



VICTORIA-CEDAR ALLIANCE

Integrated Programme
Handbook



CONTENTS

Principals' Message	4
VCA Philosophy of Education	6
The 6C Framework	8
Core	10
Chart	38
Connect	42
Choice	48
Challenge	54
Community	62
General Information	66



PRINCIPALS' MESSAGE

Character. Leadership. Empathy. Service.

These represent the core values underlying the Victoria-Cedar Alliance Integrated Programme (VCA IP). Premised on our strong belief to prepare our high-ability students for the 21st century, the VCA graduates will lead with integrity and have empathy and a sense of service to the community. Through a broad-based holistic education that nurtures our students to their full potential, the VCA IP develops every student to be a *Social Innovator, Passionate Learner*.

Designed around the 6C of Core, Chart, Connect, Choice, Challenge and Community, the VCA IP nurtures our students in the cognitive, character, community, physical and aesthetics domains. This holistic development framework is founded on a broad-based **core** curriculum, a robust leadership development programme to help our students **chart** their growth, signature programmes for students to **connect** with and understand more about the community and region around them, multiple electives for greater **choice** of learning, talent pathways for students which **challenge** them intellectually and develop special interests, and joint VCA **community** events for shared learning and networking across the VCA schools.

Supporting the 6C framework are our vibrant and dynamic school environments which encourage students to respect ideas, pursue excellence and celebrate discoveries. Caring and committed teachers inspire our students in their learning, fire their imagination and nurture their passions. In the process, students take responsibility for their own learning, discover their identity, cultivate their personal voice, and develop their commitment to serve the community around them.

With our distinguished school history and experience in educating high-ability learners, we are confident that the VCA IP will nurture the character, leadership, empathy and service orientation of our students at the same time that it delivers a challenging academic curriculum. We encourage you to go through this handbook to gain a deeper understanding of what we offer.

Join us and be a *Social Innovator, Passionate Learner!*



Mr Chow Weisi
Principal
Victoria School

Mrs Chan Kah Hwee
Principal
Cedar Girls'
Secondary School

Mr Jeffrey Low
Principal
Victoria Junior College

VCA PHILOSOPHY OF EDUCATION

The VCA IP curriculum is future-oriented and it encourages students to respect ideas, pursue excellence and celebrate discoveries. The VCA IP demands students' full participation so that individuals may develop their personal voice and identity and stretch their potential.

The VCA IP expects students to take strong ownership of their learning and to seek and create opportunities for their education so that, in the process, students may develop a passion for knowledge and equip themselves with the essential skills and intellectual habits of a lifelong learner.

Education at the VCA IP empowers students to challenge and to lead. The VCA IP requires students to assume responsibility for personal actions and to exercise intellectual and moral courage. The scholarship and collegiality it fosters in its students should lead them, in their later lives, to promote understanding between people and to strive for the betterment of their country and the world.



THE 6C FRAMEWORK

CORE

Character and Citizenship Education
 English Language and Literature
 Mother Tongue Languages
 Third Language (optional)
 Mathematics
 Science
 Humanities
 Art
 Physical Education

CHART

Helmsman Programme

COMMUNITY

Joint VCA Activities

CONNECT

Beyond Borders Programme
 Imagineering Programme

CHOICE

Co-Curricular Activities
 Electives Programme

CHALLENGE

Research Education Programme
 Regional Studies Programme
 Talent Development Programme



Character and Citizenship Development	12
English Language and Literature	14
Mother Tongue Languages	18
Third Language (optional)	24
Mathematics	26
Science	28
Humanities	32
Art	34
Physical Education	36

CORE



CHARACTER AND CITIZENSHIP EDUCATION

The Character and Citizenship Education Programme serves as an anchor for the teaching of values, social emotional learning, leadership and citizenship education. These lessons in class provide a common platform for students to consider their social roles as they interact with the world around them. The teaching also engages students to work in group activities and discussions on moral and civics issues, thereby nurturing and strengthening the social bonds in the school community. This aims to enhance interaction and understanding among students of different racial and religious backgrounds.



Learning Outcomes

The programme will enable our students to:

- Acquire self-awareness and apply self-management skills to achieve personal well-being and effectiveness
- Acquire social awareness and apply interpersonal skills to build and maintain positive relationships based on mutual respect
- Be resilient and have the ability to turn challenges into opportunities
- Take pride in our national identity, have a sense of belonging to Singapore and be committed to nation-building
- Value Singapore’s socio-cultural diversity, and promote social cohesion and harmony
- Care for others and contribute actively to the progress of our community and nation
- Reflect on and respond to community, national and global issues, as an informed and responsible citizen



Curriculum

The curriculum is based on the 3 Big Ideas of the MOE CCE syllabus - Identity, Relationships and Choices. These ideas are interconnected and impact one another. Students need to know who they are in order to relate positively with others. The relationships they forge shape their identity and influence the choices they make. The ability to make good choices impacts their understanding of their own identity and the relationships they form. The following themes will be covered:

Years	Themes
1 – 6	Personal and Social Growth (Respect, empathy, goal-setting, taking responsibilities, working in teams, collaboration across cultures, exercising social responsibilities) Active Citizenship (Appreciating self and others, adaptability, role modelling, believe in themselves, exercising personal, moral and ethical responsibilities, resiliency) Global Awareness (Appreciating the diversity in a globalized world, being an active citizen interacting in a globalized world)

Modes of Assessment

Teachers’ and peers’ observations and feedback. Anecdotal records of student’s behaviour.



ENGLISH LANGUAGE

The English Language Programme seeks to build in students a deep appreciation for the English Language as a tool for communication. The programme draws reference from the MOE English Language Syllabus 2010 while seeking to stretch students' potential and language development through challenging tasks, assignments and exposure.

The programme will lead students to appreciate and experience how language is used effectively in different situations, expose students to a range of texts and text-types, and develop specific critical thinking skills to prepare students for the 'A' level General Paper. Through providing a rich language learning environment and exposure to texts and issues, the English Language programme hopes to develop in students a high degree of proficiency in the English Language and a deeper understanding and appreciation of humanity and the world.

■ Learning Outcomes

- The programme will enable our students to:
- Use the English Language to construct and convey meaning clearly and coherently
 - Communicate effectively in different situations using the English Language
 - Appreciate literary traditions and genres
 - Apply their learning of language skills in authentic contexts
 - Use language effectively in intellectual inquiry and critical thinking

■ Enrichment

- To augment the learning within the classroom, opportunities will be given for students to experience learning in the field. These include:
- VCA Drama Festival
 - Creative Arts Programme
 - Writing Research Based Papers
 - MOE Creative Arts Programme
 - Talent Development Programme

■ Curriculum

- The curriculum will take students through the following skill sets:
- Oral communication
 - Reading comprehension
 - Critical thinking
 - Critical analysis of literary texts
 - Narrative writing
 - Situational writing
 - Expository writing
 - Argumentative writing
 - Summary writing

The curriculum will draw from the following themes:

Years	Themes	
1 & 2	Self Family Communication and Nation Equality Growing Up	Discrimination and Boundaries Change Reality vs Myth Media
3 & 4	Leadership Friendship and Loyalty Beliefs and Convictions The Individual and His Destiny	The Arts Society and Politics Science Power, Freedom and Dignity
5 & 6	Our Place in the World Social Groups Social Institutions The Arts	Science and Technology Geography and the Environment Business and Economics

Modes of Assessment

- Self, peer and teacher assessment
- Oral presentation
- Observational checklist
- Group projects
- Written test and examination



LITERATURE IN ENGLISH

The English Literature Programme aims to nurture in students an appreciation of the aesthetic value of language and the literary forms through which humans have found expression. The programme will expose students to a variety of genres and texts to broaden their experience of literary styles, periods, and ideas. The programme will take students through close reading of set texts and unseen texts, teach them skills of literary analysis, and guide them to develop an informed personal response to Literature.

