

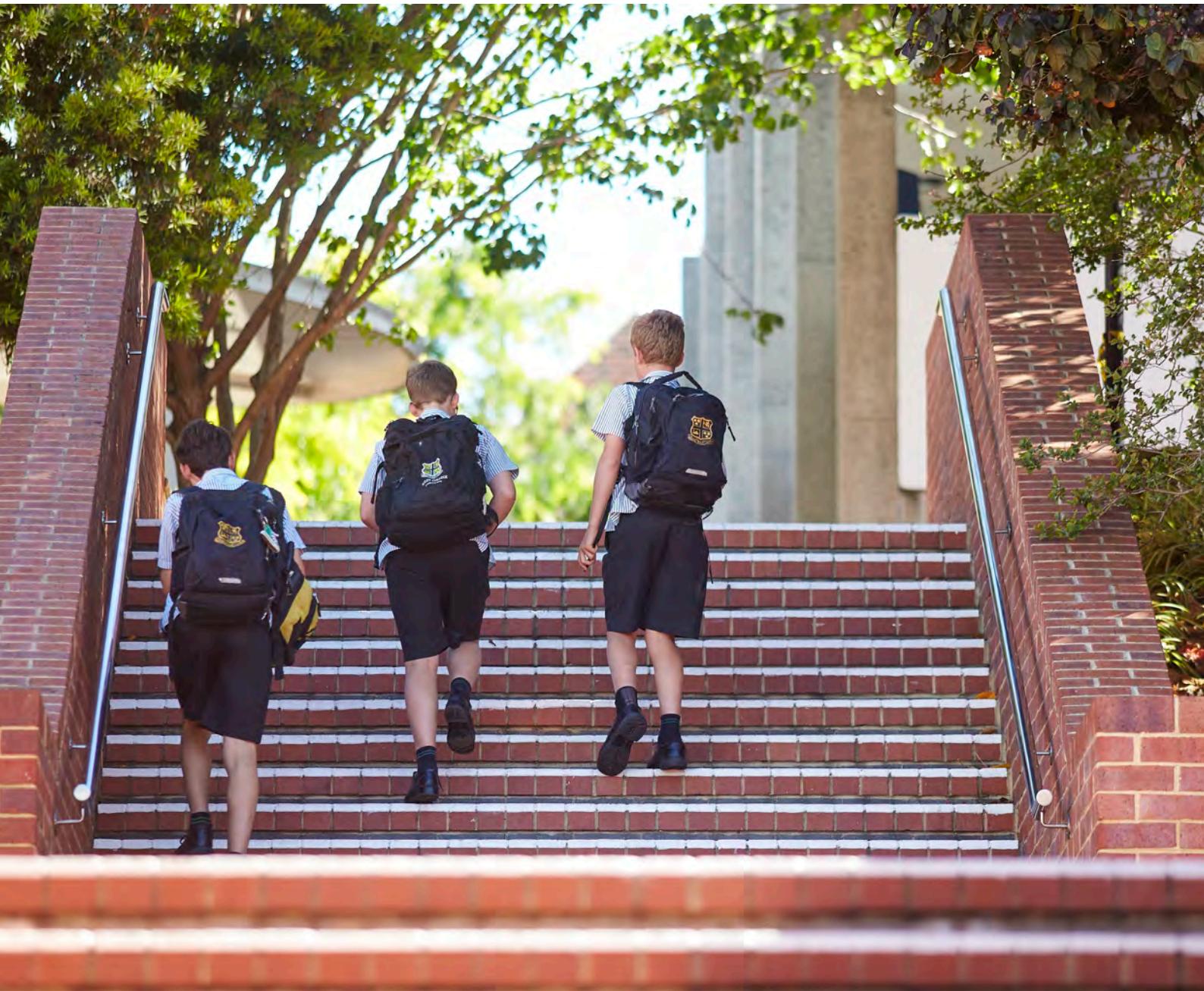


WESLEY COLLEGE

By daring & by doing

Year 9

Course Selection Guide 2020



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Introduction

To students and their parents preparing for Year 9

This booklet is designed to provide information concerning the academic curriculum for Year 9 at Wesley College in 2020. The curriculum is designed around the eight key Learning Areas:

