

Foundation Program (Year 7 and 8) Curriculum Handbook 2025

Inspiring Great Minds



Queensland Academy
for Science Mathematics
and Technology





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Introduction

Dear Parents and Carers

Welcome to our community and congratulations on being accepted to the Queensland Academy for Science Mathematics and Technology. This handbook is designed to support students and parents in selecting subjects for their first two years of study in our Foundation Program. I encourage you to review the contents of this handbook to learn about the International Baccalaureate Middle Years Programme (IB MYP) and how our Foundation Program prepares students for their ongoing studies at QASMT. We are proud to be an International Baccalaureate World School and our curriculum programs have been carefully crafted to meet our mission and values, outlined for you in this handbook. Our STEM Futures Program in Year 9 and 10 and our Diploma Program in Years 11 and 12, delivering the International Baccalaureate Diploma Programme (IB DP), provides our students with a world class education designed to develop global thinkers ready to solve the problems of an ever-changing world. The IB is recognised worldwide for the development of life-long learners and its preparation of students for success at university and beyond.

Our Foundation Program is designed to develop the strong foundations needed for success in secondary schooling. During the Foundation Program students will study all eight subject areas of the IB Middle Years Programme. An overview of these subjects is provided in this handbook. Due to the foundation nature of the program, students will only make subject selection choices around the language acquisition subject and the performing arts subject they study.

Year 7 students are required to complete their Foundation Program subject selection online and those subjects will be studied in Year 8 as well. Details for completing the online subject selection will be provided by email, including dates for completion. The subjects available for selection are listed at the back of this booklet.

Regards,

Tanya Haggarty

Associate Principal Academic

Queensland Academy for Science Mathematics and Technology

Our Mission and Values

Our Vision

Inspiring great minds through the provision of a world-class education that nurtures personal excellence and develops young people who are able to contribute positively to an ever-changing world.

Our Values

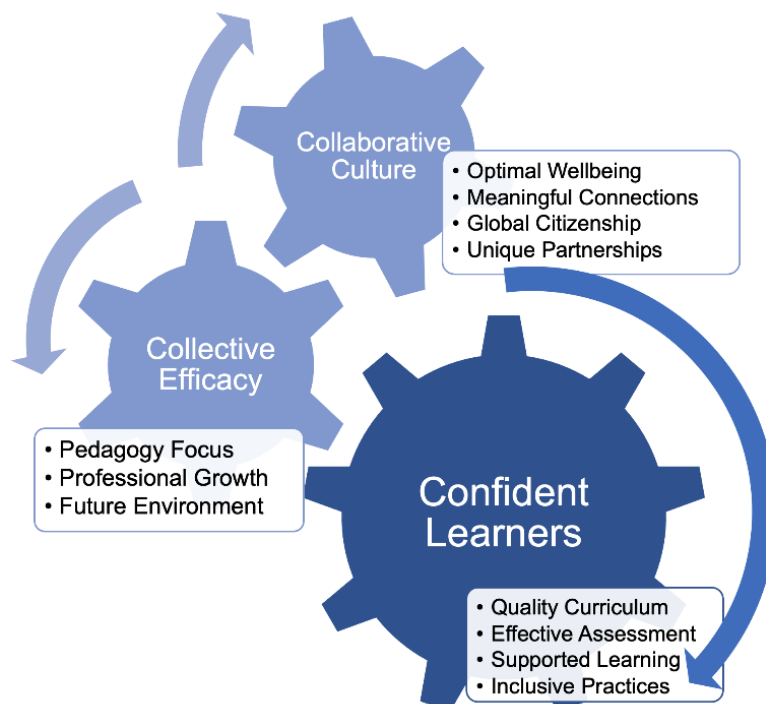
We value the ten aspirational qualities of the International Baccalaureate (IB) Learner Profile, which go beyond academic success to instil a sense of personal excellence, striving to improve in every aspect of our lives. The aim is not perfection but instead to achieve our potential; and flourishing as defined in positive psychology.

- | | |
|---------------|-------------|
| Inquirers | Open-minded |
| Knowledgeable | Caring |
| Thinkers | Risk-takers |
| Communicators | Balanced |
| Principled | Reflective |

Our Mission

To achieve the IB aims of developing inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. Through the IB, we develop challenging programmes of international education and rigorous assessment. These programmes encourage our students to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

(Adapted from the IB Mission Statement)



Overview of QASMT Curriculum Programs

The Year 7 – 12 curriculum framework at QASMT has been specifically developed to provide a STEM focussed curriculum, through the International Baccalaureate (IB) Middle Years Programme (MYP) and Diploma Programme (DP).

