



**HILLSIDE**  
CHRISTIAN COLLEGE

# Year 9 Curriculum Handbook



## TABLE OF CONTENTS

Introduction to Year 9 .....	3
Learning Areas .....	4
Year 9 Subject Selection .....	5
Year 9 Timetable .....	5
ATAR & General Courses .....	6
Christian Living .....	7
English .....	7
Maths .....	8
Science .....	9
HASS .....	10
The Arts .....	11
Media .....	11
Music .....	11
Visual Art .....	11
Physical Education .....	12
Outdoor Education .....	12
Technologies .....	13
Design & Technologies .....	13
Design & Engineering .....	13
Metal Work .....	13
Woodwork .....	13
Small Engines .....	13
Robotics .....	14
Food Technology .....	14
Digital Technology .....	14
Language .....	14



## Welcome to HillSide

HillSide Christian College is an independent private school. The College Board, senior executive team, staff, HillSide Church, chaplains and parents at our College are committed to working together to provide a safe and caring environment where each student is given the opportunity to develop academic rigour and to achieve personal excellence in a positive and safe environment. More especially, we focus on directing students towards a relationship with the Lord Jesus Christ, which is the basis on which all teaching and learning transpires. One of our goals is to also enable every student to develop the knowledge, understanding and skills to make choices ensuring their happiness and success.

In 2023, HillSide Christian College achieves 46 years of delivering a Christian education. We have, and will continue to enjoy, a very positive relationship with our parents and the wider community. You can become actively involved in our learning community in a number of ways. Please liaise with staff regarding what you can offer, and we will gladly accommodate your skills and talents. It is our role to ensure that the foundations are laid for each student to give of their best, and to remain motivated to achieve excellence.

The purpose of this handbook is to provide parents and students with information about the academic subjects that are provided in the curriculum suite at HillSide Christian College. Students in Year 9 are currently studying a combination of subjects that are correlated to the Australian Curriculum, as interpreted and mandated by SCSA. The Australian Curriculum is a national initiative implemented across all states and territories in Australia.

In 2023, Year 9 students will study the core subjects of English, Mathematics, Science and Humanities and Social Sciences (HASS). Christian Living, Health and Physical Education (Sport) are subjects undertaken by all students across the school year as stand-alone subjects, with Option courses available

to each student in the learning areas of The Arts, Technologies and Languages.

Options in 2023 will involve students choosing four optional subjects from a list of twenty possible offerings. These subjects are taught over two periods per week for the whole school year. Subject choices are shown below:

Option 1	Option 2	Option 3	Option 4
Music - instrumental	D&T - Food technology	Digital technology	Arts - Dance
Digital photography	Ceramics	Spanish	Outdoor education
Alternative energies	D&T - Small engines	D&T - Metal work	Robotics
Music - vocal	Media	Arts - Drama	D&T - Wood
Textiles	STEM	Arts - Drawing	Arts - Print making

Students are encouraged to choose wisely from the options available, and to commit to the compulsory subjects, in order to best prepare their academic foundations for the rigour of Senior Secondary School.

While further details about the topics, knowledge, skills and assessment within each subject in the Year 9 curriculum suite will be expanded upon in course documents that students will receive in class. It is our hope that the overarching view that this document provides, will service a holistic understanding of the learning during this important stage of development.

Our vision to promote engagement for learning amongst our students during their last year in the lower secondary phase at our College. Year 9 should be considered the last preparation year before the start of Senior Secondary, which begins at Year 10.

# Learning Areas

At HillSide Christian College, courses are linked together in groups called 'Learning Areas'. There are eight Learning Areas under the Australian Curriculum. HillSide has added an extra Learning area, this being Christian Living thus bringing the total Learning Areas to nine.

## THE LEARNING AREAS ARE:

- English
- Mathematics
- Science
- Humanities and Social Sciences
- The Arts – Visual Arts – Media – Music – Drama – Dance
- Health and Physical Education – Physical Education – Health – Outdoor Education
- Technologies – Digital Technology – Food Technology – Design & Technology (Woodwork) – Design & Technology (Metalwork) – Design & Technology (Small Engines) – Design & Technology (Robotics/STEM/Alternative Energies) –
- Languages – Spanish
- Christian Living
- From the options listed below (1, 2, 3 & 4) students select one option from each group for a course of study that is undertaken for the year.