1. English
2. Mathematics
3. Science
4. Humanities and Social Sciences (HASS)
5. Health and Physical Education (HPE)
6. The Arts
7. Languages
8. Technologies

Wesley is committed to providing a broad range of courses so that each student may experience the satisfaction of a successful and senior school journey. In guiding students and their parents the College promotes a number of important principles which include the following:

- Parents and carers are the primary educators of their children;
- The College will work in partnership with students and parents to identify the most suitable pathway for each individual student;
- The College supports the individual interests, passions, growth and learning needs of each student;
- The three-way relationship between College, boys and parents is of great importance and communication channels should be responsive to individual student needs;
- The choice of academic pathway, ATAR, General or VET are equally valued by the College and wider community;
- The College regularly tracks and monitors student performance, and growth, intervening, mentoring and coaching students, and their parents, when required;
- Understanding that there is a close correlation and connection between student commitment and effort ratings and their course achievements;

Many changes have taken place since the Ministerial Council (State and Territory Education Ministers) adoption of the document, *The Melbourne Declaration on Education Goals for Young Australians* back in 2008 and subsequent establishment of ACARA (Australian Curriculum Assessment and Reporting Authority) in 2009. Today we now have in 2019, the Western Australian Curriculum that is mandated by SCSA (Schools Curriculum and Standards Authority) to be taught in all WA schools.

At the completion of Year 12 all students will receive from SCSA, a WASSA (WA Statement of Student Achievement) and most students will also receive a WACE (WA Certificate of Education). One of several requirements needed by Year 12s to receive a WACE is a demonstration of a minimum level of competency in both numeracy and literacy. This is relevant to students in Year 9 because their performances in the Year 9 NAPLAN can be used as the evidence required in demonstrating this competency.

Students achieving Band 8 in the Reading, Writing and Numeracy tests in the Year 9 NAPLAN immediately satisfy the standard. Those students who do not achieve this level in NAPLAN will be required to participate in the On-Line Literacy and Numeracy Assessments (OLNA) in Year 10. All students must achieve the minimum standard (in both literacy and numeracy) by the time they complete Year 12 in order to receive a WACE.

The information above is important but now I will bring the focus squarely back to Year 9 in 2020. The Wesley curriculum has a strong emphasis on the compulsory areas of English, Mathematics, Science and HASS as well as Physical, Personal and Health Education for all students. In addition, students are able to choose a variety of subjects from the last three learning areas on the list (at the top of the page), namely, The Arts, Languages and Technologies. Although a free choice is given, students are encouraged to continue the study of a foreign language in Year 9 – especially if they have been doing well in Year 8.

This booklet provides details of all compulsory and elective subjects taught and links these subjects to courses in Years 10, 11 and 12 as well as providing information to assist parents and students in the selection of subjects.

Overview of Year 9 Curriculum

The core subjects are:

English
Science
Health and Physical Education

Mathematics
Humanities and Social Sciences

The elective subjects available in Year 9 are:

Languages	Arts	Technology & Enterprise	Ungrouped
French	Drama Studies	MDT (Metal)	Philosophy and Ethics
Chinese	Media Studies	MDT (Wood)	
Indonesian	Music Visual Art	Business Innovation & Enterprise Robotic Game Design	

Core Subjects

All students will have English and Mathematics for eight periods and Science and HASS for seven periods per fortnight throughout the year. Mathematics is offered at two levels: Further Maths and Standard Maths. In recent years in English, HASS and Science it has been necessary to provide modified courses in each of these subjects for students with significant weaknesses in these areas. Parents are notified if their child has been placed into a modified class and the extent of the modification. The assignment of students to all Maths, Science, English and HASS classes is determined by the Head of Learning Area after consultation with the Year 8 teachers and student performances both in class, and in the external Year 8 testing program.