Year 7 – 8 Foundation Program

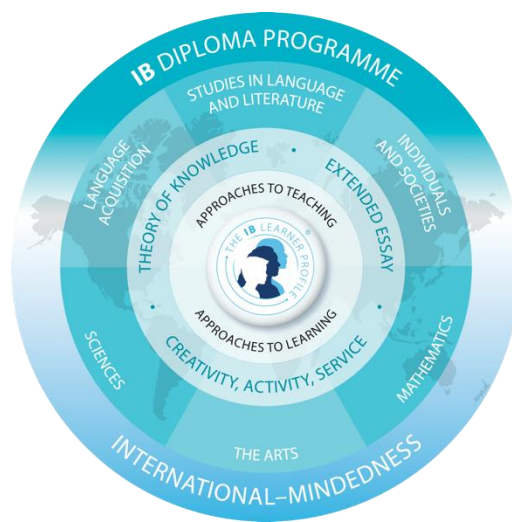
A rigorous and accelerated curriculum program developed through the IB Middle Years Programme, Year 3 standards, and mapped to the Australian Curriculum as relevant. The program is delivered through six full year courses and two semester courses across the eight MYP subject groups. Students choose their Language Acquisition and Arts courses.

Year 9 – 10 STEM Futures Program

A STEM focussed curriculum program, developed through a core curriculum of Language and Literature, Mathematics and Language Acquisition and a STEM Futures curriculum across Sciences, Individuals and Societies, Design, The Arts and Physical and Health Education. The Year 9 program is developed through the IB Middle Years Programme, Year 5 standards, and mapped to the Australian Curriculum as relevant. The program culminates in completion of a STEM Futures Project. The Year 10 program is a bespoke program developed to prepare students for the rigours of the IB Diploma Programme and mapped to the Australian Curriculum as relevant. The program is delivered through semester core subjects and STEM Futures electives. The program culminates in the final semester with a Diploma Preparation Program.

Year 11 – 12 Diploma Program

A rigorous, university preparation curriculum program, developed through the IB Diploma Programme. The programme is studied across six subject areas, either one subject in each subject group or two subjects in either Sciences or Individuals and Societies, instead of a subject in Arts. All students study three subjects at Standard Level, three subjects at Higher Level subjects and the inner core subjects, Theory of Knowledge, Extended Essay and CAS (Creativity, Activity and Service).



International Baccalaureate Middle Years Programme

The IB Middle Years Programme (MYP) provides a framework of academic challenge that encourages students to embrace and understand the connections between traditional subjects and the real world, and become critical and reflective thinkers.



Figure 1: The IB Middle Years Programme curriculum overview

In the MYP, students study eight subject groups. Distinctive features of the MYP include:

- Key and related concepts are big ideas, which form the basis of teaching and learning in the MYP. They promote learning within and across traditional disciplines.
- Global contexts provide shared starting points for inquiry into what it means to be internationally minded, framing a curriculum that promotes multilingualism, intercultural understanding and global engagement.
- Approaches to teaching and learning are skills which help students manage their own learning. They provide a foundation for success in further education and the world beyond the classroom.
- Service as action (community service) – Students take action when they apply what they are learning in the classroom and beyond. IB learners strive to be caring members of the community who demonstrate a commitment to service – making a positive difference to the lives of others and to the environment.
- Language and identity - MYP students are required to learn at least two languages, their mother tongue and one other. Learning to communicate in a variety of ways is fundamental to their development of intercultural understanding and crucial to their identity affirmation.

IB Learner Profile

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

Academic Integrity

QASMT recognises that academic integrity is embodied within the IB Mission Statement, values and IB Learner Profile. QASMT has developed an Academic Integrity Policy which is enacted throughout the Academy. A clear, positive approach to academic honesty as good practice is imperative to ensure that:

- teacher and student integrity is promoted through sound teaching and learning practice
- student research is properly conducted
- assessment is authentic
- intellectual property and copyright regulations of Australia are upheld. This policy is consistent with the International Baccalaureate's philosophy and expectations and is designed to support the Middle Years Programme's Standards and Practices.

The aim of this academic integrity policy is to:

- promote the principles and practices of academic integrity to ensure that students and teachers are fully aware
- ensure that students do not have unfair advantage over other students through academically dishonest practices such as collusion, duplication, plagiarism or assessment misconduct
- ensure that the principles and practices of academic honesty are explicitly taught
- detail the opportunities which students receive to learn about and practise academic honesty
- define the specific skills and knowledge students need, to practise academic honesty
- outline the procedures to be taken when malpractice or infringement may have occurred
- to provide a coherent approach across all year levels.