### OPTION 1

Music Instrumental OR Vocal Performance OR Digital Photography OR Design & Technology (Alternative Energies) OR Arts (Textiles)

### OPTION 2

Design & Technology (Food) OR Design & Technology (Small Engines) OR Arts (Ceramics) OR Media OR STEM



### OPTION 3

Spanish OR Digital Technology OR Design & Technology (Metal) OR Arts (Drama) OR Arts (Drawing)

### OPTION 4

Arts (Dance) OR Outdoor Education OR Robotics OR Design and Technology (Wood) OR Arts (Printmaking)

## Year 9 Subject Selection

The four core subjects English, Mathematics, HASS and Science will constitute approximately 50% total instruction time. Other non-core subjects make up the remaining 50% portion of instruction time.

In Year 9 students may select options from The Arts, Technologies, Health and Physical Education and Languages. The Arts includes: Visual Arts (textiles, ceramics, print, drawing), Media, Dance, Drama or Music (vocal, instrumental). Technologies includes: Digital Technology, Digital Photography, Design Technology (Wood, including some Technical Drawing), Metalwork - Small Engines, Robotics, Food Technology, Alternative Energies and STEM: Health and Physical Education - Outdoor Education: Languages - Spanish. Options will constitute eight periods per week divided into two periods for each option selected and will run the whole year.

Option selections and core subjects need to be correlated with the Booklist for the year level. Students may need books for all subjects.

## Timetable

Below is an example of a typical Year 9 timetable; where three subjects are listed, the OPTION assigned to the student will be students' timetable allocation.

The subjects below are listed with a room number and staff member responsible for the teaching of that subject. The timetable indicates the breadth of subjects, teaching staff and room allocations. The timetable is only an example.

YEAR 9					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8.30 - 8.40	FORM - MR LEANEY / MR TURTON (FRIDAY) - ROOM 7				
LESSON 1 8.40 - 9.35	SPORT MR McLEOD ROOM 12	ENGLISH MISS BERGSMA ROOM 12 MRS MUILENBURG ROOM 11	9/10 OUTDOOR EDUCATION MR MURPHY ROOM 3 SMALL ENGINES MR PHIPPS ROOM 16 DIGITAL TECH NOLOGY MR LEANEY ROOM L1	ENGLISH MISS BERGSMA ROOM 12 MRS MUILENBURG ROOM 11	ASSEMBLY/CHAPEL
LESSON 2 9.35 - 10.30	SPORT MR McLEOD ROOM 12	HASS MISS CASTALDINI ROOM 11	9/10 OUTDOOR EDUCATION MR MURPHY ROOM 3 SMALL ENGINES MR PHIPPS ROOM 16 DIGITAL TECH NOLOGY MR LEANEY ROOM L1	HASS MISS CASTALDINI ROOM 11	REAL MR LEANEY ROOM 7
10.30 - 10.55	RECESS				
LESSON 3 10.55 - 11.50	SCIENCE MR WILLIAMS ROOM 6	SCIENCE MR WILLIAMS ROOM 6	SCIENCE MR WILLIAMS ROOM 6	HEALTH MR WILLIAMS ROOM 6	ENGLISH MISS BERGSMA ROOM 12 MRS MUILENBURG ROOM 11
LESSON 4 11.50 - 12.45	9/10 METALS MR PHIPPS ROOM 16 FOOD TECHNOLOGY MRS CASTALDINI ROOM 11 JAPANESE MRS SMITH ROOM PS	9/10 METALS MR PHIPPS ROOM 16 FOOD TECHNOLOGY MRS CASTALDINI ROOM 2 JAPANESE MRS SMITH ROOM PS	HASS MISS CASTALDINI ROOM 13	MATHEMATICS MRS PAN ROOM 7 MRS BARRON ROOM 4	MATHEMATICS MRS PAN ROOM 7 MRS BARRON ROOM 4
12.45 - 1.20	LUNCH				
LESSON 5 1.20 - 2.15	MATHEMATICS MRS PAN ROOM 7 MRS BARRON ROOM 4	9/10 WOOD MR PHIPPS ROOM 15 MUSIC PERFORMANCE MR LEANEY/MRS PELECANOS ROOM 3/4 DIGITAL PHOTOGRAPHY MR SKIPWORTH ROOM 8	MATHEMATICS MRS PAN ROOM 7 MRS BARRON ROOM 4	ENGLISH MISS BERGSMA ROOM 12 MRS MUILENBURG ROOM 11	9/10 VISUAL ARTS MRS PELECANOS ROOM 9 MEDIA MR SKIPWORTH ROOM 8 ROBOTICS MR LEANEY ROOM 5
LESSON 6 2.15 - 3.10	HASS MISS CASTALDINI ROOM 11	9/10 WOOD MR PHIPPS ROOM 15 MUSIC PERFORMANCE MR LEANEY/MRS PELECANOS ROOM 3/4 DIGITAL PHOTOGRAPHY MR SKIPWORTH ROOM 8	CHRISTIAN LIVING MR SKIPWORTH ROOM 7	SCIENCE MR WILLIAMS ROOM 6	9/10 VISUAL ARTS MRS PELECANOS ROOM 9 MEDIA MR SKIPWORTH ROOM 8 ROBOTICS MR LEANEY ROOM 5