■ Learning Outcomes

The programme will enable our students to:

- Draw connections between self, text, and the world in order to develop intellectual, emotional, socio-cultural and global awareness
- Appreciate language as it is used aesthetically and creatively
- Appreciate a variety of literary styles and forms
- Develop the skills of critical literary analysis
- Communicate effectively and persuasively

■ Curriculum

The curriculum will take students through the following skill sets:

- Interpreting and engaging with the short story, the novella, the novel, poetry, and drama
- Understanding how language, plot, character, theme, narrative style, point of view, setting and atmosphere contribute to the meaning of texts
- Appreciating the construction of the text in its historical, cultural, economic, political, and social contexts
- Drawing meaningful connections between texts and the world
- Developing personal and critical responses to set texts and the unseen
- Constructing and effectively communicating arguments
- Responding to different views and perspectives
- Comparing and contrasting between texts

The curriculum will draw from the following themes:

Years	Themes	
1 & 2	Identity The Community Growing Up Family	Prejudice and Discrimination Friendship & Love The Individual and Society
3 & 4	The Individual and Society Power and Freedom Prejudice and Discrimination Culture	Destiny Change Influence and Family
5 & 6	Reading Literature Topic Paper: The Mind and Self in Literature	



Modes of Assessment

- Reflection
- Performance task
- Portfolio
- Oral presentation
- Written test and examination

Enrichment

- To augment the learning within the classroom, opportunities will be given for students to experience learning in the field. Students will also have the opportunity to deepen their engagement with literature and the arts through stretch programmes. These include:
 - Writing Research Based Papers
 - Exposure to Theatre and Literary Forums
 - MOE Creative Arts Programme
 - Talent Development Programme
 - Humanities Special Programme (Years 3 – 6)
 - Humanities Symposium

HIGHER CHINESE

高级华文

高级华文课程旨在提高学生华文的书写和口语表达的通用能力，让这些语文能力比较强的学生能通过华文和华语有效地与人沟通或分析并解决各种问题。课程设计具实用性，学生方便学以致用。高华课程也着重提高学生的人文素养，从而培养正确的价值观，这也有助于文化的传承。此外，高华课程也着重培养学生的思维、交际及运用科技进行学习的能力，以应付21世纪的挑战。

学习成果

- 学生能够在各种生活环境有效地通过母语与人沟通
- 学生能通过课程传承优秀的华族文化和价值观
- 高华课程的设计鼓励自主学习，学生能主动地进行探究性学习
- 学生能使用中文科技平台或特定的应用程序与人沟通或完成任务

课程内容

年级	课程内容
中一, 中二	听: 创设情境, 仔细聆听, 摘录信息, 掌握语料 说: 营造氛围, 鼓励交流, 适时赞美, 增强信心 读: 理解词义, 辨析语料, 掌握情节, 分析人物 写: 描写人物, 完善情节, 范文引领, 说明事理
中三, 中四	听: 捕捉信息, 速记要点, 事实训练, 加强技巧 说: 针对主题, 事实讨论, 各抒己见, 侃侃而谈 读: 辨析结构, 归纳主题, 弄清词义, 加深理解 写: 紧扣主题, 调动积累, 善加以应用, 总结全文

评估方式

采用形成性评估和总结性评估方式模式:

- 自评, 互评, 老师评语
- 反馈表
- 口头报告
- 专题作业
- 测验与考试
- 录像, 录音, 电子简报



HIGHER MALAY

BAHASA MELAYU LANJUTAN

Program Bahasa Ibunda telah dilakar berdasarkan matlamat untuk membantu golongan muda memperoleh kecekapan dan keupayaan untuk berkomunikasi dalam Bahasa Ibunda, membangunkan identiti yang unik melalui penghayatan yang lebih mendalam terhadap budaya, tradisi, sastera dan sejarah mereka, serta dapat menjalinkan hubungan dengan masyarakat lain di Asia dan rantau lain. Penekanan yang sesuai akan diaplikasikan untuk melengkapkan pelajar dengan kemahiran untuk menggunakan Bahasa Ibunda dalam persekitaran kehidupan sebenar dan menggunakannya untuk berkomunikasi. Dengan keupayaan untuk menggunakan bahasa kedua, para pelajar juga akan celik pengetahuan silang budaya yang dianggap sebagai satu keperluan 'Kecekapan Abad Ke-21'.

■ Hasil Pembelajaran

Kursus ini akan menjadikan para pelajar pengguna bahasa yang mahir yang boleh berkomunikasi dengan berkesan dalam pelbagai konteks kehidupan sebenar. Ia juga mendedahkan para pelajar kepada budaya dan nilai-nilai melalui pengajaran Bahasa Ibunda. Pelajar juga akan dapat berdikari dalam Bahasa Ibunda dan mampu memanfaatkan ICT dan kaedah lain untuk meneruskan pembelajaran Bahasa Ibunda selepas pengajian nanti.

■ Kurikulum

Tahun	Komponen
1 & 2	Karangan: E-mel Rasmi / Tak Rasmi, Naratif, Deskriptif, Ekspositori (Huraian), Blog, Ucapan, Ulasan Kefahaman Tatabahasa Ringkasan Nilai-nilai Budaya, Sastera & Kenegaraan
3 & 4	Karangan: E-mel Rasmi / Tak Rasmi, Naratif, Deskriptif, Ekspositori (Perbincangan & Perbahasan), Ucapan, Laporan, Ulasan Kefahaman Tatabahasa Ringkasan Nilai-nilai Budaya, Sastera & Kenegaraan



Program Pengayaan

Bagi para pelajar yang lebih berkemahiran, kurikulum yang diterapkan bertujuan untuk memacu mereka ke tahap penguasaan bahasa dan pengetahuan budaya yang lebih tinggi melalui pendedahan kepada sastera dan sejarah supaya mereka dapat lebih peka dalam pengetahuan silang budaya melalui modul-modul elektif yang ditawarkan. Dengan penguasaan bahasa yang lebih tinggi dan pemahaman dalam bahasa dan sastera, pelajar-pelajar akan dapat memanfaatkan Bahasa Ibunda secara profesional pada masa hadapan.



Pelan Penilaian / Rangka Kerja Penilaian

Untuk memenuhi keperluan profil para pelajar yang mengikuti Program Bahasa Ibunda VCA, kedua-dua kaedah penilaian formatif dan sumatif diterapkan.

Kaedah-kaedah tersebut ialah:

- Penilaian sendiri, rakan sebaya dan guru
- Portfolio (lisan dan penulisan)
- Renungan
- Persembahan berlisian
- Senarai semak pemantauan/penilaian
- Tugas projek berkumpulan
- Ujian dan peperiksaan
- Penciptaan grafik dan / atau penghasilan bahan media (contoh: persembahan Powerpoint atau klip video)

HIGHER TAMIL

உயர் தமிழ்

இருமொழிக் கொள்கை நமது கல்விக் கொள்கையில் ஒரு மைல்கல்லாக இருக்கும் அதே வேளையில் கலாச்சார ரீதியில் ஆழமான தொடர்பிருக்க வேண்டும் என்பதால் தாய்மொழிக் கல்விக்கும் முக்கிய பங்கு அளிக்கப்பட்டுள்ளது. சிங்கப்பூரிலும் மற்ற உலக நாடுகளிலும் ஏற்படும் வளர்ச்சியின் போக்கைக் காணும்போது நாம் நம் இளையர்களிடையே தாய்மொழியில் அவர்களது திறன்களை வளர்த்தல் மட்டுமின்றி அவர்தம் கலாச்சாரம், பண்பாடு, இலக்கியம் மற்றும் வரலாறு குறித்த ஆழமான புரிந்துணர்வையும் வளர்த்துவிட வேண்டும் என்று தெரிகிறது. இதன்வழி மொழியைப் பயன்படுத்துவதில் திறன் பெறும் அவர்கள் பல இன கலாச்சாரம் குறித்த அறிவையும் பெறுவர். உலகளாவிய சூழலில் இது 21 - ஆம் நூற்றாண்டுத் திறன்களுள் ஒன்றாகக் கருதப்படுகிறது.

■ கற்றல் விளைவுகள்

- கருத்துப்பரிமாற்றத் திறன் மற்றும் சிந்தனைத் திறனை வலுப்படுத்துதல்
- தம் கலாச்சாரம் குறித்த ஆழ்ந்த அறிவைப் பெறுதலும், போற்றுதலும்
- அவர்தம் கலாச்சாரத்தின் வரலாறு மற்றும் விழுமியங்கள் குறித்தும் அறிதல்.
- பல்வேறு சமூகங்களுடன் தொடர்புகளை உருவாக்குதலும் செம்மைப்படுத்துதலும்
- ஆசியச் சமூகங்கள் மட்டுமல்லாமல் அவற்றிற்கப்பாற்பட்ட சமூகங்களுடனும் தொடர்புகளை உருவாக்கிக்கொள்ளல்.