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

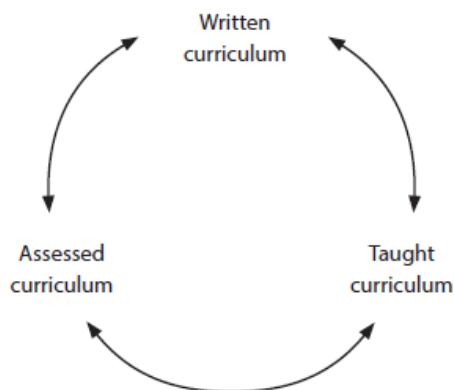
Principled action, as both a strategy and an outcome, represents the IB's commitment to teaching and learning through practical, real-world experience. IB learners act at home, as well as in classrooms, schools, communities and the broader world. Action involves learning by doing, enhancing learning 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.

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.

Written, Taught and Assessed Curriculum

The MYP's coherent curriculum comprises three interrelated components as shown in the curriculum model below as outlined in the MYP: From Principles into Practice.



In the MYP curriculum model, each component has equal value. The double-headed arrows indicate that developing, implementing and monitoring the school's written, assessed and taught curriculums is an integrated process. Consideration for all three components is woven together throughout the process of planning for learning.

Written Curriculum

The written curriculum is a formal, comprehensive, school-wide set of documents written by the school that describes what will be taught in each subject to each age group. The MYP presents QASMT with a framework within which we develop our own written curriculum within the scope of The Australian Curriculum.

The Australian Curriculum is presented as a progression of learning from Foundation - Year 10 that makes clear to teachers, parents, students and others in the wider community what is to be taught, and the quality of learning expected of young people as they progress through school. In each learning area or subject, content descriptions specify what young people will learn; and achievement standards describe the depth of understanding and the sophistication of knowledge and skill expected of students at the end of each year level or band of years in their schooling.

Curriculum development within an MYP framework centres on four major elements.

- Key and related concepts
- Global contexts
- Approaches To Learning (ATL) skills
- Subject-group objectives

Taught Curriculum

Learners have beliefs about how the world works that are based on their experiences and prior knowledge. Those beliefs, models or constructs are revisited and revised in the light of new experiences and further learning. As students try to create meaning in their lives and the world around them, they will continually construct, test, confirm or revise their personal models of how the world works and their personal values. Consequently, the taught curriculum emphasizes the construction of meaning so that students' learning is purposeful.

The taught curriculum provides experiences through the curriculum that give students opportunities to test and revise their models, to make connections between their previous and current perceptions, and that give them the opportunity to construct their own meaning. The MYP encourages teachers to provide opportunities for students to build meaning and refine understanding through structured inquiry. As the learning process involves communication and collaboration, this inquiry may take many forms, with students working on their own or collaboratively with partners or larger groups, within the classroom or beyond. The MYP encourages conceptual development that applies across and beyond subject groups.

The taught curriculum at the Academy is underpinned by the QASMT pedagogical framework. Our pedagogical framework promotes collective responsibility through collaborative practices, for ensuring academic success for every student. It outlines high quality, evidence based explicit teaching strategies which develops a team of expert teachers who can make a difference to a student's learning journey. The QASMT pedagogical framework provides our school community with a structure for developing learning autonomy and transferable skills in our students. The model of instruction enacted through this framework is the Fischer and Frey (2008) model of Gradual Release of Responsibility and Sharratt's and Fullan's (2009) Learning Intentions and Success Criteria, both of which ensures a purposeful shift to student-centred learning.

Assessed Curriculum

The assessed curriculum gives teachers and students reliable and valid information on student learning. Integrated with the written and taught curriculum, the assessed curriculum is considered throughout the processes involved in planning for learning. Assessment in the MYP is largely an internal (school-based) process.

Assessment in the MYP is criterion referenced, so students around the world are assessed against pre-specified criteria for each subject group. A variety of assessment strategies are used to enable students to best demonstrate the learning that has taken place. Teachers organise continuous assessment over the course of the programme taking account of specified criteria that correspond to the objectives for each subject.

The MYP offers a criterion-referenced model of assessment. This means that students' results are determined by performance against set standards, not by each student's position in the overall rank order. Teachers are responsible for structuring varied and valid assessment tasks that allow students to demonstrate achievement according to the required objectives within each subject group. These may include open-ended, problem-solving activities and investigations, organised debates, hands-on experimentation, analysis and reflection.