## Year 7 to Year 10 as a platform

All subjects from Year 7 through to Year 10 are designed to lay a firm foundation for Year 11 and Year 12 courses, with students gradually specialising as they progress.

### YEAR 9 AND 10

Students study all compulsory subjects. Selected options run across the whole year. Students have a choice of Options and have the ability to select to study components of The Arts, Technologies, Health & Physical Education, and Languages for the full year.

### YEAR 11 AND 12

Students studying ATAR subjects may be offered direct entry into university by successfully completing a minimum of 4 ATAR subjects in both Year 11 and 12.

Students must attain a minimum 14 "C" grade, or better, to achieve a WACE.

Students may also qualify for university entrance with 4 ATAR and 2 General courses. It is possible to study a combination of General and ATAR courses to achieve a WACE.



## ATAR Courses currently on offer

(based on the choices of current students)

- English
- Chemistry
- Mathematics Applications
- Mathematics Methods
- Human Biology
- Psychology
- Applied Information Technology
- Religion and Life
- Outdoor Education
- Physics
- Visual Art



## General Courses currently on offer

(based on the choices of current students)

- English
- Visual Art
- Mathematics Foundation
- Outdoor Education
- Mathematics Essentials
- Media Production & Analysis
- Religion and Life
- Applied Information Technology
- Material Design Technology - Wood
- Human Biology
- Psychology

Students studying VET may also complete:  
Certificate II in Visual Art  
OR a Certificate III in Business.



## English

Aligned with the Australian Curriculum by SCSA, the Year 9 English course aims to provide a range of opportunities for students to demonstrate their knowledge, understandings, skills and values in increasingly challenging contexts.

Specifically, the courses are written to encourage each student's enjoyment of English as a life-long discipline, to foster an understanding and critical awareness of the world around them, and to engage and further encourage their passion for a range of varied literacies.

Through these courses, it is our hope that students will develop and build upon a passion for knowledge and for the stories that encapsulate what it is to be human in an increasingly complex local, national and global milieu.

Students will respond to and create visual, digital and written texts that represent a balance between the past and the present.

In recognition of the individuality of each student, courses are designed to allow for difference in both ability and interest.

Rigour and relevance are the twin foci of an English Learning Area where learning is not limited to the classroom. Students will increasingly assume responsibility for their own learning through flexible content delivery that fosters independence, organisation and real engagement in the learning experience.

The English course has three main strands: [Language, Literature and Literacy](#). There are Common Assessment Tasks that all students will complete by the end of the year. Class teachers will also set class-based tasks that will provide feedback to the student and parents on areas of strength and weakness and relative level of performance.

In both semesters, students develop their functional literacy skills and through studies of literary and popular texts, expand their critical literacy skills. There is also an oral component in

the course. The ranges of fiction and non-fiction texts studied include:

- The novel.
- The short story and poetry.
- Media texts, such as feature film.
- Expository texts and autobiographies.



