experiment with a battery. Making your own circuit. | |
| **9 – 13 February** | Review of Work Done: Mock Exam (Test 4) on Biology, Chemistry, and Physics. | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Physics Mathayom 4

## Semester 2/2025-2026 Teacher Nicholas Barrett

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction to Semester Two | |
| **27-31 October** | Density, Viscosity and Pressure (of Fluids) | |
| **3 - 7 November** | Stoke's Law | |
| **10 - 14 November** | Fluids: Laminar and Turbulent Flow | |
| **17 - 21 November** | Upthrust and Drag in Fluids | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Hydraulics calculations | |
| **8 – 12 December** | Assessment: Fluid Dynamics | |
| **15 – 19 December** | Turning moments, couples and torque | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Moment equilibrium and the principle of moments | |
| **12 – 16 January** | Centre of mass and application of the three conditions of equilibrium | |
| **19 - 23 January** | Assessment: Moments and Equilibrium | |
| **26 – 30 January** | Energy resources and generation of electricity | |
| **2 – 6 February** | Project: Energy resources and generation of electricity | |
| **9 – 13 February** | Unit Test: Fluid dynamics, moments and energy resources | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Physics (Introduction to Biology) Mathayom 4

## Semester 2/2025-2026 Teacher Steven Fournier

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Quick Review of Units 1: Velocity, Energy, Deep dive into some kinematic velocity questions. Worksheet 1. | |
| **27-31 October** | Unit 1: Velocity. Breaking questions. Solving multiple part questions continued. How velocity is converted to electricity. | |
| **3 - 7 November** | Physics Unit 2: Electricity. (pg. 59-95) Mains Electricity. Project 1: Making circuits. Look at complex systems and try to establish what is going on. Rectifiers, capacitors, inductor | |
| **10 - 14 November** | Physics Unit 2: Electricity. Current and Voltage. Electrical Resistance (Worksheet 2) Groupwork on making circuits. | |
| **17 - 21 November** | Test 1: Electricity and practice with past papers in prep for pearson exam. | |
| **24 – 28 November** | ***Pearson Exams Week*** or Project Work | |
| **1 – 5 December** | Physics Unit 3: Waves. Properties of waves. Pg 559-568. Review wavelength, types of waves, aspects of reflection and the Doppler effect. Physics Unit 3: Waves. The electromagnetic spectrum. Pg 568- 574. | |
| **8 – 12 December** | Physics Unit 3: Waves: The electromagnetic spectrum/light and sound pg 568-587. Quiz 1 online. Project 1 due. | |
| **15 – 19 December** | **Lab 1: Internal reflection using sims.** **https://phet.colorado.edu/sims/html/bending-light/latest/bending-light_en.html** **Making a prism to make a rainbow. or make a periscope** **https://www.youtube.com/watch?v=N0LqI77DFBY** **Make a report in a team with and demonstrate your prism making a rainbow.+ Physics Unit 3: Waves review → Test 1 and feedback** | |
| **22 – 26 December** | Finish outstanding work…***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Project 2: Use two or more of the units we have covered to demonstrate an idea or invention. (Groups 6 max) | |
| **12 – 16 January** | Review of Chapters 1-4 with IGCSE papers. Online quiz 2: Chapters 1-4 (like a mini BMAT) | |
| **19 - 23 January** | **Review of Chapter 1-4 with IGCSE past papers.** **Worksheet 2:** | |
| **26 – 30 January** | Test 2 on Waves<br>Presentation of projects on waves, completion of outstanding work. | |
| **2 – 6 February** | **Presenting projects continued if time, IGCSE content from Units 1-4 , Student interviews on concept questions and situational questions. (Presentation 1)** | |
| **9 – 13 February** | Student interviews (Presentation 1) continued + Online quiz/Test 3 Review of: Units 1-4<br>Mock exam + practice questions. Prep for Exam | |
| **16 - 19 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for Anatomy Mathayom 4**
**Semester 2/2025-2026 Teacher Rick Reinders**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | *Unit 3: Muscular System*<br>Types of muscle tissue (skeletal, smooth, cardiac)<br>Structure and function of skeletal muscle | |
| **27-31 October** | Sliding filament theory of contraction | |
| **3 - 7 November** | Antagonistic muscle pairs and movement | |
| **10 - 14 November** | Muscle fatigue, energy supply, and recovery<br>injuries | |
| **17 - 21 November** | Common muscle disorders and injuries | |
| **24 – 28 November** | *Unit 4: Integumentary System*<br>Structure and function of skin (epidermis, dermis, subcutaneous tissue) | |
| **1 – 5 December** | Accessory structures: hair, nails, sweat glands, sebaceous glands | |
| **8 – 12 December** | Functions: protection, temperature regulation, sensory reception, excretion | |
| **15 – 19 December** | Wound healing and tissue repair | |
| **22 – 26 December** | Common skin conditions and diseases (acne, burns, skin cancer) | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | *Unit 5: Endocrine System*<br>Overview of endocrine vs. exocrine glands | |
| **12 – 16 January** | Major endocrine glands and their hormones (pituitary, thyroid, pancreas, adrenal, gonads) | |
| **19 - 23 January** | Hormonal regulation of body processes (growth, metabolism, reproduction, blood glucose) | |
| **26 – 30 January** | Feedback mechanisms (negative and positive) | |
| **2 – 6 February** | Endocrine disorders (diabetes, hyperthyroidism, hypothyroidism, Cushing's syndrome) | |
| **9 – 13 February** | Preparation for final exam and reviewing material | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