■ மதிப்பீட்டு முறை

- சகமாணவர் மற்றும் ஆசிரியர் மதிப்பீடு
- செய்முறைகோப்புமுறை (வாய்மொழி மற்றும் எழுத்துவழி)
- எண்ணப் பிரதிபலிப்புகள்
- வாய்மொழிபடைப்புகள்
- பட்டியல் சரிபார்ப்பு (நோக்கல்)
- திட்டவேலை (குழுநிலை)
- தேர்வுகள்
- தொழில்நுட்பம் சார்ந்த படைப்புகளை உருவாக்கல்



புறப்பாடவேலைத்திட்டம்

விழுமியங்கள், கலாச்சாரம், அடுத்தவர்மேல் பரிவு காட்டுதல், சமூக அக்கறை ஆகியவற்றை உள்ளடக்கியது. இது மாணவர்களிடையே தம் கலாச்சாரம் தொடர்பான புரிந்துணர்வலை மேம்படுத்த உதவுகிறது. உலகமயமாக்கப்பட்ட இன்றையநிலையில் சிக்கலான சூழல்களை எதிர்கொள்ளும்போது கலாச்சார நுண்ணுணர்வுகளைக் கருத்தில் கொள்ளும் அதேவேளையில் தமது கலாச்சாரம், பண்பாடு சார்ந்த விழுமியங்களை வெளிப்படுத்துவதற்கு மாணவர்களுக்கு இது வாய்ப்பளிக்கும். தகவல்தொழில் நுட்பத்தில் தமிழைப் பயன்படுத்திக் கற்க ஊக்குவிக்கப்படுவர்.

கற்பித்தல் அட்டவணை

கல்விக் குழு	பாடத்திட்டத் தலைப்புகள்
முதலாம், இரண்டாம், மூன்றாம் (Year 1 & Year 2)	மரபுத்தொடர், இலக்கணம், இணைமொழி, வாசிப்பு (ஊடகங்களைப் பயன்படுத்தல்) பழமொழி, இலக்கியம் - கவிதை, சிறுகதை
மூன்றாம், நான்காம் (Year 3 & Year 4)	ஊடகப்பண்பாடு, குடும்பம், சமூகச்சிந்தனை எழுத்தாற்றலை வளர்த்தல், இலக்கியக்கூட்டங்கள், பேச்சாற்றலை வளர்த்தல், கற்றல் பயணம், இலக்கிய நுகர்வு, நேர்முகச்சந்திப்பு உரையாடல்.

THIRD LANGUAGE

CHINESE SPECIAL PROGRAMME

The Chinese Special Programme (CSP) aims to build on MOE's on-going effort to promote conversational Chinese among non-Chinese students, and its bilingual policy as a strategic edge. CSP will equip young people with the Chinese language skills to engage the world, and also help to further strengthen Singapore's multi-racial compact in the long run.

■ Learning Outcomes

- The programme will enable our students to:
- Use basic Chinese listening, oral, reading and writing skills
 - Communicate clearly and appropriately using the Chinese language
 - Understand and appreciate Chinese culture and traditions in relation to other cultures

■ Curriculum

The following topics will be covered:

Years	Topics
1 & 2	Basic Phonetics Listening and reading for understanding Basic Conversational Skills Functional and descriptive writing Understanding Chinese culture
3 & 4	Intermediate Phonetics Listening and reading for understanding, inference and synthesis Intermediate to Advanced Conversational skills Functional, descriptive and narrative writing Appreciating Chinese culture

■ Modes of Assessment

- Oral and Listening Comprehension exercises
- Composition & Functional writing exercises
- Written tests and examinations

■ Enrichment

To augment the learning in the classroom, enrichment activities are organised to cultivate an interest in the language. These include:

- Learning journeys to Chinatown
- Tea chapter
- Cooking Chinese food or doing craft work during Chinese festivals
- Appreciating Chinese culture through songs, movies and other genres

MALAY SPECIAL PROGRAMME

The Malay Special Programme (MSP) aims to develop among non-Malays competency in Malay as a Third Language and an interest in Malay language and culture. Through these, the programme seeks to develop respect and trust among the different ethnicities in Singapore, which is crucial to maintaining the harmony and understanding among the different racial groups in Singapore, and to strengthening social cohesion among the young in Singapore.

■ Learning Outcomes

- The programme will enable our students to:
- Acquire basic Malay language reading, writing, speaking and listening skills
 - Communicate clearly and appropriately using the Malay language
 - Understand and appreciate Malay culture and traditions in relation to other cultures

■ Curriculum

The following topics will be covered:

Years	Topics
1 & 2	Phonetics Listening and reading for understanding Conversational skills for daily context Functional and descriptive writing Short stories Understanding Malay culture
3 & 4	Listening and reading for understanding Conversational skills for formal and informal contexts Functional, descriptive and narrative writing Appreciating Malay Culture

■ Modes of Assessment

- Oral Activities and Listening Comprehension Exercises
- Composition & functional writing exercises
- Written test and examination

■ Enrichment

To augment the learning in the classroom, enrichment activities are organised to cultivate an interest in the language. These include:

- Learning journeys
- Interclass competitions

BAHASA INDONESIA

The Bahasa Indonesia programme in Victoria School aims to develop language proficiency in the national language of Indonesia through an integrated approach. Students will be exposed to the core components of speaking, listening, reading and writing in the language, and will also acquire language skills through participation in various communicative tasks. Through varied exposure to the language, be it locally or overseas, students in the programme will be equipped with a sound foundation of the language that will allow them to maintain communication on topics relating to their personal and immediate environment.

■ Learning Outcomes

- The programme will enable our students to:
- Acquire basic and intermediate skills of speaking, listening, reading, and writing to maintain communication on common topics.
 - Develop confidence and language competency to maintain communication in Bahasa Indonesia in an independent and effective manner on topics relating to practical situations.
 - Develop a better understanding and appreciation of the socio-linguistic and pragmatic aspects of the language
 - Develop a better appreciation of Indonesian culture and its people through the language

■ Curriculum

The following topics will be covered:

Years	Topics
1 & 2	Phonetics Listening and reading for understanding Conversational skills for daily usage Narrative and Descriptive writing
3 & 4	Listening and reading for understanding Conversational skills on topics related to Singapore Narrative, descriptive and functional writing Study of Indonesian literature and short movies

■ Modes of Assessment

- Oral assessment
- Written test and examination

■ Enrichment

To augment the learning in the classroom, enrichment activities are also organised to cultivate an interest in the language. These include:

- Practice of the language and appreciation of Indonesian culture through overseas cultural immersion programmes such as homestay

MATHEMATICS

The Mathematics Programme is an enriched and differentiated curriculum that offers challenging subject matter, and provides learning opportunities and platforms for pupils to acquire and apply creative thinking and problem solving skills in a wide range of situations, including high level non-routine, open-ended and real world problems. These authentic learning experiences will enable our pupils to successfully meet the challenges of the 21st century where critical and creative thinking skills are highly valued.

Learning Outcomes

The programme will enable our students to:

- Acquire the necessary mathematical concepts and skills for everyday life, and for continuous learning in mathematics and related disciplines
- Develop critical and creative thinking skills and apply these skills to formulate and solve problems
- Recognise the connections, make predictions and draw conclusions about mathematical concepts
- Produce imaginative and creative work arising from mathematical ideas
- Develop the abilities to reason logically, communicate mathematically, and learn cooperatively and independently

Curriculum

The following topics will be covered:

Years	Topics	
1 & 2	Algebra Arithmetic Functions & Graphs Geometry Investigative Problems and Number Patterns	Matrices Mensuration Set Language and Notation Statistics Trigonometry
3 & 4	Algebra Arithmetic Calculus Geometry Graphs	Probability Vectors in two dimensions Statistics Trigonometry
5 & 6	H1 Mathematics Functions and Graphs Calculus H2 Mathematics Sequence and Series Calculus Complex Numbers Functions and Graphs	H2 Further Mathematics Algebra and Calculus Discrete Mathematics, Matrices and Numerical Methods Probability and Statistics Probability and Statistics Vectors in two and three dimensions Probability and Statistics



Modes of Assessment

- Written tests/quizzes & examinations
- Performance tasks
- Oral Presentation
- Extended research work



Enrichment

For students who demonstrate a strong capacity for Mathematics, numerous platforms are available to realise their intellectual ability in the subject. These include comprehensive training.

