



**COLUMBA CATHOLIC COLLEGE**  
CHARTERS TOWERS

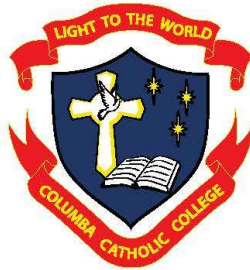
*Shine at Columba*

# **YEAR 9 CURRICULUM HANDBOOK 2024**



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*Shine at Columba*

# MISSION STATEMENT

Columba Catholic College inspires day and boarding students, in a climate of Courage, Commitment and Compassion, to grow in faith, purpose and knowledge. Founded on Catholic traditions, the College community encourages students to use their gifts and talents to pursue excellence and to be a 'Light to the World.'

# PRINCIPAL'S MESSAGE

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Dear Parents, Caregivers and Students,

Year 9 is an exciting time for students as they have greater influence over their study program and some of the subjects they will study.

During Year 7 and 8 a common curriculum was completed by all students. The Year 9 curriculum at Columba Catholic College is structured around the Australian Curriculum. While all students in Year 9 will study the core key learning areas of Religion, English, Mathematics, Science, Humanities, and Health and Physical Education, the students will be able to make choices about which elective subjects they will study in The Arts, Technologies, Economics and Business and Languages. Students will be able to specialise in areas of interest and success.

In order for students to be successful in their studies they are encouraged to give their personal best at all times and strive for excellence in their studies as they live out the College values of:

- Courage
- Commitment, and
- Compassion.

This means having a daily commitment to:

- Respect for self
- Respect for learning
- Respect for others
- Respect for College traditions, and
- Respect for others.

Year 9 provides the transition from middle school to senior school. When choosing subjects it is important for students to consider building on their strengths, interests, recent school performance and future options. Attendance at school is very important as research suggests that students with a high record of attendance are more likely to achieve success in learning and in life.

Students and parents are asked to read this Handbook thoroughly and engage in discussion with a variety of people before making a decision. Please be aware that for subjects to be offered by the College there must be sufficient numbers of students and resources available. Teachers are very happy to discuss subjects with you, as well as the suitability of your child for various subjects. We know your child and can assist in the development of a pattern of study that allows breadth, challenge and the option to follow a variety of pathways to prepare them well for their senior years.

Best wishes in this important decision-making process.



Melissa Turner  
PRINCIPAL



**COURAGE | COMMITMENT | COMPASSION**

# YEAR 9 CURRICULUM INFORMATION

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At Columba Catholic College, Year 9 is part of the middle years of schooling. The curriculum for Year 9 students at Columba Catholic College reflects the subjects in the Australian Curriculum and is delivered through 9 key Learning Areas: English, Health and Physical Education, Humanities & Business, Languages (Chinese), Mathematics, Religious Education, Science, Technologies (Digital Technologies and Design Technologies), and The Arts (Drama, Music and Visual Arts). The curriculum for Year 9 students at Columba Catholic College reflects the subjects in the Australian Curriculum as core or elective.

## CORE SUBJECTS:

Year 9 students will study the following core subjects:

- Religion
- English
- Mathematics
- Health & Physical Education
- Science
- History/Geography

## YEAR 9 ELECTIVE SUBJECTS:

Students will study two elective subjects in 2024 for the whole year. Year 9 and 10 elective subject classes will be combined. Students are to choose one subject on each line and one reserve subject. While every attempt will be made to ensure that students are able to study their first choice of elective subjects, the reserve selections will be considered should this not be possible.

## ELECTIVE COURSES

Learning Area
HASS – Economics and Business
LANGUAGES – Chinese
Digital Technologies
Design & Technologies: Agricultural Science
Design & Technologies: Food Specialisations
Design & Technologies: Material Technologies and Specialisations
THE ARTS – Drama
THE ARTS – Music
THE ARTS – Visual Art

**Please Note:** The College reserves the right to withdraw a subject if the numbers are too small for it to be viable.

# TIPS FOR SUBJECT SELECTION

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As a basic strategy, it is suggested that students choose subjects:

- that they enjoy and are interested in
- in which they have already had some success
- which may help them reach a chosen career / pathway
- that lead to subjects they may be considering for their senior phase (Year 11 and 12) of learning (pre-requisites)
- which will develop skills, knowledge and attitudes useful throughout their life.

It is important for students to remember that they are an individual, and that their particular needs and requirements in subject selection will be quite different from those of other students. This means that it is unwise to either take or avoid a subject because:

- someone told you that you will like or dislike it
- your friends are or are not taking it
- you like or dislike the teacher.

The curriculum offered in Year 9 allows students to begin to make choices. These choices are usually influenced by their enjoyment in that area of study in their earlier years of schooling. However, as fourteen and fifteen year old students continue to develop their own identity, their decisions are influenced more by the future they may wish to pursue. These futures may include further study (Universities / Colleges / Private Providers), the workforce or a combination of both (Apprenticeships / Traineeships).

## ADDITIONAL INFORMATION

### HOMEWORK/STUDY

Each student will be required to complete homework each night. This can take the form of work set by the teacher, a review of the day's work, assignment work or general revision of work completed earlier in the semester.

Homework/study should be done under conditions where distractions, such as television, electronic devices and social media, are kept to a minimum.

### RECOMMENDED STUDY TIMES

The following is a guide to the quantity of time to be spent completing homework and study at each year level. There will be times when these suggested timings are exceeded, especially prior to examinations and the submission of major assessment work. Care should be taken to maintain balance between study, sporting, recreational and part-time work commitments.

YEAR LEVEL	QUANTITY OF HOMEWORK
9	1.5 hours 4 to 5 times a week

### SUBJECT CHANGES

Changes to your subjects is not recommended but may be needed due to:

- A continuing medical condition
- Family/personal change of circumstances
- Lack of success

The following examples are not reasons for requesting a subject change:

- Changing your mind
- Dislike of the subject

All changes must be discussed with the relevant Teacher, Curriculum Leader, Deputy Principal Administration and supported by parent/caregiver. Changes are dependent on several factors including class availability.

# RELIGIOUS EDUCATION

## RELIGION

### WHY STUDY RELIGION?

Religious Education plays an important role in the life of Columba Catholic College and is studied by all students. Religious Education aims to develop students' religious literacy, so that they may participate effectively in the life of their faith communities and wider society.

### COURSE CONTENT

- In Religious Education classes students grow in their knowledge and appreciation of the Catholic faith tradition, other Christian traditions and other religions through studying scripture, the teachings of the Church, historical events and persons, as well as contemporary life. Religious Education classes provide opportunities for students to think critically and reflectively, engage in discussions and develop an understanding of the need for tolerance, sensitivity and justice in our world.
- The classroom teaching and learning of Religion is organised around four strands with three sub-strands for each:
  - Sacred Texts (Old Testament; New Testament; Christian Writings and Wisdom)
  - Beliefs (Trinity: God, Jesus the Christ, Spirit; Human Existence; World Religions)
  - Church (Liturgy and Sacraments; People of God; Church History)
  - Christian Life (Moral Formation; Mission and Justice; Prayer and Spirituality)

Religious Education at Columba Catholic College incorporates elements of the Religious Life of the school such as liturgy, prayer, meditation and retreat as compulsory additions to the course.

