

Zhenghua Secondary School

Sec 4 Normal (Academic) Syllabus Coverage for Assessment in Mid-Year Examination 2016

ENGLISH LANGUAGE

S/N	Topics	Format / Weightings
1	<p>Paper 1: Writing</p> <p>Section A: Editing – Grammar</p> <p>Section A: Situational Writing</p> <p>Section B: Continuous Writing (Narrative, Discursive, Descriptive)</p> <p>Duration of Examination = 1hr 50mins</p>	<p>10 marks</p> <p>30 marks</p> <p>30 marks</p> <p>Total= 70 marks (35%)</p>
2	<p>Paper 2: Comprehension</p> <p>Section A: Visual Text – structured questions</p> <p>Section A: Narrative text – structured questions</p> <p>Section B: Non-narrative text- structured questions and summary</p> <p>Duration of Examination = 1hr 50mins</p>	<p>5 marks</p> <p>20 marks</p> <p>25 marks</p> <p>Total= 50 marks (35%)</p>
3	<p>Paper 3: Listening</p> <p><i>Skills assessed: Listening for main ideas, details and inference</i></p> <p>Section A: Multiple choice questions, matching and fill in the blanks</p> <p>Section B: Structured questions</p> <p>Duration of Examination = 50mins</p>	<p>24 marks</p> <p>6 marks</p> <p>Total= 30 marks (10%)</p>
4	<p>Paper 4: Oral Communication</p> <p>The two parts in this paper are thematically linked.</p> <p>Part 1: Reading Aloud</p> <p>Candidates read aloud a short text.</p> <p>Part 2: Spoken Interaction</p> <p>Candidates engage in a discussion with the examiners on a topic based on a visual stimulus</p> <p>Duration of Examination= About 20 minutes(including 10 minutes of Preparation time)</p>	<p>10 marks</p> <p>20 marks</p> <p>Total= 30 marks (20%)</p>

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CHINESE LANGUAGE

中四普通学术课程年中考试

项目	内容	必答题数	分数	分数比例	附注
1 年中考试试卷 (一) 2 小时	作文 <ul style="list-style-type: none"> • 情境作文 • 完成文章 • 新闻读后感 • 论说文 	1	40		三选一
	实用文 <ul style="list-style-type: none"> • 私人电邮 • 公务电邮 	1	20		二选一
	总		60	30%	
2 年中考试试卷 (二) 1 小时 30 分钟	综合填空	10	10		
	理解测验	10	20		
	理解问答	8	30		
	总		60	30%	
3 年中考试试卷 (三)	听力考试 <ul style="list-style-type: none"> • 选择题 	10	20	10%	
	口试 <ul style="list-style-type: none"> • 朗读短文 • 看录像短片对话 		20 40	30%	
	总		80	40%	
总分			200	100%	

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CHINESE LANGUAGE

中四快捷课程年中考试 –“O” 水准直通车 (Direct “O” Level)

测试	项目	必答题数	分数	分数比例	附注
1 年中考试试卷 (一) 2 小时	作文 • 情境作文 • 论说文	1	40		三选一
	实用文 • 私人电邮 • 公务电邮	1	20		二选一
	总		60	30%	
2 年中考试 试卷 (二) 1 小时 30 分钟	综合填空	10	10		
	理解测验	10	20		
	理解问答	10	40		
	总		70	35%	
3 年中考试试卷 (三)	听力考试 • 选择题	10	20		
	口试 • 朗读短文 • 看录像短片对话		10 40		
	总		70	35%	
	总分			100%	

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MALAY LANGUAGE

Kertas	Komponen	Markah / Timbangan	Catatan
1	Bahagian A: E-mel Calon dikehendaki menjawab satu soalan daripada: a) E-mel tidak formal b) E-mel formal	20	Kamus Dewan boleh digunakan Masa peperiksaan: 2 jam
	Bahagian B: Karangan Calon dikehendaki menjawab satu soalan daripada karangan jenis: a) Deskriptif/Naratif b) Ekspositori c) Naratif	40	
	Jumlah	60 (30%)	
2	Bahagian A1: Imbuhan	10	Kamus Dewan tidak boleh digunakan. Masa peperiksaan: 1 jam 30 minit
	Bahagian A2: Peribahasa	5	
	Bahagian A3: Melengkapkan Teks	5	
	Bahagian B: Grafik Stimulus	10	
	Bahagian C: Kefahaman	30	
	Jumlah	60 (30%)	
3	Lisan		Masa peperiksaan: 30 minit
	Bahagian A: Bacaan Lantang	20	
	Bahagian B: Perbualan Berdasarkan Video	40	
	Kefahaman Mendengar	20	
Jumlah	80 (40%)		