**Course Scope for Biology Mathayom 4**

**Semester 2/2025-2026 Teacher Rick Reinders**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Unit 4 – Transport<br>Transport in Unicellular and Multicellular Organisms | |
| **27-31 October** | Transport in Plants | |
| **3 - 7 November** | Transport in Animals | |
| **10 - 14 November** | The Heart and Circulatory System | |
| **17 - 21 November** | Review and Quiz Unit 4 | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Unit 5 - Excretion<br>Excretion in Plants | |
| **8 – 12 December** | Excretory Products in Humans<br>The Kidney and Osmoregulation<br>The Urinary System | |
| **15 – 19 December** | The Nephron<br>Regulation of Water Content<br>Composition of Urine | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Unit 6 – Coordination and Response<br>Plant Responses | |
| **12 – 16 January** | Coordination in Animals<br>Nervous and Hormonal Communication | |
| **19 - 23 January** | The Eye and Vision<br>Skin and Temperature Regulation | |
| **26 – 30 January** | Hormonal Control | |
| **2 – 6 February** | Unit 7 – Reproduction and Inheritance<br>Types of Reproduction<br>Plant Reproduction | |
| **9 – 13 February** | Human Reproduction<br>Inheritance and Genetics | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program
## Course Scope for Chemistry Mathayom 4
## Semester 2/2025-2026 Teacher Sepehr Massoumi Alamouti

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction | **Content and Assessment:**<br>• Course scope review<br>• Reviewing the objective checklist<br>• Setting goals activity |
| **27-31 October** | **The Periodic Table**<br>**3.1 - The Periodic Table**<br>**understand** how elements are arranged in the Periodic Table:<br>• in order of atomic number<br>• in groups and periods.<br>**3.2 - Electronic Structure**<br>**understand** how to deduce the electronic configurations of the first 20 elements from their positions in the Periodic Table<br>**understand** how the electronic configuration of a main group element is related to its position in the Periodic Table<br>**understand** why elements in the same group of the Periodic Table have similar chemical properties<br>**understand** why the noble gases (Group 0) do not readily react<br>**3.3 - Metals & Non-Metals**<br>**identify** an element as a metal or a non-metal according to its position in the Periodic Table<br>**understand** how to use electrical conductivity and the acid-base character of oxides to classify elements as metals or non-metals | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:** Pages 30-37<br>Required Problems: 1-8 (Pages 36-37)<br>**Revision Textbook:**<br>Page 24-26<br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br>The Periodic Table<br>Electron Structure<br>**Exam Style Questions** |
| **10 - 14 November** | **Bonding**<br>**compare and contrast** ionic Bonding, Covalent bonding, Metallic Bonding and giant Covalent molecules | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br>**Exam Style Questions** |