Assessment strategies, both quantitative and qualitative, provide feedback on the thinking processes as well as the finished piece of work. There is also an emphasis on self-assessment and peer-assessment within the programme.

MYP Assessment Criteria

Each subject area has a set of unique criteria that are used to assess student work. The maximum mark awarded for each criteria is 8.

Subject	A	B	C	D
Language and literature	Analysing	Organising	Producing text	Using language
Language acquisition	Listening	Reading	Speaking	Writing
Individuals and societies	Knowing and understanding	Investigating	Communicating	Thinking critically
Sciences	Knowing and understanding	Inquiring and designing	Processing and evaluating	Reflecting on the impacts of science
Mathematics	Knowing and understanding	Investigating patterns	Communicating	Applying mathematics in real-life contexts
Arts	Investigating	Developing	Creating/Performing	Evaluating
Physical and health education	Knowing and understanding	Planning for performance	Applying and performing	Reflecting and improving performance
Design	Inquiring and analysing	Developing ideas	Creating the solution	Evaluating
MYP projects	Investigating	Planning	Taking action	Reflecting
Interdisciplinary	<i>Discipline specific criteria</i>	Synthesising	Communicating	Reflecting

Year 7 Curriculum Program

Arts

(Visual Arts)

Learning in Arts is the process of making ideas a reality through the use of discipline specific skills and practices of Visual Arts. The Arts allows for deep conceptual learning and for students to engage in a process of creative exploration and discovery. Through the study of the Arts students will create and present work, develop skills specific to the discipline, make purposeful connections between investigation and practice, understand the relationship between the Arts and their contexts, respond to and reflect on art. In Year 7, all students study one semester of Visual Arts.

In Year 7 Visual Arts, students explore how ideas about the world around us is represented in different cultures, times and places. Drawing on their own experiences and attitudes, students express points of view to make and respond to artworks influenced by other artists. Central to their inquiry, students research ideas, apply different techniques and processes to make artworks using traditional materials and contemporary media. This foundation course engages students with critical and creative thinking skills, which are integral to their learning development and for transferring across disciplines.

Design

MYP Design focuses on a holistic design process rather than final products and uses the design cycle as the methodology to structure the inquiry and analysis of problems, the development of feasible design ideas and the creation, testing and evaluation of a solution. It is human-centred and focuses on the needs, wants and limitations of the end user.

In Year 7, all students study one semester of Design with a focus on digital technologies:

- In our UI/UX (user interface/user experience) unit, students designing a prototype mobile application for a target audience using Adobe XD. Students learn CARP design principles to design the aesthetic elements by which people interact with a product (UI) and use Adobe XD to simulate the user experience (UX). This unit pushes students to recognise the nature and importance of human-centred design and the impact of their role as a designer.
- In our robotics unit, students will engaging with our Tiny:bit Smart Robots as they develop their algorithmic thinking skills. Students will learn fundamental control concepts that include selection and iteration. They will be introduced to flow charting and pseudocode to present their designs and use block coding to build their programs. Students work through an iterative process of testing, evaluating and refining their design choices.

Design has a strong focus pursuing excellence in STEM (Science, Technology, Engineering and Mathematics). The learning experiences are designed to challenge students to apply practical and creative thinking skills to solve design problems whilst equipping our learners with STEM skills and knowledge.

English Language and Literature

The Year 7 English Language and Literature course provides students with an extensive variety of literary and non-literary texts to explore, examine and critique. Students engage in critical reading, creative and analytical writing as well as persuasive speaking opportunities. The course enables students to develop their receptive and productive modes in order to deconstruct and construct a wide range of dynamic texts.

Specifically, the Year 7 English Language and Literature course will develop skills in:

- producing creative, informational and persuasive texts
- analysing the language features and style of myths, picture books and poetry
- appreciating Australian voices including Indigenous peoples, and international authors.

Through their studies in Language and Literature, students will understand how language choices made by authors create purpose and effect, as well as promote preferred reader responses. Students are explicitly

taught how to engage in macro and micro analysis through the application of higher-order thinking and authentic learning. As a result, students create purposeful multi-modal texts based on their insight into the power of language. This course is also supported by a parallel Independent Reading Program dedicated to the development of critical reading and reading for pleasure across a wide range of texts.

