

SUBJECT SYNOPSIS 2025 Academic Gear



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## PRIMARY LEVEL

### PRIMARY 1 TO PRIMARY 6

SYAS conducts a comprehensive primary school programme, offering academic subjects and curriculum largely based on the MOE's Primary syllabus.



## PRIMARY 1

### ART AND CRAFT

Students will learn to identify simple visual qualities in what they see around them and be curious about what they see. They will learn to share their imagination, thoughts and feelings through drawing and art making by using selected art materials and media. They will also enjoy looking at and creating art, at the same time talk about what they see and experience.

### **BIBLE KNOWLEDGE**

The book Jesus' Family focuses on the introducing Jesus' family (faithful people on earth) and inviting the students to be part of His family.

### **BEGINNER CHINESE**

Students with non-Chinese background will learn basic vocabulary and simple daily conversational speaking. At the end of the year, students should be able to recognise the following vocabulary words: numbers from 1-20, greetings, self-introduction, family members, name of facial features and body parts, name of pets, colours and names of fruits.



### CHINESE LANGUAGE

小一华文课程的学习重点是培养基础阅读和写作 (写话)能力,着重聆听、说话、口语互动、识 字和写字的训练。掌握的识读字为600-650字,识 写字为 300-350字,小一华文课程在发展语言能力的同时,也兼顾人文素养和通用能力。

### **ENGLISH LANGUAGE**

The STELLAR and Nelson English series are used. STELLAR: Strategies for English Language Learning and Reading

Learning the English language requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than the use of worksheets alone. Thus, we make use of the three teaching strategies underpinning the STELLAR model:

### 01 Shared Reading Experiences

Students read stories with the teacher and engage in oral discussions with the teacher and peers. Key language items such as grammar and vocabulary are explicitly taught to them.

### **02 Shared Writing Experiences**

The teacher models writing using children's language. Students engage in writing together and in writing independently.

### 03 Language Activities

Students engage in activities related to a topic or storybook. They have the opportunity to learn various language skills in a meaningful way.

The Nelson English series provides a structured framework which progressively covers core literacy and grammar skills. Students will apply concepts learned through reinforcement and practice.

### **HEALTH EDUCATION**

This subject covers the three dimensions of Health Education: Physical Health, Environmental and your Health, and Emotional and Psychological Health. It teaches students good eating habits, importance of exercise and sleep, taking care of eyes, ears, nose and teeth, some road safety rules, how to prevent germs from spreading diseases, manage their emotions and dealing with bullying and teasing.

### **MATHEMATICS**

In this subject, students will acquire the necessary Mathematical concepts and skills for everyday life, and for continuous learning in Mathematics and related disciplines. Starting with numbers 1 to 100, know how to compare and tackle number patterns, simple addition, subtraction, multiplication, division, ordinal numbers, picture graph, time, length and money. They also develop the necessary process skills for the acquisition and application of Mathematical concepts and skills

### MUSIC APPRECIATION

In this subject, students will learn about the national anthem and the school song. They will be introduced to the different qualities of sound with emphasis on differentiating the high, low, loud, soft, long and short sounds. Singing in solfeggio with hand signs, singing songs that tell a story and playing percussive instruments will be some of the activities they will be engaged in during their musical learning journey.

### PHYSICAL EDUCATION

In this subject, students will learn to travel at different speeds by walking, jogging, running and sprinting, and develop an understanding of when these speeds are most useful. We will build on the students' knowledge of jumping by looking at jumping for distance and height. Students will be encouraged to think about the changes that occur in their bodies when they exercise, why they need to warm up and cool down, including how they can best do those things. They will be taught basic ball handling skills. They will learn to control a ball when they are rolling and bouncing, throwing and catching, on their own, with a partner and in a group. They will



also be introduced to basic Circuit Stations Test and NAPFA Test.

### **SOCIAL STUDIES**

Knowing Myself, Others and My Surroundings

In this subject, students will learn about themselves, people around them and their immediate environment. They will explore who they are in relation to the people and places around them. Through examining the different roles they play, they will also understand how their actions can affect the people and places around them. They will be able to understand that differences in people occur due to differences in cultures and traditions among people, thus assisting them to work together as a group and in their team collaborations.

## PRIMARY 2

### ART AND CRAFT

In this subject, students will learn to identify simple visual qualities in what they see around them and be curious about what they see. They will learn to share their imagination, thoughts and feelings through drawing and art making by using selected art materials and media. They will also enjoy looking at and creating art at the same time talk about what they see and experience.

### **BIBLE KNOWLEDGE**

The book 'Friends of Jesus' has the following objectives:

- To present the Bible to the students, demonstrating its importance as a revelation of God.
- Reflect about our attitudes when we face problems
- Be aware of the importance of cultivating true friendships, having Jesus as an example.
- To always have Jesus as our best friend as Jesus wants to be our friend.

### **BEGINNER CHINESE**

Students will develop communication skills in listening and speaking. At the end of the year, students should be able to count numbers from 20-41, and form sentences with "my + noun", "I have/don't have," "I like (love)/don't like (love)", I can do something at somewhere, how many and comparison (small and big, less and more).

### CHINESE LANGUAGE

小二华文课程的学习重点是培养基础阅读和写

作(写段)能力,小二华文课程的学习重点是培养基础阅读和写作(写段)能力,着重聆听、说话、口语互动、识字和写字的训练。掌握的识读字为 600-650 字,识 写字为 300-350 字,小二华文课程在发展语言能力 的同时,也兼顾人文素养和通用能力。

### **ENGLISH LANGUAGE**

STELLAR: Strategies for English Language Learning and Reading

### Objectives of STELLAR & Language Learning

- Teaching and learning of English using more speaking and listening activities
- Students learn to read and write using rich and interesting books, with discussions led by the teacher

Learning the English language requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than the use of worksheets alone. Thus, we make use of the three teaching strategies underpinning the STELLAR model:

### 01 Shared Reading Experiences

Students read stories with the teacher and engage in oral discussions with teacher and peers. Key language items such as grammar and vocabulary are explicitly taught to them.

### **02 Shared Writing Experiences**

The teacher models writing using children's language. Students engage in writing together and in writing separately and independently.

The Nelson English series provides a structured framework which progressively covers core literacy and grammar skills. Students will apply concepts learned through reinforcement and practice. Stellar Big Books offer a good range of stories from folktales to fantasies, from animal stories to realistic fiction to non-fiction. Rhyming words and repetitions help young readers acquire phonemic awareness, word decoding skills and word recognition. A wide vocabulary range, interesting word choices and language styles provide exposure to rich language use. Reiteration of the grammar rules reinforces the grammar skills of the students.

### **HEALTH EDUCATION**

This subject covers the three dimensions of Health Education: Physical Health, Environmental and your Health, and Emotional and Psychological Health. It teaches students good eating habits, importance of exercise and sleep, taking care of eyes, ears, nose and teeth, some road safety rules, how to prevent germs form spreading diseases, manage their emotions and deal with bullying and teasing.