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| **10 - 14 November** | **Bonding**<br><br>**3.4 - Formation of Ions**<br><br>**understand** how ions are formed by electron loss or gain<br>**know** the charges of these ions:<br>• metals in Groups 1, 2 and 3<br>• non-metals in Groups 5, 6 and 7<br>• $Ag^{+}$, $Cu^{2+}$, $Fe^{2+}$, $Fe^{3+}$, $Pb^{2+}$, $Zn^{2+}$<br>hydrogen ($H^{+}$), hydroxide ($OH^{-}$), ammonium ($NH_4^{+}$), carbonate ($CO_3^{2-}$), nitrate ($NO_3^{-}$), sulfate ($SO_4^{2-}$). | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **17 - 21 November** | **Bonding**<br><br>**3.5 – Ionic Bonding**<br>**understand** ionic bonding in terms of electrostatic attractions<br><br>**3.6 – Ionic Compounds**<br>**3.7 Chemical Tests Tests**<br><br>**write** formulae for compounds formed between the ions listed above<br>**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<br><br>**understand** why compounds with giant ionic lattices have high melting and boiling points<br>**know** that ionic compounds do not conduct electricity when solid, but do conduct electricity when molten and in aqueous solution<br><br>**Unit Test 1** | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **24 – 28 November** | **Gases & Ions Testing**<br><br>**3.7 Chemical Tests**<br><br>**know** the colours formed in flame tests for these cations:<br><br>• $Li^{+}$ is red<br>• $Na^{+}$ is yellow<br>• $K^{+}$ is lilac<br>• $Ca^{2+}$ is orange-red<br>• $Cu^{2+}$ is blue-green.<br><br>**describe** tests for these cations:<br>• $NH_4^{+}$ using sodium hydroxide solution and identifying the gas evolved<br>• $Cu^{2+}$, $Fe^{2+}$ and $Fe^{3+}$ using sodium hydroxide solution.<br><br>**describe** tests for these anions:<br><br>• $Cl^{-}$, $Br^{-}$ and $I^{-}$ using acidified silver nitrate solution<br>• $SO_4^{2-}$ using acidified barium chloride solution<br><br>• $CO_3^{2-}$ using hydrochloric acid and identifying the gas evolved | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 190-197<br>Required Problems: 1-7 (Pages 196-197)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |

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| **1 – 5 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**write** word equations and balanced chemical equations (including state symbols):<br>• for reactions studied in this specification<br>• for unfamiliar reactions where suitable information is provided. | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **8 – 12 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**calculate** relative formula masses (including relative molecular masses) (Mr) from relativeatomic masses (Ar)<br><br>know that the mole (mol) is the unit for the amount of a substance | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **15 – 19 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**understand** how to carry out calculations involving amount of substance, relative atomic mass (Ar) and relative formula mass (Mr) | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **22 – 26 December** | **Unit Test 2** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**calculate** reacting masses using experimental data and chemical equations<br><br>**calculate** percentage yield | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |

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| **12 – 16 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**understand** how the formulae of simple compounds can be obtained experimentally, including metal oxides, water and salts containing water of crystallisation | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **19 - 23 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**know** what is meant by the terms empirical formula and molecular formula<br><br>**calculate** empirical and molecular formulae from experimental data | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **26 – 30 January** | **Chemical Formula, Equations and Calculations (II)**<br><br>**understand** how to carry out calculations involving amount of substance, volume and concentration (in mol/dm3) of solution | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 64-74<br>Required Problems: 1-18 (Pages 72-74)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **2 – 6 February** | **Chemical Formula, Equations and Calculations (II)**<br><br>**understand** how to carry out calculations involving gas volumes and the molar volume of a gas (24 dm3 and 24 000 cm3 at room temperature and pressure (rtp))<br><br>practical: **know** how to determine the formula of a metal oxide by combustion<br>(e.g. magnesium oxide) or by reduction (e.g. copper(II) oxide)<br><br>**Unit Test 3** | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 64-74<br>Required Problems: 1-18 (Pages 72-74)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **9 – 13 February**<br><br>**16 - 19 February** | Semester Project Due<br>**Final Review**<br><br>***Final Exams*** | **Reviewing the content from unit test 1, 2 & 3**<br><br>**Unit test 1&2:** 20%<br>**Unit Test 3:** 80%<br><br>**Unit test 1&2:** 20%<br>**Unit Test 3:** 80% |

