



# Curriculum Handbook

## International Baccalaureate Middle Years Programme 2025

<b>Guiding Principles</b>	<b>2</b>
<b>The IB Learner Profile</b>	<b>2</b>
<b>The IB Middle Years Programme at Mercedes College</b>	<b>3</b>
<b>Teaching and Learning in the IB</b>	<b>6</b>
<b>Personal Project (Year 10)</b>	<b>7</b>
<b>Assessment</b>	<b>7</b>
<b>MYP Certification</b>	<b>8</b>
<b>Growth and Personal Skills (GPS)</b>	<b>9</b>
<b>Learning Areas</b>	<b>12</b>
<b>Curriculum Outline</b>	<b>12</b>
<b>Lesson Allocation</b>	<b>13</b>
<b>Religious Education</b>	<b>16</b>
<b>The Arts</b>	<b>17</b>
Units of Study	18
<b>Design</b>	<b>20</b>
Units of Study	22
<b>Individuals and Societies</b>	<b>23</b>
Units of Study	24
<b>Language and Literature</b>	<b>25</b>
Syllabus	25
<b>Language Acquisition</b>	<b>28</b>
<b>Mathematics</b>	<b>32</b>
Units of Study	34
<b>Physical and Health Education</b>	<b>37</b>
Example Units of Study	38
<b>Science</b>	<b>39</b>
Units of Study	41
<b>Study Thinking Extension Program (STEP)</b>	<b>42</b>
<b>Homework Guidelines</b>	<b>43</b>
<b>Assessment Guidelines</b>	<b>43</b>
<b>Glossary of MYP Terms</b>	<b>44</b>
<b>Command Terms</b>	<b>45</b>



## Guiding Principles

### Mercedes College Mission

As a Catholic school in the Mercy tradition and inspired by the Gospels, we work in partnership with families enabling students to flourish in all aspects of their humanity and thus contribute to a better and more peaceful world.

### Mercedes College Vision

To be a sustainable, internationally minded world-class school, providing a holistic educational experience for our students within a unique culture and community where we honour traditions and live the Mercy Keys.

### Mercedes College Values

We live by the Mercy Keys: Compassion, Loyalty, Justice, Integrity, Responsibility and Mutual Respect across our daily interactions and strategic decisions.

### The IB mission statement: Education for life

The International Baccalaureate (IB) aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organisation works with schools, governments and international organisations to develop challenging programs of international education and rigorous assessment.

These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

## The IB Learner Profile

The aim of all IB programmes is to develop internationally minded people who, recognising their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

IB Learners strive to be:	
Inquirers	We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.
Knowledgeable	We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.
Thinkers	We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
Communicators	We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.
Principled	We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.
Open-minded	We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
Caring	We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.
Risk-takers	We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
Balanced	We understand the importance of balancing different aspects of our lives - intellectual, physical, and emotional - to achieve well-being for ourselves and others. We recognise our interdependence with other people and with the world in which we live.
Reflective	We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

## The IB Middle Years Programme at Mercedes College

The Middle Years Programme (MYP) provides a framework of academic challenge and life skills for students aged 11-16 years. The 5-year program offers an educational approach that embraces yet transcends traditional school subjects. It naturally follows the Primary Years Programme and serves as excellent preparation for the Diploma Programme and the South Australia Certificate of Education (SACE).

The curriculum content provided within the MYP framework reflects the Australian Curriculum.

The MYP aims to develop in students:

- The disposition and capacity to be lifelong learners
- The capacity to adapt to a rapidly changing reality
- Problem solving and practical skills and intellectual rigour
- The capacity and self-confidence to act individually and collaboratively
- An awareness of global issues and the willingness to act responsibly
- The ability to engage in effective communication across frontiers
- Respect for others and an appreciation of similarities and differences.

The MYP provides a common framework that is consistent across all levels and areas of study within the College.

### The MYP Model

In the programme model for the MYP, the student is placed in the centre surrounded by the traits of the IB Learner Profile.

The first ring around the student describes the features of the program that help students develop disciplinary (and interdisciplinary) understanding.

- Approaches to learning (ATL) – developing skills for learning.
- Approaches to teaching – emphasising MYP pedagogy that challenge students to think, inquire and collaborate with others.
- Concepts – understanding is developed through a concept-driven curriculum that forms connections between disciplines.
- Global contexts – showing how learning best takes place in context.

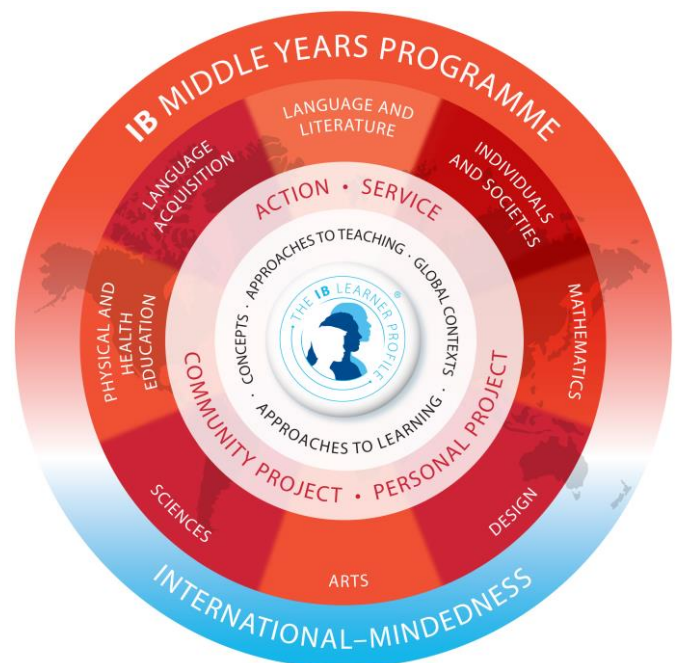
The next ring describes some important outcomes of the program that connects the classroom to the real world. Inquiry-based learning results in student-initiated action, which may involve service within the local and global community. The MYP culminates in the personal project in Year 10 (final year of the MYP). This is a student-centred practical exploration of their personal interests and experiences which applies and assesses their ATL skills.

The third ring describes the MYP's broad and balanced curriculum. The MYP organises teaching and learning through 8 subject groups and offered as multiple disciplines. History and Geography, for example, are taught within the individuals and societies subject group. Biology, Chemistry and Physics disciplines are taught within the sciences subject group. Connections between subjects are often made clear through interdisciplinary projects undertaken in each year of the program. The subject groups are connected through global contexts and key concepts.

The outer ring reflects the international mindedness of the programme which helps students become responsible global citizens. We work with students to be open to diverse cultures, speak multiple languages, and understand that people with different views, backgrounds and perspectives can also be right

### Approaches to Learning

Through approaches to learning (ATL) students develop skills that have relevance across the curriculum that help them “learn how to learn”. ATL skills provide a solid foundation for learning independently and with others as well as help students prepare for, and demonstrate learning through, meaningful assessment. They provide a common language that students and teachers can use to



reflect on, and articulate on, the process of learning. While ATL skills are not formally assessed in the MYP, they contribute to students' achievement in all subject groups

IB programmes identify 5 ATL skill categories: thinking, social, communication, self-management and research, expanded into developmentally appropriate skill clusters.

Thinking skills	Critical thinking Creative thinking Transfer	<ul style="list-style-type: none"> <li>• Acquisition of knowledge</li> <li>• Comprehension</li> <li>• Application</li> <li>• Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Dialectical thought</li> <li>• Metacognition</li> </ul>
Social skills	Collaboration	<ul style="list-style-type: none"> <li>• Accepting responsibility</li> <li>• Group decision-making</li> <li>• Adopting a variety of group roles</li> </ul>	<ul style="list-style-type: none"> <li>• Respecting others</li> <li>• Cooperating</li> <li>• Resolving conflict</li> </ul>
Communication skills	Communication	<ul style="list-style-type: none"> <li>• Listening</li> <li>• Speaking</li> <li>• Reading</li> <li>• Writing</li> </ul>	<ul style="list-style-type: none"> <li>• Viewing</li> <li>• Presenting</li> <li>• Non-verbal communication</li> </ul>
Self-management skills	Organisation Affective skills Reflection	<ul style="list-style-type: none"> <li>• Gross motor skills</li> <li>• Fine motor skills</li> <li>• Spatial awareness</li> <li>• Organisation</li> <li>• Time management</li> </ul>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Healthy lifestyle</li> <li>• Codes of behaviour</li> <li>• Informed choices</li> </ul>
Research skills	Information literacy Media literacy	<ul style="list-style-type: none"> <li>• Formulating questions</li> <li>• Observing</li> <li>• Planning</li> <li>• Collecting data</li> </ul>	<ul style="list-style-type: none"> <li>• Recording data</li> <li>• Organising data</li> <li>• Interpreting data</li> <li>• Presenting research findings</li> </ul>

## Global Contexts

Students at the MYP age range learn best when their learning experiences have context and are connected to their lives and to the world that they have experienced.

Global contexts provide a common language for powerful contextual learning, identifying specific settings, events or circumstances that provide more concrete perspectives for teaching and learning. When learning becomes meaningful and relevant, students are more likely to be engaged.

When teachers select a global context for learning, they are answering the following questions:

- Why are we engaged in this inquiry?
- Why are these concepts important?
- Why is it important for me to understand?
- Why do people care about this topic?

MYP global contexts provide common points of entry for inquiries into what it means to be internationally minded, framing a curriculum that promotes multilingualism, intercultural understanding and global engagement.

These contexts build on the powerful themes of global significance that structure teaching and learning in the PYP, creating relevance for adolescent learners.



**Global context**

**Focus question(s) and description**

**Identity**

Identities and relationships

Who am I? Who are we? What does it mean to be human? Students will explore:

- identity and nature of the self
- beliefs and values
- personal, physical, mental, social and spiritual health
- human relationships including families, friends, communities and cultures
- rights and responsibilities
- what it means to be human.

**Interactions**

Orientation in space and time

What is the meaning of “where” and “when”? Students will explore:

- personal histories
- homes and journeys
- turning points in humankind; discoveries
- explorations and migrations of humankind
- the relationships between, and the interconnectedness of, individuals and civilisations, from personal, local and global perspectives.

**Perspective**

Personal and cultural expression

What is the nature and purpose of creative expression? Students will explore:

- how we express ourselves
- the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values
- the ways in which we reflect on, extend and enjoy our creativity
- our appreciation of the aesthetic.

**Development**

Scientific and technical innovation

How do we understand the world in which we live? Students will explore:

- how the world works
- the natural world and its laws
- the interaction between people and the natural world
- how humans use their understanding of scientific principles
- the impact of scientific and technological advances on communities and environments
- the impact of environments on human activity
- how humans adapt environments to their needs.

**Systems**

Globalisation and sustainability

How is everything connected? Students will explore:

- how we organise ourselves
- the interconnectedness of human-made systems and communities
- the relationship between local and global processes
- how local experiences mediate the global
- the opportunities and tensions provided by world interconnectedness
- the impact of decision-making on humankind and the environment.

**Responsibility**

Fairness and Development

What are the consequences of our common humanity? Students will explore:

- sharing the planet
- rights and responsibilities in the struggle to share finite resources with other people and other living things
- communities and the relationships within and between them
- access to equal opportunities
- peace and conflict resolution.

## Service and action

Students take action when they apply what they are learning in the classroom and beyond.

Learning Outcomes	
Awareness	Know yourself better as a person, acknowledging your strengths and weaknesses.
Ethics	Deal with an ethical dilemma or think about the possible impact or consequence of your action.
Global Value	You may be involved in a global issue that can be acted upon locally, nationally and/or globally.
Initiative	Take on a leadership role in creation, planning and/or implementation.
Collaboration	Work with others to effectively contribute to the community.
Challenge	Take part in unfamiliar situations.
Commitment and Perseverance	Participate regularly and accept responsibility for dealing with any challenges/problems that arise.
New skills	Acquire new skills that you did not have before or increase your expertise in a previously learning skill.

Service and action requires students to reflect (think about consequences), choose (based on reflection) and act (carry through with their choices).

## Teaching and Learning in the IB

Teaching and learning in the IB grows from an understanding of education that celebrates the many ways people work together to construct meaning and make sense of the world. Represented as the interplay between asking (inquiry), doing (action) and thinking (reflection), this constructivist approach leads towards open classrooms where different views and perspectives are valued. An IB education empowers young people for a lifetime of learning, both independently and in collaboration with others. It prepares a community of learners to engage with complex global challenges through a dynamic educational experience framed by inquiry, action and reflection.