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SCIENCE (Physics, Chemistry)

Duration of Examination: Paper 1 and 2: 1 hour 15 minutes
Paper 3 and 4: 1 hour 15 minutes

S/N	Topics	Format/ Weightings
<u>Physics</u>		
1	Physical Quantities, units and Measurement	<p><u>Paper 1 (Physics) (20 marks)</u> Multiple Choice Questions</p> <p><u>Paper 2 (Physics)</u> <u>Section A (14 marks)</u> Structured Questions</p> <p><u>Section B (16 marks)</u> Free Response Questions Choose 2 out of 3 questions</p>
2	Forces and Pressure	
3	Mass, Weight and Density	
4	Turning effect of Forces	
5	Energy, Work and Power	
6	Kinematics	
7	Kinetic model of matter	
8	Transfer of thermal energy	
9	Thermal properties of matter	
10	General wave properties	
11	Electromagnetic spectrum	
12	Sound	
13	Current electricity	
14	DC circuits	
15	Practical Electricity	
<u>Chemistry</u>		
1	Kinetic Particle Theory	<p><u>Paper 3 (Chemistry) (20 marks)</u> Multiple Choice Questions</p> <p><u>Paper 4 (Chemistry)</u> <u>Section A (14 mark)</u> Structured Questions</p> <p><u>Section B (16 marks)</u> Free Response Questions Choose 2 out of 3 questions</p> <p>Total: 100 marks</p>
2	Measurement and Experimental Techniques	
3	Separation and Purification	
4	Elements, Compounds and Mixtures	
5	Atomic Structure	
6	Chemical Bonding	
7	Writing Chemical Equations	
8	The Mole (Stoichiometry in mass)	
9	Chemical Calculations (Stoichiometry in mass)	
10	Acids and Bases	
11	Salts	
12	Metals	
13	The Periodic Table	
14	The Atmosphere and Environment	
15	An Introduction to Organic Chemistry	
16	Alkanes and Alkenes	

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SCIENCE (Chemistry, Biology)

Duration of Examination: Paper 3 and 4: 1 hour 15 minutes

Paper 5 and 6: 1 hour 15 minutes

S/N	Topics	Format/ Weightings
<u>Chemistry</u>		
1	Kinetic Particle Theory	
2	Measurement and Experimental Techniques	
3	Separation and Purification	
4	Elements, Compounds and Mixtures	
5	Atomic Structure	<u>Paper 3 (Chemistry) (20 marks)</u>
6	Chemical Bonding	Multiple Choice Questions
7	Writing Chemical Equations	
8	The Mole (Stoichiometry in mass)	<u>Paper 4 (Chemistry)</u>
9	Chemical Calculations (Stoichiometry in mass)	<u>Section A (14 mark)</u>
10	Acids and Bases	Structured Questions
11	Salts	<u>Section B (16 marks)</u>
12	Metals	Free Response Questions
13	The Periodic Table	Choose 2 out of 3 questions
14	The Atmosphere and Environment	
15	An Introduction to Organic Chemistry	<u>Paper 5 (Biology) (20 marks)</u>
16	Alkanes and Alkenes	Multiple Choice Questions
<u>Biology</u>		
1	Cells	<u>Paper 6 (Biology)</u>
2	Movement of Substances	<u>Section A (14 marks)</u>
3	Nutrients	Structured Questions
4	Enzymes	<u>Section B (16 marks)</u>
5	Nutrition in Humans	Free Response Questions
6	Nutrition in Plants	Choose 2 out of 3 questions
7	Transport in Humans	
8	Transport in Plants	
9	Respiration	
10	Reproduction in Plants	
11	Reproduction in Humans	Total: 100 marks

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MATHEMATICS (NA)

Duration of Examination: Paper 1: 2 hours Paper 2: (2 hours)

Syllabus has completed. All Sec 1 to Final Year topics are tested.

S/N	Topics	Format / Weightings
Unit 1	Numbers and Algebra	<p>Paper 1: 80 marks (50%) 2hr Calculators Allowed</p> <p>Paper 2: 60 marks (50%) 2hr Calculators Allowed Section A: Answer all questions Section B: One question from the “Geometry & Measurement” strand and one from the “Statistics and Probability” strand. Choose one out of 2 questions.</p>
	1.1 Numbers and Operation	
	1.2 Ratio, Rate and Proportion	
	1.3 Percentage	
	1.4 Speed	
	1.5 Algebraic Representation and Formulae	
	1.6 Algebraic Manipulation	
	1.7 Functions and Graphs	
	1.8 Solutions of Equations and Inequalities	
	1.9 Applications of Mathematics in Practical Situations	
Unit 2	Geometry and Measurement	
	2.1 Angles, Triangles and Polygons	
	2.2 Congruence and Similarity	
	2.3 Properties of Circles	
	2.4 Pythagoras’ Theorem and Trigonometry	
	2.5 Mensuration	
	2.6 Coordinate Geometry	
Unit 3	Statistics and Probability	
	3.1 Data Handling	
	3.2 Data Analysis	
	3.3 Probability	

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MATHEMATICS (O-level)

Duration of Examination: 2 hour (Paper 1) & 2 Hour and 30 minutes (Paper 2)

Syllabus has completed. All Sec 1 to Final Year topics are tested.