# Bangkok Christian College English Immersion Program

**Course Scope for Computer Mathayom 4**

**Semester 2/2025-2026 Teacher James Cookson**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction to Blender (3D modelling software) | |
| **27-31 October** | Blender – Exploring Object mode | |
| **3 - 7 November** | Blender – Exploring Edit mode | |
| **10 - 14 November** | Blender – Creating 3D models 1 | |
| **17 - 21 November** | Blender – Creating 3D models 2 | |
| **24 – 28 November** | Blender – Creating 3D models 3 | |
| **1 – 5 December** | Blender – Exploring Sculpt mode | |
| **8 – 12 December** | Blender – Creating Landscapes | |
| **15 – 19 December** | Blender – Midterm Project | |
| **22 – 26 December** | Blender – Midterm Project | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Blender – Introduction to Animation | |
| **12 – 16 January** | Blender – Walking Animation 1 | |
| **19 - 23 January** | Blender – Walking Animation 2 | |
| **26 – 30 January** | Blender – Importing/Exporting models | |
| **2 – 6 February** | Blender – Final Project | |
| **9 – 13 February** | Blender – Final Project | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Physical Education Mathayom 4

## Semester 2/2025-2026 Teacher Benjamin Fishman

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **25 October** | Ice Breaker/What is a health goal? | School Starts |
| **28 October – 1 November** | Fitness Test<br>● Burpees<br>● 40 yard dash<br>● Max jump height | |
| **4 - 8 November** | Supplements 101<br>● Creatine<br>● Caffeine and why it's bad but actually good<br>● Multi-Vitamin | |
| **11 - 15 November** | Football<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **18 - 22 November** | Basketball<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **25 – 29 November** | ***Pearson Exams Week*** | |
| **2 – 6 December** | (Western) Boxing<br>● Why it's the safest but also the most dangerous<br>● How to wrap your wrists<br>● Other combat sports explained | |
| **9 – 13 December** | Western Boxing Drills<br>● Shadowboxing<br>● Footwork | |
| **16 – 20 December** | Western Boxing Drills<br>● Padwork | |
| **23 – 27 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **30 December – 3 January** | ***Christmas Holiday*** | |
| **6 – 10 January** | American Football<br>● Rules & Strategies<br>● 7 on 7 games | |
| **13 – 17 January** | Football 2.0<br>● Handling Drills<br>● Defensive Drills<br>● Live Games | |
| **20 - 24 January** | Nutrition 101<br>● Calculating Caloric Maintenance<br>● Safe Weight loss/gain<br>● "Gaintaing" and why it literally never works except for you | |
| **27 – 31 January** | Re-do Fitness Test<br>● Burpees<br>● 40 yard dash<br>● Max jump height | Results will be compared to the beginning of the semester |
| **3 – 7 February** | Capture the Flag | |
| **10 – 14 February** | ***Final Exams*** | |

**Bangkok Christian College English Immersion Program**
**Course Scope for Anatomy Mathayom 4**
**Semester 2/2025-2026 Teacher Rick Reinders**