SCIENCE

(BIOLOGY, CHEMISTRY, PHYSICS)

The Science Programme aims to engage our high-ability students in both the cognitive and affective domains by providing an enriched, current and appropriately challenging curriculum. The curriculum is focused on providing deep understanding of scientific concepts and principles, developing thinking and skills in scientific investigation and creative problem-solving, and building 21st century skills that are of enduring value in a technological world. The programme provides a range of opportunities for students to develop their interest, passion, and talent in science, including interaction with practicing professionals. The three disciplines in the Science curriculum – Biology, Chemistry and Physics – are distinct in themselves but similarly serve as means for students to further their intellectual growth, acquire the dispositions of scientists, and become constructive agents of change for their community and beyond.

■ Learning Outcomes

The programme will enable our students to:

- Raise their awareness of ethical and moral issues related to scientific advances
- Develop a deep and enriched understanding of the major concepts in science
- Develop skills crucial for conducting science investigations and inquiry
- Develop critical thinking in science so as to make an informed opinion in matters of scientific importance
- Develop creative solutions that improve the environment/community

■ Modes of Assessment

- Assignments
- Self-assessment
- Peer assessment
- Class participation
- Authentic performance tasks
- Practical examinations
- Written examinations



Curriculum

Biology

Year 1

Man and His Environment
Cell Structure and Organisation
Plant Nutrition

Year 2

Human Nutrition
Biological Molecules
Transport Across Membranes

Year 3

Man and His Environment
Enzymes
Excretion
Respiration
Reproduction
Transport in Flowering Plants

Year 4

Coordination and Response
Homeostasis
Cell Division
Genetics and Inheritance
Molecular Genetics

Year 5

Cellular Functions
DNA & Genomics
Organisation & Control of
Prokaryotic & Eukaryotic Genomes
Genetics of Viruses & Bacteria
Genetic Basis for Variation

Year 6

Cellular Physiology & Biochemistry
Isolating, Cloning &
Sequencing DNA
Applications of Molecular &
Cell Biology
Diversity & Evolution

Chemistry

Year 1

Experimental Chemistry
Elements, mixtures and compounds
Concept of atom and atomic models
Concept of Chemical Bonding

Year 2

Chemical changes
Periodic trends and group
properties
Identification of ions and gases
Chemical symbols and equations

Year 3

Separation techniques
Kinetic particle theory of matter
State changes
Intermolecular forces of attraction
Factors affecting rate of reaction
Redox reactions

Year 4

Electrolysis and fuel cells
Acids, bases and salts
Mole concept
Metals
Atmosphere
Industrial Chemistry
Elementary Organic Chemistry

Year 5

Atoms, Molecules, Stoichiometry
The Gaseous State
Atomic Structure
Chemical Bonding and the Solid state
Chemical Energetics
Chemical Equilibria

Year 6

Ionic Equilibria
Reaction Kinetics
Electrochemistry
Inorganic Chemistry – Periodicity,
Group II, Group VII and Transition
metals
Further Organic Chemistry
Periodicity
Organic Chemistry

Physics

Year 1

Physical Quantities, Units and
Measurements
Kinetic Model of Matter

Year 2

Heat Transfer and Temperature
Light
Electromagnetic Waves

Year 3

Physical Quantities, Units and
Measurements
Kinematics
Mechanics
Work, Energy and Power
Heat

Year 4

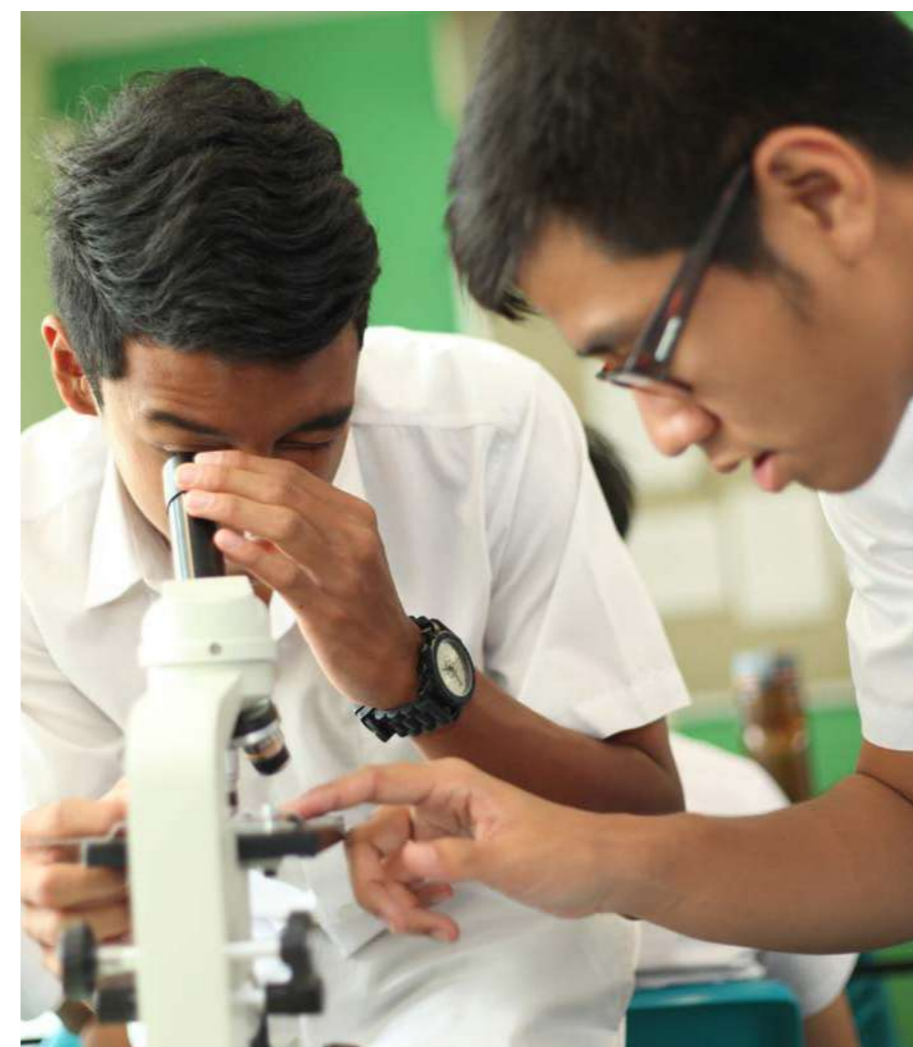
Waves
Magnetism
Electromagnetism
Electromagnetic Induction

Year 5

Physical Quantities and Units
Measurement Techniques
Kinematics
Mechanics
Work, Energy and Power
Thermal Physics
Waves and Superposition

Year 6

Magnetism
Current Electricity
Electromagnetism
Electromagnetic Induction
Alternating Current
Quantum Physics
Lasers and Semiconductors
Nuclear Physics



Enrichment Programmes

In addition to the curriculum, provisions will be made for the development of interest and talent in Science through enriched learning opportunities. These include:

- learning journeys
- attachments and talks
- mentorships / apprenticeships with IHLs / companies / organizations both local and overseas, including VJC Science and Technology Centre of Excellence
- electives (school-based / partner agencies)
- Science Olympiads (Junior Biology / Chemistry / Physics Olympiads)

HUMANITIES

(GEOGRAPHY, HISTORY, GLOBAL STUDIES)

The Humanities Programme helps students understand how the study of humanities supports their growth as individuals and active participation as members of society. The Programme covers the study of History and Geography. The students will learn the pedagogical approaches unique to that subject and at the same time, understand how solving real world issues would require an integrated and multi-disciplinary approach. Centred on an inquiry-based pedagogy, students will learn through a variety of methods such as Paul’s Wheel of Reasoning, Socratic Questioning, field study, case method, role play and dramatization, debates and oral presentations, face-to-face and blended learning.