### UNITS OF STUDY

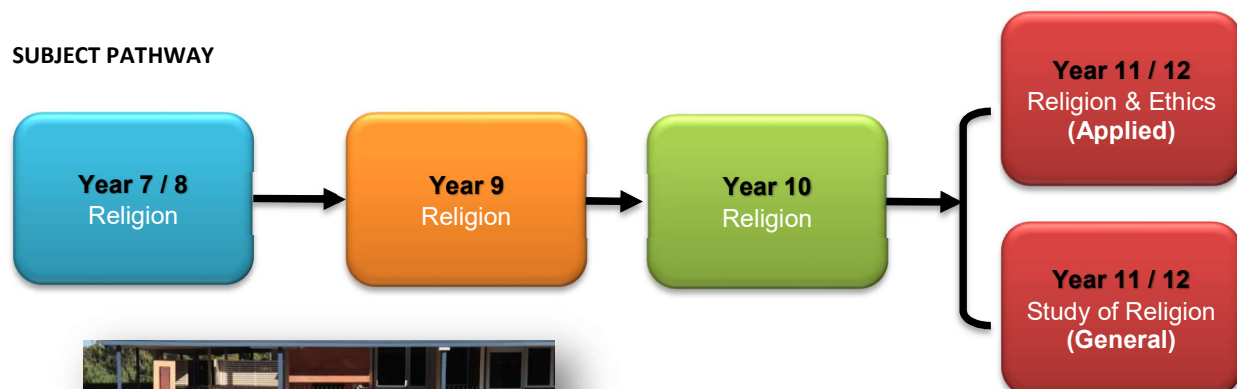
- I Pray, You Pray, We Pray
- Foundational Beliefs
- Priest, Prophet, King
- The Good, the Bad, and the Ugly
- Healing the Heart
- Exploring Faith Traditions
- What's the Meaning of This?



### ASSESSMENT

Assessment provides an indication of students' religious literacy. Assessment in Religion takes the form of both class based activities and assignment work. Examples of assessment items include research assignments, essays, reports, powerpoint presentations, exams, the creation of pamphlets, storyboards and posters etc.

### SUBJECT PATHWAY



### WHY STUDY ENGLISH?

Across the *Australian Curriculum: English*, students explore diverse classic and contemporary literature from Australia (including the perspectives of Aboriginal and Torres Strait Islander peoples), Asia, and beyond. Through English, students learn to analyse, understand, communicate, and build relationships with others and the world around them. Additionally, students acquire, develop, and refine their skills in grammar, punctuation, spelling, vocabulary, reading, comprehension, and visual literacy.

The structure of the *Australian Curriculum: English* is organised into three interrelated strands that support learners' growing understanding and use of Standard Australian English (English). Together the three strands focus on developing learners' knowledge, understanding and skills in listening, reading, viewing, speaking and writing. The three strands are:

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

Content descriptions in each strand are grouped into sub-strands that present a sequence of development of knowledge, skills, and understandings. The sub-strands are:

- *Language*: language variation and change, language for interaction, text structure and organisation, expressing and developing ideas, (sound and letter knowledge - F-2).
- *Literature*: literature and context, responding to literature, examining literature, creating literature
- *Literacy*: texts in context, interacting with others, interpreting, analysing and evaluating, creating texts

The *general capabilities* and *cross curriculum priorities* are explicitly included in the content descriptors and elaborations across the strands, as appropriate.

In Year 9, each strand is used to develop, expand and consolidate students' skills in listening to, reading, and viewing increasingly complex and sophisticated texts, and speaking, writing, and creating their own. Students listen, speak, read, view, and write in an integrated and interdependent way as outlined in the *Australian Curriculum: English* content descriptors.

### COURSE CONTENT

The content for English in Year 9 at Columba Catholic College is organised into semester-based units. Each unit is designed to develop students' knowledge and understanding in accordance with the *Australian Curriculum: English*.

#### Transformers

Students will undertake a study of protest poems, song lyrics and media articles on contentious issues. They will explore how language features are manipulated to impact readers, and develop their own speaking and writing skills in order to influence their own audience.

#### Beyond Words

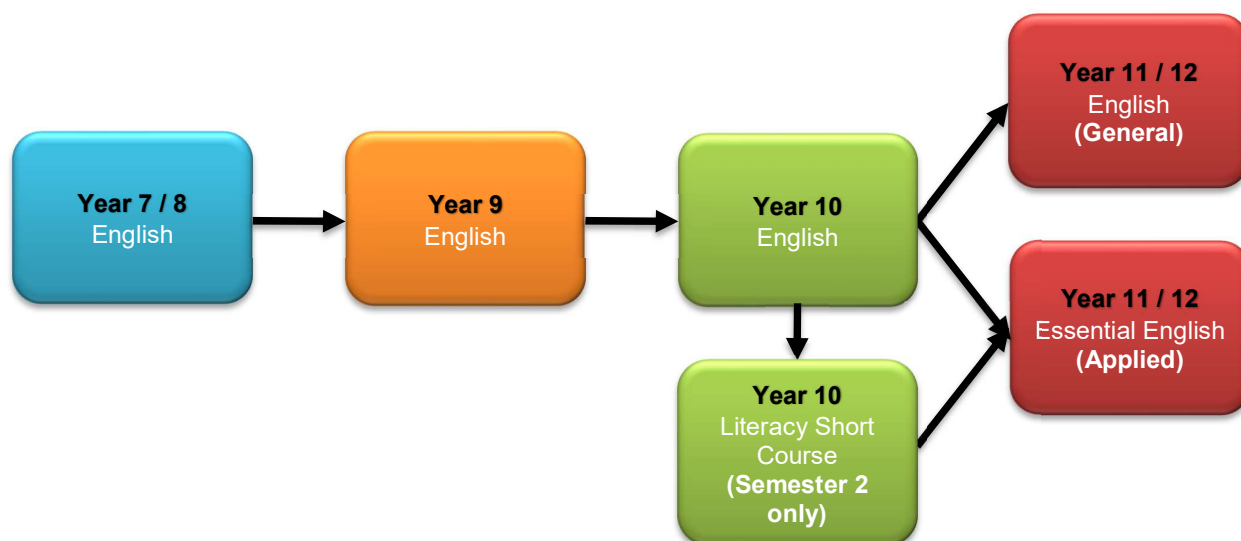
Students will develop an understanding of elements of fiction writing such as plot, character development, point of view, setting, theme and dialogue by watching and analysing feature films and reading a novel. They will evaluate and integrate ideas and information from texts to form their own interpretations. They select evidence from texts to analyse and explain how language choices and conventions are used to influence an audience.

### ASSESSMENT

- Students complete a wide variety of formative tasks and summative assessment composed in written or spoken modes, and either analytical, creative, or persuasive.
- Examples of assessment include analytical essays, persuasive speeches, feature articles, narratives through both assignments and examination.
- In Year 9, all summative assessment is profiled in folios of student work and matched to the Australian Curriculum as evidence of learning.



## SUBJECT PATHWAY



# MATHEMATICS

## MATHEMATICS

### WHY STUDY MATHEMATICS?

Mathematics provides students with the skills to be confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations both at school and in their lives outside of school. The Australian Curriculum: Mathematics, provides students with essential mathematical skills and knowledge in Number and Algebra, Measurement and Geometry, and Statistics and Probability. The curriculum focuses on developing increasingly sophisticated and refined mathematical understanding, fluency, logical reasoning, analytical thought and problem-solving skills. This allows students to apply mathematics in their everyday lives, from managing their finances, planning building and design projects, reading diagrams, tables and graphs, and to develop the numeracy capabilities that all students need in their personal, work and civic life. Students also develop reasoning and communication skills that assist them in all their subject areas.

**Students in Year 9 will all study 9 Mathematics.**

### 9 Mathematics

Students develop their understanding and solve problems involving simple interest. They interpret ratio and scale factors in similar figures. Students explain similarity of triangles. They recognise the connections between similarity and the trigonometric ratios. Students compare techniques for collecting data from primary and secondary sources. They make sense of the position of the mean and median in skewed, symmetric and bi-modal displays to describe and interpret data. Students apply the index laws to numbers and express numbers in scientific notation. They expand binomial expressions. They find the distance between two points on the Cartesian plane and the gradient and midpoint of a line segment. They sketch linear and non-linear relations. Students calculate areas of shapes and the volume and surface area of right prisms and cylinders. They use Pythagoras' Theorem and trigonometry to find unknown sides of right-angled triangles. Students calculate relative frequencies to estimate probabilities, list outcomes for two-step experiments and assign probabilities for those outcomes. They construct histograms and back-to-back stem-and-leaf plots.