## Christian Living

### CHRISTIAN EDUCATION

At HillSide, students will be taught about Jesus Christ and guided to find meaning in walking with Him. The curriculum builds on Biblical Literacy, prayer, worship and moral instruction. The College uses CEP resources for its content. Students will have three periods per week involving Chapel, REAL (real life application), and Christian Living studies.

### RELIGIOUS BELIEF, TEACHING AND PRACTICE

HillSide is a Christian school and will objectively study other religions. The College is, however, not pluralistic and only presents a Christian worldview. Christian beliefs and practices will always be the overarching theme. However, within each religion, as well as across religions, there is complexity and diversity. In general terms, a religion is a system of beliefs and practices that guides how people live. Each religion offers particular insights and understandings about life. These find expression in a variety of religious beliefs, teachings and practices. Followers of each religion also come together to express aspects of their religion through worship celebrations, rituals, and by observing special events and seasons. Religious leaders and/or structures play an important role in developing and supporting the expression of religious beliefs, teachings and practices. Students will learn about other religions through a Christian worldview.

# Mathematics

The proficiency strands [understanding](#), [fluency](#), [problem-solving](#) and [reasoning](#) are an integral part of mathematics' content across the three content strands: number and algebra, measurement and geometry, and statistics and probability. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics. The achievement standards reflect the content and encompass the proficiencies.

At this year level:

- [Understanding](#) includes describing the relationship between graphs and equations, simplifying a range of algebraic expressions and explaining the use of relative frequencies to estimate probabilities and of the trigonometric ratios for right-angle triangles
- [Fluency](#) includes applying the index laws to expressions with integer indices, expressing numbers in scientific notation, listing outcomes for experiments, developing familiarity with calculations involving the Cartesian plane and calculating areas of shapes and surface areas of prisms
- [Problem-solving](#) includes formulating and modelling practical situations involving surface areas and volumes of right prisms, applying ratio and scale factors to similar figures, solving problems involving right-angle trigonometry and collecting data from secondary sources to investigate an issue
- [Reasoning](#) includes following mathematical arguments, evaluating media reports and using statistical knowledge to clarify situations, developing strategies in investigating similarity and sketching linear graphs.

[Number and Algebra](#) are developed together as each enriches the study of the other. Students apply number sense and strategies for counting and representing numbers. They explore the magnitude and properties of numbers. They apply a range of strategies for computation and understand the connections between operations. They recognise patterns and understand the concepts of variable and function. They build on their understanding of the number system to describe relationships and formulate generalisations. They recognise equivalence and solve equations and inequalities. They apply their number and algebra skills to conduct investigations, solve problems and communicate their reasoning.

[Measurement and Geometry](#) are presented together to emphasise their relationship to each other, enhancing their practical relevance. Students develop an increasingly sophisticated understanding of size, shape, relative position and movement of two - dimensional figures in the plane and three - dimensional objects in space. They investigate properties and apply their understanding of them to define, compare and construct figures and objects. They learn to develop geometric arguments. They make meaningful measurements of quantities, choosing appropriate metric units of measurement. They build an understanding of the connections between units and calculate derived measures such as area, speed and density.

[Statistics and Probability](#) initially develop in parallel and the curriculum then progressively builds the links between them. Students recognise and analyse data and draw inferences. They represent, summarise and interpret data and undertake purposeful investigations involving the collection and interpretation of data. They assess likelihood and assign probabilities using experimental and theoretical approaches. They develop an increasingly sophisticated ability to critically evaluate chance and data concepts and make reasoned judgements and decisions, as well as building skills to critically evaluate statistical information and develop intuitions about data.

# Science

An understanding of science is important to appreciate the world in which we live and to be able to contribute intelligently to scientific debate in the community. Students will experience science through a practical approach and in a variety of interesting contexts.

