Anglo-Chinese School (Independent)

INTEGRATED PROGRAMME

Course Outlines for Year 3 & 4 subjects

(2026 – 2027)

30 June 2025

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Note:

Information shared is accurate as of date of issue and is subject to change

30 June 2025

THE ACS (INDEPENDENT) INTEGRATED PROGRAMME

The ACS (Independent) IP offers students in the school an alternative course of study to the conventional Singapore-Cambridge GCE 'O' Level and 'A' Level system. Selected high-ability students enter the four-year IP at Year 3, which will then take them through a two-year preparatory course leading to the International Baccalaureate Diploma Programme (IBDP) in Years 5 and 6.

The IBDP created in 1968, is a demanding pre-university course of study that leads to examinations and it is designed for highly motivated students. The programme has earned a reputation for rigorous and holistic well-rounded assessment, giving IB diploma holders access to the world's leading universities. Over the course of over 50 years, the programme is reputed to have prepared the students well for university work.

THE ACS (INDEPENDENT) YEARS 3 & 4 INTEGRATED PROGRAMME

The ACS (Independent) Years 3 & 4 Integrated Programme is a specially designed, broad-based two-year preparatory course that will equip students with the skills and necessary knowledge that will prepare them to pursue the International Baccalaureate (IB) in Years 5 and 6.

SUBJECTS OFFERED

Students in the programme are required to study a total of 8 subjects, with the exception of students who are exempted from Mother Tongue;

- 1 subject from each of the five **Compulsory Subject Groups** and
- 3 subjects from any of the **Option Subject Groups**.

☐ COMPULSORY SUBJECT GROUPS

1. ***Language Arts*** An integrated English Language & Literature course which will prepare students for the rigorous demands of Language A (Studies in Language and Literature).

2. ***Mother Tongue Language*** Options of Chinese, Malay or Tamil language at Standard or Higher level which is taken as a GCE 'O' Level examination subject.

3. ***International Studies*** A specially designed multi-disciplinary course which includes Economics, Political Science, Current affairs, Archaeology and Sociology complemented by historical and geographical perspectives. The principal aim of this course is to provide some basic approaches to the understanding of how societies progressed and came into contact with the societies from across the globe due to networks of trade and interactions.

4. ***Core Mathematics*** essentially follows the Elementary Mathematics syllabus but enhanced with important topics not normally covered in the Elementary Mathematics subject.

5. ***Sciences*** Students will opt to take 1 Science subject from the group of Physics, Chemistry or Biology as a core subject.

☐ OPTION SUBJECT GROUPS

- ***Sciences*** Physics, Chemistry or Biology
- ***Humanities*** Geography or History
- ***Mathematics*** Advanced Mathematics or Computer Studies
- ***Aesthetics*** Art, Music or MEP
- ***Other Languages*** Foreign Languages (e.g. French, German) or Indian Minority Languages (e.g. Punjabi, Bengali)

Apart from academic subjects, every student is also given instruction in Pastoral Care and Career Guidance (PCCG), Physical Education (PE) and Disciplines of Thought (DoT). In addition, they are expected to complete a Collaborative Study Options (CSO) on a topic of their interest.

Secondary 3 IP Subject Options (2026 - 2027)

	Option A	Option B	Option C	Option D	Option E	Option A (SBGE)	Option E (SBGE)
1	Language Arts	Language Arts	Language Arts	Language Arts	Language Arts	Language Arts	Language Arts
2	MT/HMT	MT/HMT	MT/HMT	MT/HMT	MT/HMT	MT/HMT	MT/HMT
3	International Studies	International Studies	International Studies	International Studies	International Studies	International Studies	International Studies
4	Core Mathematics	Core Mathematics	Core Mathematics	Core Mathematics	Core Mathematics	Core Mathematics	Core Mathematics
5	Advanced Mathematics	Advanced Mathematics	Advanced Mathematics	Advanced Mathematics	Advanced Mathematics	Advanced Mathematics	Advanced Mathematics
6	Chemistry	Chemistry	Chemistry	Chemistry	Chemistry	Chemistry	Chemistry
7*	Physics	Physics	Physics	Biology	Physics	Physics	Physics
8*	History	Geography	Computer Studies	History	Biology	History	Biology

***Non-compulsory subjects**

1. Students can choose a maximum of 3 options and are strongly advised to make full use of all the options. The choices should be listed in the order of preference.
2. Students who are officially exempted from offering Mother Tongue will not be required to offer MT/HMT.
3. Class size is up to a maximum of 35 students. If there are more than 35 students who opt for a particular subject combination, allocation will then be based on academic merit.
4. In order to select Option E, students must have a minimum overall score of 225 marks for Enriched Mathematics, Physical Sciences and Life Sciences.
5. Students can offer Higher Music (only for MEP students) or Visual Arts in place of any of the non-compulsory subjects (*). Classes are held after curriculum hours in the afternoon.
6. All MEP students must continue to offer Higher Music as a subject. Students who wish to continue with 3rd Language will not need to write in. Students who wish to offer Visual Arts as a 9th subject will be required to write to the school.
7. Option A (SBGE) and E (SBGE) are available for offer to SBGE students ONLY.
8. Students who are sitting for the ACS (Accelerated Class for Science) selection test will have to offer Option E.
9. Students who are sitting for the ACH (Accelerated Class for Humanities) selection test will have to offer either Option A or Option B.
10. Computer Studies cannot be used to replace a science subject when computing for IP aggregate points.

LANGUAGE ARTS

(Year 3 & 4 Integrated Programme)

INTRODUCTION

The Year 3 and 4 Language Arts Programme offered at ACS (Independent) is designed to provide a rigorous preparation for Group 1: Language A (Studies in Language and Literature) at the Higher and Standard Levels in the International Baccalaureate Diploma Programme.

The aims of the course are to develop the ability of students to:

- develop an understanding of the concept of text types as an **Empathetic and Global Thinker** so as to understand the purpose of communication in context and to be able to use language in an appropriate manner, demonstrated in speech and writing
- deal explicitly with grammar in relation to text types and be a **Discerning Reader** in terms of how language at the micro-level affects language at the macro-level and subsequently media and ideology
- express a personal empathetic appreciation of literature as a **Critical and Discerning Reader** and develop a discernment to the techniques involved in literary criticism
- engage as **Creative Meaning-Makers** on a range of literary works of different periods, genres, style and contexts in preparation for the range of texts that they will encounter at a higher level of education. This includes the engagement and application of the **digital** medium
- broaden the learner's perception through the study of works from other cultures to develop the **Empathetic and Global Thinker** who has an understanding and appreciation of different writing techniques and the subtleties of the language
- develop the **Discerning Reader** who is also a **Convincing Communicator** in terms of his ability to engage in close, detailed literary analysis of the written text. Through the process develop the ability to evaluate the truthfulness of the information.
- promote in learners an enjoyment of, and lifelong interest in literature and a love for the language

Critical thinking, National Education and Affective Education are constantly brought to the fore during the teaching of the syllabus. In addition, the course introduces students to the attributes of the IB learner profile which promote academic rigor, self-directed learning and the establishing of a personal value system leading to international-mindedness. Apart from offering opportunities for creative and discursive writing, the genres of text encourage the development of close analysis, empathy and critical appreciation.