### Inquiry

Sustained inquiry frames the written, taught and assessed curriculum in IB programmes. IB programmes feature structured inquiry, drawing from established bodies of knowledge and complex problems. In this approach, prior knowledge and experience establish the basis for new learning, and students' own curiosity, together with careful curriculum design, provide the most effective stimulus for learning that is engaging, relevant, challenging and significant.

### Action

Principled action, as both a strategy and an outcome, represents the IB's commitment to teaching and learning through practical, real-world experience. IB learners act at home, as well as in classrooms, schools, communities and the broader world. Action involves learning by doing, enhancing learning about self and others. IB World Schools value action that encompasses a concern for integrity and honesty, as well as a strong sense of fairness that respects the dignity of individuals and groups.

Challenging learning environments help students to develop the imagination and motivation they require in order to meet their own needs and the needs of others. Principled action means making responsible choices, sometimes including decisions not to act. Individuals, organisations and communities can engage in principled action when they explore the ethical dimensions of personal and global challenges. Action in IB programmes may involve service learning, advocacy and educating one's self and others.

### Reflection

Critical reflection is the process by which curiosity and experience can lead to deeper understanding. Learners must become critically aware of the way they use evidence, methods and conclusions. Reflection also involves being conscious of potential bias and inaccuracy in their own work and in the work of others.

An IB education fosters creativity and imagination. It offers students opportunities for considering the nature of human thought and for developing the skills and commitments necessary not only to recall information but also to analyse one's own thinking and effort in terms of the products and performances that grow from them.



Driven by inquiry, action and reflection, IB programmes aim to develop a range of skills and dispositions that help students effectively manage and evaluate their own learning. Among these essential approaches to learning are competencies for research, critical and creative thinking, collaboration, communication, managing information and self-assessment.

### Personal Project (Year 10)

MYP students in their final year explore an area of personal interest over an extended period. It provides them the opportunity to consolidate their learning and develop important skills they'll need in both further education and life beyond the classroom. It also helps them develop confidence to become principled, lifelong learners

The personal project formally assesses students' approaches to learning (ATL) skills for self-management, research, communication, critical and creative thinking, and collaboration.

The project is made up of a process, a product, and a reflective report.

1. Process: ideas, criteria, developments, challenges, plans, research, possible solutions and progress reports.
2. Product or outcome: evidence of tangible or intangible results: what the student was aiming to achieve or create.
3. Report: an account of the project and its impact, to a structure that follows the assessment criteria. The report describes both the process of creating the project and an evaluation of the impact of the process on the student or their learning.

The report is assessed by the supervisor and externally moderated by the IB to ensure a globally consistent standard of excellence. Each project is awarded a final achievement grade.

### Assessment

The MYP uses a criterion-referenced model of assessment. Assessment throughout the 5 years of the program is against criteria linked to specific objectives. The IB publishes criteria and descriptors, for years 1, 3 and 5 of the program, which cannot be changed by individual schools and are therefore common to all students across the world. The College uses the published criteria and descriptors for all students

For each assessment criterion, a number of band descriptors are defined. These describe a range of achievement levels with the lowest represented as 1. The descriptors concentrate on positive achievement, although failure to achieve may be included in the description for the lower levels. Detailed band descriptors are included with summative assessment tasks.

Teachers at the College internally assess the work of students who undertake the MYP. There are no external exams in any year of the program. A final grade from 1 to 7 is determined based on the total level of achievement gained in subject criteria against grade boundaries. The final grade is cross-referenced with the general grade descriptors outlined in the table below:

### General Grade Boundaries

Grade	Boundary guidelines	Descriptor
Grade 1	1–5	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
Grade 2	6–9	Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
Grade 3	10–14	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.
Grade 4	15–18	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.



Grade	Boundary guidelines	Descriptor
Grade 5	19–23	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations and, with support, some unfamiliar real-world situations.
Grade 6	24–27	Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication. Uses knowledge and skills in familiar and unfamiliar classroom and real world situations, often with independence.
Grade 7	28–32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

### Conversion of International Baccalaureate MYP Grades

The following table is provided to assist in comparing IB MYP grading to other common assessment models and descriptors commonly used around the world.

IB MYP Grade	GPA	A to E Grade	Description	Percentile
7	4.0	A+	Outstanding	95 and above
6	3.7	A-	Excellent	83-94
5	3.0	B	Very Good	70-82
4	2.7	B- / C+	Good	56-69
3	2.0	C	Satisfactory	41-55
2	1.0	D+	Limited	21-40
1	0.0	E	Very Limited	20 or below

### MYP Certification

By completing the requirements of IB Middle Years Programme, students will be eligible to receive a Mercedes College MYP certificate. Minimal requirements include:

- Participation in the program for at least the final year (Year 10).
- Meeting expectations of Community and Service to the satisfaction of the College.
- Gaining a grade total of at least 42 points (possible maximum of 70) from the 9 subject groups (including Religious Education) and the Personal Project.
- No subject can receive a grade of 1.
- Personal Project must receive an internal grade of 3 or higher.

Certificates include:

- Certificate of Distinction for students who achieve a grade total of 56 or higher.
- Certificate of Merit for achieving a 7 in any individual subject.
- MYP Certificate for meeting the requirements of the program.
- MYP Participation for students who have engaged in the program but have not met the minimum requirements.



## Growth and Personal Skills (GPS)

GPS is one component of the College’s broader approach to pastoral care.

The program aims to empower students and build capacity, values, skills, attitudes and approaches with regards to a range of developmentally-appropriate situations and experiences. It also provides students with opportunities to embrace the events and celebrations centred on Mercedes College and what makes this community unique.

There are 4 pillars for the GPS program that continue through to Year 12:

1. Strong Relationships
2. Healthy Lifestyles
3. Positive Emotions
4. Personal Resilience

These pillars draw from many sources including: IB learner profile, Australian Curriculum Capabilities, Approaches to Learning (ATLs), the Keeping Safe: Child Protection Curriculum, Mind Matters, Learning Curve and the Office of the Children’s eSafety Commissioner.

### Year 6: Be the change

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
Topics	What is a respectful relationship? (T1-2) <ul style="list-style-type: none"> <li>• Restorative practice</li> <li>• eSafety (Year 6 specific)</li> <li>• Owing words/actions</li> <li>• Online messaging</li> </ul>	What is a healthy lifestyle? (T3) <ul style="list-style-type: none"> <li>• Working with others</li> <li>• Healthy habits of a young person</li> </ul>	What are positive emotions? (T4) <ul style="list-style-type: none"> <li>• Understanding how we can impact other people’s feelings</li> <li>• Building resilience</li> </ul>	What does it mean to be resilient? (T2) <ul style="list-style-type: none"> <li>• Camp</li> <li>• Learning new systems/routines (Managebac, new teachers)</li> </ul>
ATLs	Social Self-management	Thinking Research	Thinking Communication Self-management	Thinking Self-management
Learner Profiles	Caring   Knowledgeable   Open Minded   Principled   Risk Takers			
Child Protection Curriculum	Focus Area 1: 1, 2, 3 Focus Area 2: 1, 2, 3, 4 Focus Area 3: 3 Focus Area 4: 1, 2, 3	Focus Area 1: 2 Focus Area 2: 1 Focus Area 4: 1, 2, 3	Focus Area 2: 1, 2, 3 Focus Area 4: 1, 3	Focus Area 2: 1, 2, 3, 4 Focus Area 4: 1, 2, 3

### Year 7: Be connected

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
Topics	How do we treat each other well (T1) <ul style="list-style-type: none"> <li>• eSafety (Year 7 specific)</li> <li>• Restorative practice</li> <li>• Positive socialisation (social contagion)</li> <li>• Camp</li> </ul>	What does it mean to take risks? (T3) <ul style="list-style-type: none"> <li>• “Growing up”</li> <li>• Positive risk taking</li> <li>• Adverse risk taking (science)</li> <li>• Practical group dynamics</li> </ul>	Do I control my emotions or do they control me? (T2) <ul style="list-style-type: none"> <li>• Emotional literacy</li> <li>• Recognising, controlling and expressing emotions</li> </ul>	How do I cope with a challenge? (T4) <ul style="list-style-type: none"> <li>• Personality type</li> <li>• Personality analysis</li> <li>• Approaching challenges</li> <li>• Handling setbacks</li> <li>• Practical resilience</li> <li>• Skill acquisition challenge</li> </ul>

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
ATLs	Social Self-management	Communication Social Research	Thinking Self-management	Thinking Research Self-management
Learner Profiles	Balanced   Communicators   Inquirers   Knowledgeable   Reflective			
Child Protection Curriculum	Focus Area 1: 2, 3 Focus Area 2: 2, 3, 4 Focus Area 3: 3 Focus Area 4: 2	Focus Area 1: 2, 3, 4 Focus Area 2: 2, 4 Focus Area 4: 1, 2, 3	Focus Area 1: 3 Focus Area 4: 3	Focus Area 2: 2 Focus Area 4: 3

**Year 8: Be independent**

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
Topics	What do I want my peers to say about me? (T2) <ul style="list-style-type: none"> <li>eSafety (Year 8 specific)</li> <li>Respectful relationships</li> <li>Emotional literacy</li> <li>Conflict resolution</li> <li>Effective communication</li> </ul>	How can I be my best self? (T3) <ul style="list-style-type: none"> <li>Sleep health</li> <li>Anxiety and depression</li> <li>Meditation</li> <li>Mental fitness</li> <li>Drugs and alcohol in society</li> </ul>	Who am I? (T1) <ul style="list-style-type: none"> <li>Introduction to Pos Ed</li> <li>VIA survey</li> <li>Gratitude</li> <li>Flow</li> <li>Savouring</li> <li>Icebergs</li> <li>Recognising emotions</li> </ul>	Can I have a go? (T4) <ul style="list-style-type: none"> <li>Year 8 Musical</li> <li>Camp</li> <li>Being gritty</li> </ul>
ATLs	Communication Social Self-management	Thinking Research	Self-management Thinking	Self-management
Learner Profiles	Caring   Inquirers   Knowledgeable   Reflective   Thinkers			
Child Protection Curriculum	Focus Area 2: 1, 2, 3, 4 Focus Area 3: 3, 5 Focus Area 4: 1, 2, 3	Focus Area 1: 2, 3, 4 Focus Area 2: 1, 2, 4 Focus Area 4: 1, 2	Focus Area 2: 2 Focus Area 4: 3	Focus Area 1: 2, 3, 4 Focus Area 2: 1, 2, 4 Focus Area 4: 1, 3

**Year 9: Be challenged**

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
Topics	How does my identity influence my relationships? (T2) <ul style="list-style-type: none"> <li>Identity</li> <li>Being part of a group</li> <li>Gender roles</li> <li>Intersex relationships</li> <li>Consent</li> <li>Power in relationships</li> <li>Managing unhealthy relationships</li> <li>eSafety (Year 9 specific)</li> </ul>	How do I make informed choices about my health? (T3) <ul style="list-style-type: none"> <li>Health lifestyle choices</li> <li>Piston cup</li> <li>Safe partying</li> <li>Preparing to party!</li> <li>Adverse risk taking (reality)</li> </ul>	How will I make an impact? (T4) <ul style="list-style-type: none"> <li>Purpose and intentions</li> <li>Controlling your destiny</li> <li>Being brave</li> <li>Career focused</li> </ul>	How can I be resilient? (T1-2) <ul style="list-style-type: none"> <li>Gratitude</li> <li>Empathy</li> <li>Honesty</li> <li>Learning from mistakes</li> <li>Perspective</li> <li>Comfort zones</li> <li>Challenge</li> <li>Camp (is a metaphor)</li> </ul>

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
ATLs	Thinking Communication Social	Research Social Self-management	Thinking Self-management	Thinking Social Self-management
Learner Profiles	Communicators   Knowledgeable   Principled   Risk Takers   Thinkers			
Child Protection Curriculum	Focus Area 1: 2, 3 Focus Area 2: 1, 2, 3, 4 Focus Area 3: 1, 3, 5 Focus Area 4: 1, 2	Focus Area 1: 2, 3, 4 Focus Area 2: 1, 4 Focus Area 4: 1, 2	Focus Area 2: 1, 2, 4 Focus Area 4: 2, 3	Focus Area 2: 4 Focus Area 4: 1, 2, 3