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | *Unit 3: Muscular System*<br><br>Types of muscle tissue (skeletal, smooth, cardiac)<br>Structure and function of skeletal muscle | |
| **27-31 October** | Sliding filament theory of contraction | |
| **3 - 7 November** | Antagonistic muscle pairs and movement | |
| **10 - 14 November** | Muscle fatigue, energy supply, and recovery<br>injuries | |
| **17 - 21 November** | Common muscle disorders and injuries | |
| **24 – 28 November** | *Unit 4: Integumentary System*<br><br>Structure and function of skin (epidermis, dermis, subcutaneous tissue) | |
| **1 – 5 December** | Accessory structures: hair, nails, sweat glands, sebaceous glands | |
| **8 – 12 December** | Functions: protection, temperature regulation, sensory reception, excretion | |
| **15 – 19 December** | Wound healing and tissue repair | |
| **22 – 26 December** | Common skin conditions and diseases (acne, burns, skin cancer) | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | *Unit 5: Endocrine System*<br><br>Overview of endocrine vs. exocrine glands | |
| **12 – 16 January** | Major endocrine glands and their hormones (pituitary, thyroid, pancreas, adrenal, gonads) | |
| **19 - 23 January** | Hormonal regulation of body processes (growth, metabolism, reproduction, blood glucose) | |
| **26 – 30 January** | Feedback mechanisms (negative and positive) | |
| **2 – 6 February** | Endocrine disorders (diabetes, hyperthyroidism, hypothyroidism, Cushing's syndrome) | |
| **9 – 13 February** | Preparation for final exam and reviewing material | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program

## Course Scope for Biology Mathayom 4

## Semester 2/2025-2026 Teacher Rick Reinders

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Unit 4 – Transport<br>Transport in Unicellular and Multicellular Organisms | |
| **27-31 October** | Transport in Plants | |
| **3 - 7 November** | Transport in Animals | |
| **10 - 14 November** | The Heart and Circulatory System | |
| **17 - 21 November** | Review and Quiz Unit 4 | |
| **24 – 28 November** | ***Pearson Exams Week*** | |
| **1 – 5 December** | Unit 5 - Excretion<br>Excretion in Plants | |
| **8 – 12 December** | Excretory Products in Humans<br>The Kidney and Osmoregulation<br>The Urinary System | |
| **15 – 19 December** | The Nephron<br>Regulation of Water Content<br>Composition of Urine | |
| **22 – 26 December** | ***Christmas ceremonies, followed by the beginning of Christmas holiday on the 24th*** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | Unit 6 – Coordination and Response<br>Plant Responses | |
| **12 – 16 January** | Coordination in Animals<br>Nervous and Hormonal Communication | |
| **19 - 23 January** | The Eye and Vision<br>Skin and Temperature Regulation | |
| **26 – 30 January** | Hormonal Control | |
| **2 – 6 February** | Unit 7 – Reproduction and Inheritance<br>Types of Reproduction<br>Plant Reproduction | |
| **9 – 13 February** | Human Reproduction<br>Inheritance and Genetics | |
| **16 - 19 February** | ***Final Exams*** | |

# Bangkok Christian College English Immersion Program
## Course Scope for Chemistry Mathayom 4
## Semester 2/2025-2026 Teacher Sepehr Massoumi Alamouti

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **24 October** | Introduction | **Content and Assessment:**<br>• Course scope review<br>• Reviewing the objective checklist<br>• Setting goals activity |
| **27-31 October** | **The Periodic Table**<br>**3.1 - The Periodic Table**<br>**understand** how elements are arranged in the Periodic Table:<br>• in order of atomic number<br>• in groups and periods.<br>**3.2 - Electronic Structure**<br>**understand** how to deduce the electronic configurations of the first 20 elements from their positions in the Periodic Table<br>**understand** how the electronic configuration of a main group element is related to its position in the Periodic Table<br>**understand** why elements in the same group of the Periodic Table have similar chemical properties<br>**understand** why the noble gases (Group 0) do not readily react<br>**3.3 - Metals & Non-Metals**<br>**identify** an element as a metal or a non-metal according to its position in the Periodic Table<br>**understand** how to use electrical conductivity and the acid-base character of oxides to classify elements as metals or non-metals | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:** Pages 30-37<br>Required Problems: 1-8 (Pages 36-37)<br>**Revision Textbook:**<br>Page 24-26<br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br>The Periodic Table<br>Electron Structure<br>**Exam Style Questions** |
| **10 - 14 November** | **Bonding**<br>**compare and contrast** ionic Bonding, Covalent bonding, Metallic Bonding and giant Covalent molecules | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br>**Exam Style Questions** |