S/N	Topics	Format / Weightings
Unit 1	Numbers and Algebra	Paper 1: 80 marks (50%) 2hr Calculators Allowed
	1.1 Numbers and Operation	
	1.2 Ratio, Rate and Proportion	
	1.3 Percentage	
	1.4 Speed	
	1.5 Algebraic Representation and Formulae	
	1.6 Algebraic Manipulation	
	1.7 Functions and Graphs	
	1.8 Solutions of Equations and Inequalities	
	1.9 Applications of Mathematics in Practical Situations	
	1.10 Set Language and Notation	
	1.11 Matrices	
Unit 2	Geometry and Measurement	Paper 2: 100 marks (50%) 2hr 30min Calculators Allowed
	2.1 Angles, Triangles and Polygons	
	2.2 Congruence and Similarity	
	2.3 Properties of Circles	
	2.4 Pythagoras' Theorem and Trigonometry	
	2.5 Mensuration	
	2.6 Coordinate Geometry	
	2.7 Vectors in Two Dimensions	
Unit 3	Statistics and Probability	
	3.1 Data Handling	
	3.2 Data Analysis	
	3.3 Probability	

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ADDITIONAL MATHEMATICS

Duration of Examination: 1 hour 45 min (Paper 1) & 1 hour and 45 minutes (Paper 2)

S/N	Topics	Format / Weightings
1	Chapter 1: Simultaneous Equations, Polynomials & Partial Fractions (excluding Partial Fractions)	Paper 1: 70 marks (50%) 1hr 45min Calculators Allowed
2	Chapter 2: Quadratic Equations, Inequalities & Modulus Functions (excluding Modulus Functions)	
3	Chapter 3: Binomial Theorem	
4	Chapter 4: Indices, Surds and Logarithms (excluding Logarithms)	
5	Chapter 5: Coordinate Geometry	
6	Chapter 6: Further Coordinate Geometry	
7	Chapter 8: Trigonometric Functions and Equations (excluding graphs of modulus trigonometric functions)	Paper 2: 70 marks (50%) 1hr 45min Calculators Allowed
8	Chapter 9: Trigonometric Identities and Formulae	
9	Chapter 11: Differentiation and its Application	
10	Chapter 12: Further Application of Differentiation	
11	Chapter 14: Integration – Basic integration, integration of a function involving a linear factor)	
12	Chapter 15: Applications of Integration	

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COMBINED HUMANITIES (Social Studies/ Geography)
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Duration of Examination: 1 hour 45 minutes for Social Studies and 1 hour 40 minutes for Geography

S/N	Topics	Format/ Weightings
<u>Social Studies</u>		
1	<u>All chapters in Book 3</u> <ul style="list-style-type: none"> • Chapter 2: Governance in Singapore • Chapter 3: Managing Healthcare: A Case Study of Singapore • Chapter 4: Conflict in Multi-Ethnic Societies: Case Studies of Sri Lanka And Northern Ireland • Chapter 5: Bonding Singapore • Chapter 6: Diplomacy and Deterrence <u>One Chapter in Book 4</u> <ul style="list-style-type: none"> • Chapter 2: Globalisation 	<u>Section A</u> Source-Based Case Study (35 marks) <u>Section B</u> Structured Essay Question (15 marks) Total mark is 50.
<u>Geography</u>		
1	<u>Physical Geography</u> <ul style="list-style-type: none"> • Plate Tectonic (Gateways 1 & 2) • Weather & Climate (Gateway 1 & 2) <u>Human Geography</u> <ul style="list-style-type: none"> • Tourism (Gateways 1 – 3) 	<u>Section A</u> Field Study– Geographical Skills and Investigations (13 marks) <u>Section B</u> Structured Questions (12 marks)
2	Chapter 3: Geographical Skills and Investigations <ul style="list-style-type: none"> • Gateway 2: Geographical data and techniques (Graphs) • Gateway 3: Geographical investigations 	<u>Section C</u> Structured Essay Questions (25 marks)