COURSE OUTLINE

YEAR 3 Integrated Programme

The Nature of Literature

- What is Literature?
- Form and Genre (An Overview)
- The elements of storytelling
- Setting: Review and introduce function of setting
- Themes: Explore themes
- Characters: Introduce the concept of characterisation in relation to plot, theme and writer's intention
- Role and functions of characters: Protagonist(s), antagonist(s), minor characters, relationship between characters, development of characters, characterisation techniques (speech content, language, action, behaviour, other characters' views).

Novel / Short Stories

- Form and Genre (An Overview)
- Prose: Introduction to short stories
- Close study of text – Linking to Man and His World
- Elements of short stories and literary techniques
- A detailed study of set text: *Hook and Eye: Stories from the Margins*

Poetry

- Reinforcement of understanding of form and elements of poetry
- Analysis of literary devices used to manifest meaning through words
- Comparison of themes across poems
- Examine different poetry from various countries
- Different poems from different eras. A detailed study of selected poems from the set text: *Poetry Moves*

Guided Literary Analysis of Poetry and Prose

- Development of awareness of different types of poetry (free verse vs structured)
- Development of understanding of point of view and its effect of writing
- Development of understanding of mood and atmosphere and how they are created and their impact

- Development of understanding of style such as tension, suspense, irony, satire, tone and imagery and how style informs meaning

Communications Skills
Language in Context

- Text types (writing for a variety of purposes)
- Raising language awareness for text, audience and culture.

Listening

- The function of listening in communication and the attributes of good listening
- The need to listen before speaking
- Assessing audience perception

Speaking

- When to speak: discerning context, audience and purpose for specific speech register
- Dynamics of speech in communication in both a formal or informal setting

Public Speaking

- Reading skills such as intonation and pacing
- Public speaking in the formal context of individual speech and group presentation
- Presentation with technological aids for visual and aural impact (e.g Powerpoint, Video Conferencing)

Writing

- Stages in the writing process
- Critical Thinking and Presenting an argument
- Writing to Persuade/Respond/Compare
- Writing to Analyse/Explicate/Evaluate
- Information Management and Organisational skills
- Incorporation of generative artificial intelligence in the crafting of writing tasks in preparation for the future of work

ASSESSMENT MODES

Continual Assessment:

- Individual Oral Presentation.
- Guided Literary Analysis (Prose)
- Coursework

Semestral Assessment:

- Guided Literary Analysis (Prose)
- Essay writing & literary analysis of Set Texts

COURSE OUTLINE

YEAR 4 Integrated Programme

Adopting a spiral curriculum design, the Year 4 syllabus uses the same texts as in Year 3 (with the addition of the play *The Tragedy of Macbeth*) and revisits the breadth of literary and language skills taught for added depth and skill mastery.

Detailed study of texts of different literary genres

Stories & Experiences

- Study of dramatic conventions and literary themes in *The Tragedy of Macbeth* by William Shakespeare
- Study of stories about different segments of Singapore society with the aim of seeking to understand the complexities and nuances of our local experiences in a globalised world. Focus will be on universal experiences such as family, childhood, identity and more sensitive themes like the plight of asylum seekers and refugees, immigrant experiences, modern-day slavery and the effects of capitalism. It is hoped that these stories will prompt deeper, more empathetic, and layered connections with multiple others in our community and the world. Text: *Hook and Eye: Stories from the Margins*

Appreciation of poems and prose passages:

- Mastery of understanding of point of view and its effect on writing
- Mastery of understanding of mood and atmosphere and how it is created and its impact
- Mastery of understanding of literary devices such as tension, suspense, irony, satire, tone and imagery
- Mastery of understanding of how meaning is achieved through the confluence of content and style

ASSESSMENT MODES

Continual Assessment:

- Individual Oral Commentary and Inquiry Dialogue (Drama/Poetry).
- Guided Literary Analysis (Prose/Poem)
- Coursework (Text Types)

Semestral Assessment:

- Guided Literary Analysis (Prose/Poem)
- Essay writing & literary analysis of Set Texts

MOTHER TONGUE LANGUAGES – CHINESE/MALAY/TAMIL

INTRODUCTION

The Mother Tongue programme is aimed at enhancing students' listening, speaking, reading and writing skills. It also aims at enhancing students' interest in the learning of Mother Tongue and their ability to appreciate the beauty and richness of their own culture and values. Teaching materials may be drawn from a much wider range of sources depending on the topics being covered, so as to enable the students to use the language more effectively in different situations and for various purposes.

The objectives of the programme are to:

- develop students' ability to communicate effectively in speech and in writing within a range of contexts.
- provide students with a sound linguistic base for further study, work and leisure.
- offer insights into the culture of the language.

COURSE OUTLINE

The syllabus includes:

Year 3 – Year 4

- Literary Texts
  The current MOE syllabus which includes:
  - Articles by both local and foreign writers
  - Culture, Festivals and Customs
  - Contemporary Prose
  - Contributions of early immigrants etc

Non-literary texts such as newspaper articles and reports will also be covered. In addition, the students will be further enriched through:

- General Studies:
  - Local current affairs and important issues
  - Culture and Values
  - International current affairs and important issues

National Education, Thinking Skills and Information Technology will be integrated into the topics as well.

ASSESSMENT

Students are assessed based on a great deal of oral works as well as a variety of written assignments which will include literary and discursive essays, commentaries and creative writing.

Students will be assessed in three areas:

Paper 1: Students are required to complete one essay (minimum 300 words) and one email-writing (minimum 150 words). (30%)

Paper 2: Students will be tested on a variety of text types. Questions include word correction, cloze passage, multiple choice. and comprehension. (35%)

Paper 3: Assessment of Oral and Listening Comprehension skills. The oral includes reading of a short passage, followed by a general discussion based on a video. (35%)

Other modes of assessment: Assignments, Timed Practice, and Weighted Assessment.

At the end of Year 3

1. Internal Assessment

Final Exam	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 30 mins
Paper 3	45 mins

At the end of Year 4

1. Internal Assessment

Preliminary Exam	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 30 mins
Paper 3	45 mins

2. External Assessment

SEC MTL Exam – September	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 30 mins
Paper 3	45 mins

MOTHER TONGUE LANGUAGES
- HIGHER CHINESE/HIGHER MALAY/HIGHER TAMIL

INTRODUCTION

The Higher Mother Tongue programme is aimed at further enhancing students' listening, speaking, reading, and writing skills. It also aims at enhancing students' ability to analyse and appreciate literary works and inculcate in them an appreciation for the beauty of literary works and life.

Students must be proficient in their Mother Tongue as the programme is rather demanding and great emphasis is placed on in-depth discussion and analysis of literary works.

The objectives of the programme are to:

- enhance students' ability of expression in both oral and written communication.
- offer insights into the culture of the language.
- appreciate the beauty of the language used in literature.
- develop students' thinking skills and creativity.
- promote the use of the language for personal growth, development and relationship with the society/international community.