Year 10: Step in

	Strong Relationships	Healthy Lifestyles	Positive Emotions	Personal Resilience
Topics	<ul style="list-style-type: none"> <li>Investigating respectful relationships (T2)</li> <li>Experience shared Home Group activities</li> <li>Exploring circle time and restorative practice</li> </ul>	<ul style="list-style-type: none"> <li>Exploring contemporary information about alcohol (Paul Dillon and DARTA)</li> <li>Understanding the connection between sleep and health</li> </ul>	<ul style="list-style-type: none"> <li>Understanding happiness using the PERMA model</li> <li>Connection to community as service learning (T4)</li> </ul>	<ul style="list-style-type: none"> <li>Defining wellbeing and developing our resource pool to meet challenges</li> <li>Mapping support networks and help-seeking behaviours (T1)</li> <li>Reflecting on the challenge of Year 10 Camp (T2)</li> <li>Managing the demands of the IB MYP Personal Project (T1-2)</li> </ul>
ATLs	Research (media literacy) Social (collaboration)	Self-management (affective) Research (information literacy) Thinking (critical thinking)	Self-management (affective) Research (information literacy) Thinking (creative thinking)	Self-management (organisation and affective)
SACE Capabilities	Research Creative and Critical Thinking Intercultural Understanding	Literacy Numeracy Creative and Critical Thinking	Personal and Social Intercultural Understanding	ICT Capability Literacy Personal and Social
Learner Profiles	Caring   Risk Takers   Thinkers   Communicators   Knowledgeable			
Child Protection Curriculum	Focus Area 2: 1, 2, 3 Focus Area 3: 2, 4		Focus Area 1: 3	Focus Area 2: 4 Focus Area 4: 2

## Learning Areas

At each year level of the program students must study a subject from each of the 8 areas of learning. At Mercedes College these are:

- **Arts:** Visual Arts (Art or Media); Performing Arts (Music or Drama)
- **Design:** Design, Digital Technologies
- **Language and Literature:** English (our language of instruction)
- **Language Acquisition:** French, Indonesian, English as an Additional Language (EAL) or Spanish (Year 10 new students only)
- **Individuals and Societies:** History, Geography, Commerce, Politics and Psychology
- **Mathematics:** Mathematics, Extension Mathematics, Essential Mathematics
- **Sciences:** Physics, Chemistry and Biology
- **Physical and Health Education:** Health, Sport, Outdoor Education

These areas of study are supported by compulsory lessons in **Religious Education** as well as **Growth and Personal Skills (GPS)**.

In Year 10, the SACE Stage 1 core requirement of the Personal Learning Plan is undertaken.

## Curriculum Outline

Learning Area	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Arts</b>					
• Visual Art	Yes	Yes	Yes	Yes	Yes
• Media	Yes	Yes	Yes	Yes	Yes
• Design	Yes	Yes	Yes	Yes	Yes
• Music	Yes	Yes	Yes	Yes	Yes
• Drama	Yes	Yes	Yes	Yes	Yes
• Dance				Yes	Yes
<b>Individuals and Societies</b>	Yes	Yes	Yes	Yes	
• Geography					Yes
• History					Yes
• Commerce (Business and Economics)					Yes
• Politics					Yes
• Psychology					Yes
<b>Language and Literature</b>					
• English	Yes	Yes	Yes	Yes	Yes
<b>Language Acquisition</b>					
• French	Yes	Yes	Yes	Yes	Yes
• Indonesian		Yes	Yes	Yes	Yes
• Spanish					Yes



Learning Area	Year 6	Year 7	Year 8	Year 9	Year 10
• English (EALD)		Yes	Yes	Yes	Yes
<b>Mathematics</b>	Yes	Yes	Yes	Yes	Yes
• Extended Mathematics		Yes	Yes	Yes	Yes
• Essential Mathematics				Yes	Yes
<b>Physical and Health Education</b>	Yes	Yes	Yes	Yes	
• Health					Yes
• Outdoor Education					Yes
• Sport					Yes
<b>Sciences</b>	Yes	Yes	Yes	Yes	Yes
<b>Religious Education</b>	Yes	Yes	Yes	Yes	Yes
<b>Study Thinking Extension Program (STEP)</b>				Yes	Yes
<b>Exploring Identities and Futures, EIF (SACE)</b> formerly called Personal Learning Plan					Yes

## Lesson Allocation

### Year 6

Learning Area	Subject	Lessons
Religious Education	Religious Education	3
GPS (or Assembly)	Growth and Personal Skills / Assembly	2
Arts (Semester rotations)	Visual Art (Art/Media) Performing Art (Drama/Music)	4
Design	Design	3
Individuals and Societies	History/Geography/Civics and Citizenship	4
Language and Literature	English	4
Language Acquisition	French	4
Mathematics	Mathematics	4
Physical and Health Education	Physical Education/Health Education	4
Science	Science	4
	Inspire	2

### Year 7

Learning Area	Subject	Lessons
Religious Education	Religious Education	3
GPS (or Assembly)	Growth and Personal Skills / Assembly	2
Arts (Semester rotations)	Visual Art (Art/Media) Performing Art (Drama/Music)	4
Design	Design	3
Individuals and Societies	History/Geography/Civics and Citizenship	4
Language and Literature	English	4
Language Acquisition	French or Indonesian	4
Mathematics	Mathematics	4
Physical and Health Education	Physical Education/Health Education	4
Science	Science	4
	Inspire	2

### Year 8

Learning Area	Subject	Lessons
Religious Education	Religious Education	3
GPS (or Assembly)	Growth and Personal Skills / Assembly	2
Arts (Semester 1)	Visual Art (Art/Media) Performing Art (Drama/Music)	2 2
Arts (Semester 2)	Musical Production	4
Design	Design	3
Individuals and Societies	History/Geography	4
Language and Literature	English	5
Language Acquisition	French or Indonesian or English (EALD)	4
Mathematics	Mathematics	5
Physical and Health Education	Physical Education/Health Education	4
Science	Science	4



## Year 9

Learning Area	Subject	Lessons
Religious Education	Religious Education	2/4*
GPS (or Assembly)	Growth and Personal Skills / Assembly	2
Electives	Art/Dance/Drama/Media/Music/Design	4
Individuals and Societies	History/Geography	5
Language and Literature	English	5
Language Acquisition	French or Indonesian or English (EALD)	4
Mathematics	Mathematics or Extended Mathematics	5
Physical and Health Education	Physical Education/Health Education	4
Science	Science	4/5*
	STEP	3/0*

\* STEP is a single Semester course. When it is timetabled, lessons in Religious Education and Science are reduced.

## Year 10

Learning Area	Subject	Lessons
Religious Education	Religious Education	3
GPS (or Assembly)	Growth and Personal Skills / Assembly	2
Arts and STEP Electives	Art/Dance/Drama/Media/Music/Design/Digital Technologies/STEP (Semester only)	4
Individuals and Societies Electives	History/Geography/Commerce/Politics/Psychology	4
Language and Literature	English	5
Language Acquisition	French or Indonesian or Spanish or English (EALD)	4
Mathematics	Mathematics or Extended Mathematics	5
Physical and Health Education Electives	Health/Outdoor Education/Sport	4
Science	Science	5
SACE	Exploring Identities and Future	2



## Religious Education

### Overview

“We should be as the compass that goes round its circle without stirring from its centre – our centre is God, from whom all our actions should spring.” Catherine McAuley

The faith formation and spiritual growth of young people is the outcome of the inter-relationship between them, their families and the Church, of which the school is a part. This inter-relationship takes place within Australian and World culture. The ethos, the pervading spirit, and the character of Mercedes College, underpinned by the Mercy Keys of Compassion, Loyalty, Justice, Integrity, Responsibility, and Mutual Respect, is critical in the faith formation of our students. This formation takes place in a context where people live out personally and communally the values of the Gospels, and participate in formation experiences such as:

- Liturgy
- Religious Education classroom program
- Support for justice in all of school life
- Retreats and reflection days
- Outreach or community service
- The formation of the spirituality of the students
- Prayer
- Engaging in Mercy-based projects

Religious Education is taught using the Catholic Education of South Australia’s curricula- Crossways. Through high quality teaching and learning, this curriculum opens opportunities to enhance experiences relating to Catholic identity, the Mercy tradition and the Mercy Keys.

Personal faith, spiritual and justice formation is part of the students’ educational journeys at Mercedes College.

R-10 Religious Education is embedded in all PYP and MYP curriculum outlines.

The Year 11 and Year 12 SACE and IB pathways follow as:

- Stage 1 Religion Studies (SACE), 10 credits. Undertaken by all students in Year 11 (whether IB or SACE)
- Stage 2 Religion Studies (SACE), 10 or 20 credits
- Stage 2 Faith and Spirituality (Non-SACE) course

### Assessment Tasks

Assessment can take many forms including tests, research assignments, oral reports, multimodal presentations (MP4) cooperative/group learning tasks, worksheets, bookwork and creative expression.

### Assessment Criteria

As in all other subject areas, assessment has an important function in Religious Education. The areas of consideration are:

Criteria	Maximum	Description
A: Knowledge and Understanding	8	Knowledge and Understanding are fundamental to Religious Education and can be assessed through a wide variety of tasks (tests, examinations, written assignments, oral interviews and presentations, extended writing, projects, exhibits, etc.)
B: Investigating	8	Through Religious Education, students demonstrate and further develop their skills in literacy, information and communication technologies, analysis and comparison.
C: Communicating	8	Students demonstrate an ability and willingness to physically and extensively involve themselves in all aspects of the Religious Education Program.
D: Thinking Critically	8	This criterion covers the student’s ability to express ideas with clarity and coherence, to structure work in a sustained and logical fashion and support with relevant examples.

### Learning Area Leader

Therese Wilson



## The Arts

### Overview

“The aim of art is to represent not the outward appearance of things, but their inward significance.” Aristotle

The arts are a universal form of human expression and a unique way of knowing that engage us in effective, imaginative and productive activities. Learning through the arts helps us to explore, shape and communicate our sense of identity and individuality. A focus on the individual enhances our self-confidence, resilience and adaptability. It encourages our sense of belonging and community through the recognition of identities. During adolescence, the arts provide an opportunity for age-appropriate and holistic development of the social, emotional, intellectual and personal intelligences of the student.

In MYP arts students have opportunities to function as artists, as well as learners of the arts. Artists have to be curious. By developing curiosity about themselves, others and the world, students become effective learners, inquirers and creative problem-solvers. Students develop through creating, performing and presenting arts in ways that engage and convey feelings, experiences and ideas. It is through this practice that students acquire new skills and master those skills developed in prior learning.

Arts in the MYP stimulate young imaginations, challenge perceptions and develop creative and analytical skills. Involvement in the arts encourages students to understand the arts in context and the cultural histories of artworks, thus supporting the development of an inquiring and empathetic world view. Arts challenge and enrich personal identity and build awareness of the aesthetic in a real-world context.

### Aims

The aims of MYP arts are to encourage and enable students to:

- create and present art
- develop skills specific to the discipline
- engage in a process of creative exploration and (self-)discovery
- make purposeful connections between investigation and practice
- understand the relationship between art and its contexts
- respond to and reflect on art
- deepen their understanding of the world.

### Objectives

The objectives of MYP arts encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge. Each objective is elaborated by a number of strands; a strand is an aspect or indicator of the learning expectation.

#### A. Knowing and understanding

Through the study of theorists and practitioners of the arts, students discover the aesthetics of art forms and are able to analyse and communicate in specialized language. Using explicit and tacit knowledge alongside an understanding of the role of the arts in a global context, students inform their work and artistic perspectives.

In order to reach the aims of arts, students should be able to:

- demonstrate knowledge and understanding of the art form studied, including concepts, processes, and the use of subject-specific terminology
- demonstrate an understanding of the role of the art form in original or displaced contexts
- use acquired knowledge to purposefully inform artistic decisions in the process of creating artwork.

#### B. Developing skills

The acquisition and development of skills provide the opportunity for active participation in the art form and in the process of creating art. Skill application allows students to develop their artistic ideas to a point of realization. The point of realization could take many forms. However, it is recognized as the moment when the student makes a final commitment to his or her artwork by presenting it to an audience. Skills are evident in both process and product.

In order to reach the aims of arts, students should be able to:

- demonstrate the acquisition and development of the skills and techniques of the art form studied
- demonstrate the application of skills and techniques to create, perform and/or present art.