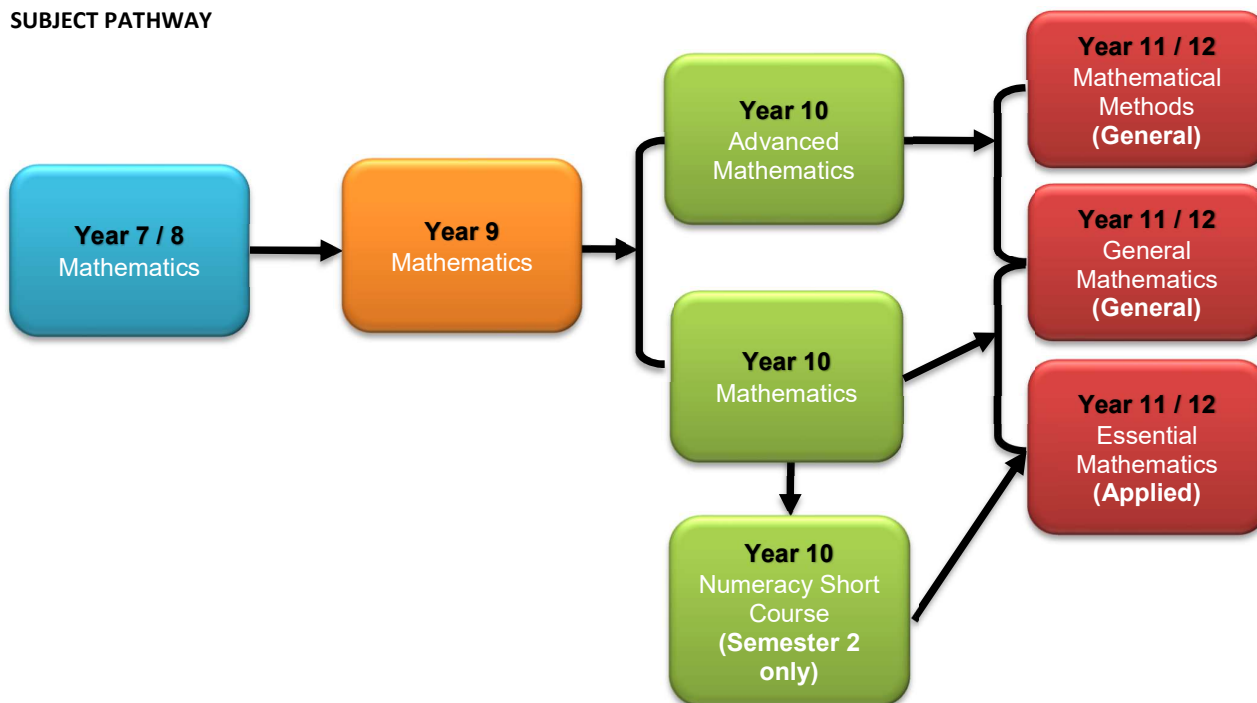
### ASSESSMENT

Assessment can take many varied forms ranging from exams, in-class tasks, assignments and problem-solving modelling tasks.

### USE OF CALCULATORS

The best buy for students in Year 9 is a scientific calculator that will last through the years of secondary schooling. Recommended: Casio FX-82AUPUS

### SUBJECT PATHWAY



### WHY STUDY SCIENCE?

The Foundation to Year 10 Australian Curriculum: Science is designed to develop students' interests in science and an appreciation of how science provides a means of exploring and understanding the changing world. It provides an understanding of scientific inquiry methods, a foundation of knowledge across the disciplines of science, and develops an ability to communicate scientific understanding and use evidence to solve problems and make evidence-based decisions. Students are given many opportunities to engage in practical work throughout the course.

### How is the Foundation to Year 10 Australian Curriculum: Science structured?

The Foundation to Year 10 Australian Curriculum: Science is organised in three interrelated strands:

- Science understanding – which focuses on the important science concepts from across different areas of science.
- Science as a human endeavour – which focuses on the nature and influence of science.
- Science inquiry skills – which focuses on skills essential for working scientifically.

### What are the overarching ideas?

There are a number of overarching ideas that represent key aspects of a scientific view of the world and bridge knowledge and understanding across the disciplines of science.

In the Foundation to Year 10 Australian Curriculum: Science, six overarching ideas support the coherence and developmental sequence of science knowledge within and across year levels. The overarching ideas frame student learning, and can contribute to developing students' appreciation of the nature of science.

The six overarching ideas that frame the Foundation to Year 10 Australian Curriculum: Science are:

- Patterns, order and organisation
- Form and function
- Stability and change
- Scale and measurement
- Matter and energy
- Systems

### COURSE CONTENT

#### Year 9

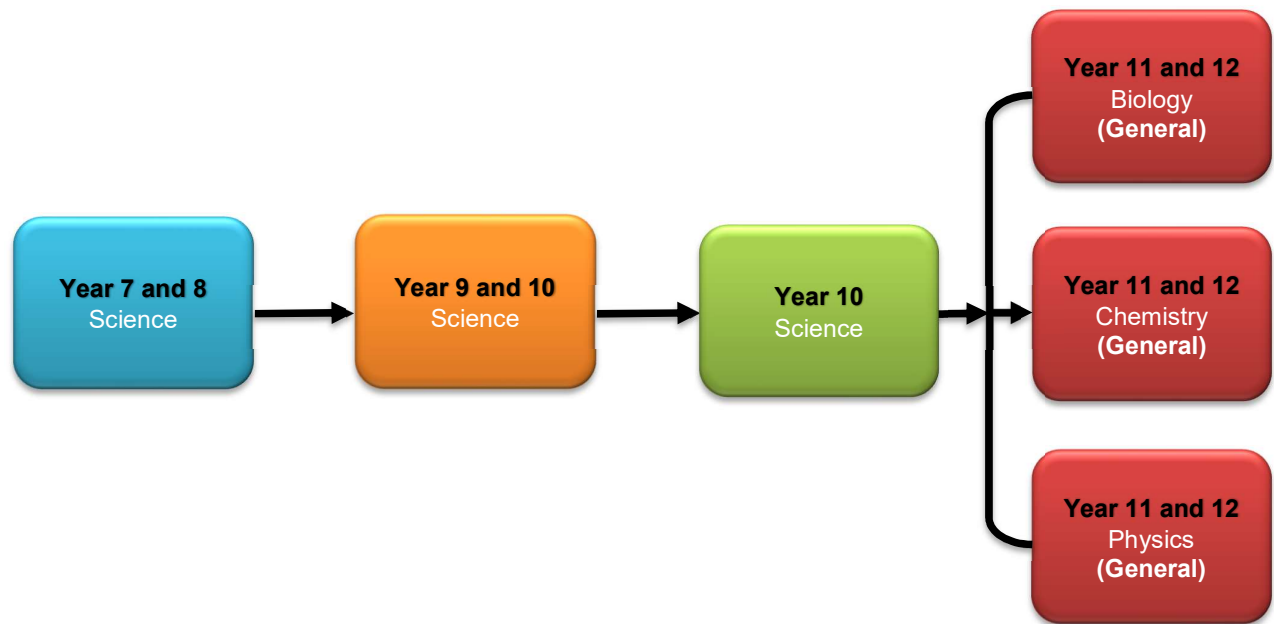
- **Biology:**
  - The survival of the species
- **Chemistry:**
  - Atomic Theory
  - Chemical Reactions
- **Earth and Space:**
  - Earth Systems
- **Physics:**
  - Light and Sound – non contact forces and electricity



### ASSESSMENT

Assessment techniques focus primarily on specific scientific skills. They include data tests, research investigations, student experiments, and examinations.