Individuals and Societies

The Individuals and Societies course encourages learners to respect and understand the world around them. The course aims to develop 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 course incorporates disciplines studied under the ACARA Learning Area: Humanities and Social Sciences: history, geography, business and economics, civics and citizenship. In Year 7, students will study the following disciplines in an integrated format:

- History – Students will study ancient and medieval civilisations to develop their historical analysis skills. They will inquire into how cultures can be shaped through traditions, beliefs, values and social interactions.
- Economics and Business – Students will focus on the concept of consumption and look at how systems shape consumer choice. By the end of Year 7, students will understand how individuals meet their changing needs throughout life.
- Geography – Students will investigate the world they live in and the diverse backgrounds and locations they call 'home'. Through guided inquiry, students will learn to question the world around them and pose geographical questions.
- Civics and Citizenship – Students explore Australia's Constitution and the principles which underpin the Australian societies shared values. Students will inquire into the diversity of Australian society and how our shared values are an integral part of achieving a cohesive society.

Language Acquisition

(Chinese, French, German, Japanese or Latin)

Learning new languages is central to the IB program as it promotes multilingualism and intercultural understanding. It provides students with the opportunity to develop insights into the features and processes of language and therefore plays an important role in the development of literacy skills in English. These skills can assist students to become more effective communicators and sharpen their editorial and writing skills. Through the study of another language, students have the opportunity to compare how the two languages work and so gain a better understanding of English as a language system. Learning a foreign language draws our focus to the mechanics of language: grammar, conjugations, idioms, and sentence structure. Language learners develop and enhance their skills and strategies for decoding and making meaning from words. This transfers to English, as they develop flexibility and competence in dealing with language concepts.

The Year 7 Modern Languages (Chinese, French, German and Japanese) course develops the four macro-skills of reading, writing, listening and speaking, by engaging students in learning across a variety of concepts and culturally relevant topics. The four concepts studied are communication, connections, creativity and culture. Topics will include identities, relationships, leisure, education, neighbourhood, daily life and holidays.

Students will learn to compare their own culture, whilst learning about their modern language culture, to make connections and expand global understanding. Grammar features of the language will also be introduced and students will learn how to express themselves in a variety of contexts including formal and informal situations.

The Year 7 Classical Language course aims to develop the ability to understand and translate Latin and connect it to Roman culture and society. The four concepts studied are communication, connections, creativity and culture. Topics will include identities, relationships, neighbourhood, daily life, art, slavery, common beliefs and gladiators.

Students will learn to create meaning from authentic texts and learn to understand the historical importance of the Roman Empire and how it has influenced modern society. Grammar features of the language will also be introduced and students will learn to accurately translate and analyse Latin texts.

Mathematics

The study of Mathematics provides students with the skills needed to navigate the modern world and gives them the knowledge needed to undertake any new career pathway with confidence. Our students are encouraged to become self-motivated, confident learners through inquiry and active participation in challenging and engaging experiences.

It is important that students develop strategies and approaches that allow them to become better at managing their own learning, by looking at mistakes made in positive ways and developing a growth mindset when it comes to approaching problems that may appear challenging at first.

Our Year 7 students will study Mathematics across the proficiency strands understanding, fluency, problem solving and reasoning, as outlined below.

- understanding includes describing patterns in uses of indices with whole numbers, recognising equivalences between fractions, decimals, percentages and ratios, plotting points on the Cartesian plane, identifying angles formed by a transversal crossing a pair of lines, and connecting the laws and properties of numbers to algebraic terms and expressions
- fluency includes calculating accurately with integers, representing fractions and decimals in various ways, investigating best buys, finding measures of central tendency and calculating areas of shapes and volumes of prisms
- problem solving includes formulating and solving authentic problems using numbers and measurements, working with transformations and identifying symmetry, calculating angles and interpreting sets of data collected through chance experiments
- reasoning includes applying the number laws to calculations, applying known geometric facts to draw conclusions about shapes, applying an understanding of ratio and interpreting data displays.

Physical and Health Education

This course provides opportunities for students to refine a range of specialised knowledge, understanding and skills in relation to their health, safety, wellbeing, and movement competence and confidence. This fosters the development of knowledge, skills and attitudes that will contribute to a student's balanced and healthy lifestyle.

In Year 7, students develop specialised movement skills and understanding in a range of physical activity settings. They reflect on and refine personal and social skills as they participate in a range of physical activities. Students explore the role that games and sports, outdoor recreation, lifelong physical activities, and rhythmic and expressive movement activities play in shaping cultures and identities.