### C. Thinking creatively

The arts motivate students to develop curiosity and purposefully explore and challenge boundaries. Thinking creatively encourages students to explore the unfamiliar and experiment in innovative ways to develop their artistic intentions, their processes and their work. Thinking creatively enables students to discover their personal signature and realize their artistic identity.

In order to reach the aims of arts, students should be able to:

- develop a feasible, clear, imaginative and coherent artistic intention
- demonstrate a range and depth of creative-thinking behaviours
- demonstrate the exploration of ideas to shape artistic intention through to a point of realization.

### D. Responding

Students should have the opportunity to respond to their world, to their own art and to the art of others. A response can come in many forms; creating art as a response encourages students to make connections and transfer their learning to new settings. Through reflecting on their artistic intention and the impact of their work on an audience and on themselves, students become more aware of their own artistic development and the role that arts play in their lives and in the world. Students learn that the arts may initiate change as well as being a response to change.

In order to reach the aims of arts, students should be able to:

- construct meaning and transfer learning to new settings
- create an artistic response that intends to reflect or impact on the world around them
- critique the artwork of self and others.

## Units of Study

MYP Arts is defined as Visual Arts (Art, Media) and Performing Arts (Drama and Music).

The program in the Middle School is structured to ensure students obtain balance of all 4 disciplines of Visual and Performing Arts over the 2 Semesters in each year.

### Year 6 and Year 7 (MYP Years 1 and 2)

In Year 6 and Year 7, students are allocated 4 lessons per week, rotating through the 4 subjects – Art, Media, Music and Drama.

Topics may include:

- |                                |                           |   |
|--------------------------------|---------------------------|---|
| • Principles of art and design | • Sculpture               | • Monologues  |
| • Perspective                  | • Musicianship            | • Computer Graphics.                                    |
| • Tone                         | • Musical theory          | • Use of Digital Video camera                           |
| • Drawing                      | • Ensemble performance    | • Video Editing software                                |
| • Painting                     | • Solo performance        | • Artistic concepts for film making                     |
| • Printmaking                  | • Improvisational theatre | • Aesthetic appreciation for film as an artistic medium |
| • Clay                         | • Stagecraft              |   |

Where possible, students in Year 6 and 7 who are already undertaking instrumental lessons will be grouped together in a Music class. These students will have an opportunity to develop their skills in an ensemble environment. This will only be available subject to student demand and timetabling constraints

### Choir

There is a Year 6 and a Year 7 Choir that students may wish to join. These are allocated one lesson within the curriculum. Students are taken out of existing classes.



### Year 8 (MYP Year 3)

In Semester 1, students are allocated 2 lessons for both Visual Art and Performing Art, rotating through all 4 Arts disciplines with a view to prepare for the Semester 2 Musical

Topics may include:

- Principles of art and design
- Perspective
- Tone
- Drawing
- Painting
- Printmaking
- Graphics
- Clay
- Sculpture
- Musicianship
- Musical theory
- Ensemble performance
- Solo performance
- Improvisational theatre
- Stagecraft
- Monologues
- Computer

In Semester 2, all Year 8 students participate in the Year 8 School Musical through engagement in both the Visual Arts and Performing Arts.

- Art students are involved in the construction of sets, props and costumes.
- Technical Theatre students will learn about the technical aspects of a musical production: lighting, sound, stage management and other backstage roles. The technical and backstage crew for the production will be chosen from this class.
- Promotional Media students design and create tickets, posters and the Musical program.
- Music students are involved in performance, ensemble improvisation and sound creation.
- Drama students are involved in performance and backstage roles. These are auditioned places.

Please note that in Art and Design, some tasks from Semester 1 will be included in the Semester 2 course

### Years 9 and Year 10 (MYP Years 4 and 5)

Students may undertake single semester programs in Art, Media, Music, Drama or Dance. If students are interested in full year programs, they should consult with Learning Area Leaders.

#### Assessment Tasks

Students are assessed against MYP criteria with assessment tasks varying according to the specific MYP subject in the Visual or Performing Arts.

In the Arts, students are assessed on their practical work, knowledge, ability to evaluate and their engagement throughout the course.

#### Learning Area Leaders

Visual Arts: Jane Finnimore, Rebecca Sharpe

Media: Rohan Cheong

Performing Arts: Lauren Vilanova

Dance, Drama: Natalie Goodair

Music: Karen Manskey



## Design

### Overview

Design, and the resultant development of new technologies, has given rise to profound changes in society: transforming how we access and process information; how we adapt our environment; how we communicate with others; how we are able to solve problems; how we work and live.

Design is the link between innovation and creativity, taking thoughts and exploring the possibilities and constraints associated with products or systems, allowing them to redefine and manage the generation of further thought through prototyping, experimentation and adaptation. It is human-centred and focuses on the needs, wants and limitations of the end user.

Competent design is not only within the reach of a small set of uniquely skilled individuals, but can be achieved by all. The use of well-established design principles and processes increases the probability that a design will be successful. To do this, designers use a wide variety of principles which, taken together, make up what is known as the design cycle.

Designers adapt their approach to different design situations, but they have a common understanding of the process necessary to form valid and suitable solutions.

- A designer has a role and responsibility to the community and the environment. Their decisions can have a huge impact and, therefore, their ethics and morals can and should be questioned regularly.
- A designer should have the ability to maintain an unbiased view of a situation and evaluate a situation objectively, highlighting the strengths and weaknesses of a common product or system.
- Good communication is a key trait of any good designer through visual and oral presentation.

Designing requires an individual to be imaginative and creative, while having a substantial knowledge base of important factors that will aid or constrain the process. Decisions made need to be supported by adequate and appropriate research and investigation. Designers must adopt an approach that allows them to think creatively, while conforming to the requirements of a design specification.

Both the ideas and the process of design can only occur in a human context. Design is carried out by a community of people from a wide variety of backgrounds and traditions, and this has clearly influenced the way design has progressed at different times. It is important to understand, however, that to design is to be involved in a community of inquiry with certain common beliefs, methodologies, understandings and processes.

MYP design challenges all students to apply practical and creative thinking skills to solve problems; encourages students to explore the role of design in both historical and contemporary contexts; and raises students' awareness of their responsibilities when making decisions and taking action.

Inquiry and problem-solving are at the heart of the subject group. MYP design requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible ideas, the creation of solutions, and the testing and evaluation of the solution. In MYP design, a solution can be defined as a model, prototype, product or system that students have developed and created independently.

A well-planned design program enables students to develop not only practical skills but also strategies for creative and critical thinking.

The MYP expects all students to become actively involved in, and to focus on, the whole design process rather than on the final product/solution.

### Aims

The aims of MYP design are to encourage and enable students to:

- Enjoy the design process, develop an appreciation of its elegance and power
- Develop knowledge, understanding and skills from different disciplines to design and create solutions to problems using the design cycle
- Use and apply technology effectively as a means to access, process and communicate information, model and create solutions, and to solve problems
- Develop an appreciation of the impact of design innovations for life, global society and environments
- Appreciate past, present and emerging design within cultural, political, social, historical and environmental contexts
- Develop respect for others' viewpoints and appreciate alternative solutions to problems
- Act with integrity and honesty and take responsibility for their own actions developing effective working practices.

## Objectives

The objectives of MYP design encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge.

Each objective is elaborated by a number of strands; a strand is an aspect or indicator of the learning expectation.

Together these objectives reflect the knowledge, skills and attitudes that students need in order to engage with and solve complex, real-life problems in both familiar and unfamiliar contexts; they represent essential aspects of design methodology.

### A. Inquiring and analysing

Students are presented with a design situation, from which they identify a problem that needs to be solved. They analyse the need for a solution and conduct an inquiry into the nature of the problem.

In order to reach the aims of design, students should be able to:

- explain and justify the need for a solution to a problem for a specified client/target audience
- identify and prioritize the primary and secondary research needed to develop a solution to the problem
- analyse a range of existing products that inspire a solution to the problem
- develop a detailed design brief which summarizes the analysis of relevant research.

### B. Developing ideas

Students write a detailed specification, which drives the development of a solution. They present the solution.

In order to reach the aims of design, students should be able to:

- develop a design specification which clearly states the success criteria for the design of a solution
- develop a range of feasible design ideas which can be correctly interpreted by others
- present the final chosen design and justify its selection
- develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

### C. Creating the solution

Students plan the creation of the chosen solution and follow the plan to create a prototype sufficient for testing and evaluation.

In order to reach the aims of design, students should be able to:

- construct a logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow to create the solution
- demonstrate excellent technical skills when making the solution
- follow the plan to create the solution, which functions as intended
- fully justify changes made to the chosen design and plan when making the solution
- present the solution as a whole, either:
  - in electronic form, or
  - through photographs of the solution from different angles, showing details.

### D. Evaluating

Students design tests to evaluate the solution, carry out those tests and objectively evaluate its success. Students identify areas where the solution could be improved and explain how their solution will impact on the client or target audience.

In order to reach the aims of design, students should be able to:

- design detailed and relevant testing methods, which generate data, to measure the success of the solution
- critically evaluate the success of the solution against the design specification
- explain how the solution could be improved
- explain the impact of the solution on the client/target audience.



## Units of Study

MYP Design is compulsory in Year 6 to Year 8 and becomes part of the Arts elective group in Years 9 and 10.

MYP Design: Digital Technologies is available as a single semester elective in Year 10 and seeks to incorporate all aspects of MYP design in a digital and online context.

This course will examine and utilise various aspects of Digital Technologies. The course aims to further develop understanding and skills in computational thinking such as precisely and accurately describing problems and the use of modular approaches to solutions. Some of the elements included in the course are:

- Coding, robotics, game design, augmented / virtual Reality, web technologies, hardware/software
- Potential crossover with Design students to develop game assets
- Development of prototypes with a working element
- Preparing students for Digital Technologies pathways

## Recommended resources

As students progress through the different stages of the design cycle, they are constantly experimenting with ideas, researching topics, compiling sources, brainstorming issues, sketching possible solutions, making changes, rejecting proposals and critically evaluating their work. Students are required to maintain a design process journal with four sections for Inquiring and Analysing, Developing Ideas, Creating the Solution and Evaluating. In each section, students are to maintain evidence of the design cycle being undertaken.

Many of the projects utilise the Adobe Creative Cloud software. A USB drive is useful for transferring pictures, video or other files between home and school.

## Learning Area Leader

Rohan Cheong



## Individuals and Societies

MYP individuals and societies encourages learners to respect and understand the world around them and equips them with the necessary skills to inquire into historical, contemporary, geographical, political, social, economic, religious, technological and cultural factors that have an impact on individuals, societies and environments. It encourages learners, both students and teachers, to consider local and global contexts.

The study of individuals and societies helps students to develop their identities as individuals and as responsible members of local and global communities. These explorations of our common humanity are intrinsically interesting, and disciplines in this subject group are filled with potential for creating in students a lifelong fascination with “the human story” as it continues to evolve in an era of rapid change and increasing interconnectedness. Studies in individuals and societies are essential for developing empathy and international-mindedness, including the idea that “other people, with their differences, can also be right” (IB mission statement).

### Aims

The aims of MYP individuals and societies are to encourage and enable students to:

- appreciate human and environmental commonalities and diversity
- understand the interactions and interdependence of individuals, societies and the environment
- understand how both environmental and human systems operate and evolve
- identify and develop concern for the well-being of human communities and the natural environment
- act as responsible citizens of local and global communities
- develop inquiry skills that lead towards conceptual understandings of the relationships between individuals, societies and the environments in which they live.

### Objectives

The objectives of any MYP subject state the specific targets that are set for learning in that subject. They define what the student will be able to accomplish as a result of studying the subject. The objectives of MYP individuals and societies encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge. These objectives relate directly to the assessment criteria with each equally weighted.

#### A. Knowing and understanding

Students develop factual and conceptual knowledge about individuals and societies.

In order to reach the aims of individuals and societies, students should be able to:

- use terminology in context
- demonstrate knowledge and understanding of subject-specific content and concepts through descriptions, explanations and examples.

#### B. Investigating

Students develop systematic research skills and processes associated with disciplines in the humanities and social sciences. Students develop successful strategies for investigating independently and in collaboration with others.

In order to reach the aims of individuals and societies, students should be able to:

- formulate a clear and focused research question and justify its relevance
- formulate and follow an action plan to investigate a research question
- use research methods to collect and record relevant information
- evaluate the process and results of the investigation.