Elective Subjects

The Elective Subjects are each timetabled for six periods per fortnight and these have been arranged in the four columns shown above. The subjects in the LOTE column run for the whole year. All other elective subjects run for one semester only.

You may select according to one of the following two options:

OPTION 1 1 LOTE + 1 ARTS + 1 T&E

OPTION 2 2 ARTS + 2 T&E

Note: Philosophy and Ethics may be chosen instead of any one ARTS or T&E selection.

All students are encouraged to consider including a foreign language in their programs, especially if they have been doing well in Year 8. The reasons for this include:

- the increased understanding of other cultures generated by the study of a second language.
- career opportunities in overseas business and commerce and in the diplomatic service.

Some electives offered will be very popular and there are both resource and staff restrictions on the numbers of classes which can run in certain subjects. This means in some areas class spaces may be limited and this is where the reserve choice will be taken into consideration. Please make sure you return the subject selection form to your tutor **on time** as there can be no guarantee that late returns will be able to be allocated the desired subject choices.

Changing Elective Subjects

From the initial choices made by students a timetable grid is constructed for each year group. The correct numbers of classes and staff are then determined. Once the grid is established, future changes requested by students can only be considered if the grid will allow them. This is why it is important that due consideration is given to selecting them in the first place. However, it is understood that some students will make selections which turn out to be unsuitable for them. These students can see Mr Rumble to collect a subject change request form anytime in the first four weeks of them taking the course. After this time requests for changes will only be considered in exceptional circumstances.

Dates and Deadlines

For students currently at Wesley College, completed subject selection forms should be returned to your House Tutor by **Wednesday, 4 September**.

The Arts

Head of Learning Area: Dr Penny Reiss

Drama Studies

Media Studies

Music

Visual Art

Drama Studies
Learning Area: Performing Arts
Enquiries: Ms Mel Priemus

Code: 9DRA

ORGANISATION AND CONTENT

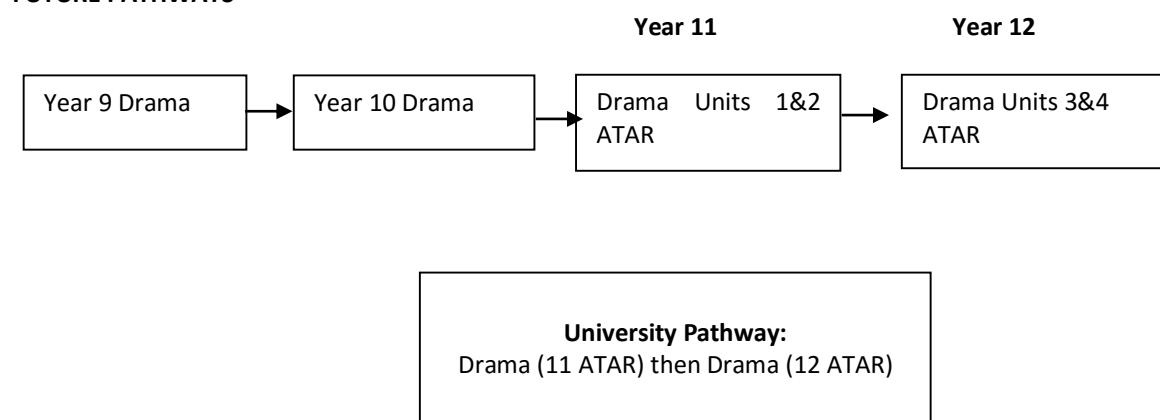
In Year 9, Drama students are given opportunities to refine their knowledge and skills to present drama as an event, by safely using processes, techniques and conventions of drama. Students develop drama based on devised drama processes and appropriate, published script excerpts (e.g. Australian drama pre-1960 or world drama), using selected drama forms and styles. Student work in devised and scripted drama is the focus of reflective and responsive processes supported through scaffolded frameworks using drama terminology and language.