Sciences

Real-world ideas, real-world problems, and real-world skills. Science encourages the development of 21st century skills such as critical and creative thinking, communication, collaboration and ICT skills. All of these skills are considered important strengths that meet the demands of the evolving workforce. In Year 7, students explore conceptual based units that form a platform for student inquiry into issues of personal, local and global significance. Students will examine the diversity of life on Earth, and continue to develop their understanding of the role of classification in ordering and organising information by exploring their local environment. They consider the interaction between multiple forces when explaining changes in an object's motion through exploring the science of toys. They explore the notion of renewable and non-renewable resources while investigating sustainability. An interdisciplinary unit incorporates mathematics to investigate relationships in the Earth-sun-moon system, and use models to predict and explain events.

Through studying science students learn to apply scientific knowledge and the scientific approach (formulate hypotheses, design and carry out experiments to test them and evaluate results) to problem-solving. In the Australian Curriculum, Science Understanding is developed through the strands of Biological sciences, Chemical sciences, Earth and Space sciences and Physical sciences. Science Inquiry Skills are developed so that students can identify questions that can be investigated scientifically. They plan fair experiments, identify variables to be changed and measured and select equipment that improves fairness and accuracy. Students draw on evidence and summarise data to support their conclusions. They communicate their ideas, methods and findings using scientific language and representations.

Positive Education Program

Based upon Martin Seligman's wellbeing construct, PERMA (Positive Purpose, Emotions, Relationships, Meaning and Accomplishment), the Positive Education Program provides students with the opportunity to engage with positive psychology and discover the conditions and processes that contribute to the flourishing or optimal functioning of people and societies. The course focuses on teaching students specific skills that they can enact to take a proactive approach to improving their wellbeing and live a successful life.

The greatest predictor of wellbeing for students transitioning to high school is having a rich repertoire of friends. Therefore, In Year 7, the year begins with a focus on building strong relationships, culminating in the Year 7 Camp. Students learn the differences between sympathy, empathy and compassion, and practice responding empathetically. Students then gain a greater understanding of themselves as they learn about their core values and character strengths.

The development of emotional literacy and self-regulation skills is a key priority in Year 7, with time spent in Term 2 unpacking strategies that students can use to manage themselves appropriately. Students learn how to identify different emotions, analyse their emotional state and practice self-regulation strategies.

In Term 3, students discover how to set and achieve realistic SMART goals, which prepares them for the Personalised Learning Plan (PLP) process. In this unit, students also investigate the importance of cultivating a growth mindset. Students then investigate the differences between intrinsic and extrinsic motivation and identify strategies to become more intrinsically motivated.

Finally, in Term 4 students are introduced to the Positive Health domain and discuss key concepts such as sleep, nutrition, hydration, exercise and recreation, empowering them to make informed decisions leading to the establishment of healthy habits and balance. Students are exposed to a range of difference physical health and mindfulness activities that they can use to help manage their emotional state and stress. This helps students learn to control their mind-wandering and learn to live in the moment, becoming completely immersed in the activity at hand.

Year 8 Curriculum Program

Arts

(Visual Arts)

Learning in the Arts is the process of making ideas a reality through the use of discipline specific skills and practices of Visual Arts. The Arts allows for deep conceptual learning and for students to engage in a process of creative exploration and discovery. Through the study of the Arts students will create and present work, develop skills specific to the discipline, make purposeful connections between investigation and practice, understand the relationship between the Arts and their contexts. In Year 8, all students study one semester of Visual Arts.

Year 8 Visual Arts is designed to build on students' emerging skills, creativity and understanding of concepts in the wider culture. Students in the program will be challenged to create their own portrait works in a variety of media. Through this program, students will have the opportunity to extend their creative and critical thinking skills through drawing, painting, colour, collage and digital imaging, while exploring and reflecting on artistic expression and identity in their own lives. These skills are integral at a critical juncture in their learning and development and add to their skillset for lifelong learning and educational development.

Design

MYP Design focuses on a holistic design process rather than final products and uses the design cycle as the methodology to structure the inquiry and analysis of problems, the development of feasible design ideas and the creation, testing and evaluation of a solution. It is human-centred and focuses on the needs, wants and limitations of the end user.

In Year 8, all students study one semester of Design and will engage in the following projects:

- Designing a client website that explores how design can influence how people perceive our identities. The task explores the use of HTML and CSS to create and modify websites while applying iterative design processes commonly used in the development of websites.
- In our second unit, students will continue to develop and apply their algorithmic thinking and computer programming skills through an iterative design approach to solve complex problems. Students will be introduced to the Python programming language.