#### C. Communicating

Students develop skills to organize, document and communicate their learning using a variety of media and presentation formats.

In order to reach the aims of individuals and societies, students should be able to:

- communicate information and ideas using an appropriate style for the audience and purpose
- structure information and ideas in a way that is appropriate to the specified format
- document sources of information using a recognized convention.

#### **D. Thinking critically**

Students use critical thinking skills to develop and apply their understanding of individuals and societies and the process of investigation.

In order to reach the aims of individuals and societies, students should be able to:

- discuss concepts, issues, models, visual representation and theories
- synthesize information to make valid arguments
- analyse and evaluate a range of sources/data in terms of origin and purpose, examining values and limitations
- interpret different perspectives and their implications.

#### **Units of Study**

##### **Year 6**

- AC History: Australia as a Nation (Federation, First Australians, Migration).
- Geography: Natural Disasters
- Civics and Citizenship: Australia's Democracy.

##### **Year 7**

- AC History: The Ancient World (Investigating the Ancient Past, Indigenous Australian civilisations, The Mediterranean World, The Asian World).
- AC Geography: Water in the World; Place and Liveability.

##### **Year 8**

- AC History: The Ancient to the Modern World (Medieval Europe, The Western and Islamic Worlds, The Asia Pacific World, Expanding Contacts).
- AC Geography: Landforms and Landscapes.

##### **Year 9**

- AC History: The Making of the Modern World (The Industrial Revolution, Colonisation, World War One).
- AC Geography: Biomes and Food Security
- Business Innovation: Innovating to Create a Social Business.

##### **Year 10**

- History: The Modern World and Australia (World War Two, Rights and Freedoms 1945-Present)
- Commerce
- Geography
- Psychology
- Politics, Law and Society

#### **Learning Area Leader**

Brendan Toohey



## Language and Literature

Language is fundamental to learning, thinking and communicating, therefore it permeates the whole curriculum. Indeed, all teachers are language teachers, continually expanding the boundaries of what students are thinking about. Mastery of one or more languages enables each student to achieve their full linguistic potential.

Students need to develop an appreciation of the nature of language and literature, of the many influences on language and literature, and of its power and beauty. They will be encouraged to recognize that proficiency in language is a powerful tool for communication in all societies. Furthermore, language and literature incorporates creative processes and encourages the development of imagination and creativity through self-expression.

All IB programmes value language as central to developing critical thinking, which is essential for the cultivation of intercultural understanding, as well as for becoming internationally minded and responsible members of local, national and global communities. Language is integral to exploring and sustaining personal development and cultural identity, and provides an intellectual framework to support conceptual development. The six skill areas in the MYP language and literature subject group – listening, speaking, reading, writing, viewing and presenting – develop as both independent and interdependent skills. They are centred within an inquiry-based learning environment. Inquiry is at the heart of MYP language learning, and aims to support students’ understanding by providing them with opportunities to independently and collaboratively investigate, take action and reflect.

As well as being academically rigorous, MYP language and literature equips students with linguistic, analytical and communicative skills that can also be used to develop interdisciplinary understanding across all other subject groups. Students’ interaction with chosen texts can generate insight into moral, social, economic, political, cultural and environmental factors and so contributes to the development of opinion-forming, decision-making and ethical-reasoning skills, and further develops the attributes of an IB learner.

### Aims

The aims of the teaching and study of Language and Literature are to encourage and enable the students to:

- use language as a vehicle for thought, creativity, reflection, learning, self-expression, analysis and social interaction
- develop the skills involved in listening, speaking, reading, writing, viewing and presenting in a variety of contexts
- develop critical, creative and personal approaches to studying and analysing literary and non-literary texts
- engage with text from different historical periods and a variety of cultures
- explore and analyse aspects of personal, host and other cultures through literary and non-literary texts
- explore language through a variety of media and modes
- develop a lifelong interest in reading
- apply linguistic and literary concepts and skills in a variety of authentic contexts.

### Syllabus

The syllabus that follows is one way of enabling students to realise the objectives of the program. This has been developed using Australian Curriculum content which organises English into three interrelated strands:

- Language: knowing about the English language
- Literature: understanding, appreciating, responding to, analysing and creating literature
- Literacy: expanding the repertoire of English usage

Content in each strand is grouped into sub-strands that, across the year levels, presents a sequence of development of knowledge, understanding and skills. The sub-strands are:

- |                                 |  |                                   |
|---------------------------------|--|-----------------------------------|
| • Language                      | • Language for interaction               | • Expressing and developing ideas |
| • Literature                    | • Responding to literature               | • Creating literature             |
| • Literacy                      | • Interacting with others                | • Creating text                   |
| • Language variation and change | • Text structure and organisation        | • Sound and letter knowledge      |
| • Literature and context        | • Examining literature                   |                                   |
| • Texts in context              | • Interpreting, analysing and evaluating |                                   |

## Texts

Texts provide the means for communication, providing important opportunities for learning about aspects of human experience and about aesthetic value. Many of the tasks that students undertake in and out of school involve understanding and producing imaginative, informative and persuasive texts, media texts, everyday texts and workplace texts

While the nature of what constitutes literary texts is dynamic and evolving, they are seen as having personal, social, cultural and aesthetic value and potential for enriching students' scope of experiences.

Literature includes a broad range of forms such as novels, poetry, short stories and plays; fiction for young adults and children, multimodal texts such as film, and a variety of non-fiction. Literary texts also include excerpts from longer texts enable a range of texts to be included within any one year level for close study or comparative purposes.

### **Year 6 to Year 8 (MYP Years 1-3)**

A balance of genres and works from World Literature should be read in conjunction with the chosen texts, with a recommended minimum of 4 works per year.

### **Year 9 and Year 10 (Years 4 and 5)**

During the last 2 years in the IB Middle Years Programme a minimum of 6 works are studied as follows:

- A minimum of 4 English texts
- A minimum of 2 works from World Literature (selected by the school)

Non-fiction texts may be included to represent prose writing in Drama and Poetry.

## Objectives

The objectives of any MYP subject state the specific targets that are set for learning in that subject. They define what the student will be able to accomplish as a result of studying the subject. The objectives of language and literature encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge.

The objectives represent some of the essential processes of language: "Processes are what help mediate the construction of new knowledge and understandings and play an especially important role in language and communication" (Lanning 2013: 19). These objectives relate directly to the assessment criteria with each equally weighted.

### **A. Analysing**

Through the study of language and literature students are enabled to deconstruct texts in order to identify their essential elements and their meaning. Analysing involves demonstrating an understanding of the creator's choices, the relationships between the various components of a text and between texts, and making inferences about how an audience responds to a text (strand i), as well as the creator's purpose for producing text (strand ii). Students should be able to use the text to support their personal responses and ideas (strand iii). Literacy and critical literacy are essential lifelong skills; engaging with texts requires students to think critically and show awareness of, and an ability to reflect on, different perspectives through their interpretations of the text (strand iv).

In order to reach the aims of studying language and literature, students should be able to:

- analyse the content, context, language, structure, technique and style of text(s) and the relationships among texts
- analyse the effects of the creator's choices on an audience
- justify opinions and ideas, using examples, explanations and terminology
- evaluate similarities and differences by connecting features across and within genres and texts.

### **B. Organising**

Students should understand and be able to organize their ideas and opinions using a range of appropriate conventions for different forms and purposes of communication. Students should also recognize the importance of maintaining academic honesty by respecting intellectual property rights and referencing all sources accurately.

In order to reach the aims of studying language and literature, students should be able to:

- employ organizational structures that serve the context and intention
- organize opinions and ideas in a sustained, coherent and logical manner
- use referencing and formatting tools to create a presentation style suitable to the context and intention.

### **C. Producing text**

Students will produce written and spoken text, focusing on the creative process itself and on the understanding of the connection between the creator and his or her audience. In exploring and appreciating new and changing perspectives and ideas, students will develop the ability to make choices aimed at producing texts that affect both the creator and the audience.

In order to reach the aims of studying language and literature, students should be able to:

- produce texts that demonstrate insight, imagination and sensitivity while exploring and reflecting critically on new perspectives and ideas arising from personal engagement with the creative process
- make stylistic choices in terms of linguistic, literary and visual devices, demonstrating awareness of impact on an audience
- select relevant details and examples to develop ideas.

### **D. Using language**

Students have opportunities to develop, organize and express themselves and communicate thoughts, ideas and information. They are required to use accurate and varied language that is appropriate to the context and intention. This objective applies to, and must include, written, oral and visual text, as appropriate.

In order to reach the aims of studying language and literature, students should be able to:

- use appropriate and varied vocabulary, sentence structures and forms of expression
- write and speak in a register and style that serve the context and intention
- use correct grammar, syntax and punctuation
- spell (alphabetic languages), write (character languages) and pronounce with accuracy
- use appropriate non-verbal communication techniques.

### **Learning Area Leader**

Jamie Hayter



## Language Acquisition

“Learning to speak another’s language means taking one’s place in the human community. It means reaching out to others across cultural and linguistic boundaries. Language is far more than a system to be explained. It is our most important link to the world around us. Language is culture in motion. It is people interacting with people.” Savignon (1983)

### Year 6

All students will study French as part of their MYP. There will be a Continuers and a Beginners pathway and students will be placed in the appropriate class.

### Year 7 to Year 9

Students who are new to the school have the option of selecting French (Continuers or Beginners) or Indonesian (Beginners at Year 7, Continuers at Year 8 and 9). Current Mercedes College students continue with their language pathway from the previous year.

### Year 10

Students who are new to the school have the option of Spanish at Beginners level. New students who have previously studied French or Indonesian at their former school, may continue with their study of French or Indonesian in Year 10. Current Mercedes College students continue with their language pathway from the previous year.

## Overview

The ability to communicate in a variety of modes in more than one language is essential to the concept of an international education that promotes multilingualism and intercultural understanding, both of which are central to the IB’s mission.

The study of additional languages in the MYP provides students with the opportunity to develop insights into the features, processes and craft of language and the concept of culture, and to realize that there are diverse ways of living, behaving and viewing the world.

The acquisition of the language of a community and the possibilities to reflect upon and explore cultural perspectives of our own and other communities:

- is valued as central to developing critical thinking, and is considered essential for the cultivation of intercultural awareness and the development of internationally minded and responsible members of local, national and global communities
- is integral to exploring and sustaining personal development and cultural identity, and provides an intellectual framework to support conceptual development
- greatly contributes to the holistic development of students and to the strengthening of lifelong learning skills
- equips students with the necessary multiliteracy skills and attitudes, enabling them to communicate successfully in various global contexts and build intercultural understanding.

## Aims

The aims of the teaching and learning of MYP language acquisition are to:

- gain proficiency in an additional language while supporting maintenance of their mother tongue and cultural heritage
- develop a respect for, and understanding of, diverse linguistic and cultural heritages
- develop the student’s communication skills necessary for further language learning, and for study, work and leisure in a range of authentic contexts and for a variety of audiences and purposes
- enable the student to develop multiliteracy skills through the use of a range of learning tools, such as multimedia, in the various modes of communication
- enable the student to develop an appreciation of a variety of literary and non-literary texts and to develop critical and creative techniques for comprehension and construction of meaning
- enable the student to recognize and use language as a vehicle of thought, reflection, self-expression and learning in other subjects, and as a tool for enhancing literacy
- enable the student to understand the nature of language and the process of language learning, which comprises the integration of linguistic, cultural and social components
- offer insight into the cultural characteristics of the communities where the language is spoken
- encourage an awareness and understanding of the perspectives of people from own and other cultures, leading to involvement and action in own and other communities
- foster curiosity, inquiry and a lifelong interest in, and enjoyment of, language learning.

## Objectives

The objectives of MYP language acquisition encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge. The student's knowledge and understanding will be developed through:

- learning language
- learning through language
- learning about language (Halliday 1985).

This, in turn, helps students learn how to learn. The cognitive, linguistic and sociocultural aspects of communication are intertwined in each of the four objectives. The student is expected to develop the competencies to communicate appropriately, accurately and effectively in an increasing range of social, cultural and academic contexts, and for an increasing variety of purposes.

“Processes are what help mediate the construction of new knowledge and understandings and play an especially important role in language and communication.” (Lanning 2013: 19). They are designed to enable students to become multiliterate by developing their oral literacy (oracy), visual literacy (visuacy) and written literacy (literacy).