### **MATHEMATICS**

This subject aims to helps students to acquire mathematical concepts and skills for everyday use. Students will learn to develop critical thinking, reasoning, communication, problem-solving and visualization. They will also learn to use models to solve complicated questions and find new and creative ways to solve problems.

### MUSIC APPRECIATION

In this subject, students will learn more about the different qualities of sound and the notation used to convey those sounds. They will learn how to perform rhythm patterns with percussion instruments, how to create rhythm patterns and how to conduct a song with two or three time-signatures. Musical ensemble playing will be experienced with small hand bells. They will also be introduced to music history in the classical era. The singing of the solfeggio together with accompanying hand signs will also be part of their learning.

### PHYSICAL EDUCATION

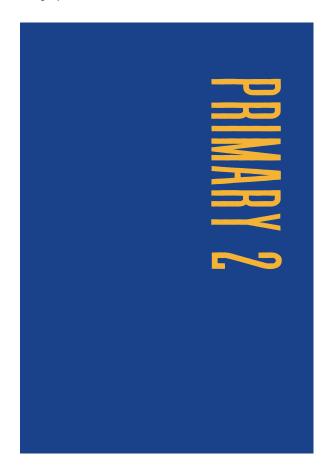
In this subject, students will build upon the skills they have learnt in P1. They learn to run and jump, and throw and catch, in isolation and together as a group. It also gives them time to explore a variety of other ways of jumping, apply these skills to jumping games and create jumping sequences.

They will learn to roll a ball with the right amount of force to hit a target and to stop it dead with their hands. They will learn to bounce a ball whilst running. They progress from jumping to catch a ball, to using an opposition overarm throw and a sideways quoit pitch. They will also develop their balance, coordination and dodging skills. The students will gain experience of playing some simple team games, following rules, competing, and supporting each other to win. They will be encouraged to think about the changes that occur in their bodies when they exercise, how they exercise and why. They will take part in basic Circuit Stations Test and NAPFA Test.

### **SOCIAL STUDIES**

### Coming Together as a Nation

In this subject, students will examine the customs and traditions of different communities living in Singapore. Through such discussion and appreciation, students will have a better understanding of their differences in cultures and tradition and learn to interact harmoniously with one another. They will also understand that sharing a common identity, value and experience will help us to unite as people of Singapore.



### PRIMARY 3

### ART AND CRAFT

Students will learn to identify and differentiate visual qualities while gathering information from visuals and what they see, share ideas and experiences in art works and through art making. They can explore and experiment different ways to use art materials and media and take pride in their own art making as they discuss artworks using basic art vocabulary (elements of art and principles of design.)

### **BIBLE KNOWLEDGE**

The book 'Protected by Jesus' focuses on the power of God. It teaches that God has power over nature because He created it. He has the power over our life because He created us. The students are invited to trust in God's power in their life experiences.

### **BEGINNER CHINESE**

Additional to listening and speaking skills, students will learn to recognise and write Chinese characters. At the end of the year, students should be able to recognise and write the following vocabulary words in Chinese: numbers 41-100, day and dates, nationality, request, positions, food and drink, vegetables and nature.

### **CHINESE LANGUAGE**

小三华文课程的学习重点是培养基础阅读和写作能力,着重聆听、说话、口语互动、识字和写字的训练。掌握的识读字为 1200-1300 字,识写字为 700-750 字,小三华文课程在发展语言能力的同时,也兼顾人文素养和通用能力。

### COMPUTER EDUCATION

The Stage 1 Digital Literacy curriculum introduces young learners to key concepts in

technology and digital citizenship through six units. Students explore everyday technology, computer components, digital art, word processing, data organization, and basic programming. Each unit builds on previous knowledge with practical activities and cross-curricular connections.

### **ENGLISH LANGUAGE**

STELLAR: Strategies for English Language Learning and Reading

Objectives of STELLAR & Language Learning - Teaching and learning of English using more speaking and listening activities

- Students learn to read and write using rich and interesting books, with discussions led by the teacher

English language learning requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than use of worksheets alone. Thus, we make use of the three teaching strategies underpinning the STELLAR model:

### 01 Shared Reading Experiences

Students read stories with the teacher and engage in oral discussions with teacher and peers. Key language items such as grammar and vocabulary are explicitly taught to them.

### **02 Shared Writing Experiences**

The teacher models writing using children's language. Students engage in writing together and in writing independently.

### 03 Language Use Activities in Learning Centres

The teacher prepares mini lessons based on student's specific needs to prepare them for reading & writing activities; e.g. grammar, vocabulary, word recognition, decoding skills, spelling, etc.

Stellar Big books offer a good range of stories. They help young readers acquire phonemic awareness, word decoding skills and word recognition. They contain a A wide vocabulary range, interesting word choices and language styles that provide exposure to rich language use.

### **HEALTH EDUCATION**

This subject covers the three dimensions of Health Education: Physical Health, Environmental and your Health, and Emotional and Psychological Health. It teaches students the importance of exercise and good hygiene, more about My Healthy Plate, how to take care of eyes and teeth, about water safety, fire safety and food safety, the importance of self-confidence and how to protect themselves from abuse.

### **MATHEMATICS**

Basic Mathematical concept understanding with lots of practical exercises and drills in the basic numerical manipulation skills, including the multiplication tables from 2 to 9, are carried out in this subject. Topics covered include numbers up to 10,000 involving the 4 basic operations of addition, subtraction, multiplication and division. Practical topics covered include Money, Time, Length, Area, Mass and Volume. Further very basic concepts in Fractions, Geometry and Bar Graphs are also included. Through all the various topics mentioned, Word Problems are included to give a practical aspect to the concepts learnt.

### MUSIC APPRECIATION

In this subject, students will learn the notation for long and short sounds indicated by the various note values and rests. They will also learn to clap and identify rhythmic patterns. In their composition project, they will learn how to create rhythmic patterns and organise them into a musical composition and perform it. Preparatory to learning to play the recorder, they will learn basic score reading. They will learn the basic posture for recorder playing and the fingering for notes G, A, B, C1 and D1. The instruments of the orchestra will also be introduced in this subject. Role play of classical story. Peter and wolf.

### PHYSICAL EDUCATION

In this subject, students will have the opportunity to practise and develop their existing running, jumping, throwing and catching skills. The students will be using different pathways and moving in different directions so that they can explore how to

use working space in PE. They will demonstrate some control and coordination when running and performing a jump or throw. They will learn how to follow step-bystep instructions and copy actions to learn new techniques. They will combine and apply learnt skills and techniques when participating in running, jumping and throwing activities and games.

They will progress from simple underarm catching to simple overarm throwing and onto an underarm sling for throwing quoits. These are essential skills for playing ball games and the students will be introduced to more ball games. They will also compete in slightly more difficult Circuit Stations Test and NAPFA Test. At the end of the 4 terms, students will learn to compete against self and others and demonstrate improvements to achieve their personal best.