COURSE OUTLINE

The syllabus includes:

Year 3 – Year 4 IP

- Literary Texts
  The current MOE syllabus which includes:
  - Articles by both local and foreign writers
  - Culture, Festivals and Customs
  - Contemporary Prose
  - Contributions of early immigrants etc

Non-literary texts such as newspaper articles and reports will also be covered. In addition, the students will be further enriched through:

- General Studies:
  - Local current affairs and important issues
  - Culture and Values
  - International current affairs and important issues
- Appreciation of Poetry and Prose
- Teaching of writing skills
- Project Works

National Education, Thinking Skills and Information Technology will be integrated into the topics as well.

ASSESSMENT

Students are assessed on oral work as well as a variety of written assignments which will include literary and discursive essays, commentaries and creative writing.

Students will be assessed in three areas

Paper 1: Students are required to complete one essay (minimum 500 words) and one email or blog (minimum 220 words). (40%)

Paper 2: Students will be tested on a variety of text types. Questions include cloze passage, sentence correction, multiple choice and comprehension. (40%)

Paper 3: Assessment of oral skills include oral presentations based on a video followed by a discussion based on the presentation. (20%)

Other modes of assessment: Assignments, Timed Practice and Weighted Assessment.

At the end of Year 3 IP

Internal Assessment

Final Exam (Higher Mother Tongue)	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 45 mins
Paper 3	20 mins

At the end of Year 4 IP

1. Internal Assessment

Preliminary Exam (Higher Mother Tongue)	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 45 mins
Paper 3	20 mins

2. External Assessment

SEC HMT Exam – September	**Duration**
Paper 1	2 hrs
Paper 2	1 hr 45 mins
Paper 3	20 mins

INTERNATIONAL STUDIES

Introduction

In the history of the human race, Man's behaviour has shown itself to be gregarious, adaptive, and expansionist. This two-year course is a study of humanity through selected case studies from Singapore, Southeast Asia, East Asia, Europe and America. It explores how societies progressed and interacted with other societies from across the globe due to networks of trade and civilisational interactions.

In the first year, students will be provided with an array of contemporary issues from social, political, economic, ethical and cultural domains which pose significant challenges to the development of the different states in Southeast Asia, and its impact on ASEAN's development as an important regional player. The syllabus hopes to raise awareness, address misconceptions, bring new insights and perspectives leading to a richer understanding of Singapore's neighbours.

In the second year, the focus is on the development of Singapore from post WWII to the present day. Students will also undertake case studies relating to global political challenges presented by environment, culture, migration, security and economic issues.

It is crucial in our view of the future that we be retrospective in our understanding of humankind. This will enable us to understand the behaviour and motivations that have written our history thus far. The content of this course deliberately includes elements of human geography, social interaction, political and religious thought, economic theory, historical links and the darker and destructive sides of human conflict and military power. These elements are intertwined to illustrate the reach of human endeavour and the global inter-connections which make each society part of the human world. By providing access to the grand tapestry of humanity, International Studies hopes to help each student find greater understanding and depth in the way he views his position and value to society and the world as a whole.

Rationale for International Studies

International Studies aim to develop **international mindedness** among young people who are knowledgeable, open-minded and thinkers who will be willing to help create a better and more peaceful world through intercultural understanding and respect.

The course is designed as an integrated curriculum that draws on the various strands of the Humanities. It contains elements of Geography, History, Economics, Sociology, Current Affairs, Theory of Knowledge, and Political Science, and aims to provide a point of access to the Humanities and Social Sciences, but not to supersede these disciplines. Interdisciplinary learning is crucial in the understanding of complex concepts and big issues.

The curriculum, especially in the second year, contains issues related to Singapore. This aims to instil in students a sense of national identity as well as a global awareness, as they develop the ability to make informed and reasoned decisions as citizens of a multi-cultural and democratic society.

Curriculum goals

1) Content

At the end of the course, students should be able to:

- Understand the global interconnectedness and interdependence among world societies
- Evaluate the factors leading to the development of societies in Southeast Asia, East Asia and Europe accounting for successes or failures
- Understand issues that affect socio-economic development, the governance and future of Singapore.

2) Skills and Values

At the end of the course, the students should be able to:

- Develop an inquisitive, critical, innovative and reflective mind by asking useful questions for understanding the past and envisaging possible and preferred futures.
- Compare and contrast how different societies deal with specific challenges.
- Develop into citizens who has empathy towards others and will participate responsibly and sensibly in a multi-cultural and global society

3. Course Syllabus

IP Year 3

1) Social Issues
   - Introduction to ASEAN
   - Poverty in the Philippines
   - Demographic challenges in Indonesia

2) Political Issues
   - Vietnam-China: Cooperation and Conflict
   - Military rule in Myanmar

3) Environmental Issues
   - Brunei and oil dependency
   - Damming controversy in Laos

4) Economics
   - Cambodia and digital currency
   - Malaysia's tech push

5) Cultural
   - Singapore's approaches to Identity
   - Management of ethnic minorities in Thailand

6) Hot Topic
   - Free and Open Indo-Pacific strategy and its impact on ASEAN

IP Year 4

1) Introduction
   - Unity and division in the USA and its impact on Singapore

2) Unity
   - Singapore's Health care system

3) Prosperity
   - Climate change and renewable energy
   - Singapore's partnership with Indonesia
   - Singapore's partnership with Africa
   - China as a future superpower?

4) Equality
   - Income inequality in Singapore

5) Happiness
   - Migration and integration in Singapore
   - Education in Singapore

6) Security
   - Rise of India and its impact on Singapore
   - China-USA war over Taiwan and impact on Singapore

Assessment (Examination)

Duration: 1 hour 30 minutes

Section A: (15 marks)
One document-based case study (DBQ)

Section B: (15 marks)
Hypothesis based essay questions (HBQ)
Candidates answer 1 out of 2 questions set

HISTORY

INTRODUCTION

The study of History from an international perspective is increasingly important today. In the contemporary context, one of globalisation and technological development, different cultures and societies are increasingly in contact and interdependent. Now, more than ever, there is a need for an understanding of the present as well as the past.

Integrated Programme History for Years 3 and 4 is a two-year world history course that involves an exciting engagement with the past. As an exploratory subject, it fosters a sense of inquiry. It is also an interpretative discipline, allowing opportunity for engagement with multiple perspectives and plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today. It is disciplinary based and thus focused upon key historical concepts such as change and continuity, causation, consequence, significance and perspectives.

The curriculum is designed to provide a multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural aspects. The curriculum allows students to think historically and to develop historical skills in addition to gaining historical knowledge. It emphasizes the importance of the development of the skills of critical thinking, in thinking about the ways in which historical knowledge is produced, as well as the uses and abuses of historical narratives. As such, the curriculum involves a critical interpretation and understanding of the past, and the discourses that shape it.

A key aim of Integrated Programme History for Years 3 and 4 is the development of international mindedness among the students. International mindedness, which is exemplified through the promotion of a global, intercultural understanding, is developed through an exploration of multiple perspectives. Additionally, students would be exposed to case studies and examples drawn from different regions of the world, allowing for the emergence of a transnational perspective.