The language acquisition subject group objectives represent some of the essential processes of language and have been organized under the same four communicative processes for each of the six phases in order to assist teachers with planning, teaching and assessing. They are as follows.

### A. Listening

Comprehending spoken language presented in multimodal text encompasses aspects of listening and viewing. The process involves the student in interpreting and constructing meaning from spoken and multimodal text to understand how images and other spatial aspects presented with oral text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is viewed, and to be aware of opinions, attitudes and cultural references presented in the visual text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, or gain new perspectives and develop empathy, based on what he or she has understood in the text.

In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- Demonstrate understanding of explicit and implicit spoken information in multimodal texts.
  - What is the content of the text? What details in the spoken language relate to the big ideas and explicit features of the multimodal text? (message: literal (explicit) and implicit)
- Demonstrate understanding of conventions.
  - What language conventions can be heard? For example, form of address, greetings. What behavioural conventions can be seen? For example, dress code, gestures—shaking hands, bowing.
- Demonstrate understanding of relationships between the various components of the multimodal text.
  - What are the relationships between the various components of the multimodal text? Do they share the same context? Does the text link to the student's personal world?

### B. Reading

Comprehending written language presented with multimodal text encompasses aspects of reading and viewing. It involves the student in constructing meaning and interpreting written, spatial and visual aspects of texts to understand how images presented with written text interplay to convey ideas, values and attitudes. Engaging with text requires the student to think creatively and critically about what is read and viewed, and to be aware of opinions, attitudes and cultural references presented in the written text. The student might, for example, reflect on feelings and actions, imagine himself or herself in another's situation, gain new perspectives and develop empathy, based on what he or she has understood in the text.

In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- Demonstrate understanding of explicit and implicit written information in multimodal texts.
  - What is the text type? What is the content? What details in the written language relate to the big ideas and explicit features of the multimodal text? (message: literal/explicit, implicit)
- Demonstrate understanding of conventions.
  - What are the language conventions used in the multimodal text? For example, formal and informal language, punctuation, word choice.
  - What is the communicative purpose of the text? Who is the intended audience?

- What text conventions are used in the multimodal text? For example, use of colour, structure, format—layout and physical organization of the text.
- Demonstrate understanding of relationships between the various components of the multimodal text.
  - Do they share the same context? Does the text link to the student’s personal world?

### **C. Speaking**

In the language acquisition classroom, students will have opportunities to develop their communication skills by interacting on a range of topics of personal, local and global interest and significance, with the support of spoken, written and visual texts in the target language (multimodal texts). When speaking in the target language, students apply their understanding of linguistic and literary concepts to develop a variety of structures, strategies and techniques with increasing skill and effectiveness. This is the use of the language system, including their use of grammar, pronunciation and vocabulary.

In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- Use spoken language to communicate and interact with others.
  - What is the role of the student/speaker? What is the context? Who is the audience? What is the purpose of the interaction? What is the message?
- Demonstrate accuracy and fluency in speaking.
  - How accurately is the language used? To what extent is the conversation language intelligible?
- Communicate clearly and effectively.
  - How well does the student communicate information? How accurately and fluently are the relevant information and ideas communicated?

### **D. Writing**

This objective relates to the correct and appropriate use of the written target language. It involves recognizing and using language suitable to the audience and purpose, for example, the language used at home, the language of the classroom, formal and informal exchanges, and social and academic language. When writing in the target language, students apply their understanding of language, form, mode, medium and literary concepts to express ideas, values and opinions in creative and meaningful ways. They develop a variety of structures using strategies (spelling, grammar, plot, character, punctuation, voice, format, audience) and techniques with increasing skill and effectiveness.

In order to reach the aims of language acquisition, as appropriate to the proficiency level, students should be able to:

- Use written language to communicate with others.
  - What is the role of the student/writer? Who is the audience? What is the purpose of the written text? What is the message?
- Demonstrate accurate use of language conventions.
  - How accurately is the language used? To what extent is the language comprehensible?
- Organise information in writing.
  - Does the student use an appropriate format? To what extent are the cohesive devices used in the organization of the text?
- Communicate information with a sense of audience and purpose.
  - How are the relevant information and ideas communicated? How well does the student communicate such that the text makes sense to the reader.

### **Language Acquisition at Mercedes College**

At Mercedes College, the following Language Acquisition programs are available:

- French: Reception to Year 12
- Indonesian: Year 7 to Year 12
- Spanish: New students to the school in Year 10 to 11 and 12 IB Diploma
- English as an additional language or dialect (EALD) Year 7 to Year 12



## Language levels

There are 3 levels for certification in MYP Language Acquisition:

1. Language Acquisition Experienced
2. Language Acquisition Continuers
3. Language Acquisition Beginners

### Language Acquisition Experienced

As French B is introduced at Mercedes College in the Primary Years Programme, students from this background will remain in dedicated classes in Year 6 and beyond (if they choose to remain with French B) and will be assessed at Experienced level. Language B Experienced students are those who need a greater challenge than that offered through Language B Continuers.

Students do have the option to change class and undertake Continuers level.

### Language Acquisition Continuers

Students continuing a language in Year 6 will be assessed at Continuers level in French B. These students typically will have had little or no formal instruction and will not be proficient in the language before starting the course.

Students will have a high level of competence in the language by the end of the MYP and are able to pursue their Language B at Year 11 and Year 12 in the SACE or IB Diploma.

### Language B Beginners

Students beginning Language B at Year 7 will be assessed at Beginners level in French B or Indonesian B.

Students will have a basic level of competence in the language by the end of the MYP and are able to pursue their Language B at Year 11 and Year 12 in the SACE or IB Diploma.

### Spanish

Students joining the College in Year 10 with little or no previous language experience in French or Indonesian will undertake this Language Acquisition course, (Spanish). Students will be introduced to the importance of a second language in understanding and appreciating different cultures and their perspectives. Students will gain an awareness of international mindedness on a range of contemporary, global issues.

## Assessment Criteria

In order to measure a student's progress and achievement in each phase of the course, four criteria have been established. These criteria correspond directly to the four objectives.

- |              |           |
|--------------|-----------|
| A. Listening | Maximum 8 |
| B. Reading   | Maximum 8 |
| C. Speaking  | Maximum 8 |
| D. Writing   | Maximum 8 |

## Learning Area Leader

Christine Stevens

## Mathematics

### Overview

“Neglect of mathematics works injury to all knowledge, since he who is ignorant of it cannot know the other sciences or the things of the world.” Roger Bacon (1214–1294)

The study of mathematics is a fundamental part of a balanced education. It promotes a powerful universal language, analytical reasoning and problem-solving skills that contribute to the development of logical, abstract and critical thinking. Mathematics can help make sense of the world and allows phenomena to be described in precise terms. It also promotes careful analysis and the search for patterns and relationships, skills necessary for success both inside and outside the classroom. Mathematics, then, should be accessible to and studied by all students.

Studying mathematics, however, should be more than simply learning formulae or rules. Students should not have the impression that all of the answers to mathematics can be found in a book but, rather, that they can be active participants in the search for concepts and relationships. In that light, mathematics becomes a subject that is alive with the thrill of exploration and the rewards of discovery. At the same time, that new knowledge may then be applied to other situations, opening up even more doors for students. MYP mathematics promotes both inquiry and application, helping students to develop problem-solving techniques that transcend the discipline and that are useful in the world outside school.

The MYP mathematics program is tailored to the needs of students, seeking to intrigue and motivate them to want to learn its principles. Students should see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations. Mathematics provides the foundation for the study of sciences, engineering and technology. However, it is also evident in the arts and is increasingly important in economics, the social sciences and the structure of language. Students in the MYP are encouraged to use ICT tools to represent information, to explore and model situations, and to find solutions to various problems. These are skills that are useful in a wide range of arenas. MYP mathematics aims to equip all students with the knowledge, understanding and intellectual capabilities to address further courses in mathematics, as well as to prepare those students who will use mathematics in their studies, workplaces and lives in general.

### Aims

The aims of the teaching and study of MYP mathematics are to encourage and enable students to:

- enjoy mathematics and to develop curiosity as well as an appreciation of its elegance and power
- develop an understanding of the principles and nature of mathematics
- communicate clearly and confidently in a variety of contexts
- develop logical, critical and creative thinking, and patience and persistence in problem solving
- develop power of generalization and abstraction
- apply and transfer skills to a wide variety of real life contexts
- appreciate how developments in technology and mathematics have influenced each other
- appreciate the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics
- appreciate the international dimension in mathematics through an awareness of the universality of mathematics and its multicultural and historical perspectives
- appreciate the contribution of mathematics to other areas of knowledge
- develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- develop the ability to reflect critically upon their own work and the work of others.
- reflect on the meaning and relevance of mathematical answers in the context of the real-world.

### Objectives

The objectives of MYP mathematics encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge.

Each objective is elaborated by a number of strands; a strand is an aspect or indicator of the learning expectation.

Together these objectives reflect the knowledge, skills and attitudes that students need in order to use mathematics in a variety of contexts (including real-life situations), perform investigations and communicate mathematics clearly.



### **A. Knowledge and Understanding**

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop skills. This objective assesses the extent to which students can select and apply mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts.

This objective requires students to demonstrate knowledge and understanding of the concepts and skills of the four branches in the prescribed framework (number, algebra, geometry and trigonometry, statistics and probability).

In order to reach the aims of mathematics, students should be able to:

- select appropriate mathematics when solving problems in both familiar and unfamiliar situations
- apply the selected mathematics successfully when solving problems
- solve problems correctly in a variety of contexts.

### **B. Investigating Patterns**

Investigating patterns allows students to experience the excitement and satisfaction of mathematical discovery. Working through investigations encourages students to become risk-takers, inquirers and critical thinkers. The ability to inquire is invaluable in the MYP and contributes to lifelong learning.

A task that does not allow students to select a problem-solving technique is too guided and should result in students earning a maximum achievement level of 6 (for years 1 and 2) and a maximum achievement level of 4 (for year 3 and up). However, teachers should give enough direction to ensure that all students can begin the investigation.

For year 3 and up, a student who describes a general rule consistent with incorrect findings will be able to achieve a maximum achievement level of 6, provided that the rule is of an equivalent level of complexity.

In order to reach the aims of mathematics, students should be able to:

- select and apply mathematical problem-solving techniques to discover complex patterns
- describe patterns as general rules consistent with findings
- prove, or verify and justify, general rules.

### **C. Communicating**

Mathematics provides a powerful and universal language. Students are expected to use appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing.

In order to reach the aims of mathematics, students should be able to:

- use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations
- use appropriate forms of mathematical representation to present information
- move between different forms of mathematical representation
- communicate complete, coherent and concise mathematical lines of reasoning v. organise information using a logical structure.

### **D. Applying mathematics in real-life contexts**

MYP mathematics encourages students to see mathematics as a tool for solving problems in an authentic real-life context. Students are expected to transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results.

In order to reach the aims of mathematics, students should be able to:

- identify relevant elements of authentic real-life situations
- select appropriate mathematical strategies when solving authentic real-life situations
- apply the selected mathematical strategies successfully to reach a solution
- justify the degree of accuracy of a solution
- justify whether a solution makes sense in the context of the authentic real-life situation.

## Units of Study

### Year 6

Units	Content
Number	Whole number, multiples, factors, forms of number. For example, exponents, rational numbers, decimals and percentages.
Algebra	Order of operations, number sets, pattern recognition.
Geometry	Mensuration, construction of triangles and rectangles
Probability	Investigating chance and probability

### Year 7

Units	Content
Number	Rational numbers, decimals, percentages, estimation, number patterns, scientific notation, powers and roots of 2
Algebra	Language of algebra, flow charts, expansion, equations
Geometry	Mensuration, circle and polygon construction
Statistics and Probability	Sample space, outcomes and events, theoretical and experimental probability
Discrete Maths	Tree diagrams

### Year 8

Units	Content
Number	Fractions, decimal, ratio, proportion and rates, directed numbers, calculators
Algebra	Algebra, patterns, relations and functions, sequences, laws
Geometry	Planes, lines, classifying triangles
Statistics and Probability	Data collection, data analysis, measures of central tendency
Discrete Maths	Trees, networks

### Year 9

Units	Content
Number	Powers and roots, calculators and computers
Algebra	Algebra, equations, inequalities, factorisation, linear functions
Geometry	Pythagoras' Theorem, similarity and congruence
Statistics and Probability	Stem and leaf plots, box and whisker plots, mean, mode, median and range
Discrete Maths	Logic

## Year 10

Units	Content
Number	Number sets, theory and power of roots
Algebra	Expressions and factorisation, linear and quadratic functions
Geometry	Similarity and congruence, shape and perspective in 3D, trigonometry
Statistics and Probability	Graphical representations, range, standard deviation etc.