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COMBINED HUMANITIES (Social Studies/ History)
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Duration of Examination: 1 hour 45 minutes for Social Studies and 1 hour 40 minutes for History

S/N	Topics	Format/ Weightings
<u>Social Studies</u>		
1	<u>All chapters in Book 3</u> <ul style="list-style-type: none"> • Chapter 2: Governance in Singapore • Chapter 3: Managing Healthcare: A Case Study of Singapore • Chapter 4: Conflict in Multi-Ethnic Societies: Case Studies of Sri Lanka And Northern Ireland • Chapter 5: Bonding Singapore • Chapter 6: Diplomacy and Deterrence <u>One Chapter in Book 4</u> <ul style="list-style-type: none"> • Chapter 2: Globalisation 	<u>Section A</u> Source-Based Case Study (35 marks) <u>Section B</u> Structured Essay Question (15 marks) Total mark is 50.
<u>History</u>		
1	Chapters 6 and 7 of Sec 3 textbook. Chapters 1 and 2 of Sec 4 textbook. <ul style="list-style-type: none"> • Causes of WWII in Asia Pacific, Defeat of Japan in WWII, Reasons for Cold War and Korean War 	<u>Section A</u> Source-Based Case Study (30 marks) <u>Section B</u> Structured Essay Question (20 marks) Total mark is 50.

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PRINCIPLES OF ACCOUNTS

Duration of Examination: 3 hours (paper 1: 1 hour; paper 2; 2 hour)

S/N	Topics	Format / Weightings
1	Chapter 1 Introduction to Accounting Chapter 2 The Accounting Information System Chapter 3 Elements of the Financial Statements and the Accounting Equation Chapter 4 The concept of Double Entry Chapter 5 Special Journals Chapter 6 Cash Book and Petty Cash Book Chapter 7 Bank Reconciliation Chapter 8 Trial Balance (with adjustments) Chapter 9 Income Statement (with adjustments) Chapter 10 Balance Sheet (with adjustments) Chapter 11 Prepayments and Accruals Chapter 12 Inventory Chapter 13 Non-current Assets (sale of non-current asset not tested) Chapter 14 Trade Receivables Chapter 16 Control Accounts Chapter 17 Correction of Errors Chapter 19 Business Entities: Final accounts for Sole Proprietorship	<u>Paper 1</u> <ul style="list-style-type: none">• 40 marks• Answer all questions <u>Paper 2</u> <ul style="list-style-type: none">• 60 marks• Answer all questions

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DESIGN & TECHNOLOGY

Duration of Examination: 1 hr 30 minutes

S/N	Topics	Format / Weightings
1	<p>Theory Paper:</p> <p>Part A - Design method</p> <ul style="list-style-type: none">Project ManagementResearchDefinition of NeedsGenerating and Develop IdeasRealisationEvaluationDesign CommunicationErgonomics and AnthropometryDesign JournalMaterial & Practical Process <p>Part B- Structures</p> <ul style="list-style-type: none">MechanismElectronic	<p>70 marks / 40%</p> <p>Part A: 28 marks</p> <p>Part B: 42 marks</p>
2	Coursework (Journal)	<p>60 marks (60%)</p> <p>Problem based coursework already completed.</p>

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FOOD & NUTRITION

Duration of Examination: 1 hour 30 minutes

S/N	Topics	Format / Weightings
1	Theory Paper: Chapter 1: Energy from Food Chapter 2: Guidelines for Meal Planning Chapter 3: Different Types of Nutritional Needs Chapter 4: Carbohydrates Chapter 5: Cereals Chapter 6: Fats Chapter 7: Proteins Chapter 8: Meat & Alternatives Chapter 10: Vitamins Chapter 11: Minerals Chapter 12: Water & Dietary Fibre Chapter 13: Food Commodities-Fruits and Vegetables Chapter 14: Heat Transfer and Methods of Cooking Chapter 15: The Science Behind Food Preparation Chapter 17: Keeping Food Safe Chapter 18: Convenience Food	80 marks (50%) <u>Section A: 20 marks</u> Short answers structured Qs <u>Section B : 28 marks</u> Data based structured Qs <u>Section C :32 marks</u> Essay questions
2	Coursework	22 marks (50%) Problem based coursework.

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ART

Duration of Examination: NA

S/N	Topics	Format / Weightings
	<p>Drawing and Painting: Assessment will be based on Preparatory Studies (To be carried out and recorded over 3 weeks) and Final Artwork (To be completed during Art examination for 3 hour).</p> <p>Assessment Criteria: Investigation and Interpretation of Theme (15%) Exploration and Development of Theme (15%) Aesthetic Qualities (25%) Control of Materials and Technical Processes (25%) Personal Response (20%)</p>	<p>100 marks (100%)</p>