CURRICULUM GOALS

Content

By the end of the course, students should be able to:

- Grasp the broad fundamental concepts common to all historical explanations.
- Understand international affairs and the forces that shaped world history.
- Develop international awareness and understanding by promoting empathy for and sensitivity towards different political experiences of people living in diverse places and at different times.
- Appreciate and understand history as a discipline including key historical concepts, the nature and diversity of its sources, methods and interpretations

Skills

By the end of the course, students should be able to:

- Recall, select and deploy relevant historical knowledge and communicate this knowledge in a clear and coherent form.
- Demonstrate understanding of historical terminology and concepts.
- Interpret, analyse and evaluate a wide range of historical sources and their use as evidence.
- Present clear, concise, relevant and well-substantiated analysis and arguments.
- Explain different approaches to, and interpretations of historical events and topics.

CURRICULUM CONTENT

The syllabus is organized around themes, concepts and case-studies.

Year 3 IP

1) **Nationalism, Imperialism and The Origins of World War I (1815 - 1918)**
   - Concert of Europe
   - Nationalism and Imperial Rivalry
   - Origin of the Great War (WWI)
   - Outcomes of World War I
   - Ideologies in the 20th century

2) **Democracy, Dictatorship and Totalitarianism in Europe: Germany and the Rule of Adolf Hitler (1918 - 1945)**
   - Problems in Weimar Republic
   - Concepts of Fascism and Nazism
   - The Great Depression
   - Hitler's Rise to Power
   - Features of Totalitarianism in Nazi Germany

3) **Revolutions and Nation-Building: Imperial China to Birth of the Chinese Republic (1839 - 1912)**
   - The Decline of Qing China
   - European Encroachment in 1800s
   - Rebellions and Revolutions
   - Sun Yat Sen's ideals and the birth of the Chinese Republic

Year 4 IP

4) **The Second World War in Europe (1937 - 1945)**
   - Legacy of Paris Peace Conference
   - Weakness of League of Nations
   - Japanese Aggression in the East
   - Road to World War II in Europe
   - Road to World War II in Asia Pacific

5) **The Cold War in the West and The Demise of USSR (1945 - 1991)**
   - Origins of Cold War in Europe
   - Cold War goes Global
   - Rapprochement and the end of Détente
   - Problems in the USSR
   - The End of Cold War

6) **Rise of the Peoples' Republic of China in Asia (1945 - 1997)**
   - Chinese Civil War
   - Birth of Peoples' Republic and the Taiwan Issue
   - Mao Zedong 's China
   - China in the Cold War: Korea and Vietnam
   - Deng Xiaoping's China

ASSESSMENT MODES

Assessment for the IP History course is dynamic and non-conventional. It comprises of coursework (in the form of research projects, portfolios, reflections, historical investigation and oral presentations) with written papers for the examinations.

Duration: 1 hour 30 min

Year 3 Format:
Section A: Document-based Questions (15 m)
Section B: Essay Questions (12 m)

Year 4 Format:
Section A: Document-based Questions (15 m)
Section B: Essay Questions (15 m)

GEOGRAPHY (Upper Secondary IP)

INTRODUCTION

- The IP Geography syllabus is designed as a two-year course. It is broad-based and will prepare students for the IB Diploma Programme.
- Critical geographical, analytical and interpretation skills will be infused into the entire syllabus.

AIMS OF GEOGRAPHY

- Acquire knowledge of the characteristics, distribution and processes of physical and human phenomena
- Develop an understanding of the processes affecting the physical and human environments
- Provide an understanding of the dynamic and changing outcomes resulting from physical-human interactions at local, regional and global scales
- Develop skills in acquiring, communicating, applying and evaluating geographical knowledge
- Develop an appreciation of the dynamic nature of geography over time and space
- Gain geographical insights and global awareness into future challenges through the study of current issues and their management
- Make informed judgements and sound decisions through the analysis, synthesis and evaluation of geographical information

VALUES

Through their geographical training, students should develop:

- A sense of appreciation and responsibility for the quality of the environment and the desirability of sustainable development at local, regional and global scales
- Respect and sensitivity towards the attitudes, values and beliefs of people in different human environments
- An ability to analyse, evaluate and make judgements on perspectives, values and attitudes in the use and management of resources
- Personal perspectives, values and attitudes in relation to geographical issues
- An awareness of the vulnerabilities, constraints and challenges faced by the local, regional and global communities

COURSE OUTLINE

Y3 IP: Foundations Of Physical and Human Geography

1. Weather and Climate
   - Global Warming
2. Geography in Everyday Life (GIEL)
   - Sense of place
   - Sustainability
3. Tectonic Hazards
   - Landforms associated with tectonic phenomena
   - Preparing and responding to earthquakes

Y4 IP: Foundations of Human Geography

1. Urban Processes
   - Growth and impact of settlements and cities
2. Global Tourism
   - Nature and impact of tourism
3. Singapore
   - Small Island City-State
   - Opportunities and Challenges
   - Sustainable and Resilient Singapore

Y3 & Y4 ASSESSMENT

- Term 2: Common Test (15%)
- Term 3: Coursework (15%)
- Term 4: Final Exam (70%)

The exam paper is 1 hour 30 minutes.

It consists of structured questions (32 marks) and open-ended questions (18 marks).

CORE MATHEMATICS AND ADVANCED MATHEMATICS

The IP Mathematics Programme caters to different groups of students with varying background experiences in mathematics and varying aspirations. Core Mathematics and Advanced Mathematics are designed to provide a background of mathematical thought and technical ability for students progressing to further studies in IB courses such as Mathematics at Higher and Standard Level and Computer Science. The Core syllabus demands understanding of basic mathematical concepts and their applications, together with an ability to show this by clear expression and careful reasoning whereas the Advanced syllabus prepares students who are inclined to pursue courses relating to science or mathematics-based disciplines. Throughout the two-year programme, emphasis will be placed on investigational and problem-solving tasks intended to increase students' understanding of mathematical concepts and processes, and develop a wider appreciation of mathematics.

CURRICULUM GOALS

The syllabus aims to enable all students to:

- develop an understanding of the concepts, principles and nature of mathematics
- develop logical and creative thinking, and patience and persistence in problem solving to instil confidence in using mathematics
- appreciate how developments in technology can enhance the mathematical experience;
- develop the confidence to apply their mathematical skills and communicate mathematics clearly and concisely in a variety of contexts;
- develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power
- independently and collaboratively extend their understanding of mathematics.

CORE MATHEMATICS SYLLABUS

Number and algebra allow us to represent patterns, show equivalencies and make generalizations which enable us to model real-world situations.

- Simultaneous equations
- Surds and Indices
- Quadratic Expressions and Equations
- Linear & Quadratic Inequalities
- Set Theory
- Number Patterns
- Real World Applications

Functions: Mathematical models are depictions of real-life events using expressions, equations or graphs while a function is defined as a relation or expression involving one or more variables.

- Graphs of functions
- Solving equations, both graphically and analytically

Geometry and trigonometry allow us to quantify the physical world, enhancing our spatial awareness in two and three dimensions.