## SUBJECT PATHWAY



# HUMANITIES AND SOCIAL SCIENCES

## HISTORY

### WHY STUDY HISTORY?

History is a disciplined process of inquiry into the past that develops students' curiosity and imagination. Awareness of history is an essential characteristic of any society, and historical knowledge is fundamental to understanding ourselves and others. Studying History provides students with opportunities to develop historical understanding through key concepts, including 'evidence', 'continuity and change', 'cause and effect', 'perspectives', 'empathy', 'significance' and 'contestability'. These concepts may be investigated within a particular historical context to facilitate an understanding of the past and to provide a focus for historical inquiries.

In Year 9, students undertake two studies which familiarise them with the making of the modern world from the time of the Industrial Revolution in the mid-18<sup>th</sup> century to World War One.

### UNITS OF STUDY

#### YEAR 9

- Making the Australian Nation (1750-1914)
- World War I (1914-1918)

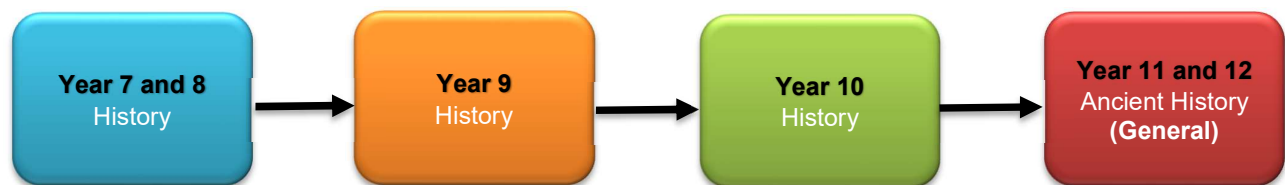
#### INQUIRY QUESTIONS

- What were the changing features of the movements of people from 1750 – 1918?
- How did new ideas and technological developments contribute to change in this period?
- What was the origin, development, significance and long-term impact of imperialism in this period?
- What was the significance of World War I?

### ASSESSMENT

Various assessment techniques are used to determine standards throughout the course. Students will undertake combination tests (short response, stimulus interpretation) and essay writing, as well as demonstrating their skills in historical empathy through a diary-keeping exercise.

### SUBJECT PATHWAY



## GEOGRAPHY

## WHY STUDY GEOGRAPHY?

In a world of increasing global integration, international mobility and population-related pressures, it is critical to the wellbeing and sustainability of the environment and society that young Australians develop a holistic understanding of the world. To understand why our world is this way requires deep knowledge and understanding of the interconnections between people, places and environments.

Students of geography hone their analytical and evaluative skills through applying differently weighted criteria to, and creating decision-making matrices for, strategies that have been proposed for implementation at a range of scales and in a range of settings. They learn to be cautious of 'blueprint thinking' and come to better recognise diversity and change in the cultures, biomes, economies, cities and infrastructure of the places and regions they study.

Studying Geography in Year 9 assists students to make meaning of their world. It teaches them to appreciate the multi-dimensional nature of phenomena; plan an inquiry; collect, evaluate, analyse and interpret information; and evaluate alternative responses to timely issues, all while developing empathy towards different stakeholders.

## UNITS OF STUDY

- Biomes and Food Security
- Geographies of Interconnections

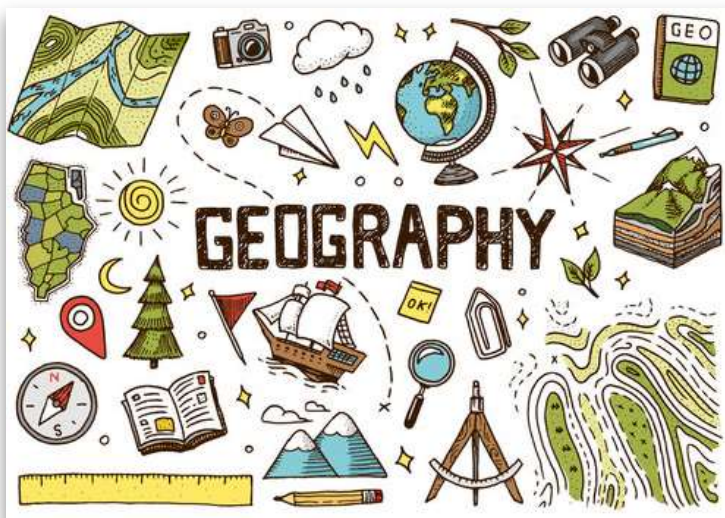
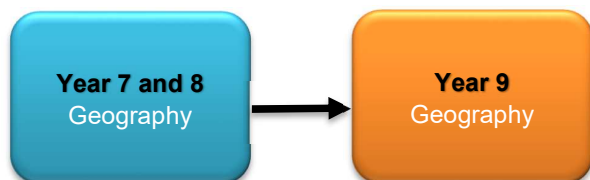
## INQUIRY QUESTIONS

- What are the causes and consequences of change in places and environments and how can this change be managed?
- What are the future implementation of changes to places and environments?
- Why are the interconnections and interdependences important for the future of places and environments?

## CORE ASSESSMENT

Each semester-long program involves the production of a Formal Data Report as well as a Combination Test. Combination Tests involve paragraph writing on key concepts, data manipulation (table to graph), mapping, and data interpretation tasks.

### SUBJECT PATHWAY



# ECONOMICS AND BUSINESS

## WHY STUDY ECONOMICS AND BUSINESS?

As mass global flows of people, resources, finances and information produce social, economic, political and environmental complexities and challenges, Australia needs enterprising individuals who can make informed decisions and actively participate in society and the economy as individuals and more broadly as global citizens. Young Australians will also face a number of social, economic and moral challenges in their lifetimes that will impact on their lives and choices. It is critical that students are equipped with the knowledge, understanding and skills that will empower them in the face of such challenges.

The Australian Curriculum: Economics and Business empowers students to shape their social and economic futures and to contribute to the development of prosperous, sustainable and equitable Australian and global economies. The study of economics and business develops the knowledge, understanding and skills that will equip students to secure their financial futures and to participate in and contribute to the wellbeing and sustainability of the economy, the environment and society. Through studying economics and business, students learn to make informed decisions and to appreciate the interdependence of decisions made within economic systems, including the effects of these decisions on consumers, businesses, governments and other economies, and on environmental and social systems.

Through authentic learning opportunities, the curriculum of the subject enables individuals to effectively embrace changes, seek innovation, work with others, show initiative, flexibility and leadership; use new technologies; plan, organise and manage risk; and use resources efficiently. Economics and Business will better place students now and in their adult lives to actively and effectively participate in economic and business activities, while reflecting on the effects of their decisions on themselves, other people and places, now and in the future. (*Australian Curriculum Economics & Business – Rationale*)

## UNITS OF STUDY OFFERED IN 2024

### Business 101

This unit provides students the opportunity to develop and apply enterprising behaviours and capabilities. Students are introduced to the creation of business ideas and the concept of the marketing. It provides students with opportunities to analyse, interpret and evaluate business strategies for a hypothetical business.

Topic 1: Business Competition

Topic 2: Marketing

### ASSESSMENT

Students are expected to complete a range of inquiry-based assessment tasks including examinations and assignments in the form of written and spoken tasks.

### Economics 101

This unit prepares students to develop their concept of supply and demand, shortage and excess. Students explore international economics and trade.

Topic 1: Economic performance and standard of living

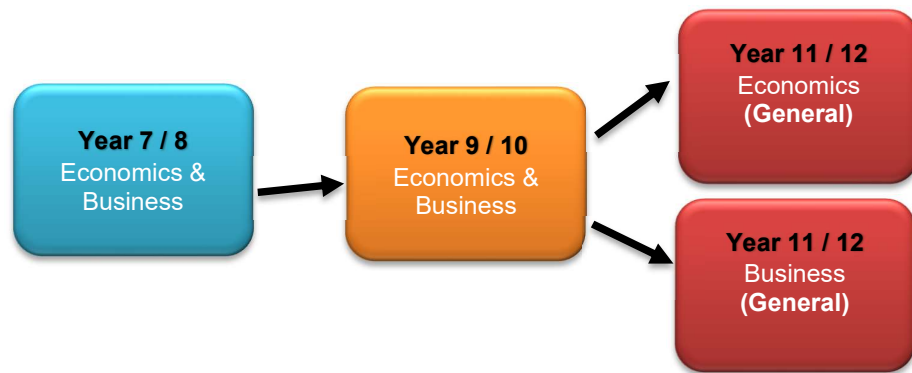
Topic 2: Economics and trade

### ASSESSMENT

Students are expected to complete a range of inquiry-based assessment tasks including examinations and assignments in the form of written and spoken tasks.