■ Learning Outcomes

The programme will enable our students to:

- Develop values such as empathy, moral courage, responsibility and a concern for different strata of society, within a country and globally
- Understand the concept of governance and appreciate the needs and challenges facing Singapore
- Understand the broad disciplines of the humanities and how knowledge, skills and dispositions can be applied when facing issues at the personal, professional, social and global level
- Develop creative thinking and higher order critical thinking skills
- Present coherent arguments and well-thought through ideas with confidence, based on evidence and evaluation



■ Curriculum

Years	Geography	History
	Students will develop an understanding of physical and human environments in terms of dynamism and change, place and characteristics, use of resources and sustainability. They will learn skills that include the conduct of fieldwork for investigation, recognition of patterns, deduction of relationships among diverse factors, exploration of solutions and/or alternatives that contributed to the decision-making process.	Students will develop an understanding of the diverse approaches and purposes that lead to different interpretations of history in terms of trends and patterns, comparison between the past and present, cause and effect, change and continuity. They will acquire skills which include seeing connections among the diverse factors, develop an understanding of continuity and change over different time periods, grasp the complexity of historical causation while respecting particularity and analyse relationships among a broad range of factors.
1 & 2	Land and Water Resources at Home Connecting the World (Map Skills) Natural Vegetation & Forest Resource Issues Tourism Weather & Changing Climate at Home Plate Tectonics	History of Singapore
3 & 4	Geography of Food Coastal Studies Development and Population Settlements	International History 1914 – 1991 Historiography & Ideological influences on History*
5 & 6	Tropical Environment Development, Economy & Environment Sustainable Development Geographical Investigation	Shaping the International Order (1945-2000) The Making of Independent Southeast Asia (Independence-2000)

*: To cater to the different interests and needs of students from Cedar Girls and Victoria School, there is a variation in the topics for Year 4.

Modes of Assessment

- Self and peer assessment
- Performance task
- Oral presentation
- Assessment of individual class and online participation
- Portfolio assessment

Enrichment

To augment the learning within the classroom, opportunities will be given for students to experience learning in the field. These include:

- Local and overseas field trips
- Mentorship with practitioners and professors in tertiary institutions
- Internship/attachment
- Mock conference

ART

The Art Programme aims to empower its students with opportunities beyond the acquisition of artistic skills to discover and delve deep into their areas of interests and strengths. Through learning experiences and means such as the Art Elective Programme (AEP) at Victoria School, students get to heighten their creative sensibilities through various media such as drawing, painting, printmaking, graphic design, photography, sculpture and digital animation. Beyond these, curriculum time is also set aside for students to explore their dreams and expressions unique to them and find out how their strengths may be harnessed to manifest these dreams and expressions into artworks. Finally, the Art programme aims to nurture in our students a resilient and inspired human spirit which is able to embrace the world and the people around them.

■ Learning Outcomes

The programme will enable our students to:

- Appreciate and acquire artistic skills and techniques
- Experience a wide range of different visual arts media
- Creatively and meaningfully process and express their thoughts and emotions
- Appreciate and show consideration for uniqueness in the people around them
- Make personal and meaningful choices to communicate specific messages they feel strongly for

■ Modes of Assessment

- Oral presentation
- Quiz
- Visual arts task
- Project work
- Coursework
- Written test and examination

Enrichment

To augment the learning within the classroom, opportunities will be given for students to experience learning in the field. These include:

- Workshops
- Exhibitions
- Industrial internships
- Learning journeys
- Competitions



■ Curriculum

The following topics will be covered:

Years	Topics
1 & 2	<p>Visual Arts and Representation The primary focus is in experiencing various materials, techniques, processes, subject matters, messages, themes and modes of presentation.</p> <p>Students will be guided to appreciate and produce artworks that range from two-dimensional to three-dimensional, from Fine Art to Design and Media.</p>
3 & 4*	<p>Visual Arts and Society The primary focus is in building on the foundation students have acquired in Years 1 & 2.</p> <p>Students will be guided to critically appraise, take charge, and make meaningful and personal choices of materials, techniques, processes, subject matters, themes and modes of presentation to communicate specific messages.</p>
5 & 6*	<p>The Social Role of a Visual Artist The primary focus is in bringing the knowledge and skills students acquire in Art and their other involvements to a level that stands them in good stead for professional visual arts related commitments.</p> <p>Students will be guided to acquire a level of confidence in creative and critical thinking that may point them to pursue a lifelong career in the visual arts and the creative industries.</p>

* These topics are only offered to AEP students

PHYSICAL EDUCATION

The Physical Education Programme provides our students with learning opportunities that make use of movement to develop the whole person. Teachers consciously make use of movement as the primary medium to reach and teach the whole child through the following three modes: education **in** movement, education **through** movement and education **about** movement.

Together with other school programmes, Physical Education and Sports CCAs contributes to the holistic education and builds a strong foundation for the development of broad-based physical competencies and opportunities for recreational participation.

■ Learning Outcomes

- The programme will enable our students to:
- Demonstrate safe practices during physical and daily activities with respect to themselves, others and the environment
 - Acquire and maintain health-enhancing fitness through regular participation in physical activities
 - Acquire a range of motor skills to participate in a variety of physical activities
 - Understand and apply movement concepts, principles and strategies in a range of physical activities
 - Display positive personal and social behaviour across different experiences



Modes of Assessment

- Structured teacher observations of skills acquired

Enrichment

- Intra-school Cross-Country Championship
- Intra-School Track & Field Championship
- Intra-School Recreational Sports Competition & Inter-House Games
- MOE-OBS Secondary 3 Programme

■ Curriculum

The following topics will be covered:

Years	Topics
1 – 6	Outdoor education Health and fitness management Healthy eating and weight management Safety in physical activities Sports and games Victoria School: Net-Barrier Games (Badminton), Striking-Fielding Game (Softball), Territorial-Invasion Games (Basketball, Floorball, Football, Hockey), Cross Country Running and Track & Field Cedar Girls' Secondary School: Net-Barrier Games (Badminton, Pickleball, Volleyball), Striking-Fielding Game (Softball), Territorial-Invasion Games (Floorball, Football, Netball, Touch Rugby), Athletics and Tchoukball Victoria Junior College: Net-Barrier Games (Badminton, Tennis, Volleyball), Striking-Fielding Game (Softball), Territorial-Invasion Games (Basketball, Floorball, Football, Handball, Netball, Touch Rugby, Ultimate Frisbee)

Helmsman Programme

40

CHART





The Helmsman Programme complements the VCA IP's drive for academic excellence. It helps students to chart their lives and brings out their full potential as leaders. The programme develops students who are informed and transforms students into mature, well-balanced young people who possess sound judgment amidst ambiguity and have the capacity to face future challenges in a complex world.

The Helmsman Programme provides students with experiential learning opportunities in
 (a) Leadership Development
 (b) Life-skills

Students are provided with varied and authentic opportunities to develop the values, skills and knowledge for self-directed, collaborative and lifelong learning. Through strengthening our students' character from within, students will have a deepened sense of belonging, commitment and responsibility towards self, family, community, nation and the world.

■ Learning Outcomes

The programme will enable our students to:

- Develop attitudes, competencies and skills necessary for sound social and moral values
- Develop greater personal and interpersonal mastery for self-directed, collaborative and lifelong learning
- Deepen students' sense of sense of responsibility towards self, family, community, nation and the world through varied experiences locally and overseas
- Excel as leaders who are ready to lead with purpose and passion

■ Enrichment

- Leadership s
- Training based on 'The Leadership Challenge'
- Beyond Borders
- Internship
- Learning journeys
- Life Coaching
- Scholarship, University and Career Guidance

■ Curriculum

The Leadership portion of the Helmsman Programme is guided by The Leadership Challenge which consists of the leadership practices. These include Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act and Encourage the Heart. There are different emphases at the four different levels to meet the varying developmental needs of our students.

The Life-skills portion of the Helmsman Programme is guided by Professor Thomas Lickona's Educating for Character Framework of 'Moral Knowing, Moral Feeling and Moral Action':

- **Moral Knowing (Head)**
 Students are explicitly taught desired values, concepts and skills through various formal school programs and workshops
- **Moral Feeling (Heart)**
 Students are provided opportunities to connect with others and develop empathy
- **Moral Action (Hands)**
 Students are provided opportunities for application of and demonstration of desired values, skills and competencies

For the effectiveness of outcomes, the Helmsman Programme is supported by a positive school culture of excellence and ethics; partnerships with parents, community and alumni; as well as professional development for educators.