- Solutions of triangles
- Sine and Cosine Rules
- Trigonometry in three dimensions
- Circular Measure
- Mensuration
- Coordinate geometry
- Linear Law
- Similarity and Congruency
- Vectors in two dimensions and applications
- Circle Theorems

Statistics is concerned with the collection, analysis and interpretation of data. Statistical representations and measures allow us to represent data in many different forms to aid interpretation. Probability enables us to quantify the likelihood of events occurring and so evaluate risk. Both statistics and probability provide important representations which enable us to make predictions, valid comparisons and informed decisions.

- Frequency distribution
- Measure of Central Tendency
- Cumulative Frequency Distribution
- Measures of dispersion
- Data representation and interpretation
- Probability

ADVANCED MATHEMATICS SYLLABUS

Number and algebra Algebra is an abstraction of numerical concepts and employs variables which allow us to solve mathematical problems.

- Partial Fractions
- Binomial Theorem

Functions: Creating different representations of functions to model the relationships between variables, visually and symbolically as graphs, equations and tables represents different ways to communicate mathematical ideas.

- Relations and Functions
- Composite, inverse and modulus functions
- Polynomials and Partial Fractions
- Exponential & Logarithmic Functions

- Use of technology to solve a variety of equations, including those where there is no appropriate analytic approach and those that relate to real-life situations.

Geometry and trigonometry provide us with the tools for analysis, measurement and transformation of quantities, movements and relationships.

- Basic Graphical Transformations
- Trigonometric Functions, Identities & Equations
- Further Trigonometry

Calculus describes rates of change between two variables and the accumulation of limiting areas. Understanding these rates of change and accumulations allow us to model, interpret and analyze real world problems and situations. This helps us to understand the behaviour of functions and allows us to interpret the features of their graphs.

- Differentiation
- Integration
- Area under a curve
- Kinematics

YEAR 3 ASSESSMENT
Core Mathematics and Advanced Mathematics
Year 3 Weighted Assessment (30%)

The assessment is intended to provide students with opportunities to increase their understanding of mathematical concepts and processes, and to develop a wider appreciation of mathematics.

Students are provided with the opportunities to learn through mathematical inquiry and apply critical thinking and problem-solving skills.

They will be engaged in mathematical modelling process to make sense of the real world. This process will require critical reflection.

Students are expected to use technology accurately, appropriately and efficiently to solve problems.

Core Mathematics and Advanced Mathematics
Y3 Final Examination (70%)

	Paper 1	Paper 2
Duration	1 ½ h	1 ½ h
Marks	80 marks (50%)	80 marks (50%) Use of GDC for Advanced Matheamtics

YEAR 4 ASSESSMENT
Y4 Core Mathematics Mathematical Exploration (ME) 30%

ME allows students to demonstrate the application of their skills and knowledge and to pursue their personal interests without the time limitations and other constraints that are associated with written examinations.

Students are expected to demonstrate mathematical communication with accompanying commentary, good mathematical writing and thoughtful reflection.

The exploration is to:

- develop students' personal insight into the nature of mathematics and to develop their ability to ask their own questions about mathematics
- provide opportunities for students to complete a piece of mathematical work over an extended period of time
- enable students to experience the satisfaction of applying mathematical processes independently
- provide students with the opportunity to experience for themselves the beauty, power and usefulness of mathematics
- encourage students, where appropriate, to discover, use and appreciate the power of technology as a mathematical tool
- provide opportunities for students to show, with confidence, how they have developed mathematically.

Y4 Advanced Mathematics Weighted Assessment (30%)

Students are expected to

- apply concepts and skills learnt to solve problems in real-world context through mathematical investigation and modelling
- communicate their reasoning and connections through various mathematical tasks and activities
- develop metacognitive awareness and strategies through reflective discourse
- appreciate the usefulness of mathematics in solving problems in real-world context.
- use technology accurately, appropriately and efficiently in the investigation and modelling.

Core Mathematics and Advanced Mathematics
Y4 Final Examination (70%)

	Paper 1	Paper 2
Duration	2 h	2 h
Marks	100 marks (50%)	100 marks (50%) Use of GDC

"The things of this world cannot be made known without a knowledge of mathematics."
Roger Bacon, Scientist, 1214 - 1294

Reference: subject-brief-dp-math-analysis-and-approaches-en.pdf (ibo.org)

COMPUTER STUDIES

INTRODUCTION

Computer Studies involves solving problems using computers. Therefore, a full understanding of logical problem solving is required as well as a detailed knowledge of how computers operate.
Successful computerized systems result from a clear understanding of the problem to be solved;
appropriate use of hardware based on a detailed knowledge of its capabilities and limitations; efficient use of algorithms and data structures; thorough and logical design; careful testing and integration of all these components. Students will be guided by problem solving strategies that will be continually reinforced in their coursework.

CURRICULUM GOALS

The course will enable students to:

- develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP subjects
- acquire and apply a body of knowledge, methods, tools and techniques that characterize computer science
- analyze and evaluate solutions developed through computational thinking in a range of contexts
- approach unfamiliar situations with creativity and resilience
- use computational thinking to design and implement solutions to local and global problems
- develop an appreciation of the possibilities and limitations of computer science
- evaluate the impact of emerging technologies in computer science

COURSE OUTLINE

YEAR 3 IP

1. Computer Fundamentals
2. Network Fundamentals
3. Machine learning
4. Computational Thinking in Python
5. Python and Data Analytics
6. Fundamentals of Database Management Systems

YEAR 4 IP

1. Operating systems and control systems
2. Network security
3. Databases and Normalization
4. More on Machine Learning
5. Flutter and App development.

ASSESSMENT

Year 3

Assessment Modes	Weighting
Term 2 Common Test	15%
Term 3 Coursework Documentation & Programme	15%
Term 4 Final Examination	70%

Year 4

Assessment Modes	Weighting
Term 2 Common Test	15%
Term 3 Coursework Documentation & Programme	15%
Term 4 Final Examination	70%

Note:
When computing the total aggregate points for promotion criteria at the end of Year 3 and 4, please note that Computer Studies cannot be used in place of a Science subject. Please refer to the Promotion Criteria in the Student's Handbook for further details.

PHYSICS

INTRODUCTION

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself from the very smallest particles – currently accepted as quarks, which may be truly fundamental – to the vast distances between galaxies. Essentially, it is the study of the four fundamental forces or interactions in the universe. Starting with the *What*, we then unpack these interactions through measurements to understand the *How* and finally making sense with the *Why*.

The physics syllabuses aim to develop in students the understanding, skills, ethics, and attitudes relevant to the Practices Of Science (POS).

With the advent of 21st Century Competencies, there is a need to develop increasing civic literacy, global awareness, cross-cultural skills, critical thinking, inventive thinking, communication, collaboration, and information skills.

Beyond these, there is also now a broad-based approach to learning physics with the introduction of *disciplinary ideas*. The primary motivators of such an approach are a clear expression of overarching *ideas*, *ideas* that allow students to develop a coherent view and understanding of scientific knowledge, *ideas* that help facilitate the application and transfer of learning to novel situations, *ideas* that are revisited throughout the syllabus, *ideas* that form a foundation for future education beyond the schooling years.