### **SCIENCE**

Based on the latest Primary Science syllabus set by the Ministry of Education, Singapore, we adopt the inquirybased approach to the learning of Science. Knowledge, understanding, application and activities are linked, and this is assumed in this subject.

Life and non-life Science are understood from the perspective of:

- Diversity as illustrated by classifying living and nonliving things, classifying plants and animals, fungi and bacteria, and exploring materials
- Cycles as illustrated by life-cycles of plants and animals, and matters

### **SOCIAL STUDIES**

### **Understanding Singapore**

In this subject, students will learn how the environment influences the lives of its people as they examine Singapore's physical environment. They will also understand how land use in Singapore has changed over time to meet the needs of its people, as well as recognise the importance of using resources wisely to conserve the environment. Through this study of the progress made in overcoming challenges, students will come to appreciate Singapore, the country they live in.

### PRIMARY 4

### ART AND CRAFT

In this subject, students will learn to identify and differentiate visual qualities while gathering information from visuals and what they see, share ideas and experiences in art works and through art making. They can explore and experiment different ways to use art materials and media and take pride in their own art making as they discuss artworks using basic art vocabulary (elements of art and principles of design).

### **BIBLE KNOWLEDGE**

The book 'Chosen by Jesus' focuses on God's messengers. It teaches that Jesus is the great messenger and He is our saviour.

### **BEGINNER CHINESE**

The main learning contents include phone numbers, language, daily routines, modes of transportation, weather, clothing, ongoing actions, school facilities, favourite subjects, and extracurricular activities. As the final segment of the children's version, this year comprehensively reviews Pinyin, previously learned individual characters, and radicals. Additionally, each lesson introduces three new radicals, providing more Chinese characters and radical writing exercises, sentence formation. and narrative expressions. Special listening exercises are included to further enhance students' overall proficiency in listening, speaking, reading, and writing in Chinese.

### **CHINESE LANGUAGE**

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### **COMPUTER EDUCATION**

The Stage 2 Digital Literacy curriculum expands on foundational technology concepts, focusing on information technology, connectivity, digital creativity, and basic coding. Through six units, students deepen their understanding of how technology impacts their lives, learn to use various digital tools and develop essential digital skills.

### **ENGLISH LANGUAGE**

STELLAR: Strategies for English Language Learning and Reading

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English language learning requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than use of worksheets alone. Thus, we make use of supported reading, comprehension strategies to understand at literal, inferential and evaluative levels, manipulating sentences by adding/ combining details, writing group and individual texts and learning key language items such as grammar and vocabulary explicitly.

From Middle Primary, teachers will apply guided reading approaches such as the Directed Reading-Thinking Activity (DRTA), which can be conducted in the context of Supported Reading and the Know-Want to LearnLearned (KWL) strategy. KWL is used for non-narrative texts and Retelling. From Middle Primary, pupils will do more of the reading themselves and they will be encouraged to do so silently. Recognition of the various types of texts and whole text study can be gradually introduced from the Middle Primary years. At the same time, pupils will learn to process information at different levels of text difficulty by applying comprehension skills at the literal and inferential levels

### **HEALTH EDUCATION**

This subject aims to stimulate students' interest in physical activity by connecting health concepts and practical application during physical education. It covers topics in growth and health, good health habits, vision and oral care, self-safety and keeping safe from illness and diseases. It provides students with information and learning experience to enable them to develop skills in practicing good health habits.

### **MATHEMATICS**

This subject will cover topics such as addition and subtraction, multiplication, decimals, measurement, geometry and data analysis. These are the essential components in Mathematics to enable students to advance further when they move up to the next level.

### MUSIC APPRECIATION

The different qualities of sound will be further explored in this class. Emphasis on note values from whole notes to eighth notes and their corresponding rests, and dotted rhythms will be studied. This will be incorporated in the recorder playing lessons. Music for the recorder playing will have a span of one octave from D to D1. In this class, students will learn how to create a musical composition, add lyrics and performance notations and then perform them. They will learn to identify the various instruments in the orchestra and be introduced to some orchestral works.

### PHYSICAL EDUCATION

In this subject, students will apply and try to improve existing running, throwing and jumping skills. They will demonstrate increasing control and coordination when running and performing a jump or throw. They will also develop tracking and receiving skills and learn to move in different ways, changing direction, speed and locomotors quickly. They will follow step-bystep instructions and copy actions to learn new techniques with accuracy, control and fluency. They will exhibit more control and confidence when participating in running,

jumping and throwing activities and games. The students will be given opportunities to use a variety of throwing techniques, including the underarm and overarm throw to throw for both distance and accuracy. They will be encouraged to try and achieve their personal best and will be working independently, in pairs, as well as collaboratively within a group. They will compete in slightly more difficult Circuit Stations Test and NAPFA Test.

### **SCIENCE**

Knowledge, understanding, activities are linked, and this is assumed in this subject. Life and non-life are understood from the perspective of systems as illustrated by the human digestive, circulatory, respiratory, skeletal and muscular systems, and plant systems. Interactions in the living and non-living world are explored, starting with magnetism, followed by topics related to energy such as light and shadow, transmission and reflection of light, heat sources, heat gain and heat loss, expansion and contraction, and changes of state.

### **SOCIAL STUDIES**

### Valuing Our Past

In this subject, students will learn to identify, culture and heritage of individuals in Singapore. It helps them to understand what makes Singapore a nation and a home to cherish. They will also learn about Singapore's connection with the world and able to describe the achievement of societies past and present. On top of that students are able to reflect and empathize what the older generation has done in the past through group work and short presentation.



## PRIMARY 5

### ART AND CRAFT

In this subject, students will learn to make informed links between the use of visual qualities and intentions, at the same time get ideas for their art making from observing visuals and the world around them. They will experiment with alternative ways to use materials and tools to make art individually and with others. They will discuss the intentions of their own artworks and interpret those of others. They will apply processes, art materials and media during art making that are appropriate to intentions and take pride in their own art making and respect others' artworks. They will also learn to evaluate artworks using art vocabulary.

### **BIBLE KNOWLEDGE**

This subject provides an in-depth analysis of the decisions made by biblical figures using the book "The Right Decision." It emphasizes the significance of aligning our choices with God's will in order to make righteous decisions in life. Through studying the Bible, will gain a comprehensive understanding of core values such as honesty, courage, obedience, self-control, loyalty, respect, gratitude, humility, trustworthiness, and temperance.

### CHINESE LANGUAGE

小五华文课程的学习重点是综合发展各语言技能,着重口语互动、阅读、写作和书面互动的训练。掌握的识读字为 1600-1700 字,识写字为 1000-1100 字,小五华文课程在发展语言能力的同时,也兼顾人文素养和通用能力。

### **COMPUTER EDUCATION**

Stage 3 of the Digital Literacy curriculum guides students through advanced technology concepts, including the evolution of computers, digital content creation, online

safety, and introductory programming. Through six units, student enhance their understanding of modern technology, develop blogging and presentation skills, and gain hands-on experience with algorithms and coding.