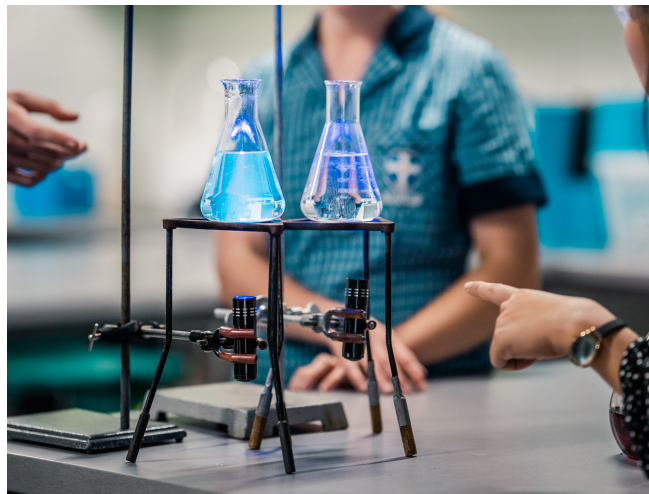
Students will study in the following areas:

## BIOLOGY

The biology of humans and the systems of life. Students understand their own Biology and that of other living things. They will appreciate the interdependence of life. Students will study plants and their relationship with the environment. In the context of numbers, students will look at the structure and functions of common organs in the human body.

## CHEMISTRY

The chemistry of substances and how it affects their properties and uses. Students are made aware that the structure of a material determines its properties. They are made aware of processing methods, especially in WA, and the use of new materials and technology. Students are introduced to basic ideas in Chemistry including bonding, atomic structure, elements, compounds and simple formulae. Special emphasis is placed on metals.



## PHYSICS

The physics of energy, how it is transferred and how it is vital to life and the world. Students understand that energy is vital to our existence and to our quality of life. Students study energy transformations with special reference to simple machines, electronic circuits and our solar energy.

## EARTH AND SPACE SCIENCE

The study of the physical nature of the Earth including plate tectonics and volcanism. Students are made aware of our physical environment, our position in the universe and the consequences of our lifestyle changes. Students look at our place in space, astronomy and look at the geology of the Earth's structure.

## SCIENCE INQUIRY

Students will learn how to conduct investigations in a scientific and logical way. This incorporates communicating, acting responsibly, understanding the impact science makes in society and in our daily life. This is assessed in every term unit as a result of practical work, class discussion and formal assignments.

## SCIENCE AS A HUMAN ENDEAVOUR

Students will explore the nature and development of science and its influence in our lives.



## Humanities & Social Sciences

In Year 9, Humanities and Social Sciences (HASS) consists of Civics and Citizenship, Economics and Business, Geography and History.

Students develop increasing independence in critical thinking and skill application, which includes questioning, researching, analysing, evaluating, communicating and reflecting. They apply these skills to investigate events, developments, issues and phenomena, both historical and contemporary.

Students continue to build on their understanding of the concepts of the Westminster system, democracy, democratic values, justice and participation. They examine the role of key players in the political system, the way citizens' decisions are shaped during an election campaign and how a government is formed. Students investigate how Australia's court system works in support of a democratic and just society.

Students are introduced to the concepts of specialisation and trade while continuing to further their understanding of the key concepts of scarcity, making choices, interdependence, and allocation and markets. They examine the connections between consumers, businesses and government, both within Australia and with other countries, through the flow of goods, services and resources in a global economy. The roles and responsibilities of the participants in the changing Australian and global workplace are explored.

The concepts of place, space, environment, interconnection, sustainability and change continue to be developed as a way of thinking, which provides students with an opportunity to inquire into the production of food and fibre, the role of the biotic environment and to explore how people, through their choices and actions, are connected to places in a variety of ways. Students apply this understanding to a wide range of places and environments at the full range of scales, from local to global, and in a range of locations.

Students develop their historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and

contestability. These concepts are investigated within the historical context of the making of the modern world from 1750 to 1918. They consider how new ideas and technological developments contributed to change in this period, and the significance of World War I.

A continued emphasis will also be placed on the development of skills including research, interpretation of source and data skills, mapping, graph construction, chronological sequencing, document analysis, referencing and effective use of the internet. Writing skills such as sentence construction and paragraphing are further developed as well as note taking and essay and/or report writing skills.





# The Arts

The syllabus is based on the requirement that in Years 9 and 10 the study of the Arts is optional.