### Levels of Mathematics

Topics and skills of the framework for mathematics are organized so that students can work at 2 levels of challenge: standard mathematics and extended mathematics.

Standard mathematics aims to give all students a sound knowledge of standard mathematical principles while allowing them to develop the skills needed to meet the objectives of MYP mathematics and prepare them for most SACE and IB Diploma courses.

Extended mathematics consists of the standard mathematics framework supplemented by additional topics and skills. This level provides the foundation for students who wish to pursue further studies in mathematics: for example, mathematics higher level subjects as part of the IB Diploma Programme. Extended mathematics provides greater breadth and depth to the standard mathematics framework.

In Year 6 to Year 8 (MYP years 1 to 3), students take a common differentiated mathematics course. Extended mathematics is provided during the final two years of the MYP with entry based on assessment results in Year 8.

### Assessment Tasks

Generally, criteria A, B and D are assessed with different kinds of tasks. Criterion C is often used to assess constructed responses and reports in combination with criterion B or D.

Criterion	Typical assessment tasks
A. Knowing and understanding	Classroom tests Examinations Assignments that include both familiar and unfamiliar situations
B. Investigating patterns	Mathematical investigations of some complexity that allow students: <ul style="list-style-type: none"> <li>to choose their own mathematical techniques</li> <li>to reason from the specific to the general</li> </ul>
C. Communicating	Investigations and real-life problems Reports that: <ul style="list-style-type: none"> <li>require logical structure</li> <li>allow multiple forms of representation to present information</li> </ul>
D. Applying mathematics in real-life contexts	Opportunities to use mathematical concepts to solve real-life problems



### Assessment Criteria

Assessment for mathematics courses in all years is criterion-related, based on 4 equally weighted assessment criteria:

Criterion	Maximum
A. Knowing and understanding	8
B. Investigating patterns	8
C. Communicating	8
D. Applying mathematics in real-life contexts	8

### Learning Area Leader

Pamela Alexopoulos

## Physical and Health Education

### Overview

“Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamic and creative intellectual activity.” John F Kennedy

MYP physical and health education aims to empower students to understand and appreciate the value of being physically active and develop the motivation for making healthy life choices. To this end, physical and health education courses foster the development of knowledge, skills and attitudes that will contribute to a student’s balanced and healthy lifestyle. Through opportunities for active learning, courses in this subject group embody and promote the holistic nature of well-being. Students engaged in physical and health education will explore a variety of concepts that help foster an awareness of physical development and health perspectives, empowering them to make informed decisions and promoting positive social interaction.

Physical and health education focuses on both learning about and learning through physical activity. Both dimensions help students to develop approaches to learning (ATL) skills across the curriculum. Physical and health education contributes a unique perspective to the development of the attributes of the IB learner profile, promoting the health of individuals and communities.

Through physical and health education, students can learn to appreciate and respect the ideas of others and develop effective collaboration and communication skills. This subject area also offers many opportunities to build positive interpersonal relationships that can help students to develop a sense of social responsibility. At their best, physical and health education courses develop the enjoyment, engagement and confidence in physical activity that students need in order to achieve and maintain a balanced, healthy life.

Physical activity and health are of central importance to human identity and global communities. They create meaningful connections among people, nations, cultures and the natural world, and they offer a range of opportunities to build intercultural understanding and greater appreciation for our common humanity.

### Aims

The aims of MYP physical and health education are to encourage and enable students to:

- use inquiry to explore physical and health education concepts
- participate effectively in a variety of contexts
- understand the value of physical activity
- achieve and maintain a healthy lifestyle
- collaborate and communicate effectively
- build positive relationships and demonstrate social responsibility
- reflect on their learning experiences.

### Objectives

The objectives of MYP physical and health education encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge. Each objective is elaborated by a number of strands; a strand is an aspect or indicator of the learning expectation.

Together these objectives reflect the knowledge, skills and attitudes that students need in order to develop an active and healthy life; they represent essential aspects of physical, personal and social development.

#### A. Knowing and understanding

Students develop knowledge and understanding about health and physical activity in order to identify and solve problems.

In order to reach the aims of physical and health education, students should be able to:

- explain physical health education factual, procedural and conceptual knowledge
- apply physical and health education knowledge to analyse issues and solve problems set in familiar and unfamiliar situations
- apply physical and health terminology effectively to communicate understanding.

#### B. Planning for performance

Students through inquiry design, analyse, evaluate and perform a plan in order to improve performance in physical and health education.

In order to reach the aims of physical and health education, students should be able to:

- design, explain and justify plans to improve physical performance and health
- analyse and evaluate the effectiveness of a plan based on the outcome.

**C. Applying and performing**

Students develop and apply practical skills, techniques, strategies and movement concepts through their participation in a variety of physical activities.

In order to reach the aims of physical and health education, students should be able to:

- demonstrate and apply a range of skills and techniques effectively
- demonstrate and apply a range of strategies and movement concepts
- analyse and apply information to perform effectively.

**D. Reflecting and improving performance**

Students enhance their personal and social development, set goals, take responsible action and reflect on their performance and the performance of others.

In order to reach the aims of physical and health education, students should be able to:

- explain and demonstrate strategies that enhance interpersonal skills
- develop goals and apply strategies to enhance performance
- analyse and evaluate performance.

**Example Units of Study**

Year Level	Practical Component	Theoretical Component
Year 6	Athletics, Basketball, Cricket, Dance, Football Codes, Golf, Sofcrosse, Ultimate Frisbee, Volleyball	Planning Healthy Cities, Harassment and Bullying; You are what you eat; Roles in Sport; Puberty and Change
Year 7	Athletics, Dance, Netball, Soccer, Sofcrosse, Softball, Tennis, Touch	Taking on Responsibility; Biomechanics; Culture and Sport; Working in Groups; Skill Building, Puberty and Change Revisited
Year 8	Aerobics, Athletics, Australian Rules, Basketball, Boxing, Cricket, Golf, Hockey, Tennis	Exercise and Diet; Principles of Play; First Aid and Aquatics; Puberty Revisited
Year 9	Athletics, Dance, Hockey, Minimal Impact Camping, Netball, Softball, Table Tennis, Touch	Fitness Profile; Drugs and Alcohol; Cyber Citizenship; Body Systems; Sex and Sexuality
Year 10	Sport: Martial Arts, Athletics, Flag Football, Gaelic Football, Korfball Health: Yoga, Geocaching, Community Fitness, Volleyball Outdoor Education: Camp skills, Navigation, Snorkelling/Surfing, Rock Climbing, Bushwalking	Sport: Body Systems; Barriers and Enablers to Sport; Fitness and Training; Skill Acquisition, Biomechanics Health: Nutrition, Lifestyle diseases, Community Fitness and Health, Barriers and Enablers Outdoor Education: Environmental Management, Leadership, Preparing for an expedition, Indigenous studies

**Assessment Tasks**

Assessment tasks vary according to the units of study. The range of tasks includes research assignments, oral and visual presentations, practical activities, multimodal presentations and topic tests. Where applicable, theory components are taught through the practical activities.

**Learning Area Leader**

Jackie Kerr

## Science

### Overview

“The scientific mind does not so much provide the right answers as asks the right questions.” Claude Levi-Strauss

MYP Science at Mercedes College is structured on the [Australian Curriculum Science](#) (ACS). As such each of our Science units in the MYP is related to one of the ACS sub-strands (Biological sciences, Chemical sciences, Earth and Space sciences, Physical sciences).

With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum must explore the connections between science and everyday life. As they investigate real examples of science applications, students will discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment.

Scientific inquiry also fosters critical and creative thinking about research and design, as well as the identification of assumptions and alternative explanations. Students should learn to appreciate and respect the ideas of others, gain good ethical-reasoning skills and further develop their sense of responsibility as members of local and global communities. These aims are in keeping with and fostered by the ACS strands Science as a Human Endeavour and Science Inquiry Skills.

Learning science involves more than simply learning technical terminology. The MYP considers all teachers to be language teachers and, thus, MYP sciences should enable students to access, use and communicate scientific knowledge correctly and confidently in oral, written and visual modes.

### Aims

The aims of MYP sciences are to encourage and enable students to:

- understand and appreciate science and its implications
- consider science as a human endeavour with benefits and limitations
- cultivate analytical, inquiring and flexible minds that pose questions, solve problems, construct explanations and judge arguments
- develop skills to design and perform investigations, evaluate evidence and reach conclusions
- build an awareness of the need to effectively collaborate and communicate
- apply language skills and knowledge in a variety of real-life contexts
- develop sensitivity towards the living and non-living environments
- reflect on learning experiences and make informed choices.

### Objectives

The objectives of MYP sciences encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge. Each objective is elaborated by a number of strands; a strand is an aspect or indicator of the learning expectation.

Together these objectives reflect the holistic nature of science and the real-world work of scientists. They enable students to engage with all aspects of science, either through individual objectives or connected processes.

#### **A. Knowing and understanding**

Students develop scientific knowledge (facts, ideas, concepts, processes, laws, principles, models and theories) and apply it to solve problems and express scientifically supported judgments.

Tests or exams must be assessed using this objective. To reach the highest-level students must make scientifically supported judgments about the validity and/or quality of the information presented to them. Assessment tasks could include questions dealing with “scientific claims” presented in media articles, or the results and conclusions from experiments carried out by others, or any question that challenges students to analyse and examine the information and allows them to outline arguments about its validity and/or quality using their knowledge and understanding of science.

In order to reach the aims of sciences, students should be able to:

- explain scientific knowledge
- apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
- analyse and evaluate information to make scientifically supported judgments.

## **B. Inquiring and designing**

Intellectual and practical skills are developed through designing, analysing and performing scientific investigations. Although the scientific method involves a wide variety of approaches, the MYP emphasizes experimental work and scientific inquiry.

When students design a scientific investigation they should develop a method that will allow them to collect sufficient data so that the problem or question can be answered. To enable students to design scientific investigations independently, teachers must provide an open-ended problem to investigate. An open-ended problem is one that has several independent variables appropriate for the investigation and has sufficient scope to identify both independent and controlled variables. In order to achieve the highest level for the strand in which students are asked to design a logical, complete and safe method, the student would include only the relevant information, correctly sequenced.

In order to reach the aims of sciences, students should be able to:

- explain a problem or question to be tested by a scientific investigation
- formulate a testable hypothesis and explain it using scientific reasoning
- explain how to manipulate the variables, and explain how data will be collected
- design scientific investigations.

## **C. Processing and evaluating**

Students collect, process and interpret qualitative and/or quantitative data, and explain conclusions that have been appropriately reached. MYP sciences helps students to develop analytical thinking skills, which they can use to evaluate the method and discuss possible improvements or extensions.

In order to reach the aims of sciences, students should be able to:

- present collected and transformed data
- interpret data and explain results using scientific reasoning
- evaluate the validity of a hypothesis based on the outcome of the scientific investigation
- evaluate the validity of the method
- explain improvements or extensions to the method.

## **D. Reflecting on the impacts of science**

Students gain global understanding of science by evaluating the implications of scientific developments and their applications to a specific problem or issue. Varied scientific language will be applied in order to demonstrate understanding. Students are expected to become aware of the importance of documenting the work of others when communicating in science.

Students must reflect on the implications of using science, interacting with one of the following factors: moral, ethical, social, economic, political, cultural or environmental, as appropriate to the task. The student's chosen factor may be interrelated with other factors.

In order to reach the aims of sciences, students should be able to:

- explain the ways in which science is applied and used to address a specific problem or issue
- discuss and evaluate the various implications of the use of science and its application in solving a specific problem or issue
- apply scientific language effectively
- document the work of others and sources of information used.