### **ENGLISH LANGUAGE**

STELLAR: Strategies for English Language Learning and Reading

### Objectives of STELLAR & Language Learning

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- Students learn to read and write using rich and interesting books, with discussions led by the teacher

English language learning requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than use of worksheets alone. Thus, we make use of supported reading, comprehension strategies to understand at literal, inferential and evaluative levels, manipulating sentences by adding/combining details, writing group and individual texts and learning key language items such as grammar and vocabulary explicitly.

By this time, children are expected to already be accomplished independent readers. The focus therefore changes to encourage children to read to learn. Children are exposed to non-fiction stories, which they must not only read and comprehend, but be able to extract key points about the topic. The teacher would teach them how to extract, organise and remember these information. This is done at different granularity. Children are first expected to understand the big picture of the whole story. It is then decomposed into paragraphs, statements and even words to get children to understand the structure and grammar of the text.

The writing process is now formalised to get students familiar with the structured processes of planning, writing and reviewing, and to add more creative elements to their own stories.

### **HEALTH EDUCATION**

This subject aims to stimulate students' interest in physical activity by connecting health concepts and practical application during physical education. It covers topics in growth and fitness, good health habits and practices, and self-safety. It provides students with a learning experience that includes the necessary information and skills to enable them to develop good health habits.

### **MATHEMATICS**

A preparation subject for PSLE which includes a more in-depth knowledge of the topics students have previously learnt. This subject includes whole numbers, fractions, decimals, geometry, ratio and percentage. Students will also be exposed to Higher Order Thinking (HOT) questions which require them to analyse questions using heuristics.

### MUSIC APPRECIATION

In this subject, students learn more elements in music and how to apply them in their music composition project. The music composition will include creating the various rhythms, creating a melody to the rhythms, organising the musical patterns, adding lyrics and performance notations. Emphasis is placed on how to interpret music notation as they learn how to tune and play the ukulele. Instruments of the orchestra will be explored further with listening segments of orchestral performances. DIY musical instruments.

### PHYSICAL EDUCATION

In this subject, students will practise specialised movement skills and apply them in a variety of movement sequences and situations. They will learn to manipulate and modify elements of effort, space, time, objects and people to perform movement sequences. They will apply critical and creative thinking processes in order to generate and assess solutions to movement challenges. They will also use running, jumping, throwing and catching in isolation and in combination to develop flexibility, strength, technique, control and balance.

They will compete against self and others in

a controlled manner. They will be trying to achieve their personal best in the Circuit Station tests and NAPFA Test. They will learn to evaluate their own performances. Students will also be given opportunities to take part in individual, paired and group activities and games.

### **SCIENCE**

In this subject, students will learn how to differentiate, classify and analyse together with their classmates. The topics will include plant and human reproduction, states of water and water cycle, transport system in humans and plants, human respiratory system, cell as the unit of life, electrical system and how to use electricity. Upon completion of this subject, students will have the experiences which will build their interest in Science and stimulate their curiosity about their environment.

### **SOCIAL STUDIES**

### Appreciating the World

In this subject, students will explore how the Singapore national identity can be built through national symbols, national events and places in Singapore. In addition, they will also learn how different people contributed to the development of Singapore through the areas of defence and social cohesion. Lastly, students will learn about the diverse physical environment, people's way of life in Southeast Asia and how different countries in the region are interconnected.



## PRIMARY 6

### **ART AND CRAFT**

Students will learn to make informed links between the use of visual qualities and intentions, at the same time get ideas for their art making from observing visuals and the world around them. They will experiment with alternative ways to use materials and tools to make art individually and with others. They will discuss the intentions of their own artworks and interpret those of others. They will apply processes, art materials and media during art making that are appropriate to intentions, take pride in their own art making and respect others' artworks. They will also learn to evaluate artworks using art vocabulary.

### **BIBLE KNOWLEDGE**

The book 'The Greatest Hero' is based on a biblical world view. The book aims to show children who Jesus really is, so that they will be attracted to Him.

### CHINESE LANGUAGE

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### COMPUTER EDUCATION

Stage 4 of the Digital Literacy curriculum introduces students to more advanced digital skills, focusing on file organisation, text formatting, presentations, multimedia, communication, data management, and coding. Through seven comprehensive units, students refine their digital competencies and prepare for more complex digital tasks.

### **ENGLISH LANGUAGE**

STELLAR: Strategies for English Language Learning and Reading

### Objectives of STELLAR & Language Learning

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English language learning requires frequent exposure to listening, speaking, reading and writing opportunities and activities rather than use of worksheets alone. Thus, we make use of supported reading, comprehension strategies to understand at literal, inferential and evaluative levels, manipulating sentences by adding/ combining details, writing group and individual texts and learning key language items such as grammar and vocabulary explicitly.

Aside from equipping students with knowledge for PSLE, we also provide additional supplementary books and activities focusing on students' weaknesses to prepare students for more application of the English language at higher levels of education, which will assist in the assimilation of the language.

### **HEALTH EDUCATION**

This subject covers the three dimensions of Health Education: Physical Health, Environmental and your Health, and Emotional and Psychological Health. It teaches students the importance of exercise and healthy diet, how to maintain a healthy body by avoiding substances harmful to health, recognising oral health and fire safety.

### **MATHEMATICS**

subject **fundamental** covers mathematical concepts including Algebra, Fractions, Ratios, Percentages, Geometry (Angles and Circles), Speed, Volume, Pie Charts, Solid Figures, and Nets. Its purpose is develop students' problem-solving abilities and mathematical skills by providing hands-on practice and building their understanding of mathematical principles. The course aims to equip students with exam and preparation skills increase confidence tackling mathematical problems.

### MUSIC APPRECIATION

Learning how to play chords as well as play a melodic line on the ukulele will be the practical emphasis for this class. An in depth study of one musical instrument of the orchestra will be the focus of the music project. A large portion of this subject will include music appreciation of different forms of music and instruments from various countries. Composing song from ukulele.

### PHYSICAL EDUCATION

In this subject, students will continue to make use of the specialised movement skills and apply them in a variety of movement sequences and situations. They will participate in physical activities designed to enhance fitness, and discuss the impact regular participation can have on health and wellbeing. They will also participate positively in groups and teams by encouraging others and negotiating roles and responsibilities. They will use running, jumping, throwing and catching in isolation and in combination to excel in flexibility, strength, technique, control and balance.

They will be striving for improvement to achieve their personal best in the High-intensity Interval Training (HIIT) workout, Circuit Stations Test and NAPFA Test. They will learn to evaluate their own and other's performances. Students will be competent to take part in individual, paired and group activities and games.