To meet all these rapid changes, there will be a palpable shift towards a more holistic approach than before in the teaching of science comprising of *learning by inquiry* with students as inquirers and teachers as facilitators, *blended learning* with technological tools, enhancing and deepening *learning experiences* through an *inductive & deductive approach* towards theory and practical work. There will also be a more qualitative approach to assessment, utilising *assessment for learning* and *assessment of knowledge*.

Students are required to understand concepts and apply them when solving authentic, real-world problems. *Communication and information skills* will allow students to make sense of the vast glossary of physics terms used in assessment. Command terms such as *Explain, Suggest,* or *Predict* require students to analyse given contexts, dissect them, and make sense of them. While physics concepts that students are required to learn are clearly stipulated in the syllabus, no syllabus can limit the application of these concepts. Hence students need to have a flexible and analytical mind to embrace the *disciplinary ideas* to do well in this subject.

The IP Physics course provides the necessary scaffolding for students, preparing them for the IBDP Physics course, both in content and cognitive skills.

In addition, a multi-disciplinary, thematic approach for integrated learning (*collaboration skills*) is present in the coursework. Students will be challenged to enhance their IP Physics experience by embarking on projects involving current issues such as sustainability, green buildings and nuclear energy.

CURRICULUM GOALS

The goals of the Year 3 and 4 IP Physics course are that students should be able to

1. observe, think logically, understand and use scientific methods and to communicate effectively;
2. develop a reasonably broad perspective of physics, leading to an understanding of the physical environment, and of Man's interaction with it;
3. understand the basic principles and apply *disciplinary ideas* to explain, analyze and solve problems in the physical world.
4. appreciate physics as a human endeavour, thereby enriching their own experience of life;
5. acquire an attitude of curiosity and inquisitiveness, and be willing to take calculated risks, explore and experiment;
6. be autonomous and discerning learners who are able to cope with ambiguity, and who view learning as a lifelong process;
7. achieve a higher level of scientific literacy through deeper understanding of concepts in physics, application of their knowledge and skills in solving problems, and an awareness of their responsibility in utilising the knowledge gained in making informed and just decisions about science related issues of personal, social, and global consequence;
8. develop a heightened sense of responsibility and awareness of moral and ethical issues; *Values, Ethics and Attitude (VEA)* in Science;
9. develop their metacognitive ability and critically reflect on their own learning in order to improve their learning of content knowledge, and to examine their attitude and values

COURSE OUTLINE

Year 3 IP

I. Measurement
- Physical Quantities, Units and Measurement

II. Newtonian Mechanics
- Kinematics
- Dynamics I: Mass, Weight and Density
- Dynamics II: Forces
- Turning Effect of Forces
- Pressure
- Energy, Work and Power

III. Thermal Physics
- Kinetic Model of Matter
- Thermal Processes
- Thermal Properties of Matter

IV. Waves
- General Wave Properties
- Sound
- Electromagnetic Spectrum

Year 4IP

IV. Waves
- Light

V. Electricity and Magnetism
- Static Electricity
- Current Electricity
- D.C. Circuits
- Practical Electricity
- Magnetism
- Electromagnetism
- Electromagnetic Induction

VI. Radioactivity
- Radioactivity

VII. Additional Topics
- Resolving of Vectors

PRACTICAL WORK

Experimental investigations are integral to the learning of sciences. Students are introduced to the design of experiments, making of relevant observations, collection of data, analysis of data and formulation of appropriate conclusions of their experiments. This takes the form of a series of practical activities in the laboratories.

ASSESSMENT MODES

Assessment in the IP Physics course will comprise of practical skills, course work and examinations. The table below summarizes the student assessment modes for both years.

Year 3

Assessment Modes	Weighting
Term 1 Class Test	0%
Term 2 & 3 Common Test / Coursework	30%
Term 4 Year-End Examination	70%

Year 4

Assessment Modes	Weighting
Term 1 Class Test	0%
Term 2 & 3 Common Test / Coursework	30%
Term 4 Year-End Examination	70%

ACCELERATED CLASS FOR SCIENCE (ACS)

The ACS is a differentiated 2-year programme offered by ACS (Independent) for Year 3 and 4 students who have great interest in the sciences and display special talents. This programme requires students to take Physics, Chemistry and Biology.

PREREQUISITES FOR IBDP PHYSICS

The prerequisites for students to do IBDP Physics in Year 5 and 6 are
- Standard Level (SL) – students must obtain at least a pass (Grade 4) in Year 4 IP Physics
- Higher Level (HL) – students must obtain at least a Grade 6 in Year 4 IP Physics

IP Chemistry

INTRODUCTION

Chemistry is the central science which examines, describes and explains interactions between matter and energy. Chemical principles lie behind the physical environment in which we live, and some understanding of chemistry is essential preparation for studies in the life sciences. The study of chemistry thus serves two roles – preparation for courses in other sciences as well as preparation for a career or higher academic studies, especially medicine, dentistry, pharmacy and pharmaceutical sciences, nanoscience, nursing, food science and technology.

Chemistry is closely related to the other natural sciences and, in a sense, unifies them. As an empirical study of the world of substances and their transformations, it traces its descent from the Egyptian, Greek and Arabic philosophers of earlier times. Chemistry emerges as a full-fledged science in the 'long' 19th century, that period of change between American Revolution of 1776 and the First World War of 1914. The first true chemists called themselves natural philosophers, believing that chemical principles showed the underlying truth of the universe.

Chemistry remains one of the most popular subjects at Anglo-Chinese School (Independent) over the years. As the subject has evolved over the decades to one involving concepts mastery and logical thinking, a good grade in physical science, life science and mathematics at the end of Year 2 is mandatory if a student intends to offer the subject at IP level.

The ACS(I) Year 3 & 4 IP Chemistry Course aims to induct ACSians into the thought processes involved in the study of this central science. Emphasis is placed on presenting the core concepts of chemistry in ways which emphasizes its practical use and applicability to real-world issues. This lays a strong foundation for further work in chemistry at higher levels, such as the International Baccalaureate Diploma Programme, as well as the use of chemical knowledge in other areas. The challenge of chemistry lies in being able to unify real-world data, experimentation, and theoretical concepts to make sense of physical interactions and solve practical problems.

At the school level, both theory and experiments will be undertaken by all students, which will complement one another naturally, as they do in a wider scientific community. The chemistry course encourages students to develop traditional practical skills and techniques, while at the same time developing interpersonal skills and digital technology skills, which are essential in 21st century endeavours.

CURRICULUM GOALS

The goal of the ACS(I) Year 3 & 4 IP Chemistry Course is that students should be able to

1. demonstrate an understanding of chemical facts and concepts in abstract as well as in their application to chemical processes and techniques;

2. show this understanding through effective communication, making use of correct scientific terminology and appropriate methods of presentation;

3. apply and use data and their knowledge of chemical facts and concepts to solve problems;

4. selectively and rigorously organise, present and analyse data to identify patterns, report trends, draw inferences and make predictions;

5. construct, analyse and evaluate hypotheses, research questions and predictions; scientific methods / techniques and procedures; and scientific explanations;

6. demonstrate the skills of collaboration, perseverance and responsibility appropriate for effective scientific investigation and problem solving;

7. show awareness of the social, economic, technological, ethical and cultural implications of chemistry for the individual, society, the environment and the world.