Design has a strong focus pursuing excellence in STEM (Science, Technology, Engineering and Mathematics). The learning experiences are designed to challenge students to apply practical and creative thinking skills to solve design problems whilst equipping our learners with STEM skills and knowledge.

English Language and Literature

Year 8 students will explore four key units of work across the year. This English Language and Literature course aims to inspire and develop the students' conceptual knowledge, creativity, and critical thinking skills through a range of receptive and productive communication modes. This course is also supported by a parallel Independent Reading Program dedicated to the development of critical reading and reading for pleasure across a wide range of texts.

The first unit is based upon the observational documentary genre. Through studying two core texts, Ron Fricke's *Baraka* (1992) and Ridley Scott's *Life in a Day* (2011), we will form a deep understanding of the focus inquiry, the *human experience is simultaneously universal and divided* and explore how this is represented through the medium of film.

The second unit is titled, *Many Voices, Many Perspectives*. By responding to core and supplementary texts, based upon George Orwell's *Animal Farm*, this unit examines how context and character shape the theme of power in literature.

The third unit is a speculative fiction genre study. Through student-centred, dynamic pedagogical approaches, students will investigate a range of short texts in terms of the central inquiry statement, the *speculative fiction genres imagines humanity's future*.

The academic year concludes with a focus on empowering students through developing an understanding of their important role in social criticism and transformation. The unit is aptly titled, *Selling Sustainability*.

Completion of the Year 8 English Language and Literature course will ensure a deeper and broader understanding of the human experience through exposure to increasingly sophisticated textual representations from a range of contexts.

Individuals and Societies

The Individuals and Societies course encourages learners to respect and understand the world around. The course aims to develop 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 course incorporates disciplines studied under the ACARA Learning Area: Humanities and Social Sciences: history, geography, business and economics, civics and citizenship. In Year 8, students will study an interdisciplinary unit that requires inquiry from a number of perspectives, bringing together knowledge and conceptual understandings from multiple disciplines.

In Year 8 students will study the following disciplines in an integrated format:

- History – Students will focus on Australian history from Federation through to the end of WW1. Students will explore the legislation of Australia's first parliament, the significance of WW1 to Australia and then complete an inquiry into the turning point of 20th century Australia.
- Economics and Business – Students explain how markets influence the allocation of resources to the production of goods and services. They explain ways that businesses adapt to opportunities in markets and respond to the work environment. Considerations for tax, budgets, economics trends and future planning is utilised as students consider the costs and benefits associated with decision making.
- Geography – Students explore geographical processes and how places and interconnections change with time. Students will propose strategies to respond to geographical challenges and support their reasoning and develop skills in presenting geographic data in digital and non-digital forms.
- Civics and Citizenship – Students will explore participation in the Australian political and legal systems.

Language Acquisition

(French, German, Japanese or Latin, *Chinese (in 2025)*)

Learning new languages is central to the IB program as it promotes multilingualism and inter cultural understanding. It provides students with the opportunity to develop insights into the features and processes of language and therefore plays an important role in the development of literacy skills in English. These skills can assist students to become more effective communicators, and sharpen their editorial and writing skills.

Through the study of another language, students have the opportunity to compare how the two languages work and so gain a better understanding of English as a language system. Learning a foreign language draws our focus to the mechanics of language: grammar, conjugations, idioms, and sentence structure. Language learners develop and enhance their skills and strategies for decoding and making meaning from words and this transfers to English and they develop flexibility and competence in dealing with language concepts.

The Year 8 Modern Languages (Chinese, French, German and Japanese) course develops the four-macro skills reading, writing, listening and speaking in students by engaging in learning across a variety of concepts and culturally relevant topics. The four concepts studied are communication, connections, creativity and culture. Topics will include identities, relationships, leisure, education, neighbourhood, daily life and holidays.

Students will learn to compare their own culture, whilst learning about their modern language culture, to make connections and expand global understanding. Grammar features of the language will also be introduced and students will learn how to express themselves in a variety of contexts including formal and informal situations.

The Year 8 Classical Language course aims to develop the ability to understand and translate Latin and connect it to early European culture and society. The four concepts studied are communication, connections, creativity and culture. Topics will include identities, relationships, neighbourhood, daily life, art, slavery, common beliefs and gladiators.

Students will learn to create meaning from authentic texts and learn to understand the historical importance of the Roman Empire and how it has influenced modern society. Grammar features of the language will also be introduced and students will learn to accurately translate and analyse Latin texts.