## SUBJECT PATHWAY





# LANGUAGES

## LANGUAGES

### WHY STUDY LANGUAGES?

The Australian Curriculum: Languages is designed to enable all students to engage in learning a language in addition to English. The interrelationship of language, culture and learning provides the foundation for the Australian Curriculum: Languages. In the Languages learning area the focus is on both language and culture, as students learn to communicate meaningfully across linguistic and cultural systems, and different contexts. This process involves reflection and analysis, as students move between the new language being learnt and their own existing language(s). It is a reciprocal and dynamic process which develops language use within intercultural dimensions of learning experiences. Learning a foreign language means an experience of being in two worlds at once, which involves noticing, questioning and developing awareness of how language shapes one's cultural identity.

(Source: <https://www.qcaa.qld.edu.au/p-10/aciq/p-10-languages/year-9-languages>)

The ability to communicate in Chinese (Mandarin) and to be aware of and sensitive to cultural differences provides for a greatly enriched experience. It also creates opportunities for continued learning, future employment, both domestically and internationally, in areas such as business, tourism, hospitality and international relations.

The Year 9 and 10 course is designed to provide students with the opportunity to acquire and develop practical skills in listening, speaking, reading and writing Chinese. An emphasis on oral and aural skills requires students to actively participate in all class tasks. Students are required to be self-motivated in their learning approach to the language, spending time on practice each day. A continuing study of the culture of China and Chinese communities is undertaken as well. Students learn to maintain communication in authentic situations. They can use structures and features of the language that will allow them to apply these in a range of practical situations and contexts.

### UNITS OF STUDY OFFERED IN 2024

#### Who am I?

In this unit, students will:

- Discuss ways to express your self-identity.
- Discover the many different terms for family members.
- Learn to read and write Chinese blogs and magazine articles.
- Explore a cultural point: Chinese families always visit the cemetery on April 4 every year.

zài jiàn  
再见  
Goodbye!

#### School life

In this unit, students will:

- Plan a tour of your school for your Chinese speaking guests.
- Express time and day in Chinese.
- Learn to express one's daily school routine in Chinese.
- Explore a cultural point: Compare school life in China and Australia.

你好  
"Ni hao"  
"Hello"

### ASSESSMENT

For the Languages Learning Area, both formative and summative assessment will take place throughout the unit.

Methods of summative assessment include:

- Listening comprehension tasks
- Reading comprehension tasks
- Oral tasks
- Writing tasks
- Tests

### EXCURSION OPPORTUNITIES

Participation in a Chinese restaurant lunch where students learn about the etiquette and cuisine of China.

### SUBJECT PATHWAY



# HEALTH AND PHYSICAL EDUCATION

## HEALTH AND PHYSICAL EDUCATION

### WHY STUDY HEALTH AND PHYSICAL EDUCATION?

In Health and Physical Education, students will continue to build on their prior knowledge, refining, understanding and the ability to contribute to individual and community health and wellbeing. Through practical and theoretical components, students will investigate ways of improving movement strategies and outcomes in different situations. They will learn to take positive actions in regards to communication with others, sustainable food choices, forming safe and respectful relationships, and using help seeking strategies.

### PRE-REQUISITES

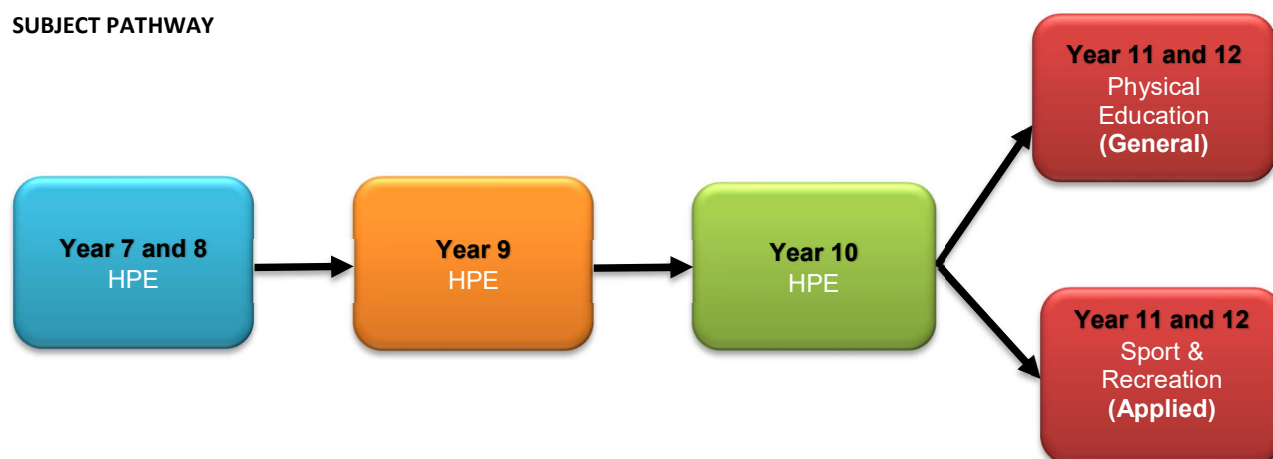
Health and Physical Education is a compulsory subject in Years 9. Students are expected to engage in practical and theoretical components, with each comprising 50% of overall achievement. Students are strongly encouraged to demonstrate courage, commitment and compassion in all aspects of the subject, including wearing the correct sports uniform for practical lessons.

Drug Use, Body Image and Smart Training	Eat to Perform	Moving More Matters	Effective Movement and Behaviour for Health, Wellness and Performance
Students will experience the long- term benefits of a range of cardiovascular training techniques in preparation for our Cross Country events, as well as Basketball and Invasion games. They will learn about drugs and supplement use in sport and health.	Students will explore the benefits of healthy food choices on energy levels, mood and exercise performance. They will participate in an Athletics unit, in preparation for our athletics carnivals, and engage in different methods of conditioning to allow the body to become fitter and healthier.	Students will learn about the key elements of a successful fitness plan. They will develop a training program based on personal fitness goals, which includes gym and non-gym elements. Students will participate in AFL skills development, including catching and kicking, and a range of Indigenous games.	Students will explore Biomechanics and its role in sport. They will learn about assertive behaviour and help seeking strategies for dealing with challenging or threatening situations. They will use tennis, pickleball and spike ball as ways of refining their movement, striking skills and strategies in game play.

### ASSESSMENT

Assessment techniques include project folios, investigation reports and examinations. Practical skills are also assessed.

### SUBJECT PATHWAY



# TECHNOLOGIES

## DIGITAL TECHNOLOGIES

### WHY STUDY DIGITAL TECHNOLOGIES?

In a world that is increasingly digitised and automated, it is critical to the wellbeing and sustainability of the economy, the environment and society, that the benefits of information systems are exploited ethically. This requires deep knowledge and understanding of digital systems (a component of an information system) and how to manage risks. Ubiquitous digital systems such as mobile and desktop devices and networks are transforming learning, recreational activities, home life and work. Digital systems support new ways of collaborating and communicating, and require new skills such as computational and systems thinking. These technologies are an essential problem-solving toolset in our knowledge-based society.

Digital Technologies empowers students to shape change by influencing how contemporary and emerging information systems and practices are applied to meet current and future needs. A deep knowledge and understanding of information systems enables students to be creative and discerning decision-makers when they select, use and manage data, information, processes and digital systems to meet needs and shape preferred futures.