The following will be covered:

Years	Leadership Development	Life-skills
1 & 2	Personal and Team Leadership Students will exercise responsibilities for personal effectiveness and exercise credibility to align their values with actions. They will also learn to experiment, take risk and see challenges as an opportunity to innovate.	Personal Mastery and Leadership Development Students hone their personal mastery through personality assessment tools and platforms to apply their skills and knowledge.
3 & 4	Organisational Leadership Students will be able to facilitate and enlist others in a task towards a common goal. They will support and strengthen others through collaboration.	Inter-personal Mastery and Leadership Development Students enhance their understanding of human behaviour and appreciation of social dynamics through authentic learning opportunities.
5 & 6	Community Leadership Students will have the drive and ability to take the role of leader, champion the vision and direction for the growth of their organisations, e.g. CCAs. Students will be able to motivate others to drive change or a desire to make a difference. Eventually, we aim for our students to aspire towards becoming Social Innovators, agents of change in society, with commitment to want to make a difference in improving the lives of others in the community.	Impacting Community Students strengthen their personal voice to become advocates and leaders in their chosen fields.



Beyond Borders Programme	44
Imagineering Programme	46



CONNECT

BEYOND BORDERS PROGRAMME

Beyond Borders is a programme which aims to broaden students' perspectives by exposing them to different cultures and countries. Through the lives and work of others, Beyond Borders encourages students to see the world differently and to learn to work collaboratively with local and international partners. With a high culture quotient and international awareness, students can become future leaders who are sensitised to the place of Singapore in relation to her global context. As social innovators, they can also learn to bring people of different social, cultural backgrounds and nationalities to work for the good of humanity.

Learning Outcomes

The programme will enable our students to acquire the qualities of a social innovator and passionate learner.

Social Innovator

- Students will develop greater awareness, understanding and empathy through authentic and experiential learning as they interact with the people of another country
- Students will gain insights to social issues that can be beneficial for future design challenges for social innovation
- Students may draw inspiration from good social innovations in other parts of the world and enrich their awareness and knowledge of innovation

Passionate Learner

- Students will develop intellectual curiosity as they gain insights to the people they meet and the places they visit
- Students will gain understanding and appreciate how the knowledge they learn in the classroom is being applied in a real world setting
- Students will develop their personal voice through deep reflection and group discussions



China



Indonesia



Vietnam



Thailand

Approach

The programme uses the 5E Learning Cycle Model:

1. Engagement

Students will engage in deep reflection and group discussions throughout the trip and during the pre-trip and post-trip programmes.

2. Exploration

During the trip, students will be provided with numerous experiences for them to construct meaning to social, cultural and political concepts through authentic and experiential learning.

3. Explanation and Elaboration

Students will reflect upon new ideas, experiences and knowledge acquired throughout the trip. With the help of teacher facilitators, they will make sense of their overseas experiences and draw relevance to and create meaning for their personal life.

4. Evaluation

As part of the post-trip programme, students will do self and peer evaluation on their learning.

IMAGINEERING PROGRAMME

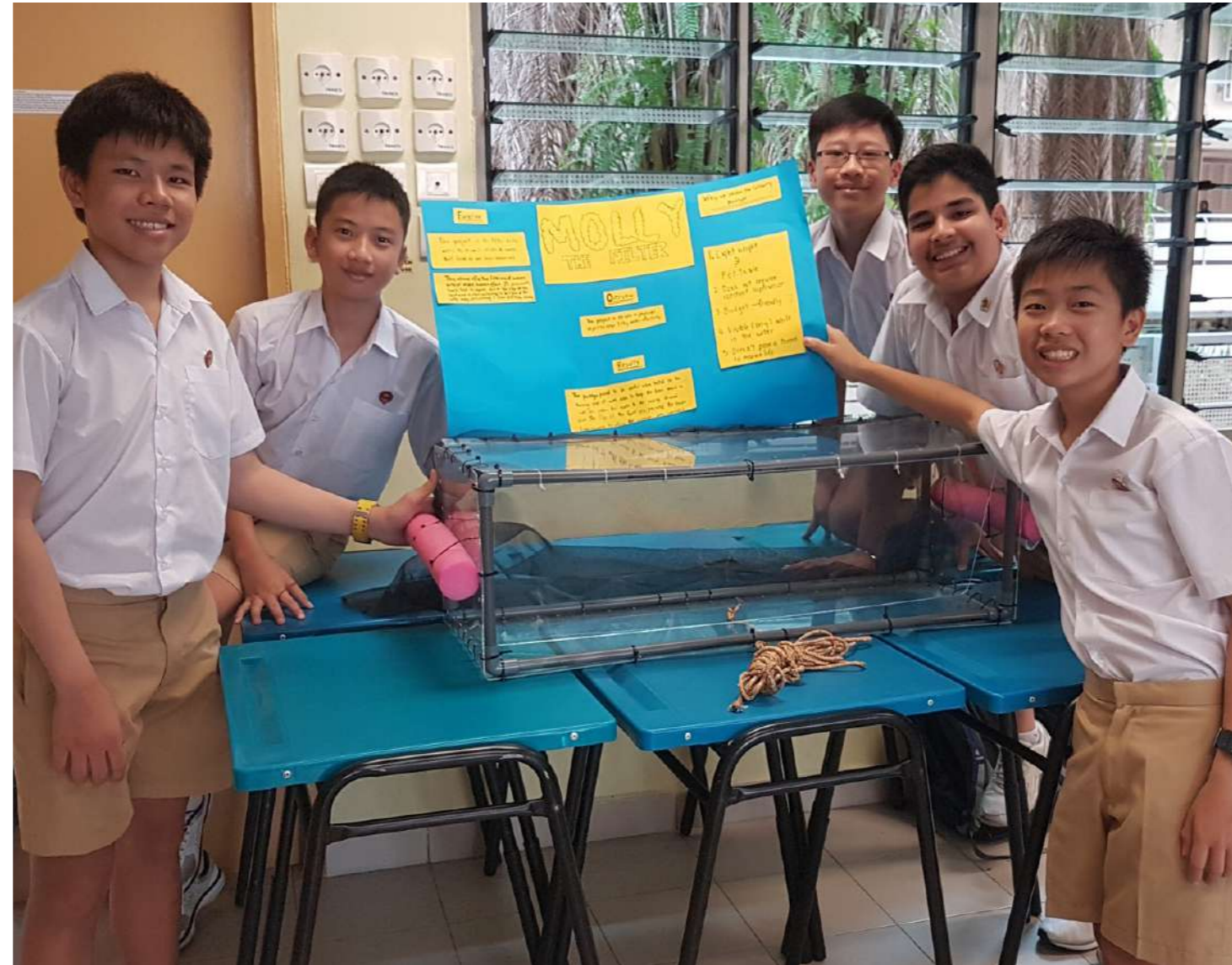
The Imagineering Programme is the signature programme of the Victoria-Cedar Alliance Integrated Programme and aims to nurture social innovators. It is the main platform through which students' innovative capacity is developed and honed to provide them with the vital skills they need to create breakthrough solutions to real problems in a fast-changing world.

Developed and taught in partnership with Singapore University of Technology and Design (SUTD) and South-East Community Development Council (South-East CDC), the Imagineering Programme aims to ignite in students a desire to improve the lives of others with their knowledge and skills.

■ Learning Outcomes

The programme will enable our students to acquire the qualities of social innovator to:

- Develop a deep appreciation of and concern for social issues. The students actively seek to create innovative solutions to better meet real needs in society
- Learn to become an integrative thinker – one who is able to bring together knowledge and skills from different subject areas and apply them in exciting and inspiring ways to create solutions to meet existing needs
- Develop skills to be effective team players who know how to combine their strengths with the capabilities of others to solve real societal problems
- Become responsible problem-solvers. The students always ensure that their solution is better than existing ones, that it meets a real need, and does not create further difficulties for those using it. Students do not innovate simply for the sake of creating something new.



■ Curriculum

The following shows the 6-year developmental programme:

Years	Programme
1 & 2	Students develop basic skills and attributes in design thinking, and apply them to classroom-based and school-based issues.
3 & 4	Conducted in partnership with SUTD and South-East CDC, students deepen their mastery of design thinking tools through engagement with real issues in society.
5 & 6	Students further hone their design thinking skills and knowledge by serving as peer leaders during Project Work lessons. Project Work is a compulsory course for all students preparing for the Singapore-Cambridge GCE 'A' Level certification. At Victoria Junior College, Project Work is taught using a design thinking framework. Selected students will participate in design thinking projects led by SUTD faculty members.

