

GRADE 6 CURRICULUM

- ENGLISH
- MATHEMATICS
- SCIENCE
- INTERNATIONAL MIDDLE YEARS CURRICULUM
- JEWISH EDUCATION
- LANGUAGES
- ART
- PE
- **CENTRE STAGE**
- ROBOTICS
- PSHE

ENGLISH

Students will be empowered to become independent, creative, critical thinking readers, writers and orators.

Assessment focuses on the three key skills of reading, writing, and speaking and listening. Through the year we will study the following units of work:

- Autobiographical writing (introductory unit to the three key skills in English)
- Skellig by David Almond (study of a novel)
- Introduction to Shakespeare (study of short extracts from various plays)
- War Horse (playscript) by Michael Morpurgo (study of a dramatic play)
- Ballads (study of poetry focusing on the Ballad form)
- Short Stories from Around the World (study of prose focusing on short stories)
- Let's think in English (group discussion lessons developed by Kings College, London. Take place once a fortnight and develop students' cognitive abilities in English)

Reading: Students will be encouraged to build their skills of inference and analysis in order to understand the writer's craft. They will be taught how to write convincingly about texts, and to appreciate the importance of context.

Writing: Students will be supported to learn how to independently plan and structure extended pieces of writing. They will extend their repertoire of methods to engage the reader, including using literary devices. Accurate grammar, punctuation, vocabulary and spelling underpin good writing and these skills are taught throughout all units of work.

Speaking and Listening: Students will learn through discussion and debate; role play, and presentation activities. Speaking and listening tasks also develop social skills such as appropriate modes of speech (e.g. levels of formality; how to express disagreement politely) and turn taking in discussion.

MATHEMATICS

We follow the Singapore Maths curriculum. In Grade 6 the topics and skills acquired are outlined below.

Fractions:

Students will be able to:

- (i) Divide a proper fraction by a whole number without calculator.
- (ii) Divide a whole number/proper fraction by a proper fraction without calculator.
- (iii) Solve word problems involving the 4 operations.

Percentage:

Students will be able to:

- (i) find the whole given a part and the percentage.
- (ii) Find percentage increase/decrease.
- (iii) Solve word problems involving percentage.

Ratio:

Students will be able to:

- (i) Establish the relationship between fraction and ratio.
- (ii) Solve word problems involving ratio including changing ratios.

Distance, Time & Speed:

Students will be able to:

- (i) Understand the concepts of speed and average speed.
- (ii) Establish the relationship between distance, time and speed exclude conversion of units e.g. km/h to m/min.
- (iii) Solve up to 3-step word problems involving speed and average speed.

Algebra:

Students will be able to:

- (i) Use a letter to represent an unknown number.
- (ii) Use notation, representations and interpretation of simple algebraic expressions.
- (iii) Simplify simple linear expressions excluding brackets.
- (iv) Evaluate simple linear expressions by substitution.
- (v) Solve simple linear equations involving whole number coefficient only in simple context.

Area and Circumference of Circle:

Students will be able to:

- (i) Find the area and circumference of circle.
- (ii) Find the area and perimeter of semi-circle and quarter circle.
- (iii) Find the area and perimeter of composite figures made up of square, rectangle, triangle, semi-circle and quarter circle.

Volume of Cube and Cuboid:

Students will be able to:

- (i) Find one dimension of a cuboid given its volume and other dimensions.
- (ii) Find the length of one edge of a cube given its volume.
- (iii) Find the height of a cuboid given its volume and base area.
- (iv) Find the area of a face of a cuboid given its volume and one dimension.
- (v) Use of square root and cube root.

Special Quadrilaterals:

Students will be able to:

(i) Find unknown angles, without additional construction of lines, in geometric figures involving square, rectangle, triangle, parallelogram, rhombus and trapezium.

Nets:

Students will be able to:

- (i) Identify and draw 2 D representations of cube, cuboid, cone, cylinder, prism and pyramid.
- (ii) Identify the nets of 3D solids of a cube, cuboid, prism and pyramid.
- (iii) Identify the solid which can be formed by a given net.

Pie Charts:

Students will be able to:

(i) Read and interpret data from pie chart.

Solve 1-step problems using data from tables/graphs.

SCIENCE

Science combines the best of the FOSS curriculum (developed by UC Berkeley) and IMYC units for Earth Science to give a broad Scientific understanding across the three Sciences of Biology, Physics and Chemistry.

ENERGY AND ELECTROMAGNETISM:

- Conduct experiments to determine how the force of attraction between two magnets changes with distance between the magnets
- Electric current investigations
- Investigate how the number of winds in an electromagnetic coil affects the strength of the magnetism.
- Identify that electricity and magnetism are related effects of magnetism

DIVERSITY OF LIFE:

- Relate the structures and function of cells, tissues, organs, systems and organisms
- Investigate seeds, their growth and how different factors affect growth
- Identify the processes in plants (transpiration, reproduction and seed dispersal)

IMYC Science Topics:

- Earth Science
- Brainwave

INTERNATIONAL MIDDLE YEARS CURRICULUM

Geography:

Students will address the idea of balanced and unbalanced communities. They will investigate how a community needs to maintain an equilibrium balance and how communities become unbalanced (e.g. transport, clean water, recreation, rubbish, safety). They will identify and question phenomena that impacts imbalance and balance (e.g. weather, climate, and Earth movements).

Through effective research methods, students will identify how the discovery of useful natural resources such as water, coal, good or poor soil and plants affects/has affected the development of land and the distribution of goods and people for better and worse. They will consider how some groups of people transitioned from their nomadic lifestyle, following animal migration for food, to building settlements. Through researching settlements in their own country and region of the world, they identify how and why these settlements have grown and changed over time as a result of people finding out new things.

Beginning with their local area, students will investigate residential, leisure and business areas and begin to consider the complex geographical factors, both human and physical, that exist. They will then compare and contrast their local area with another, either a rural village or an urban centre, identifying similarities and differences in the organisation of the two settlements. Students will then research the structure of one or more international organisations and evaluate their impact.

History

We live in an age when students are bombarded with information from a multitude of sources. A lot of that information is trying to give a specific point of view or present a one sided perspective of certain events, and is often 'unbalanced'. Students will learn effective methods to discern balanced perspectives of important people, issues and events. They will gain an understanding of how reputations are created, why people form unbalanced opinions and what skills help determine whether historians are presenting balanced accounts. Students will research historical facts about historical figures and how and why views of these figure have changed over the years.

Ever since humans learned to walk, they have been driven by the desire to discover new places to further their own wealth, knowledge or prestige. Students will investigate how exploration has affected society; for better and for worse across the timeline of human history. They will consider the motivations of explorers and the impact of discovery on the places discovered, the explorers' home countries and beyond. In the final task students research 20th century female explorers and construct and present convincing arguments for having particular explorers accepted into a museum's hall of fame.

As the world evolved and technological advances developed, students will discover societies such as the Mayans, Aztecs, Egyptians, Greeks, Romans, and cultures within Asia and Africa, and consider how and why these societies changed and developed. They will identify differences between societies that are highly structured and those that are less so, researching what it was actually like to be part of a society from the past from the viewpoint of one group within the society in order to appreciate the complex issues that existed at the time.

JEWISH EDUCATION: HERITAGE

TEFILA: DAILY PRAYER (Optional)

The students begin each day with Tefila (prayer) which progresses through each grade. They are introduced to the meaning of the prayers being said, their origin and the concept of Kavana (how we should focus during prayer).

CHAGIM: JEWISH FESTIVALS

Throughout the year, the students build on prior knowledge to learn about each Jewish Festival. They look at the festivals from both a historical and contemporary perspective, the stories behind the festivals and how they lead to the laws and customs Jews practice today. The students feel the atmosphere of the festivals with songs, crafts, reenact and experience the rituals connected to the festival.

TANACH: BIBLE (with Rashi)

In Middle School the students use the original text and related workbooks. The learning of Chumash is taught in a dynamic and interactive way. Each workbook teaches the Chumash text using word glossaries, maps, charts, diagrams, and illustrations. The workbooks use engaging activities and exercises designed to highlight the human, moral, and religious values of each portion of the Chumash.

The focus of Tanach class in the Middle School is to acquire the necessary skills to learn and understand the original text, understanding the layout of the Chumash: Psukim; Parashot; Chumashim, and to develop independent text skills.

This study includes translation skills (from biblical to Modern Hebrew), knowledge of prefixes, suffixes, root words, and the ability to recognise the similarities of the Psukim.

Students use the study of Rashi commentaries more frequently to encourage questioning that leads to a deeper understanding of the text.

PARASHA: WEEKLY TORAH PORTION

The study of the weekly Parasha familiarises the students with the characters, events and laws of the Torah. As they learn the storyline, they discuss the Jewish values and ethics encountered, and how they can be practically incorporated into their daily lives.

Students are encouraged to prepare a Dvar Torah (an oral summary) to share at home.

DINIM & MINHAGIM: LAWS AND CUSTOMS

The students follow units of work on the Jewish laws and customs applicable to daily life and to festivals including: Shabbat; Tefilla; Brachot, and Kashrut.

The material is presented progressively, from simple to advanced, and is accompanied by maps, charts, diagrams, illustrations and an assortment of interactive activities. The material is designed to promote love for Judaism, acquaint the students with various Jewish customs and enhance Hebrew comprehension.

JEWISH EDUCATION: CULTURE

TEFILA: DAILY PRAYER (Optional)

The students begin each day with Tefila (prayer) which progresses through each grade. They are introduced to the meaning of the prayers being said, their origin and the concept of Kavana (how we should focus during prayer).

OVERVIEW

This course provides students with opportunities to learn about and learn from Judaism. The curriculum builds on the foundations of knowledge and understanding acquired in the Grade School.

The curriculum covers five key areas: Jewish History; Jewish Values; the Holocaust; Israel and Tikun Olam. Students are encouraged to respond to and reflect on the lessons being taught with a strong emphasis on an understanding of the impact that Jewish History has had on the Jewish People today.

Jewish values have a central focus in this curriculum where students are encouraged to explore Jewish values from

different perspectives that are thought provoking and meaningful. Each class will focus on Jewish values in a way that highlights the distinctive contribution Judaism can make to the challenges of modern life.

This course is taught in an interactive and dynamic way with students being expected to involved themselves in research projects and presentations.

OUTCOMES

Judaism

To know about and understand the origins and development of Judaism

To appreciate the vibrancy of Judaism, its rich heritage and culture

To develop a meaningful and life long relationship with Judaism, its rich heritage and culture

Jewish History and the Jewish People

To know about and understand the origins and the development of Jewish History and the Jewish People

To identify with the diversity of individuals and groups that make up the Jewish People

To understand the impact Jewish History has had and continues to have on the Jewish People today

Israel

To know about and understand the history and development of the modern State of Israel

To appreciate Israel as central to the Jewish People

To develop a meaningful and life long relationship with the State of Israel

Tikun Olam

To know and understand how the Jewish People have engaged in Social Action throughout the ages

To appreciate the value of Social Action as a fundamental aspect of Judaism

To engage in Social Action, as an expression of Jewish values, both inside and outside of the Jewish community

Universal Values

To understand that Jews have a responsibility to have a positive impact on the world

To understand the many similarities Judaism has with other cultures and shared values

To develop a lifelong commitment to engaging with these universal values and integrating them into their daily lives

LANGUAGES

Students are required to take either Hebrew or Mandarin.

Mandarin

The Mandarin curriculum aims to develop the 4 essential skills of listening, speaking, reading and writing. Below is an outline of the curriculum content.

- Core vocabulary list of 250 words.
- Develop listening and speaking of high-occurrence sentence patterns relating to basic survival.
- Recognise high-occurrence Mandarin characters to aid recognition in electronic medium.
- Ability to converse using skeletal sentences or large chunks of sentences about familiar topic.
- Chinese culture appreciation in selected topics.

Ivrit: the Hebrew Language

Speaking: At SMMIS we follow the Talam Ivrit B'Ivrit philosophy where the students are fully immersed in a Hebrew environment, which leads to a mastery of conversational and written Hebrew. A progressive Hebrew language programme is introduced through the use of themes and concepts which are explored in Hebrew. Common Hebrew phrases are integrated into the classroom, objects are referred to by their Hebrew names, and instructions are given in Hebrew. Hebrew vocabulary holds a main focal point in the study of Hebrew and is emphasised with weekly lists and various games and activities. The students practice their language skills by reading and writing Hebrew in correlation to the topics taught in class.

In Middle School the student are divided based on their ability and proficiency in Hebrew. We ensure that an appropriate enrichment and levelling programme is implemented in all Hebrew classes.

A special enrichment programme is offered to Hebrew speakers and the use of various workbooks relevant to each level is implemented.

We follow the Israel Ministry of Education recommended syllabus for native Hebrew speakers.

Writing: Middle School students write book reports and keep a journal in Hebrew using all the skills acquired in Grade School. They practice and reinforce these skills through various level appropriate workbooks. Each class is given a set of Matarot, (goals) to achieve throughout the year.

Ulpan: We ensure that students that are new to the Hebrew language, or that do not have enough prior language acquisition are placed in our Ulpan programme. This enables them to have a solid foundation before entering the mainstream classroom.

In our Hebrew programme the students in Ulpan have an opportunity to move up to the next level once their learning goals have been achieved. Students are monitored regularly throughout their time in Ulpan.

WORLD RELIGIONS

The purpose of World Religions at SMMIS is to provide students with opportunities to learn about and learn from the world's major religions: Hinduism, Buddhism, Christianity, Islam and Sikhism. Various aspects of these religions are discussed, with knowledge and understanding being built up over the years. Grade 6 will focus on authority, purpose and meaning; rights and responsibilities and ethics and relationship.

ART

The Art curriculum follows the International Middle Years Curriculum (IMYC) framework that revolves around the eight central learning dispositions: responsibility, adaptability, enquiry, morality, thoughtfulness, respect, communication and reliance. The curriculum aims to incorporate these life skills through the students' appreciation of art. We seek to promote enthusiasm, a sense of increased personal responsibility and a sense of pride in the artwork produced.

Skills: Students will learn how to effectively apply the elements of art (line, shape/form, colour, space, and texture) and the principles of design (unity, balance, movement, rhythm, emphasis/focal point and scale/proportion) in order to accurately portray one and two-point perspectives, as well as draw and shade objects, people and faces in a realistic manner. They will also be able to combine these techniques with the application of tempera, water colours, and acrylic paints.

Application: Besides the mediums mentioned above, students will be working with clay by using the pinch-pot, slab and coil methods of hand building, and multi-media such as art/colour pencils, oil/chalk pastels, charcoals, colour construction paper, scissors, glue, clay, cloth, paints, ink, bushes, beads, feathers, gems, mosaics, craft sticks, card board, etc. Students will be encouraged to work with various artistic styles of the past and modern time (Realism, Impressionism, Fauvism, Cubism, Pop, Surrealism and Abstract Expressionism) to broaden their artistic horizon.

Objective: Our aim is to develop aesthetic values by providing students with the technical skills needed to perceive and interpret visual images in various media through realism and by using their imagination. Students will be exposed to the design process, creative problem solving, and to help them to see the connections beyond the art studio. Student will be able to recognize, distinguish and appreciate art and cultural influences of different cultures and historical periods and to analyse, compare, interpret, and evaluate one's own art, the art of other students and of major artists. This is with the aim of enhancing creativity and to develop an awareness of each student's inherent creative potential.

PHYSICAL EDUCATION

The P.E. curriculum is underpinned by the International Middle Years Curriculum (IMYC), facilitating an environment for pupils to develop holistically focusing on academic, social and lifelong skills such as respect, resilience and caring for others in a sporting context. These life skills are enhanced through real-life situations in outdoor and adventure activities.

Through a skills centred approach, we aim to provide students with an opportunity to acquire advanced sports skills and strategies focusing on effective performance (attacking, dribbling, teamwork) through a broad range of physical activities:

- Ball games
- Striking games
- Athletics
- Dance
- Swimming activities

By the end of Grade 8, pupils are expected to perform a broad range of advanced sports skills, including the monitoring and evaluation of their own performance and that of their peers. Furthermore, pupils should be able to swim a distance of over 50 meters in two different swimming strokes and perform a basic water rescue technique, as well as understanding the importance of leading a physical and active lifestyle. Our curriculum ensures that our pupils acquire a knowledge of the benefits of physical activities at both a local and at an international context.

MUSICAL THEATRE AND DRAMA

This course is designed specifically for SMMIS by Centre Stage, Singapore. The programme combines process driven musical, movement and drama activities which leads to presentations and performance. Students use drama games, learn singing techniques and where appropriate harmonies and develop dance, movement, acting and stagecraft skills. The students can expect to develop: self-confidence; imagination; cooperation; concentration; empathy; communication; coordination; problem solving; physical fitness, and to develop an appreciation of the arts.

ROBOTICS - NULLSPACE

Students learn the fundamentals of good robot construction, programming and coding. The course is designed with several hands-on activities to allow students to integrate and apply the different concepts and lessons learnt. Students will embark on a Micro:Bit programme which will allow them to create prototypes of project ideas. They will then be introduced to a project-based lesson structure consisting of brainstorming of ideas in alignment to a common theme, planning the project timeline and working on both the hard and software of the project prototype.

PSHE (Personal, Social, Health, Education)

PSHE is a developmental programme of learning through which the students acquire the knowledge, skills and understanding to manage their lives now and in future. PSHE builds on the skills for students to develop effective relationships, assume greater responsibility and manage personal safety. It will introduce the students to a wider world and enable them to make an active contribution to their communities.

Topics covered:

- resilience and building self-esteem
- mental health, including the different types of mental health issues we face in our society, the possible consequences and how to manage emotional difficulties
- our physical selves, how to ensure they eat a healthy diet, exercise and take care of their bodies as they go through puberty