Mathematics

The study of Mathematics provides students with the skills needed to navigate the modern world and gives them the knowledge needed to undertake any new career pathway with confidence. Our students are encouraged to become self-motivated, confident learners through inquiry and active participation in challenging and engaging experiences. It is important that students develop strategies and approaches that allow them to become better at managing their own learning, by looking at mistakes made in positive ways and developing a growth mindset when it comes to approaching problems that may appear challenging at first.

Our Year 8 students will study Mathematics across the proficiency strands understanding, fluency, problem solving and reasoning, as outlined below.

- understanding includes describing patterns involving indices and recurring decimals, identifying commonalities between operations with algebra and arithmetic, connecting rules for linear relations with their graphs, explaining the purpose of statistical measures and explaining measurements of perimeter and area
- fluency includes calculating accurately with simple decimals, indices and integers; recognising equivalence of common decimals and fractions including recurring decimals; factorising and simplifying basic algebraic expressions and evaluating perimeters and areas of common shapes and volumes of three-dimensional objects
- problem-solving includes formulating and modelling practical situations involving ratios, profit and loss, areas and perimeters of common shapes and using two-way tables and Venn diagrams to calculate probabilities
- reasoning includes justifying the result of a calculation or estimation as reasonable, deriving probability from its complement, using congruence to deduce properties of triangles, finding estimates of means and proportions of populations.

Physical and Health Education

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. Through opportunities for active learning, students 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.

In Year 8, students continue to develop specialised movement skills and understanding in a range of physical activity settings, games and sports. They analyse how body control and coordination influence movement composition and performance and learn to transfer movement skills and concepts to a variety of physical activities. Through physical and health education, students can learn to appreciate and respect the ideas of others, and develop effective collaboration and communication skills. Students analyse various aspects of health and wellbeing that contribute to maintaining a balanced, healthy life.

Sciences

Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world, through exploring the unknown, investigating universal mysteries, making predictions and solving problems. Science provides an empirical way of answering interesting and important questions about the biological, physical and technological world. The knowledge it produces has proved to be a reliable basis for action in our personal, social and economic lives.

In Year 8, students continue their conceptual learning. They are introduced to cells as microscopic structures that explain macroscopic properties of living systems. They link form and function at a cellular level and explore the organisation of body systems in terms of flows of matter between interdependent organs. Similarly, they explore changes in matter at a particle level, and distinguish between chemical and physical change. They begin to classify different forms of energy, and describe the role of energy in causing change in systems, including the role of heat and kinetic energy in the rock cycle. Students use experimentation to isolate relationships between components in systems and explain these relationships through increasingly complex representations. They make predictions and propose explanations, drawing on evidence to support their views while considering other points of view.

Positive Education Program

Based upon Martin Seligman's wellbeing construct, PERMA (Positive Purpose, Emotions, Relationships, Meaning and Accomplishment), the Positive Education Program provides students with the opportunity to engage with positive psychology and discover the conditions and processes that contribute to the flourishing or optimal functioning of people and societies. The course focuses on teaching students specific skills that they can enact to take a proactive approach to improving their wellbeing and live a successful life.

In Year 8, students consider what it means to be an IB learner in both the physical and virtual world, focusing on how to demonstrate prosocial behaviours and appropriate strategies to deal with antisocial and bullying behaviours. They develop their leadership skills by working collaboratively in small groups to propose actionable sustainability initiatives as well as identifying ways that they can give back to the communities that they are involved in.

Students investigate what is a 'meaningful life' and consider what their sense of meaning and purpose are and how they can use their strengths to serve others. They analyse how negative self-talk, perfectionism and avoidance habits impact their ability to manage challenge and develop personal resilience strategies and skills to be able to deal with disappointment.

Finally, students analyse the concept of 'flow' and identify the ingredients needed to activate this state of complete absorption in daily life.



Queensland Academy of Science, Mathematics & Technology Year 7 Subject Selection – 2025

Subject selections are completed online. Details, including a link to the online subject selection survey, will be emailed with the timelines for subject selection in Term 3.

The subjects available for selection are outlined below. When subject selection open, students are required to indicate their preferences; whilst we endeavour to place all students in their first preference, timetabling constraints may result in students being placed in their next preference.

Language acquisition:

- a. Chinese
- b. French
- c. German
- d. Japanese
- e. Latin

Please refer any questions about subject selections to the Deputy Principal Performance – Ms Catherine de Freitas Pessoa at crdef0@eq.edu.au or 07 3377 9333.

Please do not return this form, subject selections must be done online.