### **SCIENCE**

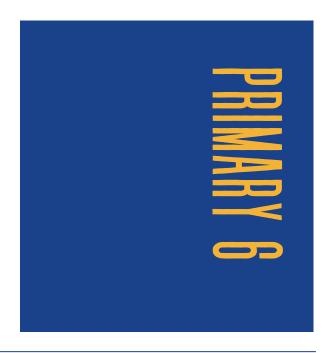
Based on the latest Primary Science syllabus set by the Ministry of Education, Singapore, we adopt the inquiry based approach to the learning of Science. Knowledge, understanding, application and activities are linked, and this is assumed in this subject.

Life and non-life Science are understood from the perspective of:

- Energy as illustrated by energy in food, forms and uses of energy, energy conversions and sources of energy
- Interaction as illustrated by forces, types of forces, living together, characteristics of the environment, food chains and food webs, adaptations for survival and man's impact on the environment. The course intends to provide students with the necessary skills for exam preparation while boosting their confidence in addressing scientific challenges.

### **SOCIAL STUDIES**

Students will explore the world, the diverse communities of people and their way of life. They will also embark on a study of the achievements of various ancient civilisations, with attention given to India and China. While gaining an awareness of the rich cultural heritage, they will also come to appreciate the legacies which continue to influence our lives today.



## WE BELIEVE



Every child is capable of learning

Look forward to put forth their best effort in every endeavour





Inculcate the love for lifelong learning



## SECONDARY LEVEL

PREPARATORY SECONDARY 1 FOUNDATION, SECONDARY 1 TO SECONDARY 4

SYAS conducts a comprehensive secondary school programme, offering academic subjects and curriculum largely based on the MOE's Secondary syllabus.

# PREPARATORY SECONDARY 1 FOUNDATION

### **ART AND CRAFT**

Students will learn to make informed links between the use of visual qualities and intentions, at the same time get ideas for their art making from observing visuals and the world around them. They will discuss the intentions of their own artworks and interpret those of others. They will apply processes, art materials and media during art making that are appropriate to intentions, take pride in their own art making and respect others' artworks. They will also learn to evaluate artworks using art vocabulary.

### **BIBLE KNOWLEDGE**

The book 'The Greatest Hero' is based on a biblical world view. The book aims to show children who Jesus really is, so that they will be attracted to Him

### COMPUTER EDUCATION

This subject aims to help students to be technologically skilled in order to contribute actively in a technologically-driven society. The topics will help develop a sense of information technology culture and an appreciation of the varieties and power of computer software. It will also create an understanding of how computers function, their roles and how they are used in society and their effect on our everyday life. In

addition to that, the students also will be learning some learning storytelling and productivity tools.

### **ENGLISH LANGUAGE**

Pre-requisite for this subject is a basic knowledge of English grammar listening/reading skills. This subject aims to teach students English through (1) listening, (2) reading, (3) speaking and (4) writing. They will be given ample opportunities to learn listening, oral, reading and writing skills. They will be taught proper pronunciation and English grammar in preparation for Secondary 1. completion, students are expected to be able to listen to instructions, converse and write meaningfully in English.

### **HEALTH EDUCATION**

This subject covers the three dimensions of Health Education: Physical Health, Environmental and your Health, and Emotional and Psychological Health. It teaches students the importance of personal hygiene and healthy diet, how to maintain a healthy body, stress management, how to resist peer pressure and how to handle relationships wisely.

### PHYSICAL EDUCATION

This subject aims to help students develop a healthy mind through a healthy body. Students will learn to appreciate the significance and advantages of physical activities through games and sports. Through participation in a variety of activities; they will develop physical constructive personal / social characteristics like teambuilding, fair play and good sportsmanship. This will also help students to build up on their health-related abilities: strength, perseverance, cardiorespiratory strength, alertness, movement co-ordination and balance.

### **SCIENCE**

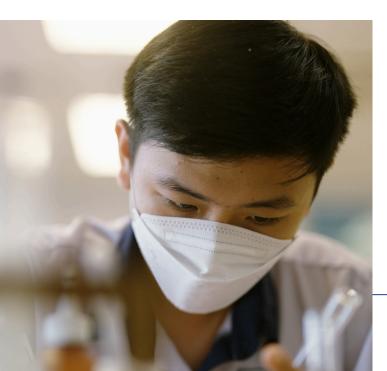
This subject aims to provide students with the skill of creative problem solving such as using an innovative method. Decision-making, investigation skill to arose their curiosity. It also provides them through inquiry learning which will be able to help them in acquiring knowledge and understanding of their natural and physical world based on investigations. They will also do project-based learning activities to further enhance their learning experience.

### **SOCIAL STUDIES**

Students will explore the world, the diverse communities of people and their way of life. They will also embark on a study of the achievements of various ancient civilisations, with attention given to India and China. While gaining an awareness of the rich cultural heritage, they will also come to appreciate the legacies which continue to influence our lives today.

### MUSIC APPRECIATION

Learning how to play chords as well as play a melodic line on the ukulele will be the practical emphasis for this class. An in depth study of one musical instrument of the orchestra will be the focus of the music project. A large portion of this subject will include music appreciation of different forms of music and instruments from various countries



## SECONDARY 1

### **BIBLE KNOWLEDGE**

Bible Knowledge in Secondary 1 revolves around the theme of law. Students will learn to look critically at the spoken and unspoken laws that society functions around, as well as the Ten Commandments and how they remain relevant and critical in today's life. They will be challenged to realise that God's laws are not made to be restrictive, but that they reflect His character and are necessary for living a good life. The syllabus aims to introduce students to the Christian worldview and lead them to think more deeply about the choices they make as teenagers in today's society through classroom discussions and group presentations.

### CHINESE LANGUAGE

中一华文(快捷)课程学习重点在于加强学生听说读写的能力,着重读写能力的培养。课程内容包括学习词汇、听力、口语表达、成语、阅读理解、实用文、作文(记叙文和说明文)等。中一华文(快捷)课程在加强语言交际能力的同时,也着重于提高人文素养和通用能力。

### **COMPUTER EDUCATION**

The Secondary 1 Computer Education program introduces students to foundational digital skills needed to excel in today's technology-driven world. It focuses on mastering tools for collaboration, file management, and productivity developing proficiency in word processing, spreadsheets, and presentations. curriculum emphasises responsible online behaviour, including safeguarding personal data, evaluating credible sources, and engaging ethically in digital interactions. Students explore creativity and storytelling through projects such as content creation,

multimedia graphic design, and Additionally, presentations. hands-on activities like building mechanical models and beginner coding allow students to apply problem-solving skills and gain technical experience. Through structured activities and interactive platforms, the program fosters adaptability, teamwork, and lifelona learning, preparing students to build confidence and thrive in a dynamic digital landscape.

### **ENGLISH LANGUAGE**

This subject is designed to facilitate the teaching and learning of English in Secondary One and to help students build a strong foundation in language skills. Each unit of work in the subject is organised around a theme with meaningful and integrated sequence of tasks or activities under the following areas of language learning namely reading, viewing, speaking, listening, writing and representing. Grammar and Vocabulary lessons are also included in each unit of work. Each unit of work offers an overview of the lesson objectives, focus area and learning outcomes.