8. demonstrate the capabilities in Science, Technology, Engineering, Mathematics (STEM) to prepare them for an increasingly complex and uncertain world.

COURSE OUTLINE

Year 3:

The Mind of the Chemist: The Nature of Chemistry, How a Chemist Works, Historical Ideas. Empirical Scientific Method, Research Process;

Matter – Structure and Properties: Atomic Structure, Bonding, VSEPR Theory, Intermolecular Forces, Physical Structure, Physical Properties;

Chemical Calculations: Chemical Formulae, Chemical and Ionic Equations, Relative Masses, the Mole Concept; Stoichiometry;

The Periodic Table: Inorganic Chemistry, Periodic and Group Trends;

Acid-Base Chemistry: Definitions, Reactions of Acids and Bases, Classification and Reactions of Oxides;

Salts & its Preparation: Solubility of Salts, Preparation of Salts;

Qualitative Analysis: Tests for Gases, Cations and Anions, Determination of Unknown Substances;

Oxidation-Reduction Reactions: Definitions, Oxidation States, Oxidising and Reducing Agents.

Year 4:

Rate of Reactions: Methods to Determine Rate, Collision Theory;

Energetics: Enthalpy Changes, Endothermic and Exothermic Reactions; Bond Enthalpy;

Chemical Equilibrium: Dynamic Equilibrium, Position of Equilibrium and Le Chatelier's Principle;

Metals: Physical and Chemical Properties, Reactivity Series;

Electrochemistry: Electrolytic Cells and their Uses, Electrochemical Cells and their Uses, Fuel cells;

Organic Chemistry:

Fuels and Crude Oil;

Nomenclature, Isomerism, Physical and Chemical Properties (including types of reactions) and Uses of the Alkanes, Alkenes, Alcohols, Carboxylic Acids & Esters;

Study of Synthetic and Natural Polymers, Addition Polymerisation & Condensation Polymerisation, Issues relating to Recycling of Plastics and Environmental Concerns;

Environmental Chemistry: Maintaining Air Quality;

Introduction to Spectrophotometry: Use of Spectrophotometer to determine Absorbance, and Obtain Calibration Graph, Beer-Lambert Law.

ASSESSMENT

Assessment for the Year 3 & 4 IP Chemistry Course comprises a combination of class quizzes, assessment of practical skills, coursework, common test and a final assessment in the form of a year-end written examination. The table shown summarises the student assessment modes for both years.

Internal Assessment Modes	Weighting
Term 2 Common Test	15%
Term 3 Practical Test / Coursework	15%
Term 4 End of Year Exam	70%

ACCELERATED CLASS FOR SCIENCE (ACS)

The ACS is a differentiated 2-year programme offered by ACS (Independent) for Year 3 and 4 students who have great interest in the sciences and display special talents. This programme requires students to offer Physics, Chemistry and Biology.

PREREQUISITES FOR IBDP CHEMISTRY

The prerequisites for students to do IBDP Chemistry in Year 5 and 6 are:

- Standard Level (SL) – students must obtain at least a pass in Year 4 IP Chemistry
- Higher Level (HL) – students must obtain at least a Grade 6 in Year 4 IP Chemistry

BIOLOGY – *Years 3 & 4 Integrated Programme*

INTRODUCTION

The use of molecular biology techniques has opened up great opportunities in improving the quality of human lives and the environment in which we live in. However, we also recognize that these techniques when misused will have equally large and undesirable consequences. A thorough understanding of the principles of biology is essential if we are to counter the threats and make the most of the opportunities available. It is therefore crucial that a biology programme promotes this understanding.

In this programme students are encouraged to develop their problem solving, critical thinking and communication skills. At the same time the curriculum also seeks to meet the affective needs of the students.

In ACS (Independent), there is another challenge to promote the concept of internationalism. Living organisms do not recognize national borders. At the same time, we also recognize that living organisms within the biosphere are interdependent. The consequences of human activities will have impacts beyond national borders. Hence international co-operation is essential to protect the biosphere and its treasure trove of biodiversity. The biology curriculum takes into consideration such challenges and it provides students opportunities to examine such issues.

CURRICULUM GOALS

The curriculum goals of the ACS (Independent) Biology Year 3 & 4 IP Course are based on the four pillars of DISC (D-Diversity, I-Interactions, S-Systems and C-Communications). At the end of the course, students should be able to

1. ***demonstrate understanding and appreciation of natural phenomena (WON - Wonders of Nature);***
2. ***apply a body of knowledge within the biological systems and develop a concurrency of learning with other academic disciplines;***
3. ***demonstrate proficiency in the use of the scientific methodology as a way of generating knowledge;***
4. ***effectively use critical thinking skills to analyze, evaluate and synthesize information;***
5. ***appreciate the need for effective collaboration and communication during scientific activities;***
6. ***discuss the moral, ethical, social, economic and environmental implications of using science and technology;***
7. ***show an awareness of the possibilities and limitations associated with the use of science and technology***

YEAR 3 IP BIOLOGY COURSE OUTLINE

Theme I
Cells and The Chemistry of Life

1. Cellular Structure and Organisation
2. Movement of Substances
3. Biological Molecules

Theme II
The Human Body - Maintaining Life

4. Nutrition in Humans
5. Transport in Humans
6. Respiration in Humans
7. Excretion in Humans
8. Homeostasis, Coordination and Response in Humans

YEAR 4 IP BIOLOGY COURSE OUTLINE

Theme II
The Human Body - Maintaining Life

9. Infectious Diseases in Humans

Theme III
Living Together - Plants, Animals and Ecosystems

10. Nutrition and Transport in Flowering Plants
11. Organisms and their Environment

Theme IV
Continuity of Life

12. Molecular Genetics
13. Reproduction
14. Inheritance

ASSESSMENT MODES

Assessment for the Year 3 & 4 IP Biology Course will comprise coursework, assessment of practical skills and written examinations.

The table below summarises the student assessment modes for both years.

Year 3 IP

Internal Assessment Modes	Weighting
Term 2 & 3 Common Test & Coursework	30%
Term 4 Year-End Examination	70%

Year Y4 IP

Internal Assessment Modes	Weighting
Term 2 & 3 Common Test & Coursework	30%
Term 4 Year-End Examination	70%

ACCELERATED CLASS FOR SCIENCE (ACS)

The ACS is a differentiated 2-year programme offered by ACS (Independent) for Year 3 and 4 students who have great interest in the sciences and display special talents. This programme requires students to take Physics, Chemistry and Biology.

PREREQUISITES FOR IBDP BIOLOGY

The prerequisites for students to do IBDP Biology in Year 5 and 6 are

- **Standard Level (SL)** – students must obtain at least a pass in Year 4 IP Biology
- **Higher Level (HL)** – students must obtain at least a Grade 6 in Year 4 IP Biology

HIGHER MUSIC

This subject is <u>only</u> for current Year 2 Music Elective Programme IP students

INTRODUCTION

The Year 3 and 4 IP Higher Music Course aims to allow students to acquire the perceptive, analytical, research and performing or creative compositional skills through the study of different genres and styles. It will allow the students to develop their potential as musicians both personally and collaboratively, in what ever capacity to their maximum ability. To quote a 20th Century composer and musician, Igor Stravinsky (1882-1971);

"I know that twelve notes in each octave and the varieties of rhythm will offer me endless opportunities that all the human genius will never exhaust."