Approach

The approach employed in the Imagineering Programme contains two basic elements:

- Design Thinking
- Authentic engagement with real issues

Design Thinking is a cutting edge approach to innovative problem-solving. It places people's experiences and aspirations at the centre of the problem-solving effort. The learning activities in the Imagineering Programme have the following distinctive features:

- The value of empathy
- Biased towards action
- A strong element of play
- Learning by doing
- Learning from failure
- Immersion in uncertain situations
- Emphasis on human-centredness and independence

There are carefully designed experiential learning activities, workshops and projects through which students learn and master a basic set of design thinking tools and methods. Students have opportunities to manage authentic social innovation projects that are led by policy-makers, design researchers, public service officials and champions of the civil society. Not only do these projects give students invaluable insights into the many challenges faced by ordinary people, they also present students with a huge canvas to exercise their innovation skills when they strive to create desirable, viable and feasible solutions to these challenges.

Co-Curricular Activities	50
The Electives	52



CHOICE



CO-CURRICULAR ACTIVITIES

Co-Curricular Activities (CCA) are an integral part of our students' holistic education. They provide opportunities for building character, imbue the spirit of sportsmanship and nurture life-skills and attributes such as leadership, teamwork, resilience and empathy. At the same time, students can pursue their interests, forge strong friendships and develop the skills and knowledge of their craft.

A holistic view is taken when planning the CCA. While students go through CCA-specific training to develop their skills and knowledge, emphasis is also given to developing character, leadership, passion and teamwork through mentoring and meaningful relationship-building among students, with teachers, coaches and parents. In addition, students are able to participate in community-based activities (eg. community clubs, youth groups and voluntary welfare organisations) which provide scope for nurturing the spirit of social enterprise and also enhance students' partnership and appreciation of the community.

Learning Outcomes

- The activities will enable our students to:
- Discover their passions and talents
 - Hone their leadership and organisational skills
 - Develop character, values and competencies that will prepare them for a rapidly changing world
 - Cultivate friendships with students from diverse backgrounds as they learn, play and grow together
 - Deepen students' sense of belonging, commitment and sense of responsibility to school, community and nation

Enrichment

- To augment the learning in CCA, opportunities will be given for students to interact and learn from others. These include:
- Exchanges
 - Learning journeys
 - Competitions

CCAs offered in the VCA Schools

The Victoria-Cedar Alliance Schools provide a wide range of CCAs that spans sports and games, uniformed groups, clubs and societies and the performing arts. Our students will have ample opportunities to explore their interests, develop leadership and organisational skills and hone their talents in the field they choose.

Victoria School	Cedar Girls' Secondary School	Victoria Junior College
<p>Sports & Games Badminton, Cricket, Cross-Country, Floorball, Football, Hockey, Sailing, Shooting, Table Tennis, Tennis, Track & Field, Volleyball, Wushu</p> <p>Performing Arts Chinese Orchestra, Choir, Concert Band, Drama Club</p> <p>Clubs & Societies Audio-Visual Club, Chess Club, Infocomm Club, Photography Club</p> <p>Uniformed Groups Boys' Brigade, National Cadet Corps (Land), National Cadet Corps (Sea), National Police Cadet Corps, Red Cross, Scouts</p>	<p>Sports & Games Badminton, Basketball, Netball, Table Tennis, Track & Field, Volleyball</p> <p>Performing Arts Choir, Handbell Ensemble, Guzheng Ensemble, Modern Dance, , Symphonic Band, English LDDS, Chinese Cultural Society, Indian Cultural Society*, Malay Cultural Society*</p> <p>* Offered as 2nd CCA</p> <p>Clubs & Societies Audio Visual & Photography, Environment Club, Infocomm Club, Library & Editorial</p> <p>Uniformed Groups Girl Guides, National Cadet Corps, National Police Cadet Corps, Red Cross Youth</p>	<p>Sports & Games Badminton, Basketball, Cricket, Cross Country, Floorball, Golf, Hockey, Netball, Rock Climbing, Sailing, Soccer, Softball, Swimming, Table-Tennis , Taekwondo, Tennis, Track & Field, Volleyball, Wushu</p> <p>Performing Arts Chinese Orchestra, Choir, Dance Club, Drama, Guitar Ensemble, Harmonica Band, Piano Ensemble, String Ensemble, Symphonic Band</p> <p>Clubs & Societies Art Club, Astrophysics Society, BizClub, Chinese Calligraphy, Chinese Society, Debates, Earth Watch, Firefly Club, First Aid Club, Health & Fitness Club, Horticulture Club, StudioV, iGlobe, Indian Cultural Society, Interact Club, Library Council, Malay Cultural Society, Mathematics Society, Medical Society, SpeakOut, Outdoor Activities Club, PA Crew, Photography Society, Robotics Club, Science Research Society, Singapore Youth Flying Club, Strategic Games Club, Writers' Circle</p> <p>Special Interest Groups Pet & Animals Welfare, Japanese Club</p>

THE ELECTIVES

The Electives Programme provides students with the choice and space to pursue their interests outside the requirements of the core curriculum. It aims to equip students with broad-based knowledge and skills. The programme provides a platform for students to pursue their passions by empowering them to make choices in their own learning.

■ Learning Outcomes

The programme will enable our students to:

- Personalise their learning and to explore new interest areas for individual development needs or career objectives
- Connect with real-life issues and expose them to new trends and thoughts
- Acquire new skills and knowledge beyond the core curriculum, thereby developing our students holistically

■ Curriculum

The following electives are offered*:

Years	Category	Electives
1 – 4	Language Arts and Humanities	Histogames Cities of the World
	Science and Mathematics	Forensic Science Astronomy Electronics
	Lifestyle	Knowing Japan Hip Hop Modified Touch Rugby
	Technology	Aerospace and Drones Encryption 3D Printing Android Programming Microbit Programming
	Lifestyle	Knowing Japan Hip Hop Modified Touch Ruby Fencing

*Electives offered may vary from year to year



Research Education Programme	56
Regional Studies Programme	58
Talent Development Programme	60



CHALLENGE

RESEARCH EDUCATION

The Research Education Programme aims to develop students with the 21st Century Competencies, such as critical thinking, information and communication skill so that they can become self-directed learners. The programme taps on the students' passion for learning by providing them with platforms and opportunities to expand their understanding and thought processes. This allows them to develop their intellect and acquire the skills necessary for the workplace of the future.

Equipping high-ability learners with research skills is important. Through independent research, students engage in interdisciplinary inquiry that broadens their perspective, while empowering them to delve deeper into their personal areas of interests. Research projects also allow students to apply their learning on real-life issues. In Year 5, all students will be able to apply the skills learnt to their Project Work. Year 5 and 6 students will also have the opportunities to further hone their skills through working with researchers from institutes of higher education such as NUS, NTU and SUTD as well as A*Star.



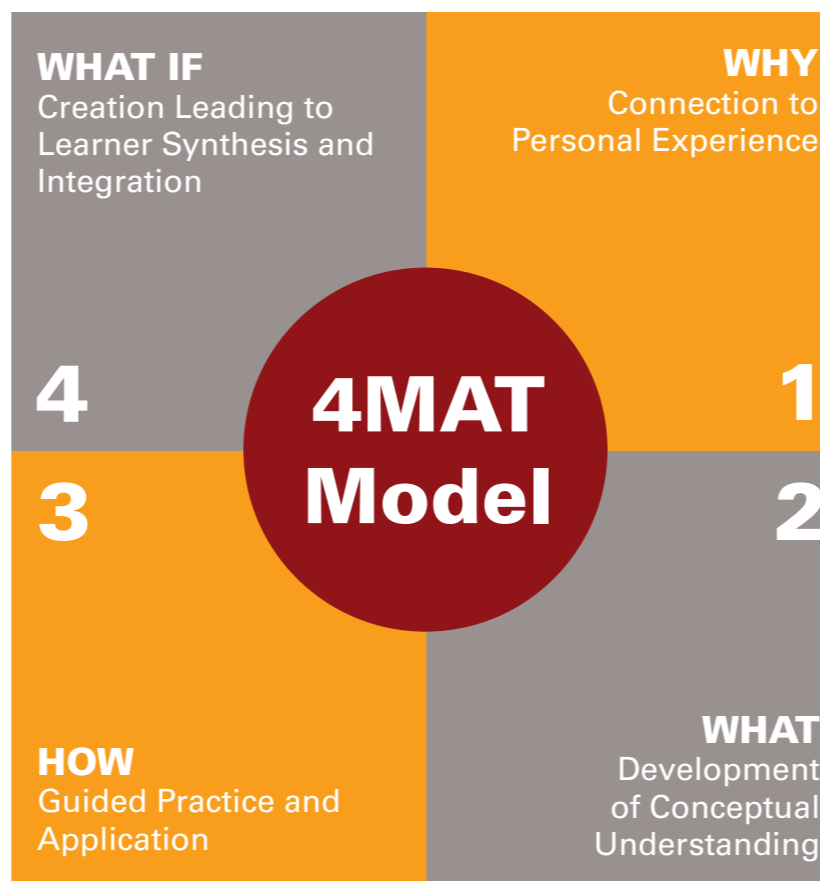
Learning Outcomes

The programme will enable our students to:

- Develop information, literacy and research skills, thereby equipping students with the skills to contribute to the knowledge community and effect societal changes
- Pursue their passion and interests with the desire to create new knowledge
- Explore the inter-connectedness between the sciences and the humanities, and to integrate and apply their knowledge to real-world issues
- Engage in research which adhere to recommended academic standards
- Demonstrate responsibility and ethics in the use and generation of knowledge
- Develop their personal voice and ability to communicate a stand effectively and convincingly
- Develop intra-personal and inter-personal effectiveness for teamwork and positive social interaction as a Social Innovator, Passionate Learner
- Appreciate and apply the essential life skills (e.g. time management, team work, research and presentation skills) for self-directed, lifelong learning

Mode of Assessment

- Research project



(Bernice McCarthy, 1979)

Curriculum

Lessons will follow the 4MAT model of teaching and learning. The 4MAT model builds on the strengths of the four major learning styles: Connection to Personal Experience, Development of Conceptual Understanding, Guided Practice and Application, and Creation Leading to Learner Synthesis and Integration.

In Stage 1 "Why", students ask why a particular issue is worth exploring and what benefit it brings to themselves and to the community. For example, they are led to approach local issues and to find a personal angle into the topic. In Stage 2 "What", students are explicitly taught the relevant knowledge and skills to conduct a meaningful exploration of an issue. This is where students could be shown sample research questions and agree on what makes a good research question. In Stage 3 "How", students engage in hands-on tasks to demonstrate their understanding. In this case, students could be proposing sound research plans that set out to verify a hypothesis. The final stage, "What if", extends learning in that students get to reflect upon the research process and identify how they might do it differently. This could be further refining their research questions, or re-angling the literature search.

Years	Topics
1 & 2	Introduction to Research Designing Research Questions Doing a Literature Review Research Design and Methodology Population and Sampling
3 & 4	Crafting Instruments and Data Collection Data Analysis & Interpretation Presenting Research

REGIONAL STUDIES PROGRAMME

The Regional Studies Programme aims to nurture a segment of non-Malay students who are comfortably conversant in the Malay Language or Bahasa Indonesia and able to engage the nearby region effectively.

This is a 6-year programme where students learn to appreciate the Malay/Indonesia culture through the language by offering either Malay Special Programme or Bahasa Indonesia as a Third Language. They will also enhance their knowledge of the socio-economic and contemporary developments of the region through overseas immersion programmes and structured enrichment modules.

Deserving students who demonstrate potential and a keen interest in the developments of the region will be offered scholarships.

■ Learning Outcomes

The programme will enable our students to:

- Understand the dynamics of cultural awareness in establishing good relations in the region
- Articulate the cultural authenticity that impacted the socio-economic growth and stability of one's country
- Appreciate the richness of Malay/Indonesian culture and traditions

■ Curriculum

The following modules will be covered:

Years	Modules
1 & 2	School-based module "Understanding of Southeast Asia" 2-day non-residential Combined Cultural Camp Learning Journeys to Malay Heritage Centre, Geylang Serai
3 & 4	School-based module "Understanding of Southeast Asia" Half-day Seminar/Talk on "The Malay World in SEA" Conversational ML Proficiency Test (in Year Four) - optional
5 & 6	H2 History Advance Conversational ML Module Certification by MOELC



Modes of Assessment

- Self, peer and teacher assessment
- Journal reflection
- Oral presentation
- Observational checklist
- Portfolio (Oral and writing)
- Group project

*This programme is not an examination subject. Students are assessed through formative assessments to evaluate content and understanding.



TALENT DEVELOPMENT PROGRAMME

The VCA Talent Development Programme provides opportunities for outstanding students in the domain of intellect, leadership and service to community to realise their potential with excellence.

Learning Outcomes

Talent development serves to achieve the following:

- Develop intellectual depth and higher-level thinking in students
- Nurture passion and productive creativity in students' talent areas
- Enhance aspirations for individual excellence and fulfilment
- Develop a strong social conscience and commitment to serve society and nation
- Develop moral values and qualities for responsible leadership



Phases of Talent Development Programmes

There will be 3 main phases of talent development:

1. In Lower Secondary years, students will be provided with foundation-building skills and tools. They will also be exposed to different experiences to increase awareness and develop interest.
2. In Upper Secondary years, students will have the opportunities to hone and deepen their skills. They will also verify their motivation, competence and commitment to their areas of strengths, interest and curiosity.
3. In JC years, students will hone their specialisation, professionalism and mastery of their chosen areas. They will also develop deeper understanding their own interests, strengths, and potentials.

Key programmes include:

Victoria School

- Mathematics Talent Development Programme
- Victoria Enrichment Course and Team of Researchers for Science (VECTORS) Entrepreneurship Education Programme (Authentic engagements with real social entrepreneurs in Singapore)
- Regional Studies Programme
- Art Elective Programme
- Entrepreneurship Education Programme
- Innovation Programme
- Victoria Enhanced Leadership/Outdoor Camp Instructor Training
- Participation at national and international seminars, forums and conferences

Cedar Girls' Secondary School

- Mathematics Research Programme
- Science Research Programme
- Analytical Thinking Skills Workshop
- Affective Modules in Subjects such as Life-skills and Success Skills
- Customised Leadership Workshops
- Mentorship with experts at tertiary institutions and practitioners from their industries
- Participation at national and international seminars, forums and conferences

Victoria Junior College

- H3 NUS-A*STAR-VJC Science Research
- Victoria Science, Mathematics & Research Talent Programme
- Regional Studies Programme
- Humanities Programme
- Theatre Studies & Drama Programme
- Connecting Leaders in Camp (Leadership programme)
- Victorians in Conversation (Leadership programme)
- Project V and Project V+ (Social Innovation Programme)
- Self-initiated Value-In-Action projects (Community Service Programme)
- J1 Victorian Exposure (Mentoring and coaching programme)
- J2 Project Edvantage (Mentoring and coaching programme)

Joint VCA Activities

64



COMMUNITY

JOINT VICTORIA-CEDAR ALLIANCE ACTIVITIES

The Victoria-Cedar Alliance believes strongly in providing opportunities for students from across the three schools to come together. Bringing with them different skills, talents and experiences from their respective schools, the students learn from one another through working on projects together and participating in joint events and programmes.

■ Learning Outcomes

The activities will enable our students to:

- Learn more about themselves and understand others
- Learn to relate with others and work with them to achieve a common objective
- Develop communication skills needed to reach out and impact others
- Develop a shared sense of VCA community and purpose



Joint events and programmes are held regularly, e.g. the VCA Coastal Run to raise funds for Breast Cancer Foundation in 2012, the VCA SG50 Celebration in 2015 and the VCA joint National Day celebration in 2017 held at the Sports Hub. These events serve to strengthen the VCA identity and the relationship among staff and students.

There are also various programmes targeted at bringing together specific groups of students. These programmes include:

Year One orientation at VJC

Year One VCA students visit VJC as part of their orientation programme. During their visit, the VCA students in VJC will host them and familiarise them with the college.

VCA Science Explore

The VCA Science Explore is held in May at VJC. This programme, organised by VJC students, seeks to instil an early interest among Year One students in Science research and investigations. The students attend hands-on workshops to test their hypothesis and to visualise scientific phenomenon in the laboratories, involving concepts based on Biology, Chemistry, Physics and Mathematics. Students are strongly encouraged to make connections between the scientific theories they learnt in the classrooms and the experiments they carry out at the workshops.

Common projects

Our student leaders collaborate on common projects, e.g. organising the 2016 Conference for the Cyberwellness Student Ambassador Programme (Secondary) and the 2017 East Zone Cyberwellness Conference. Students from different CCAs also collaborate on joint trainings or performances. e.g. the joint Symphonic Band concert at Botanic Gardens.

VCA IP Initiation

The Year Five VCA students take part in a VCA IP Initiation to enculturate them into the college. The students also work closely together on a community service project as part of the programme.

GENERAL INFORMATION



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