The course is designed to introduce students to a broad repertoire of performance, ranging from improvisation, play-building, dance and scripted performance.

The Year 9 Drama Course provides an opportunity to explore dramatic concepts. Emphasis is placed on confidence building, team work, problem solving and self-expression. The course will also encourage students to appreciate theatre technology, lighting, sound, directing, designing as well as acting. The forms and styles of theatre explored are Kabuki Theatre and Melodrama.

The Course does include theories inherent in Drama in Year 9 and this is pursued more intently in Year 10 thus giving the student an appreciation of text and heritage should he decide to pursue Drama in Years 11 and 12. Assessment is based on practical work, both group and individual and on the careful keeping of a drama journal in which students record class activities, personal experience of play going and some critical analysis of performances reviewed.

FUTURE PATHWAYS



Media Studies

Learning Area: Performing Arts

Enquiries: Mr Rob Bygott

Code: 9MPA

ORGANISATION AND CONTENT

In Year 9, students are provided with opportunities to view media work from contemporary and past times to explore viewpoints from Australian and/or international media work. They consider the impact context and audience have on media work, and explore the impact of trends on how audiences use media.

Students extend and refine their skills and processes for problem-solving, working as a team, following timelines and using processes and strategies to ensure safe and responsible use of media equipment.

Teachers are required to address knowledge and skills in Media Arts through **one** or more of the foci and media below. Other foci and media may be used in addition to teach knowledge and skills in Media Arts.

Media focus options may be either Media Fiction (for example, TV fiction, comics and graphic novels, magazines) or Media Non-Fiction (for example, documentaries, news stories, current affairs stories).

Students are expected to work within, or across, the following media in each year level: film, television, photography, print media, radio or online media.

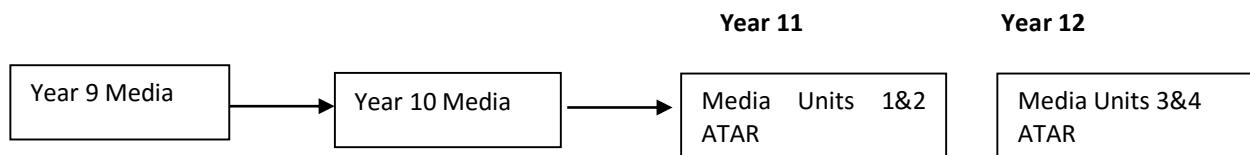
This foundation course in Media introduces the students to a range of study and tasks. The course is a combination of student based tasks incorporating units of study in the areas of entertainment, infotainment, popular culture, Australian journalism and international cinema.

The student will explore media language concepts in theory and the theoretical aspects of media form, narrative, media in society, skills and processes.

Production values will be explored through the student's own use of appropriate technology. This will incorporate individual work in story boarding, scripting, filming and editing in post-production, in a variety of various genres. These range from narrative film in cinema style, to documentary.

Students will be given considerable freedom of choice within certain task guidelines. They will be encouraged to develop a personal familiarity with the full range of technology and the relevant skills. Throughout the tasks, the student will build on his own creative experience through visual and aural expression and working collaboratively.

FUTURE PATHWAYS



University Pathway:

Media (11 ATAR) then Media (12 ATAR)

Music

Learning Area: Performing Arts

Enquiries: Dr Penny Reiss

Code: 9MUS

PREREQUISITE

Students selecting this subject are required to be currently playing an instrument (including voice).

ORGANISATION AND CONTENT

In Year 9, students continue to build on music skills and knowledge across a range of performing, composing, aural and listening activities. They continue to develop aural skills and aural memory to identify, sing/play and notate rhythmic and melodic phrases based on familiar scale forms and familiar chord progressions in major and minor keys. Students use composition models and techniques, applying stylistic features and conventions to compose works in a range of styles.

Students will experience a variety of musical works, using scores and music terminology to analyse and describe the use of the elements of music in structured activities. They examine similarities and differences between musical works and identify cultural, historical and stylistic features.