## MEDIA

Designed for students who are aiming for either TAFE (RTO) or university entrance. Students will gain a solid foundation in media concepts and in production skills to prepare them for either Year 11 or Year 12 General or ATAR Media Production and Analysis courses. This course offers a balance of practical and theory and is suitable for students who are interested in photography, making films and TV programs, analysing and writing about the media and working in teams.

Class work includes:

- Photography techniques
- Portrait photography
- Remaking scenes from famous films
- Devising and filming an original scene for a movie
- Creating a sitcom opening sequence

Students will complete a unit of work on each of the following areas: photography, film and TV and will develop an understanding of codes and conventions, filming and editing skills and how to deconstruct professional media products to interpret meaning. The course will complement the study of English and help students gain confidence and problem-solving skills. The course runs for the full academic year.

## MUSIC

In the Music course, there will be a range of music styles and genres studied, covering classical, contemporary and jazz contexts. Students will expand their practical music skills through rehearsal and performance, explore the various musical styles, develop a higher understanding of harmony and analysis and extend their aural listening skills.

This course will provide students with essential knowledge and skills to further their music

education in Years 11 and 12, ultimately providing students with skills for a tertiary/university pathway. The course runs for the full academic year.

## VISUAL ARTS

The Visual Arts course is a fine arts course, which in lower school provides students with fundamental knowledge of the art and design elements and principles. It is a task orientated, project-based course. It nurtures the development of problem-solving skills together with creative and analytical thinking. The course encourages innovation through a process of inquiry and exploration. Students demonstrate arts outcomes through the processes of visual inquiry, studio practice, exhibition, and the investigation of historical and contemporary art.

Students work through a series of projects in different art forms which are both two and three dimensional. These include: drawing, ceramics, painting, collage, printmaking, sculpture and textiles. The course is divided into two aspects; art making and art interpretation. Students compile a visual diary, which documents their ideas development and the art making process. The majority of the course provides for the creation of resolved artworks. Art interpretation introduces students to art analysis and appreciation strategies. Students also have the opportunity to participate in the annual art exhibition where selected artworks are displayed.



## Physical & Health Education

In Year 9, the content provides for students to broaden their knowledge of the factors that shape their personal identity and the health and wellbeing of others. They further develop their ability to make informed decisions, taking into consideration the influence of external factors on their behaviour and their capacity to achieve a healthy lifestyle. They continue to develop knowledge, skills and understandings in relation to respectful relationships. With a focus on relationship skills that promote positive interactions and manage conflict.



Students focus on elements of speed and accuracy in different movement environments, while continuing to develop the efficiency of specialised movement skills. They explore ways to evaluate their own and others' performances through analysis of skills and movement patterns using basic biomechanical concepts. They transfer previous knowledge of outcomes in movement situations to inform and refine skills, strategies and tactics to maximise success.

Opportunities are provided for students to refine and consolidate skills and strategies for effective leadership and teamwork, and consistently apply ethical behaviour across a range of movement contexts.

The Health and Physical Education (PE) curriculum provides opportunities for students to develop, enhance and exhibit attitudes and values that promote a healthy lifestyle.



The goal of the Physical Education (PE) course is to develop the ability and desire in students to participate in healthy lifestyles both now and in the future. To achieve this, courses focus on a holistic approach for each student whilst providing safe, fun and motivating programs embedded in a subculture with which students can identify.

This is a compulsory course of study that involves approximately two hours of PE and one hour of Health per week. It teaches students how to enhance their own and others' health, safety, wellbeing and participation in physical activity in varied and changing contexts.

## Outdoor Education

The focus for Outdoor Education is experiencing the outdoors. Students are introduced to outdoor activities where they can develop and improve their technical skills and apply appropriate practices to ensure safe participation in camping, bush walking and bush safety related activities. Students will have the opportunity to demonstrate these skills on a day trip and an overnight expedition. Practical activities will also be used as a medium for developing interpersonal and self-management skills.





# Technologies

## DESIGN AND TECHNOLOGY

The courses offered will run for a full year and depending upon the option chosen, will cover Metalwork, Woodwork Small Engines and Robotics.

## DESIGN AND ENGINEERING

The goals of the Design and Engineering course are to facilitate a deeper understanding of how design, systems and mechanisms work by effectively communicating to specific audiences via visual media and three-dimensional forms. This course aims to achieve these goals by exposing students to a variety of communication models and through exploration of design and engineering projects. In lower secondary, robotics, STEM and alternative energies complement this learning area.

Students will use the design process producing a portfolio of Design and Make activities.

The projects will allow students to demonstrate their skills and an understanding of design principles and processes, to analyse problems and possibilities and to devise innovative strategies within a specific design and engineering context.

The course runs for the full academic year and covered within the course structure of Metalwork, Woodwork, Small Engines and Robotics.



## METALWORK

Students will cover entry level Metallurgy theory, in order to learn how metal responds to different processes (heating cooling, drilling and bending) with safety being an important part of the course. The students will design and make a series of small to medium sized projects, that will concentrate more on hand skills, cutting, shaping metal and joining metal along with filing, bending, folding, drilling, riveting and welding. Year 10 students will have a stronger emphasis on welding as a part of the course.



## WOODWORK

Students have opportunities to use design and technologies knowledge and understanding, processes and production skills, and design thinking, to produce solutions to identified needs or opportunities. The focus will be on students designing projects and as they do this develop their creativity, innovation and enterprise skills with confidence, independently and with the collaboration of others when required.

The processes of cutting, shaping and finishing will cause all students to think, plan and try new techniques and skills. Using a range of technologies, including a variety of graphical representation techniques, students have opportunities to generate production plans in two-dimensional and three-dimensional representations using a range of technical drawings, including perspective, scale, orthogonal and production drawings with sectional and exploded views, appropriate to their designs.

## SMALL ENGINES

Students will undertake a course that is both practical and theory based discovering how internal combustion engines are made and operate. The history of the internal combustion engine and how they have developed since their invention will be integral to the course. Students will learn how fuel turns into mechanical energy with the theory of combustion as a prerequisite to the understanding of how internal combustion engines work and operate. The different components of engines will be covered exploring the different ways engines have been, and are being, used in our world. Students will learn how to strip down an engine, diagnose common problems and how to overcome them, carry out repairs and once proficient, have the opportunity to make repairs on small engines from start to finish.

Workshop safety and care and maintenance of tools will be a high priority of this course.

## ROBOTICS, STEM AND ALTERNATIVE ENERGIES

Robotics will allow students to develop essential STEM skills for a rapidly evolving world which is continually looking to drive automation. This course will see students develop automated solutions to problems using Lego Mindstorms EV3s. While the course is heavily project based, it will require: problem solving, design thinking, and coding skills. This course involves a large amount of coding to enable programming of robotic movement. STEM and Alternative Energies comprise elements of Technology Science, Maths and Engineering and therefore are cross-curriculum specialisations that explore design, and scientific and practical application.



## FOOD TECHNOLOGY

Students will participate in food design challenges and extend their creativity and design skills using the technology process to investigate, devise, plan, produce and evaluate a wide range of food related challenges working with interesting and appetising materials. In this very practical course, activities will focus on the influence of advances in technology and their impact on what we eat, culture, and social aspects of good health and food.

This course develops life skills for Year 9 students, mainly in the Foods component. In Foods, students will explore parts of a menu, such as Hors D'oeuvres, Entrées and Desserts. They will prepare a variety of dishes for all courses including Lamb and Vegetable Kebabs, Fettuccine, Nacho's, Shepherd's Pie and Lemon Meringue Pie. A highlight for the students is the construction of a decorated Chocolate House.

## DIGITAL TECHNOLOGY

In Year 9, learning in Digital Technologies focuses on further developing understanding and skills in computational thinking such as precisely and accurately describing problems and the use of modular approaches to solutions. It also focuses on engaging students with specialised learning in preparation for vocational training or learning in the senior secondary years.

This course is designed to familiarise students with a number of basic business and computing concepts skills. The aim is also to provide assistance, ideas and tools for the person who wishes to manage personal and small business finances and use Information Communication Technology in a purposeful manner.

## Languages

### SPANISH

In Year 9 and Year 10 the study of a Language is optional. Spanish studies will build on the skills, knowledge and understanding required of students to communicate in the Indonesian language developed in previous years of study. It focuses on extending their oral and written communication skills and their understandings of Spanish language and culture.





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