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|---|---|---|
| **10 - 14 November** | **Bonding**<br><br>**3.4 - Formation of Ions**<br><br>**understand** how ions are formed by electron loss or gain<br>**know** the charges of these ions:<br>• metals in Groups 1, 2 and 3<br>• non-metals in Groups 5, 6 and 7<br>• $Ag^{+}$, $Cu^{2+}$, $Fe^{2+}$, $Fe^{3+}$, $Pb^{2+}$, $Zn^{2+}$<br>hydrogen ($H^{+}$), hydroxide ($OH^{-}$), ammonium ($NH_4^{+}$), carbonate ($CO_3^{2-}$), nitrate ($NO_3^{-}$), sulfate ($SO_4^{2-}$). | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **17 - 21 November** | **Bonding**<br><br>**3.5 – Ionic Bonding**<br>**understand** ionic bonding in terms of electrostatic attractions<br><br>**3.6 – Ionic Compounds**<br>**3.7 Chemical Tests Tests**<br><br>**write** formulae for compounds formed between the ions listed above<br>**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<br><br>**understand** why compounds with giant ionic lattices have high melting and boiling points<br>**know** that ionic compounds do not conduct electricity when solid, but do conduct electricity when molten and in aqueous solution<br><br>**Unit Test 1** | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br>Pages 77-100<br>Required Problems: 1-6 (Pages 83-84)<br>Required Problems: 1-9 (Pages 96-97)<br>Required Problems: 1-9 (Page 100)<br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **24 – 28 November** | **Gases & Ions Testing**<br><br>**3.7 Chemical Tests**<br><br>**know** the colours formed in flame tests for these cations:<br><br>• $Li^{+}$ is red<br>• $Na^{+}$ is yellow<br>• $K^{+}$ is lilac<br>• $Ca^{2+}$ is orange-red<br>• $Cu^{2+}$ is blue-green.<br><br>**describe** tests for these cations:<br>• $NH_4^{+}$ using sodium hydroxide solution and identifying the gas evolved<br>• $Cu^{2+}$, $Fe^{2+}$ and $Fe^{3+}$ using sodium hydroxide solution.<br><br>**describe** tests for these anions:<br><br>• $Cl^{-}$, $Br^{-}$ and $I^{-}$ using acidified silver nitrate solution<br>• $SO_4^{2-}$ using acidified barium chloride solution<br><br>• $CO_3^{2-}$ using hydrochloric acid and identifying the gas evolved | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 190-197<br>Required Problems: 1-7 (Pages 196-197)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |

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| **1 – 5 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**write** word equations and balanced chemical equations (including state symbols):<br>• for reactions studied in this specification<br>• for unfamiliar reactions where suitable information is provided. | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **8 – 12 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**calculate** relative formula masses (including relative molecular masses) (Mr) from relativeatomic masses (Ar)<br><br>know that the mole (mol) is the unit for the amount of a substance | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **15 – 19 December** | **Chemical Formula, Equations and Calculations (I)**<br><br>**understand** how to carry out calculations involving amount of substance, relative atomic mass (Ar) and relative formula mass (Mr) | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **22 – 26 December** | **Unit Test 2** | |
| **29 December – 2 January** | ***Christmas Holiday*** | |
| **5 – 9 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**calculate** reacting masses using experimental data and chemical equations<br><br>**calculate** percentage yield | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |

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| **12 – 16 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**understand** how the formulae of simple compounds can be obtained experimentally, including metal oxides, water and salts containing water of crystallisation | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **19 - 23 January** | **Chemical Formula, Equations and Calculations (I)**<br><br>**know** what is meant by the terms empirical formula and molecular formula<br><br>**calculate** empirical and molecular formulae from experimental data | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 38-63<br>Required Problems: 1-9 (Pages 60-63)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **26 – 30 January** | **Chemical Formula, Equations and Calculations (II)**<br><br>**understand** how to carry out calculations involving amount of substance, volume and concentration (in mol/dm3) of solution | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 64-74<br>Required Problems: 1-18 (Pages 72-74)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **2 – 6 February** | **Chemical Formula, Equations and Calculations (II)**<br><br>**understand** how to carry out calculations involving gas volumes and the molar volume of a gas (24 dm3 and 24 000 cm3 at room temperature and pressure (rtp))<br><br>practical: **know** how to determine the formula of a metal oxide by combustion<br>(e.g. magnesium oxide) or by reduction (e.g. copper(II) oxide)<br><br>**Unit Test 3** | **Content and Assessment:**<br>**IGCSE Chemistry Student Textbook:**<br><br>Pages 64-74<br>Required Problems: 1-18 (Pages 72-74)<br><br>**Revision Textbook:**<br><br>**Lab Book:**<br>Pages N/A<br>**Formative Assessments:**<br><br>**Exam Style Questions** |
| **9 – 13 February**<br><br>**16 - 19 February** | Semester Project Due<br>**Final Review**<br><br>***Final Exams*** | **Reviewing the content from unit test 1, 2 & 3**<br><br>**Unit test 1&2:** 20%<br>**Unit Test 3:** 80%<br><br>**Unit test 1&2:** 20%<br>**Unit Test 3:** 80% |

# Bangkok Christian College English Immersion Program

## Course Scope for Mathematics Mathayom 4 Track 1

## Semester 2/2025-2026 Teacher Andrew Joslin

| Date | Contents | Comments/ Remarks |
|---|---|---|
| **20-24 Oct** | **Equations and Inequalities**<br>Graphing Linear and Non-linear inequalities<br>Regions | 24 Oct -<br>School Opens |
| **27-31 Oct** | **Graphs and Transformations**<br>Cubics, Quartics, Reciprocals<br>Intersections | |
| **3 - 7 Nov** | **Graphs and Transformations**<br>Shifting and Stretching graphs<br>Transforming functions | |
| **10-14 Nov** | **Straight Line Graphs**<br>Equations of lines, parallel and perpendicular lines | |
| **17-21 Nov** | **Straight Line Graphs**<br>Distance between two points | |
| **24-28 Nov** | **Trigonometric Ratios**<br>Review of Sine, Cosine and Tangent<br>The Cosine Rule | |
| **1-5 Dec** | **Trigonometric Ratios**<br>The Sine Rule<br>Areas of Triangles | 5 Dec. -<br>King's Birthday |
| **8-12 Dec** | **Trigonometric Ratios**<br>Solving Triangle problems | 10 Dec. -<br>Constitution Day |
| **15-19 Dec** | **Radians**<br>Radian Measure<br>The Unit Circle | |
| **22-26 Dec** | | 25-26 Dec-<br>Christmas<br>Holiday |
| **29 Dec - 2 Jan** | | 29 Dec – 2 Jan<br>Christmas<br>Holiday |
| **5- 9 Jan** | **Trigonometric Ratios**<br>Graphs of Sine, Cosine and Tangent<br>Transforming Trigonometric Graphs | |
| **12-16 Jan** | **Radians**<br>Arc Length<br>Areas of Sectors and Segments | 16 Jan –<br>Teacher's Day |
| **19-23 Jan** | **Differentiation**<br>Gradients of Curves<br>Finding the derivative<br>Differentiating $x^n$ | |
| **26-30 Jan** | **Differentiation**<br>Differentiating Quadratics<br>Differentiating functions | |
| **2-6 Feb** | **Differentiation**<br>Gradients, tangents and normal<br>Second order Derivatives | |
| **9-13 Feb** | **Review** | |
| **16-20 Feb** | **Final Exam Week** | |