CURRICULUM GOALS

Students should be able to:

- Apply musical skills and knowledge and make connections between Listening, Creating and Performing.
- Develop skills to communicate, collaborate and express musical ideas and understanding.
- Develop an enduring understanding and appreciation of the diverse local and global musical cultures.
- Develop critical and creative thinking in music.
- Become independent learners with inquiring and innovative minds through reflective practices in music.
- Cultivate an informed and life-long appreciation for music and be actively involved in the arts

FOR PRESENT MUSIC ELECTIVE PROGRAMME STUDENTS:

Year 3 IP

- Western Classical Tradition
- Asian Music
- Popular Music
- Music in Multimedia
- Music Creating
- Performing (1st instrument and Ensemble)

Year 4 IP

- Western Classical Tradition
- Asian Music
- Jazz
- Popular Music
- Music in Multimedia
- Music Creating
- Performing (1st instrument and Ensemble)

ASSESSMENT

SEC Higher Music Examination

Paper	Assessment Format	Weightage
Music Studies	Written Examination	40%
Performing	Recital with Reflection Notes	30%
Creating	Coursework with Reflection Notes	30%
Higher Performing	Recital (1st or 2nd instrument or Accompaniment, and Ensemble) and *Viva Voce*	Merit or Distinction Grade

IP VISUAL ART

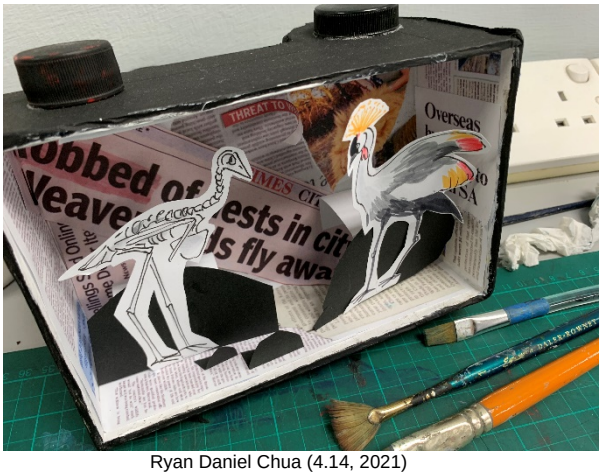
To Look at Things as if They Could Be Otherwise…

What can one learn from the study of art, other than how to draw and paint?

Ryan Daniel Chua (4.14, 2021)

The study of art provides students with the opportunity to give meaning to their experiences by expressing their ideas and feelings in visual and tactile forms. Through direct engagement with both the practical and theoretical aspects of art, students gain a deeper understanding of the role art plays in the development of humankind.

Art encourages and fosters creative, critical, and analytical thinking, as well as sensitivity and powers of observation. As a result, students experience particular enjoyment and aesthetic pleasure, while also building self-confidence



Ryan Daniel Chua (4.14, 2021)

The syllabus has been designed to balance both the necessary breadth and depth of study, offering choice to accommodate a wide range of abilities and resources. Students will reflect on the diversity of what people create and do. The syllabus also recognizes the growing importance of thinking skills and information technology, encouraging the integration of these disciplines to deliver a balanced curriculum.

Ong Tze Herng, Kieran (3.16, 2021)

AIMS

The alms of the syllabus are to:

- Heighten awareness and appreciation of art within historical, cultural, social, and environmental contexts.
- Develop the ability to identify and solve problems creatively in visual and tactile forms.
- Encourage creativity, experimentation, and innovation through the inventive use of materials, techniques, and technologies.
- Develop the technical ability and manipulative skills necessary to competently form, compose and communicate in two and three dimensions using a variety of materials and processes.
- Foster confidence, enthusiasm, and a sense of achievement in the practice of art.
- Cultivate a thoughtful and inquiring mind.
- Acquire a working vocabulary in art.

LEARNING OUTCOMES

Knowledge and skills

Students will be able to:

- understand how history, social trends, and cultural differences impact art practices.
- identify problems and explore a variety of innovative solutions to challenges encountered.
- record from observation and personal experience explore, analyse, organise, develop, and translate ideas into artworks.
- make skillful and creative use of materials, techniques and technologies to generate ideas and create artwork while effectively communicating information about their process and responses to artwork using a relevant working vocabulary.
- Understand and examine the development of art movements, making connections between them.
- Draw links and make comparisons between the developments of various art movements.

Shivesh S/O Sivaperakas (3.10, 2021)

Values and Attitudes

Students will to able to:

- Value the diversity of artworks created in different times and places.
- Enjoy the experiences of artmaking.
- Take risks and seek creative, innovative solutions to problems.
- Be reflective and curious about their environment.
- Work independently and develop confidence in their artistic abilities.

ASSESSMENTS

Ryan Ho Xian Zhi (4.13, 2020)

Students will be assessed on the following components:

Process Journal & Art Piece(s)

a) Reflective documentation of investigation, exploration, and development of selected ideas and media.

b) Artist references and the impact of these artists during the process - Students will reference relevant artists whose work informs and influences their own creative process. They will analyze the impact of these artists' techniques, themes, and concepts on their own artistic development, reflecting on how these influences shape their work throughout the process.

c) At least 3 resolved art pieces each year.

Lee Wai Kin (4.14, 2021)

ANGLO-CHINESE SCHOOL (INDEPENDENT)

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

The IBDP requires a student to offer 6 examination subjects as well as complete the Theory of Knowledge course, write an Extended Essay in one of the chosen subjects and participate in the Creativity, Activity and Service**.**

Students offering the full IB diploma must take 3 Higher Level subjects and 3 Standard Level subjects. They must select 1 subject each from Groups 1 to 5. The 6th subject may be an arts subject from Group 6, or an additional subject from Groups 3 or 4.

	Higher Level	**Standard Level**
Group 1: Studies in Language & Literature	Literature (English) *[Only for HSP students]* Language & Literature (English)	Literature (English) *[Only if a minimum number of students enrol to form a class]* Language & Literature (English)
Group 2: Language acquisition **Language B** **OR** **Language *ab initio****		Chinese B Malay B Tamil B Hindi B Spanish *ab initio*
Group 3: Individuals & Societies	Business Management Economics Geography History	Business Management Economics Geography History
Group 4: Sciences	Biology Chemistry Physics Computer Science	Biology Chemistry Physics
Group 5: Mathematics	Mathematics (Analysis and Approaches)	Mathematics (Analysis and Approaches)
Group 6: The Arts **OR** **A second-choice subject from Groups 3 or 4**	Music Visual Arts	

** To offer Language ab initio, students must have obtained a D7 grade or better for the GCE O-Level Higher MT exam. Otherwise, they will be required to sit for the GCE A-Level H1 MT exam.*