### LITERATURE IN ENGLISH

This subject is designed to facilitate the learning of English in Secondary One and to help students build a strong foundation in language skills. The following literary texts (genre-based) are selected for Secondary One students:

- Poetry: a selection of poems
- Prose (Novel): Charlie and the Chocolate Factory and a selection of short stories
- Drama: a selection of plays

### **GEOGRAPHY**

This subject focuses on the physical environment and the natural resources, namely, water supply, tropical rainforests and mangroves. Students will investigate the challenges that these resources face in being sustainable, to provide for human beings in the long run. To do this the student will be expected to learn geographical skills which include how to read maps, graphs and tables, photography, sketches, diagrams, news articles and internet links.

### **HISTORY**

This subject brings students through the development of Singapore from a little fishing village to a successful port of international standard. Students also study how the island developed with the help of immigrants who flocked to its shore through the years.

### **MATHEMATICS**

This subject emphasises the understanding and application of mathematical concepts, as well as students' proficiency in problem solving and higher order thinking skills. The subject's main objective is to prepare the students for Cambridge G.C.E 'O' Level Examinations. Mathematics concepts are presented in a systematic way- from the fundamentals to the more complex. There numerous graded questions activities for students of mixed abilities to test their mastery of mathematical concepts. Practice questions are provided to create opportunities for students to apply the mathematical processes, practise and hone their newly acquired mathematical skills. There are different levels of difficulty to cater to the diverse learning needs of students. Interesting factoids and tidbits related to Mathematics are included to promote an appreciation of Mathematics and cultivate a positive learning attitude found in the textbooks. Fully worked examples are provided to develop students' process skills and metacognition. This subject confidence in develop students establishing mathematics strona fundamentals on numbers, algebra, geometry, measurement, data handling and analysis.

### **SCIENCE**

This subject consists of the basics of Secondary Science:

(i) Physics - units and measurement of length, area, volume, mass and time, characteristics of lights;

- (ii) Chemistry classifying substances into elements, compounds, mixtures in atomic and molecular terms, solutions, suspensions, particulate nature of matter the arrangement and movement of particles in solids, liquids and gases, atomic model the subatomic particles and molecules.
- (iii) Biology cell structure and function.

# SECONDARY

## SECONDARY 2

### **BIBLE KNOWLEDGE**

This subject focuses on the identity of God and who He is to us human beings. It also explains in details the great controversy between God and Satan and how God will ultimately save us from Satan's evil plots. It also helps students to know how to get ready and prepared for the imminent end of the universe and to be ready citizens of a new heaven and a new earth.

### **CHINESE LANGUAGE**

中二华文(快捷)课程学习重点在于加强学生听说读写的能力,着重读写能力的培养。课程内容包括学习词汇、听力、口语表达、成语、阅读理解、实用文、作文(记叙文和说明文)等。中二华文(快捷)课程在加强语言交际能力的同时,也着重于提高人文素养和通用能力。

### **COMPUTER EDUCATION**

The Secondary 2 Computer Education program builds on prior knowledge, focusing on advanced digital and technical skills to promote creativity, problem-solving, and innovation. Students refine their productivity and collaboration skills, engage in projects such as video production, website design, and animation, and develop coding and 3D modelling capabilities. The curriculum encourages the application of these skills to solve real-world problems and create impactful content using principles of design and multimedia production. With an emphasis on cyber awareness and responsible online behaviour, students learn to navigate digital environments safely and ethically. enhancing efficiency, communication, and adaptability, the program equips students

with the technical expertise and growth mindset needed to excel in an ever-evolving digital world.

### **ENGLISH LANGUAGE**

This subject is designed for students to hone their receptive and productive skills in English. To develop the receptive skills of listening, reading, and viewing, students will listen to and watch video clips, and read varied written and graphic media. They will then identify issues, evaluate information and draw conclusions from their observations.

To develop productive skills of speaking, writing and representing, they will be tasked to do a presentation individually or as a group. They will also write at least three essays implementing proper grammar and appropriate vocabulary

### LITERATURE IN ENGLISH

The subject aims to teach students to be independent and self-reliant thinkers, giving them opportunities to develop their abilities enjoy reading literature texts and appreciate its contribution to aesthetic and imaginative growth. It offers different perspectives and wider worlds that students can wander into and experience in safety, without pressure or judgment. Through Literature, students can travel to different locales, to the past, present or future and learn about other cultures and people. In addition, they can see, feel and experience other lives and emotions and explore areas of human concern eg self-identity, family, nationhood good and evil, courage etc, thus leading to a greater understanding of themselves and others. Finally, students will learn to engage and respond personally to real-life experience issues, to moral dilemmas confront and to touah identification with an understanding of other human beings and ways of life.

The following literary texts (genre-based) are selected for Secondary Two students:

- Poetry: a selection of poems
- Prose (Novel): Charlie and the Great Glass Elevator and a selection of short stories
- Drama: a selection of plays

### **GEOGRAPHY**

This subject covers the challenges of living in an urban environment, such as access to housing, transport for all and how to improve the quality of life. The students will investigate the challenges that cities face in being sustainable to provide for future generations in the long run. To effectively investigate strategies to manage these challenges, the students will learn the skills of investigation to interpret date from news articles, maps, graphs, charts, photographs, sketches, diagrams and internet searches

### **HISTORY**

This subject leads students through the history of Singapore which covers the period of pre-1819 to 1971 allowing students to see the island develop from an ancient settlement to how it achieves independence from the British. Students can trace the coming of the British and the early immigrants and how they together fought a common enemy in the Japanese during World War Two. Most importantly, students will gain an understanding of how a new nation is formed through determination and strive.

### **MATHEMATICS**

This subject aims to equip students with a foundation in topics assessed in the Cambridge G.C.E 'O' Level Mathematics Examination. This subject will cover topics on (i) proportion, (ii) algebra, (iii) functions and graphs, (iv) equations and inequalities. (v) congruence and similarity, (vi) geometry and measurement, (vii) data handling and analysis, and (viii) probability. This will include an in-depth understanding of the topic on algebra, including the expansion and factorisation of algebraic expressions, algebraic fractions, solving linear equations in two unknowns and quadratic functions.

### **SCIENCE**

Based on the latest Science syllabus set by the Ministry of Education, Singapore, we adopt the inquiry-based approach to the SECONDARY 2

learning of Science. Knowledge, understanding, application and activities are linked, and this is assumed in this subject.

Life and non-life Science are understood from the perspective of Systems as illustrated by the Human Digestive, Circulatory, Human Reproductive, Electrical System as well as Plant Transport Systems.

Interactions in the living and non-living world are explored, starting with Application of Forces, Energy and Work Done, Effects of Heat and its Transmission, Chemical Changes and Interactions within Ecosystems.

## SECONDARY 3

### ADDITIONAL MATHEMATICS

Students will acquire and be able to apply the mathematical concepts and skills in the topics on Quadratic equations and inequalities; Surds and Indices; Polynomials and Partial Fractions; Exponential and Logarithmic functions; Binomial Theorem; Coordinate Geometry, Circles, Applications of straight line graphs; Trigonometric functions; Trigonometric identities and Equations.

### **BIBLE KNOWLEDGE**

Bible Knowledge in Secondary 3 explains the details of Christian history - how the church movement reformation the impacted the world. They will also learn how the Adventist church came about and its fundamental beliefs. It aims to help the students understand God's character. Students will be better equipped to deal with hot topics such as understanding sexuality and interpersonal relationships through the application of biblical principles and looking to Jesus Christ as our role model.

### **BUSINESS STUDIES**

The Secondary 3 topics include:

- (i) Understanding Business Activity
- (ii) People in Business
- (iii) Marketing

The aims are to enable candidates to:

- (i) Apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts
- (ii) Make effective use of relevant terminology, concepts and methods, and recognise the strengths and limitations of the ideas used in business

- (iii) Distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements
- (iv) Appreciate the perspectives of a range of stakeholders in relation to the business environment, individuals, society, government and enterprise
- (v) Acquire a foundation for further study of business or other subjects.

### **CHINESE LANGUAGE**

中三华文(快捷)课程学习重点在于加强学生听说读写的能力,着重读写能力的培养。课程内容包括学习词汇、听力、口语表达、成语、阅读理解、实用文、作文(记叙文、说明文和议论文)等。中三华文(快捷)课程在加强语言交际能力的同时,也着重于提高人文素养和通用能力。

### **ENGLISH LANGUAGE**

In this subject, students learn to (i) listen, read and think critically and with accuracy, understanding and appreciation of a wide range of literary and informational and functional texts from print and nonprint sources, (ii) speak, write and present in internationally acceptable English that is grammatical, fluent, mutually intelligible and appropriate different purposes, for audiences, contexts and cultures, and (iii) understand and internationally use grammar acceptable English, and vocabulary accurately and appropriately as well as understand how speakers and writers put words together and use language to communicate meaning and achieve impact.

### **HISTORY**

The Secondary 3 topics include:

- (i) Extension of European control in Southeast Aisa;
- (ii) Challenges to European dominance

The subject aims to enable candidates to acquire knowledge of:

(i) History as a construct from evidence and there are different interpretations of historical events;

- (ii) The key characteristics of the periods studied which includes the social, economic, cultural and political contexts of the societies studied and the experiences of the peoples who lived in these societies at that point in time;
- (iii) The interconnections between individuals, societies, events and developments studied and those in the present day;
- (iv) Key individuals, groups, forces, events and ideas that shaped the development of the political, social and cultural contexts of our world today;
- (v) The process of change by showing change and/or development within and across the periods of study; and
- (vi) The integrative study of physical and human environments to enable students to gain better understanding of their own space and other parts of the world. It also focuses on the interconnectedness among groups of people, and between people and their environment.

### **MATHEMATICS**

This subject requires students to have acquired the basic knowledge of Secondary 1 & 2 Mathematics or their equivalents. It further develops numerical calculation, algebraic manipulation and estimation skills through the studies of indices, quadratic equations, linear inequalities, functions and graphs. Spatial visualisation, measurement and the use of mathematical tools skills are more thoroughly explored with the study ofcongruency, similarity, scale drawings, properties of circle, Pythagoras' Theorem, trigonometry, are lengths, sector areas, radian measure and coordinate geometry.

### PRINCIPLES OF ACCOUNTS

This subject provides a basic introduction to financial accounting. Emphasis is on the roles of accounting, the accounting information system, elements of the financial statements and the financial statements. Upon completion, students should be able to apply the double entry system of recording business transactions, presenting accounting information in ledger accounts and analysing the effects of accounting transactions on financial statements.

### **SCIENCE BIOLOGY** (Extracted from SEAB)

The Ordinary Level Science (Biology) Syllabus is designed for students to develop skills that will be of long-term value in an increasingly complex and globalised world, rather than focusing on large quantities of factual material, which may have only shortterm relevance. It is envisaged that teaching and learning programmes based on this syllabus will feature a wide variety of learning experiences designed to promote acquisition of scientific expertise and understanding, and to develop values and attitudes relevant to science. The assessment will be specifically intended to test skills, comprehension and insight in familiar and unfamiliar contexts.

### Content Structure

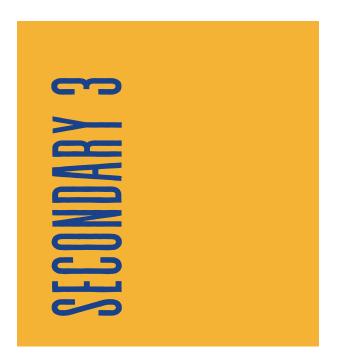
Section	Topics
Cells and the Chemistry of Life	<ol> <li>Cell Structure and Organisation</li> <li>Movement of Substances</li> <li>Biological Molecules</li> </ol>
The Human Body - Maintaining Life	<ul><li>4. Nutrition in Humans</li><li>5. Transport in Humans</li><li>6. Respiration in Humans</li><li>7. Infectious Diseases in Humans</li></ul>

### **SCIENCE CHEMISTRY** (Extracted from SEAB)

The Ordinary Level Science (Chemistry) Syllabus is designed to place less emphasis on factual materials while having a greater emphasis on the understanding and application of scientific concepts and principles. This approach has been adopted in recognition of the need for students to develop skills that will be of long-term value in an increasingly complex and globalised world, rather than focusing on large quantities of factual materials, which may have only short-term relevance.

### Content Structure

Section	Topics
Matter – Structures and Properties	<ol> <li>Experimental Chemistry</li> <li>The Particulate Nature of Matter</li> <li>Chemical Bonding and Structure</li> </ol>
Chemical Reactions	<ul><li>4. Chemical Calculations</li><li>5. Acid-Base Chemistry</li><li>6. Qualitative Analysis</li><li>7. Redox Chemistry</li></ul>



### **SCIENCE PHYSICS** (Extracted from SEAB)

The Ordinary Level Science (Physics) Syllabus provides students with a coherent understanding of energy, matter, and their interrelationships. It focuses on investigating natural phenomena and then applying patterns, models (including mathematical ones), principles, theories and laws to explain the physical behaviour of the universe.

### **Content Structure**

Section	Topics
Measurem- ent	1. Physical Quantities, Units and Measurement
Newtonian Mechanics	<ul><li>2. Kinematics</li><li>3. Force and Pressure</li><li>4. Dynamics</li><li>5. Turning Effect of Forces</li><li>6. Energy</li></ul>
Thermal Physics	7. Kinetic Particle Model of Matter 8. Thermal Processes
Waves	<ul><li>9. General Wave</li><li>Properties</li><li>10. Electromagnetic</li><li>Spectrum</li><li>11. Light</li></ul>

## SECONDARY 4

### ADDITIONAL MATHEMATICS

Students will acquire and be able to apply the mathematical concepts and skills in the topics on differentiation; integration; application of integration - area of region; application of integration - kinematics; and plane geometry.

### **BIBLE KNOWLEDGE**

Secondary 4 Bible Knowledge focuses on understanding the prophecies in the Bible and seeing how many of them have already come to pass in the world, showing that God indeed knows the beginning from the end, and that the Bible can be trusted. This Biblical worldview will challenge them to think critically about the person they want to become as they graduate from Secondary school, the decisions they make in life, and how to have healthy relationships. In one of the terms, Secondary 4 students will also be empowered to enact changes within their school as part of their final year campaign. Throughout the curriculum, students will be challenged on critical thinking presentation skills that will enable them to excel in tertiary education.

### **CHINESE LANGUAGE**

中四华文(快捷)课程学习重点在于加强学生听说读写的能力,着重读写能力的培养。课程内容包括学习词汇、听力、口语表达、成语、阅读理解、实用文、作文(记叙文、说明文和议论文)等。中四华文(快捷)课程在加强语言交际能力的同时,也着重于提高人文素养和通用能力。

### **ENGLISH LANGUAGE**

In this subject, students will continue to build on and refine the language skills they

acquired in Secondary 3. They will be adequately prepared for the GCE O Level English Examination through various tasks in listening, reading, speaking and writing. Students will be exposed to a wide range of literary and informational and functional texts from print and non-print sources. They will learn to be aware of purposes, audiences, contexts and cultures in using English for communication.

### **BUSINESS STUDIES**

The Secondary 4 topics include:

- (i) Operations Management
- (ii) Financial Information and Financial Decisions
- (iii) External Influences on Business Issues

The aims are to enable candidates to:

- (i) Apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts
- (ii) Develop knowledge and understanding of operations management
- (iii) Develop knowledge and understanding of business finance, cash flow forecasting and working capital
- (iv) Distinguish between income statements and statements of financial position, and evaluate the financial performance of a business by calculating and analysing its profitability and liquidity ratios
- (v) Develop knowledge and understanding of the economic issues and environmental and ethical issues that businesses will encounter
- (vi) Develop knowledge and understanding of effects on businesses operating in the international economy
- (vii) Acquire a foundation for further study of business or other subjects

### **HISTORY**

The Secondary 4 topics include:

- (i) Bi-Polarity and Cold War;
- (ii) Decolonisation and Emergence of Nation-States

The subject aims to enable candidates to acquire knowledge of:

(i) History as a construct from evidence and

there are different interpretations of historical events;

- (ii) The key characteristics of the periods studied which include the social, economic, cultural and political contexts of the societies studied and the experiences of the peoples who lived in these societies at that point in time;
- (iii) The interconnections between individuals, societies, events and developments studied and those in the present day;
- (iv) Key individuals, groups, forces, events and ideas that shaped the development of the political, social and cultural contexts of our world today;
- (v) The process of change by showing change and/or development within and across the periods of study; and
- (vi) The integrative study of physical and human environments to enable students to gain better understanding of their own space and other parts of the world. It also focuses on the interconnectedness among groups of people, and between people and their environment.

### **MATHEMATICS**

This subject is an extension of the Secondary 3 Mathematics subject. It continues with lessons

- (i) In Set Language and Notation which include (1) Use set language and set notation to describe a set of objects, its elements and its proper subjects; (2) Draw Venn Diagrams to represent sets; (3) Define Complement, Union and Intersection of Sets;
- (ii) In Data Analysis which include (1) Interpret and analyse cumulative frequency curves; (2) Understand the terms range, quartiles, interquartile range and percentiles; (3) Interpret and analyse boxand-whisker plots; (4) Calculate the Standard Deviation for Grouped and Ungrouped Data; (5) Comparison of two data sets;
- (iii) In Probability which include (1) Representing probabilities of simple combined events using possibility diagrams

- and tree diagrams and (2) Understand and apply the concepts of mutually exclusive events and independent events to solve daily life problems;
- (iv) In Matrices which include (1) Display information in the form of a matrix, interpret the data in a given matrix, identify the order of a matrix; (2) Perform addition, subtraction, scalar multiplication and multiplication of matrices; (3) Solve problems involving the calculation of the sum and product of two matrices;
- (v) In Vectors which include (1) Understand Vectors, position vectors, and the operations on vectors; (2) Represent a vector and its magnitude using various notations; (3) The applications of vectors in geometry.

### PRINCIPLES OF ACCOUNTS

This subject is a continuation of the Secondary 3 Principles of Accounts. The emphasis is on the correction of errors and analysis of the financial statements. Upon completion, students should be able to apply accounting knowledge to various accounting situations and evaluate accounting information to make judgements and recommendations.

### SCIENCE BIOLOGY

This subject picks up from where Secondary 3 Science Biology has left off. It continues with the study of plants and how they interact with animals in the ecosystem. Then, the processes that contribute to the continuity of life are examined. These processes include how genes interact to produce hereditary characteristics in the offspring and how genetic information is passed from one generation to the next.

### SCIENCE CHEMISTRY

This subject is a continuation of the Secondary 3 Chemistry subject and introduces the basic concepts of The Reactivity Series, Chemical Energetics, Rate of Reactions, Maintaining Air Quality and Organic Chemistry.

(i) To examine the features and the patterns

of the Periodic Table and how to predict the properties of elements using the Periodic Table.

- (ii) To examine the general properties of metals and the extraction of iron from its ore hematite.
- (iii) To examine energy changes and to identify some common chemical reactions as exothermic and endothermic reactions.
- (iv) To examine the methods of investigate the speed of reactions.
- (v) To examine the sources of pollutants and their effects on the environment and human beings.
- (vi) To examine the product obtained from the extraction of petroleum, the physical and chemical properties of alkanes, alkenes, alcohol and carboxylic acids and the fundamental terms such as homologous series, functional group, general formula, structural formula and polymers which are commonly used in organic chemistry.

### **SCIENCE PHYSICS**

This subject is a continuation of the Secondary 3 Physics subject and introduces the basic concepts in Physics in the fields of Magnetism and Electricity and Radioactivity. The concepts learnt seek to enable students to view the pursuit of science as meaningful and useful.

Section	Topics
Electricity and Magnetism	<ol> <li>Electric Charge and</li> <li>Current of Electricity</li> <li>D.C. Circuits</li> <li>Practical Electricity</li> <li>Magnetism and</li> <li>Electromagnetism</li> </ol>
Radioactiv- ity	Radioactivity

## SECONDARY 4

## OUR CONFESSIONAL IDENTITY



Guided by our long-standing philosophical belief: Sanyu (三育) or "Three-Fold Education" of Mind, Body and Spirit.

Committed to providing learning opportunities that recognise students' strengths and develop their full potential.





Always striving for excellence and goodness, in character and service. A personification of our school values in their lives.





### SAN YU ADVENTIST SCHOOL



UEN/ERF Registration No: 201112057W ERF Validity: 06/07/2023 - 05/07/2027



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