Digital Technologies provides students with practical opportunities to use design thinking and to be innovative developers of digital solutions and knowledge. The subject helps students to become innovative creators of digital solutions, effective users of digital systems and critical consumers of information conveyed by digital systems.

Digital Technologies provides students with authentic learning challenges that foster curiosity, confidence, persistence, innovation, creativity, respect and cooperation. These are all necessary when using and developing information systems to make sense of complex ideas and relationships in all areas of learning. Digital Technologies helps students to be regional and global citizens capable of actively and ethically communicating and collaborating.

*(Australian Curriculum Digital Technologies Rationale)*

### UNITS OF STUDY OFFERED IN 2024

#### Robotics and Embedded Systems

The concept of AI and robotics was once thought to be a realm based solely in Science Fiction. However now it has become part of our daily lives with increasing automation of daily tasks by robots and the development of AI software (ChatGPT, Amazon Alexa, TensorFlow) for use by the digital user. Regardless of their complexity, all robots and AIs are based upon simple principles upon which they are designed, developed, and programmed.

In this unit, students will:

- Develop an understanding of the basic principles of robot and AI programming.
- Develop an understanding of branching algorithms.
- Design and implement a variety of skills to develop robots to perform simple tasks.

#### ASSESSMENT

1. Investigations
2. Programming Skills
3. Design Folio – Robot Development

#### Data Solutions

In an increasing digital world, the use and storage of data has become increasingly important in terms of the individual user and businesses. In particular, the rise of data-centred digital systems such as databases, spreadsheets and data analysis has become a large component for numerous different types of users.

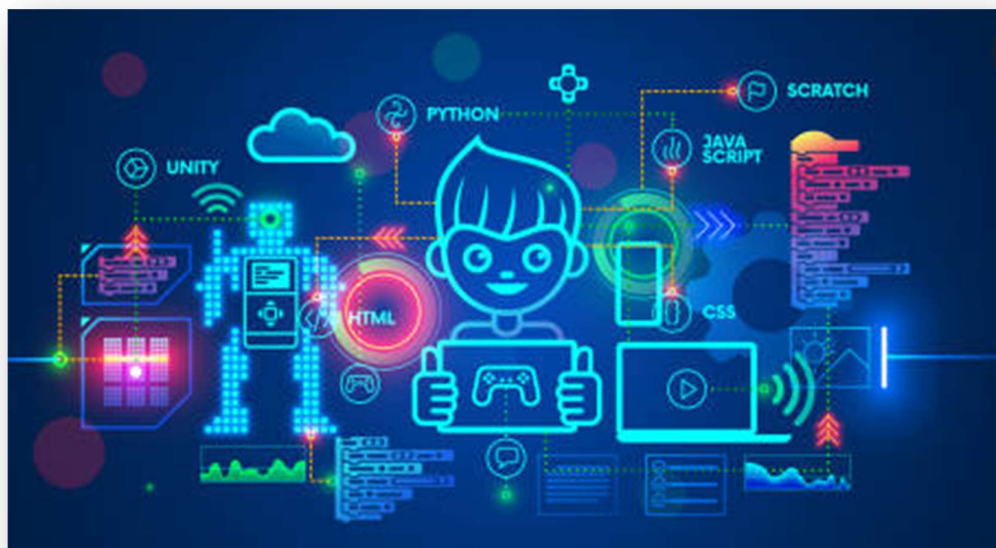
In this unit, students will:

- Investigate the role of hardware and software on managing, controlling and securing the movement of and access to data in networked systems.
- Design and validate algorithms and programs
- Develop skills in the programming of algorithms and data structures.

#### ASSESSMENT

1. Investigations
2. Programming skills
3. Design Folio – Data Solutions

## SUBJECT PATHWAY



# DESIGN AND TECHNOLOGIES

## WHY STUDY DESIGN TECHNOLOGY?

The Design & Technology subjects provide opportunities for students to use design thinking and practical skills to generate, produce and evaluate solutions that reflect the dynamic and innovative nature of technology.

Using a scaffolded design process as a central process, students gather information and develop skills to respond to design challenges in a diverse range of contexts. Design challenges are situations, problems or tasks which require students to make cognitive and practical responses that draw on their technology knowledge, skills, and reasoning.

The College's specialised Technology rooms (i.e. workshops, kitchen and textiles room) allow students to combine the design process and practical skills to produce high quality designed projects. As part of the production phase of these subjects, students are taught and required to demonstrate a clear understanding of Workplace Health and Safety (WHS) practices including the safe use of tools and equipment.

Within the Design Technology area at Columba, we offer two specialisations that students may study. These are:

- Material Specialisation (Wood & Metal)
- Food Specialisation





# DESIGN AND TECHNOLOGIES: FOOD SPECIALISATIONS

## UNIT OF STUDY OFFERED IN 2024

### Healthy Choices

In this unit, students will investigate and make judgements on how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of healthy eating solutions through the exploration of food choices that impact on a healthy lifestyle. They will then use this information to make healthy food choices by investigating and making judgements on how the characteristics and properties of ingredients can be combined to create meals designed for health-conscious people. They critically analyse factors, including social, ethical and sustainability considerations, that impact on the design and production of food labels and healthy meals.

In this unit, students will:

- Investigate healthy choices in cooking
- Develop cooking skills
- Develop design and communication skills.

### ASSESSMENT

1. Investigations
2. Design Folio and Project– “Healthy Choices”

### Design Technology – Food: ‘Make and Market’

In this unit, students will investigate the rise of pre-prepared meals in an increasingly time poor society as well as concepts like “Hello Fresh”, “Dinnerly” and “Every Plate”. They will investigate and make judgements on how the characteristics and properties of ingredients can be combined to create healthy meals designed for time conscious people looking for healthy alternatives. They critically analyse factors, including social, ethical and sustainability considerations, that impact on the design and production of pre-prepared food options. Also we will examine the marketing and packaging of food items.

In this unit, students will:

- Investigate various food preparation techniques
- Research marketing and packaging of food items
- Develop cooking skills
- Develop design and communication skills.

### ASSESSMENT

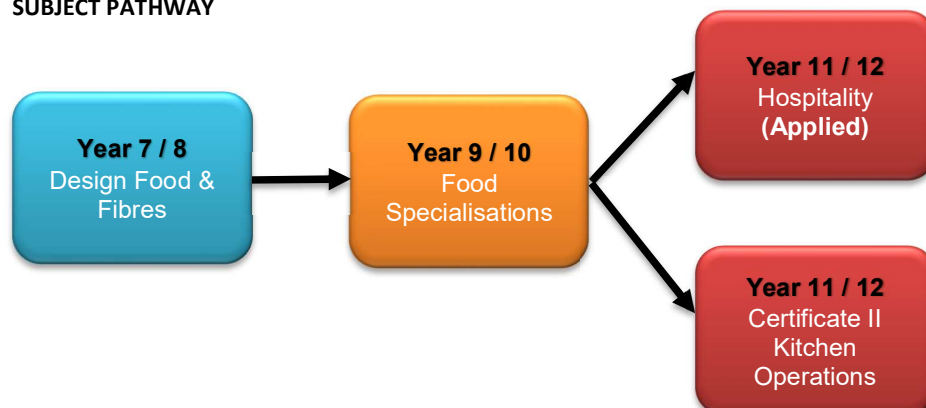
1. Investigations
2. Design Folio and Project– “Make and Market”

### ESSENTIAL EQUIPMENT

All students must have a pair of black leather school shoes to wear in the kitchen.



### SUBJECT PATHWAY



# DESIGN AND TECHNOLOGIES: MATERIALS AND TECHNOLOGIES SPECIALISATIONS

## UNITS OF STUDY OFFERED IN 2024

### Wood: Energy Saver

In this unit, students will investigate the characteristics and properties of materials, components, woodworking tools, and equipment to engage with the design process to research, generate, develop, produce, and evaluate ideas and products.