On a practical level they practise and perform a range of music to develop technical skills and control, and expression. As performers and audience members they will be encouraged to form opinions and preferences about music and the practices of others, across a range of contexts, to inform their own music making.

Music learning is aurally based and is integrated across all aspects of the written component of the subject through a selected context/s.

Year 9 Music is a semester-long elective that aims to develop students as performers. It is a largely practical subject that combines creativity with performance to allow students to express themselves, as well as studying existing music to understand its role and purpose in society. This course will also support students who are actively involved in the College's ensemble program, as well as for those that wish to continue with a General or ATAR music pathway in Year 11 and 12.

CONTEXT

The Year 9 Music course is studied within the context of *Rock Music*. This course aims to build a solid foundation of musical literacy skills and performance based skills using an aurally developmental program. Students will build on the music foundations from middle school and apply these skills within a contemporary music context.

There are four main components to the course:

- Musicianship and Literacy
- Composition
- Rock Music – History and Practice
- Performance

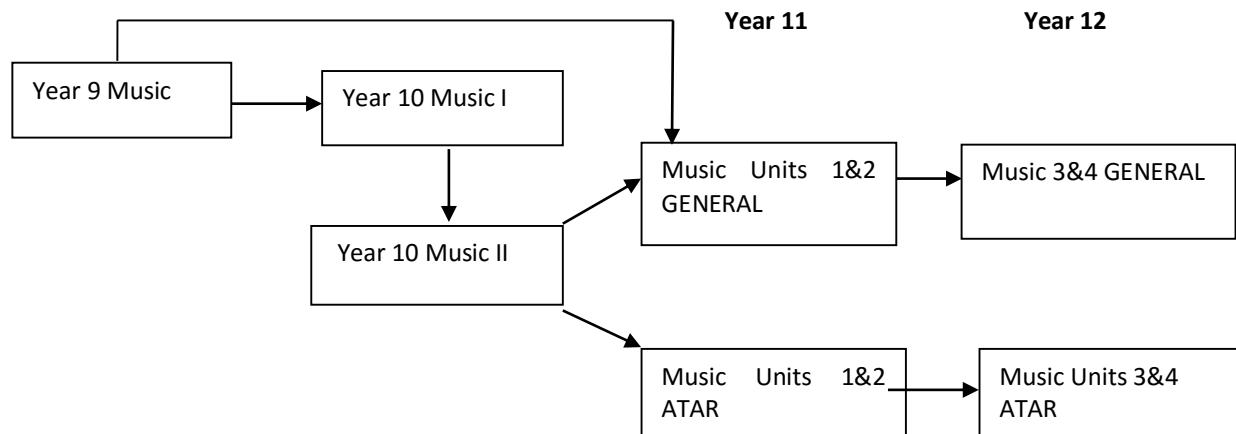
As part of the course students will learn to play guitar at a basic level as well as performing on a range of tuned and untuned percussion instruments. They will expand their musical vocabulary and develop musical literacy through manipulation of the different musical elements. They will trace the development of rock music historically and listen to, analyse and perform a range of different pieces from within this context.

The Year 9 Music course forms an excellent springboard for those who wish to go on to study music seriously at a senior level, and for those who wish to expand their knowledge and enjoyment of music.

FUTURE PATHWAYS

The Music Course options in the Senior School are as follows:

*Please note that 10 Music I and 10 Music II are required for entry into Year 11 Music (ATAR)



University Pathway:

Music (11 ATAR) then Music (12 ATAR)

Non-Tertiary Pathway:

Music (11 General) then Music (12 General)

Visual Art

Learning Area: Visual Arts

Enquiries: Mrs Yvonne Wiese /Miss Alexandra Hutton

Code: 9VAR

ORGANISATION AND CONTENT

A broad foundation is laid for understanding the language of Art through exposure to a wide range of materials and techniques.

The orientation of activities is different from those of Year 8 in as much as the student will gain greater insight into the processes of Art through a greater depth of study. