



**SIR  
MANASSEH  
MEYER**

**International School**

**Secondary School**

# **Grade 6 Curriculum**

**August 2024**



# Grade 6 Curriculum

**English**

**Maths**

**Science**

**Humanities**

**Jewish Education**

**Languages**

**Art**

**PE**

**Drama**

**Music**

**Makerspace**

**PSHE**

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## **GRADE 6 CURRICULUM**

# 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)
- *The Bone Sparrow* by Zana Fraillon (study of a novel)
- Introduction to Shakespeare (study of short extracts from various plays)
- Short Stories from Around the World (study of prose focusing on short stories)

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### **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.

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### **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.

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### **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.



## **GRADE 6 CURRICULUM**

# Maths

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

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### **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.

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### **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.

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### **Ratio**

Students will be able to:

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

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### **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 Write speed in different units such as km/h, m/min, m/s and cm/s
- iv Solve up to 3-step word problems involving speed and average speed

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### **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.

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### 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.

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### 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

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### 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

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### 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

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### Pie Charts

Students will be able to:

- i Read and interpret data from pie chart.
- ii Solve 1-step problems using data from tables/graphs.



## **GRADE 6 CURRICULUM**

# **Science**

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### **Living things**

Learners build on their previous knowledge of living things and senses to develop their knowledge of:

- i Characteristics of all living things
  - ii Cells and their functions
  - iii Structural hierarchy of cells, tissues, organs and organ systems
  - iv Classifying animals and plants into major groups
  - v Understanding the meaning of a species
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### **Solids, liquids and gases**

Learners build on their previous knowledge of materials and properties to develop their knowledge of:

- i Particle theory of matter
  - ii Properties of solids, liquids and gases
  - iii Process of change of state
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### **Energy transfers**

Learners build on their previous knowledge of energy as something that makes things happen, to develop their knowledge of:

- i Different types of energy
  - ii Law of conservation of energy
  - iii Energy transfers and daily applications in life
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### **Acids and bases**

Learners build on their previous knowledge of acids to develop their knowledge of:

- i How to tell if a solution is an acid or an alkali
- ii pH scale
- iii Neutralisation and some of its applications



## **The Earth and beyond**

Learners build on their previous knowledge of the Earth and Space and develop their ideas on:

- i The different types of rocks and soils
- ii Simple models of the internal structure of the Earth
- iii Fossils and the fossil record as a guide to estimating the age of the Earth
- iv How the movement of the Earth causes the apparent daily and annual movement of the sun and stars
- v The relative positions and movement of the planets and the Sun in the solar system
- vi The impact of the ideas and discoveries of Copernicus, Galileo and more recent scientists
- vii The Sun and other stars as sources of light, and that planets and other bodies are seen by reflected light

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## **Micro-organisms and disease**

Learners build on their previous knowledge of health, the characteristics of living things and cells to develop their knowledge of:

- i How some micro-organisms can be useful to humans but others are harmful
- ii The use of micro-organisms in food production
- iii How micro-organism activity can cause decay
- iv The work of Louis Pasteur and other scientists studying the human body

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## **Putting things into groups**

Learners build on their previous knowledge of grouping together materials and living things with similar properties and characteristics to develop their knowledge of:

- i Metals and non-metals
- ii Everyday materials and their physical properties

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## **Habitats and environment**

Learners build on their previous knowledge of sorting living things into groups and the characteristics of living things to develop their knowledge of:

- i Where organisms live (Habitat)
- ii How organisms interact with each other and the environment
- iii The influences humans have on the natural environment
- iv Variation within a species



## Forces and their effects

Learners build on their previous knowledge of pushes and pulls to develop their knowledge of:

- i The effects of forces on movement, including friction and air resistance
- ii The effects of gravity on objects

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## Scientific enquiry

Work focuses on:

- i Making predictions and reviewing them against evidence
- ii Being able to talk about the importance of questions, evidence and explanations
- iii Suggesting ideas that may be tested
- iv Outlining plans to carry out investigations, considering the variables to control, change or observe
- v Making predictions referring to previous scientific knowledge and understanding
- vi Identifying appropriate evidence to collect and suitable methods of collection
- vii Choosing appropriate apparatus and using it correctly
- viii Making careful observations including measurements
- ix Making conclusions from collected data, including those presented in a graph, chart or spreadsheet
- x Considering explanations for predictions using scientific knowledge and understanding and communicating these
- xi Presenting conclusions using different methods



## **GRADE 6 CURRICULUM**

# **Humanities**

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### **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 do 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 children 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.



## **GRADE 6 CURRICULUM**

# **Jewish Education**

### **Overview**

This course provides students with opportunities to learn about Judaism and to learn from Judaism. The curriculum covers 4 key areas: Jewish Values/Tikun Olam; Jewish History; Israel/ Zionism, and the Holocaust. The curriculum has been designed for SMMIS by our team of international educators.

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 focuses on Jewish values in a way that highlights the distinctive contribution Judaism makes 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.

### **Key Outcomes**

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#### **Jewish/Universal Values – Tikun Olam**

- To know and understand how the Jewish People have engaged in Social Action throughout the ages
- 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 the universal values and integrating them into their lives
- To engage in Social Action, as an expression of Jewish values, both inside and outside of the Jewish community



## **Jewish History & 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

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## **Israel: Zionism**

- 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

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## **Holocaust Studies**

- To know and understand the causes of World War Two and the Holocaust (Shoah)
- To identify the evolution and spread of antisemitism, Anti-Jewish policies and propaganda
- To identify the consequences of the Holocaust
- To understand the impact the Holocaust has had and continues to have on the Jewish People today
- To develop a meaningful way to remember and ensure that history doesn't repeat itself



## **GRADE 6 CURRICULUM**

# Languages

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### **MFL: Mandarin**

The Mandarin curriculum aims to develop the 4 essential skills of listening, speaking, reading and writing. Students who study Mandarin sit the Youth Chinese Test (YCT) qualification appropriate to their level at the end of every academic year. 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.

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### **MFL: Ivrit**

At SMMIS we follow the philosophy of full immersion of the Hebrew language, creating a rich 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.

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.

Secondary School students are expected to be able to write book reports and keep a journal in Hebrew using all the skills acquired. 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.



## **GRADE 6 CURRICULUM**

# **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 resilience. 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.

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### **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.

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### **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 multimedia 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, cardboard, 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.

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### **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.



## **GRADE 6 CURRICULUM**

# PE

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 6, 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.

## **GRADE 6 CURRICULUM**

# Drama

Our Drama curriculum focuses on developing the key dramatic skills of:

- Making (exploring, devising, shaping, interpreting)
- Performing (presenting and producing)
- Responding (evaluating and applying knowledge and understanding).

Students will learn drama games, 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.

## **GRADE 6 CURRICULUM**



# Music

Our Music curriculum aims to develop an appreciation and love of Music in all students through the following aims and activities:

- perform, listen to, review and evaluate music across a range of historical periods, genres, styles and traditions, including the works of the great composers and musicians
- learn to sing and to use their voices, to create and compose music on their own and with others, have the opportunity to learn a musical instrument, use technology appropriately and have the opportunity to progress to the next level of musical excellence
- understand and explore how music is created, produced and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations



## **GRADE 6 CURRICULUM**

# Makerspace

The SMMIS Secondary School students apply innovative Makerspace concepts to real-world problems, underpinned by practical skills, including communication, inquiry, collaboration, creativity, problem solving and critical thinking skills.

### **What Learning Outcomes are Achieved in a Makerspace?**

Making and makerspaces are complementary to curriculum driven classes. The SMMIS Secondary School Makerspace Programme involves what are often described as “the 4 C’s” of necessary 21st century skills:

- Creative thinking
- Critical thinking
- Collaboration
- Communication

The SMMIS Secondary School Makerspace programme is unique; supportive of our student cohort and their willingness to partake in an exciting, skills-focussed, innovative programme.

Students will partake in a skills-based, hands-on curriculum. The types of tasks students will participate in include:

#### **Microbits**

- Microbit mini projects

#### **Microbit Programming**

- Students will be able to create simple coding with DIY projects

#### **Introduction of 3D Modeling**

- Fusion 360-2D to 3D CAD designing
- Cura software
- 3D printing

#### **PBL – Project Based Learning Collaborative Tasks**



## **GRADE 6 CURRICULUM**

# **PSHE (Personal Social, Health Education)**

PSHE is a developmental program of learning through which children in all grades 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.

## **World Religions**

Students are introduced to the major world religions through stories, symbols, and key beliefs. They learn to recognise similarities and differences with respect and curiosity. The focus is on developing open-mindedness and understanding in a multicultural Singapore setting.