During this process, students will explore the use of energy saving lighting systems to design and produce a project that incorporates LED lighting.

In this unit, students will:

- Be trained to operate various tools and equipment to produce and modify objects.
- Learn basic wood joints.
- Develop design and communication skills.

### ASSESSMENT

1. Investigations
2. Practical Skill Exercises
3. Design Folio and Project – “Energy Saver”

### Metal: Heat Source

In this unit, students will investigate the characteristics and properties of materials, components, metalworking tools, and equipment to engage with the design process to research, generate, develop, produce, and evaluate ideas and products.

During this process, students will explore the various metal fabrication techniques to design and produce a project that can be used in proximity to a heat source.

In this unit, students will:

- Be trained to operate various tools and equipment to produce and modify objects.
- Learn metal fabrication skills.
- Develop design and communication skills.

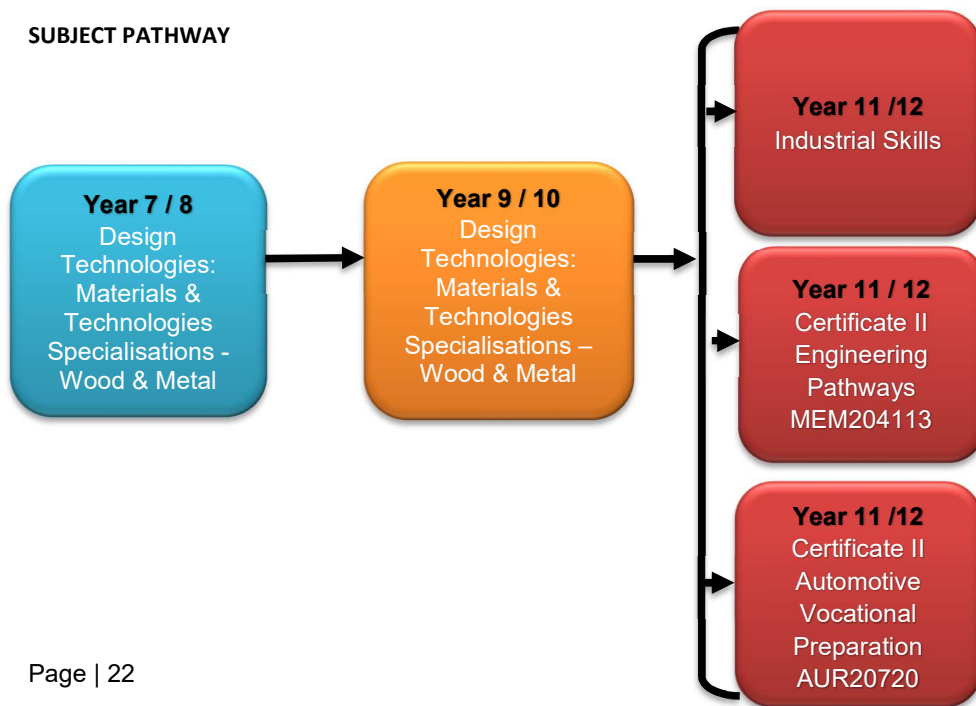
### ASSESSMENT

1. Investigation
2. Practical Skills Exercises
3. Design Folio and Project – “Heat Source”

### ESSENTIAL EQUIPMENT

All students must have a pair of black leather school shoes to wear in the workshop.

### SUBJECT PATHWAY





# AGRICULTURAL SCIENCE

## WHY STUDY AGRICULTURAL SCIENCE?

Agricultural Science leads to many careers as the contemporary agriculture sector offers opportunities in science, business, design, tourism, farming and engineering. For students who have a passion for science and or animals, a desire to shape the world or want to do their part to safeguard the future, Agricultural Science is the subject to choose. Agricultural Science is designed to provide a basic understanding of the relationships between plants, animals and human beings. The subject aims to highlight to students the importance of sustainability in all facets of everyday life and is therefore of benefit to all students.

All courses provide practical, hands-on experience at the College's Agriculture Farm as well as offsite excursions and theoretical aspects to support learning. Students will encounter and explore a variety of scientific professions and develop an awareness of the contributions of Science and Technology makes to agriculture.

Students are offered four (4) units over the course of two (2) years.

## UNITS OF STUDY OFFERED IN 2024

### Grazing Management: Paddock to Plate

Students will explore grazing management strategies in a variety of settings as well as maintain and evaluate Columba's cattle property. In doing so, students will investigate grazing management principles and apply these to improve whole farm planning. They will undertake practical tasks such as land classing, soil tests and property management including fencing, feed assessments and cattle management.



### ASSESSMENT

- Property Case Analysis
- Paddock Interview
- Property Design

### Breeding Technologies: A Sustainable Future

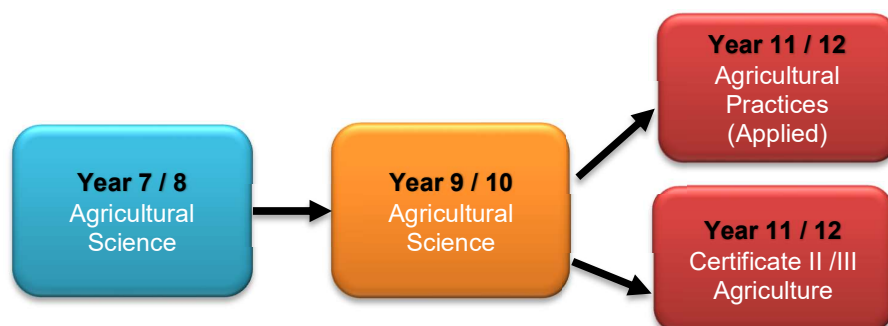
Students will investigate historical and current development of practices in agriculture that enhance and improve yields and sustainability. They will examine how emerging technologies such as robotics, nutritional genomics, sensors, drones and artificial intelligence are used in primary industries. Ultimately, students will understand how science disciplines connect in agriculture.



### ASSESSMENT

- Research Poster
- Informative Speech

## SUBJECT PATHWAY



# THE ARTS

## DRAMA

### WHY STUDY DRAMA?

Drama is the expression and exploration of personal, cultural and social worlds through role and situation that engages, entertains and challenges. Students create meaning as drama makers, performers and audiences as they enjoy and analyse their own and others' stories and points of view. Like all art forms, drama has the capacity to engage, inspire and enrich all students, excite the imagination and encourage students to reach their creative and expressive potential.

Drama enables students to imagine and participate in exploration of their worlds, individually and collaboratively. Students actively use body, gesture, movement, voice and language, taking on roles to explore and depict real and imagined worlds. They create, rehearse, perform and respond using the elements and conventions of drama and emerging and existing technologies available to them.

Students learn to think, move, speak and act with confidence. In making and staging drama they learn how to be focused, innovative and resourceful, and collaborate and take on responsibilities for drama presentations. They are excited by exploring their imagination and taking risks in storytelling through role and dramatic action.

Students develop a sense of inquiry and empathy by exploring the diversity of drama in the contemporary world and in other times, traditions, places and cultures.

(ACARA, *Drama, Rationale*, 2018)

### UNITS OFFERED IN 2024

#### Just for Laughs

Improvisation is an entertaining form of performance and is a valuable tool for exploring and developing Drama work. It requires the performer to think quickly, be inventive and use their imagination. During this semester students will explore improvisation as a form and develop their ability to spontaneously make use of the Elements of Drama. As well as exploring Mime and Improvisation in their modern forms, students will be introduced to the comedic form of Commedia Dell'Arte. Commedia Dell'Arte holds a mirror up to everyday life and asks us to take a peek. It uses stock characters and stereotypes to create performances that force students to delve deep into the relationships between Masters and Servants. Commedia Dell'Arte is an entertaining form of theatre and is a valuable tool for exploring and developing drama work.