### Units of Study

Year Level	Term 1	Term 2	Term 3	Term 4
6	<ul style="list-style-type: none"><li>• Science skills</li></ul>	<ul style="list-style-type: none"><li>• Waste not, want not</li><li>• Electric circuits</li></ul>	<ul style="list-style-type: none"><li>• Green energy</li><li>• Marvellous mould</li></ul>	<ul style="list-style-type: none"><li>• Disasters</li></ul>
7	<ul style="list-style-type: none"><li>• Classification</li><li>• Ecosystems and introduced species</li></ul>	<ul style="list-style-type: none"><li>• My carbon footprint</li><li>• Pushes and pulls</li></ul>	<ul style="list-style-type: none"><li>• STEM: Clean water</li></ul>	<ul style="list-style-type: none"><li>• Earth in space</li></ul>
8	<ul style="list-style-type: none"><li>• Working scientifically</li><li>• Cells and immortality</li></ul>	<ul style="list-style-type: none"><li>• STEM: Minesweeper</li></ul>	<ul style="list-style-type: none"><li>• Particle theory</li><li>• World problems</li></ul>	<ul style="list-style-type: none"><li>• Remarkable rocks</li></ul>
9	<ul style="list-style-type: none"><li>• Sceptical science</li><li>• Light it up</li></ul>	<ul style="list-style-type: none"><li>• Radiation and environments</li></ul>	<ul style="list-style-type: none"><li>• STEM: Pyramid power</li></ul>	<ul style="list-style-type: none"><li>• Body systems</li></ul>
10	<ul style="list-style-type: none"><li>• Possibly perfect</li><li>• Rise of the superbugs</li></ul>	<ul style="list-style-type: none"><li>• Periodic patterns</li><li>• Controlling chemistry</li></ul>	<ul style="list-style-type: none"><li>• STEM: Water-wheel winch</li></ul>	<ul style="list-style-type: none"><li>• Big Bang</li></ul>

### Assessment Tasks

Assessment tasks vary according to the units of study. The range of tasks includes research assignments, oral and visual presentations, practical activities and related reports, and topic tests.

### Learning Area Leader

Murray Head



## Study Thinking Extension Program (STEP)

### Year 9

The Year 9 STEP course is based on the core theme of the need to know yourself as an adolescent. At this adolescent stage of life students have particular needs. STEP is a dedicated subject specifically for adolescent needs, as not all young people's needs are met within the classroom-subject-teacher structure. At this adolescent core is the realisation that self-confidence, managing stress and anxiety, understanding others, etiquette, peers and friendships, emotional well-being, organising time, setting objectives, working together, asking questions and being of service, are just a few examples of the adolescent needs addressed by STEP.

The STEP methodology is primarily contextual; young people learn better through experience. These activities occur in 7 modules – each module caters for a specific need. Some of these activities utilise outside instructors and excursions to enrich the learning process. There are no grades, assignments and reports in STEP. In this sense it provides a balance to the other academic component of the curriculum.

### Year 10

The STEP program in Year 10 is based on the theme of mastery. It has been designed to provide fifteen-year-old young people with a series of life shaping experiences and situations. Human Relationships (Dale Carnegie training), social etiquette, conversational skills, risk taking and safety, self-esteem, teamwork, service, the search for meaning, mindfulness, managing stress and questioning are some of the topics we cover. As with the Year 9 program there are a series of enriching activities that involve excursions and other instructors. Towards this end there is a levy of \$290 to cover these other extensions to the curriculum. STEP does not work with grades, reports and assignments. Rather, the focus for STEP is to develop a student's better understanding of human dynamics and how they can best apply this in different setting and circumstances.

### Notes:

In Year 10 STEP is positioned within the arts elective grouping. Students who wish to take advantage of artistic interests while also addressing personal growth may choose to combine STEP with an arts elective (one Semester each).

STEP does not lead directly into a Year 11 or Year 12 subject, however a recent study by the Macquarie Business School which explored the employability of undergraduates found that undergraduates were lacking in soft skills, and *Fortune Magazine* recently reported communication and relationship skills to be the most sought-after employable skills.

STEP is an investment in personal growth; a laying down of a foundation for life.

### Learning Area Coordinator

Steve Wasilewski

## Homework Guidelines

Staff at Mercedes College believe that the giving of homework assists in the personal and academic development of students Approaches to Learning Skills (see page 3). What follows outlines the purposes of homework and suggests ways in which parents can assist students learning at home.

A successful homework program depends on close communication between teacher and parent. Our mutual aim should be to encourage students to develop their Self-Management Skills. Homework should aid this development by enabling students the opportunity to prepare for and review their learning. At no stage should homework be a frustrating experience as students build on the skills they have developed. If a child is unable to complete a homework commitment after reasonable effort, staff should be informed, through SEQTA Engage.

### Purposes of homework

- To develop Approaches to Learning Skills especially Self-Management.
- To reinforce studies carried out during the day.
- To involve parents in the learning program of their child.
- To encourage student initiative and creativity.
- To enable teachers to assess the level of mastery of work taught in class.
- To prepare students for the demands of further studies at senior secondary and tertiary level.

### Role of family

- To provide an appropriate place in the home for the student to complete homework set.
- To consult the diary to monitor the amount of homework set each night.
- To encourage and assist the child to complete homework set but not to do the work set. (Allowing students to take responsibility for their own learning is an important component of the Self-Management Approaches to Learning skill).

### Student Planner

The planner is a means of communication between the school and the home. Students are expected to enter all homework set for each night and parents are requested to sign the diary at the end of each week.

### Homework time allocation

General guidelines per night:

Year 6	up to 60 minutes	Year 8	up to 75 minutes	Year 10	up to 120 minutes
Year 7	up to 60 minutes	Year 9	up to 90 minutes		

At all year levels, Approaches to Learning Skills involving managing time and tasks effectively such as revising work set, organising learning materials, continuing with an assignment etc. are regularly encouraged, especially when specific work has not been set by a teacher.

## Assessment Guidelines

The setting of assignments, projects etc., is an important part of the learning process and provides students with the opportunity to research issues in-depth and respond creatively to aspects of the topic being studied.

Staff have adopted a policy with regard to the late submission of work set. (See Policy on Academic Honesty in the College Handbook or Student Planner)

The purpose of deadlines is to assist students with their own planning in the development of good organisational skills. It is also unfair to those who meet deadlines to have others being granted additional time without good reason.

All staff are therefore expected to:

- Be realistic but firm about setting deadlines;
- Be fair in cases of genuine hardship but firm when avoidance is obvious;
- Adhere to the above policy so that students learn to be punctual and consistent in their study habits.

In cases where students are absent and work has been missed it is the student's responsibility to approach the teacher to identify what has to be done to catch up.

## Glossary of MYP Terms

Term	Description
Approaches to learning (ATL)	One of the areas of interaction; it is concerned with the development of effective study skills and the ability to reflect on one's own learning.
Assessment criteria	Criteria against which a candidate's performance is measured as evidenced by work produced. MYP subject guides provide assessment criteria for each subject group and the personal project to be used for the final assessment of students.
Assessment objective	One of a set of statements for a subject describing the required skills, knowledge and understanding in a subject.
Community and service (CAS)	One of the areas of interaction; it is concerned with the acquisition of experience through social activities within and outside school.
Criterion-referenced assessment	An assessment process based on awarding grades against previously agreed criteria. MYP assessment is criterion referenced.
Criterion totals	A student's achievement in a subject is the sum of the levels achieved against all the criteria in that subject. The levels total is then converted to a grade from 1–7 by applying the grade boundaries.
Descriptors	These describe the levels of achievement which are assessed in particular skill areas.
Final assessment	The summative assessment of students at the end of the final year of the MYP.
Fundamental concepts	The basic educational principles of the MYP. They include a holistic view of knowledge, intercultural awareness and the importance of communication.
Grade boundaries	The lowest and highest marks for a particular grade determined for each subject by the IBO.
Grades	Schools assess on a 1–7 scale for final assessment. Schools can also use this scale for assessment other than final assessment.
Holistic education	One of the fundamental concepts of the MYP; it is an interdisciplinary perspective which accentuates the interrelatedness of various disciplines and issues.
Inter-disciplinary units	Within each of the subject groups, schools may teach individual subjects (for example, history and geography within humanities) or an integrated course with elements of each subject every year.
Internal assessment	The assessment of a student's work which is carried out by the student's teacher.
Middle Years Programme (MYP)	The IBO's programme designed for students between the ages of 11 and 16 years. It is organised according to the fundamental concepts of holistic education, communication and intercultural awareness.
Moderation	The procedure by which sample marked work from teachers is reviewed externally to ensure assessment has been carried out according to criteria and standards as laid down. Adjustment of marks by moderators may be necessary (only for schools which request IBO-validated grades).
MYP certificate	The official IB document stating that the candidate has fulfilled the requirements for the award of the MYP certificate.
MYP Coordinator	The contact person for the IB offices in an MYP school. This coordinator ensures the effective implementation of the MYP.
Objective	One of a set of statements for a subject or the personal project, describing the skills, knowledge and understanding which will be assessed in the course/project. The assessment criteria correspond to the objectives.
Personal Project	The manifestation of a student's experience of the areas of interaction; completed during the last year of the 5-year cycle.



Term	Description
Personal Project supervisor	The member of staff within a school who is responsible for working directly with the student on the completion of the personal project.
Portfolio of work	Selected samples of a student's work in a given discipline, showing achievement against the corresponding assessment criteria.
Sample work	Work submitted by schools, on the instructions of IBCA, for review by IBO-appointed moderators.
Subject Groups	The MYP curriculum includes eight subject groups: language and literature, language acquisition, humanities, the sciences, mathematics, the arts, health & physical education and design. Religious education is also included as a compulsory subject at Mercedes and is assessed under the humanities subject group.

### Command Terms

The command terms listed are used to define the thinking skills that MYP students are expected to demonstrate. The definitions may vary when used in other contexts.

Term	Description
Argue	Challenge or debate an issue or idea with the purpose of persuading or committing someone else to a particular stance or action.
Calculate	Obtain a numerical answer showing the relevant stages in the working.
Classify	Arrange or order by class or category.
Comment	Give a judgment based on a given statement or result of a calculation.
Compare	Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.
Compare and contrast	Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.
Construct	Develop information in a diagrammatic or logical form.
Contrast	Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.
Deduce	Reach a conclusion from the information given.
Define	Give the precise meaning of a word, phrase, concept or physical quantity.
Demonstrate	Prove or make clear by reasoning or evidence, illustrating with examples or practical application.
Derive	Manipulate a mathematical relationship to give a new equation or relationship.
Describe	Give a detailed account or picture of a situation, event, pattern or process.
Design	Produce a plan, simulation or model.
Determine	Obtain the only possible answer.
Discuss	Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.
Distinguish	Make clear the differences between two or more concepts or items.



<b>Term</b>	<b>Description</b>
Document	Credit sources of information used by referencing (or citing) following one recognised referencing system. References should be included in the text and also at the end of the piece of work in a reference list or bibliography.
Estimate	Find an approximate value for an unknown quantity.
Evaluate	Assess the implications and limitations; make judgments about the ideas, works, solutions or methods in relation to selected criteria.
Examine	Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.
Exemplify	Represent with an example.
Explain	Give a detailed account including reasons or causes.
Explore	Undertake a systematic process of discovery.
Formulate	Express precisely and systematically the relevant concept(s) or argument(s).
Identify	Provide an answer from a number of possibilities. Recognize and state briefly a distinguishing fact or feature.
Infer	Deduce; reason from premises to a conclusion. Listen or read beyond what has been literally expressed.
Interpret	Use knowledge and understanding to recognize trends and draw conclusions from given information.
Investigate	Observe, study, or make a detailed and systematic examination, in order to establish facts and reach new conclusions.
Justify	Give valid reasons or evidence to support an answer or conclusion.
Label	Add title, labels or brief explanation(s) to a diagram or graph.
List	Give a sequence of brief answers with no explanation.
Measure	Find the value for a quantity.
Outline	Give a brief account.
Predict	Give an expected result of an upcoming action or event.
Present	Offer for display, observation, examination or consideration.
Prove	Use a sequence of logical steps to obtain the required result in a formal way.
Recall	Remember or recognise from prior learning experiences.
Reflect	Think about deeply; consider.
Recognise	Identify through patterns or features.
Show	Give the steps in a calculation or derivation.
Sketch	Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship, and should include relevant features.
Solve	Obtain the answer(s) using appropriate methods.
State	Give a specific name, value or other brief answer without explanation or calculation.
Suggest	Propose a solution, hypothesis or other possible answer.



<b>Term</b>	<b>Description</b>
Summarise	Abstract a general theme or major point(s).
Synthesise	Combine different ideas in order to create new understanding.
Use	Apply knowledge or rules to put theory into practice.