#### ASSESSMENT

- Responding - Students respond to another group's Commedia Dell'Arte performance
- Forming - In groups students will improvise to create and then rehearse a Commedia Dell'Arte performance. They will document their process via vlogs (video logs)
- Performing - Improvisation and mime performance at the 2024 Eisteddfod

#### Child's Play

Imaginative activities help children to see the world through a new perspective. They help young minds imagine new worlds, new possibilities, and new ideas. During this semester students will explore Children's Theatre and Film techniques to plan, direct and film their own Children's Theatre episode. Students will make use of the Elements of Drama, performance skills, and film techniques.

#### ASSESSMENT

- Responding - Director's pitch for a children's TV show
- Forming - Create a storyboard, film log and script for the TV episode
- Performing - Present a polished Children's Theatre episode

\*\*Excursions and exposure to live theatre performances as well as Actors' workshops are an important feature of Drama programs.

#### SUBJECT PATHWAY



# MUSIC

## WHY STUDY MUSIC?

Music is uniquely an aural art form. The essential nature of music is abstract. Music encompasses existing sounds that are selected and shaped, new sounds created by composers and performers, and the placement of sounds in time and space. Composers, performers and listeners perceive and define these sounds as music.

Music exists distinctively in every culture and is a basic expression of human experience. Students' active participation in Music fosters understanding of other times, places, cultures and contexts. Through continuous and sequential music learning, students listen to, compose and perform with increasing depth and complexity. Through performing, composing and listening with intent to music, students have access to knowledge, skills and understanding which can be gained in no other way. Learning in Music is aurally based and can be understood without any recourse to notation. Learning to read and write music in traditional and graphic forms enables students to access a wide range of music as independent learners. Music has the capacity to engage, inspire and enrich all students, exciting the imagination and encouraging students to reach their creative and expressive potential. Skills and techniques developed through participation in music learning allow students to manipulate, express and share sound as listeners, composers and performers. Music learning has a significant impact on the cognitive, affective, motor, social and personal competencies of students.

As independent learners, students integrate listening, performing and composing activities. These activities, developed sequentially, enhance their capacity to perceive and understand music. As students' progress through studying Music, they learn to value and appreciate the power of music to transform the heart, soul, mind and spirit of the individual. In this way, students develop an aesthetic appreciation and enjoyment of music.

*(ACARA, Music, Rationale, 2018)*

## UNITS OFFERED IN 2024

### DJ Mix-A-Lot

As technology develops ever faster, the world of electronic music and sound production is growing rapidly. In this unit students understand the historical and stylistic development of electronic music and its functions in entertainment and other areas. They learn about the elements of music (pitch, rhythm, texture, dynamics/expression, form/structure and timbre) and apply them in theoretical and practical musical activities. This unit allows students to gain insight into the development and application of one of the most versatile forms of music ever created. A range of performance skills on contemporary instruments, as well as various electronic music software/controllers, are developed throughout this unit. Students will be assessed on their understanding of these elements.

### ASSESSMENT

- Compose an original song in the electronic genre by accurately manipulating elements of music within their intended context using stylistic/technical conventions
- Perform a song on an electronic instrument, demonstrating understanding of elements of music and notation systems
- Respond to different styles of electronic music by explaining how the elements of music are manipulated to suit the genre.

### Rock of Ages

This unit allows students to gain insight through both theoretical and practical activities into one of the most popular styles of music of the past 70 years and how the elements of music are applied to characterise a range of different styles of rock, from its inception to the present day. A range of performance skills on contemporary instruments with a variety of repertoire are developed throughout this unit. Students will be assessed on their understanding of these elements.

### ASSESSMENT

- Arranging their own pop/rock composition
- Responding to different styles of rock by explaining how the elements of music are used to formulate an identity of a particular style
- Performing a song of their choice within the studied genres

## SUBJECT PATHWAY



# VISUAL ARTS

## WHY STUDY VISUAL ART?

Through participating in Visual Art Activities, students are provided with opportunities to:

- Make and respond using visual arts knowledge, understanding and skills to represent meaning associated with personal and global views, and intrinsic and extrinsic worlds. Visual Arts engages students in a journey of discovery, experimentation and problem-solving relevant to visual perception and visual language. Students undertake this journey by using visual techniques, technologies, practices and processes. Learning in the Visual Arts, students become increasingly confident and proficient in achieving their personal visual aesthetic, and appreciate and value that of others.
- Visual Arts supports students to view the world through various lenses and contexts. Students recognise the significance of visual arts histories, theories and practices, exploring and responding to artists, craftspeople and designers and their artworks. They apply visual arts knowledge to make critical judgements about their own importance as artists and audiences. Learning in the Visual Arts helps students to develop understanding of world culture and their responsibilities as global citizens.

(ACARA, *Visual Art, Rationale*, 2018)

## UNITS OFFERED IN 2024

### ART03: Art in Nature

In this unit, students will focus on nature, nature patterns and landscapes as inspiration in the creation of a process journal and fully resolved mosaic piece. They research mosaic art and artists, and investigate how artists have used mosaic to create interesting patterns and images. Inspired by their findings, students create their own artworks. Students will have opportunities to study the technical aspects of the process, how to make a mosaic, and will demonstrate their ability to share practical and technical knowledge by designing a video guide – a how to video – for beginners.

### ASSESSMENT

- Making - Students are to create a progress journal in the form of a 'Body of Work' which documents their process in creating a fully resolved piece. Students will create a mosaic based on Australia's landscapes, flora or fauna.
- Responding - Students design an informative video explaining the process behind the creation of a mosaic artwork.

### ART04: Exploring Identity

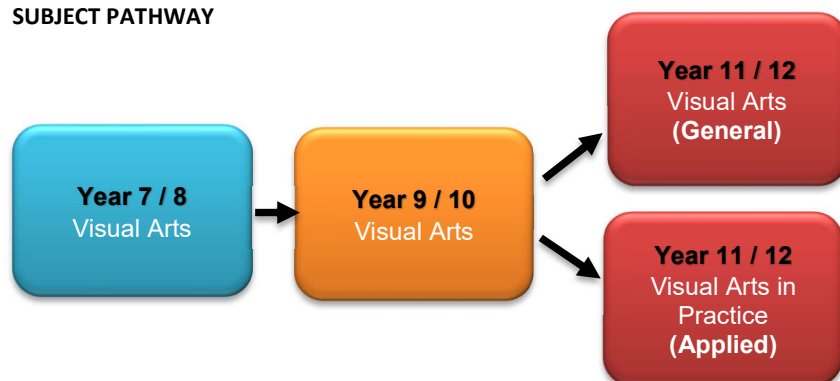
In this unit, students will explore how factors such as race, religion and family shape a person's personal identity. They will explore the concept of 'identity formation'. Students will explore a variety of mediums and media styles including sketching, painting, photography, printmaking, collage and digital image manipulation. They will then create self-portraits made up of objects, symbols and/or imagery that represent various parts of their identities.

### ASSESSMENT

- Making - Students create a folio of work exploring their personal identity. They will experiment with a variety of mediums including, photography, digital image manipulation, videography, painting and sketching.
- Students are to create a video piece exploring their personal identity. The video should display a wide variety of techniques learnt in class.

Responding - Students will write an artist statement discussing and deconstructing their artwork. They will dissect the meaning and evaluate the effectiveness of their video.

## SUBJECT PATHWAY



# STAFF CONTACT LIST

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## SENIOR LEADERSHIP TEAM

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Assistant Principal Religious Education	Ms Christine O'Sullivan	<a href="mailto:cosullivan@columba.catholic.edu.au">cosullivan@columba.catholic.edu.au</a>

## CURRICULUM MIDDLE LEADERS

If you would like any further information about any of the subjects outlined in this handbook, please contact the relevant Curriculum Middle Leader.

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## PASTORAL LEADERS

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Year 11 and 12 Pastoral Middle Leader	Mr Haydn Champion	<a href="mailto:hchampion@columba.catholic.edu.au">hchampion@columba.catholic.edu.au</a>

## NOTES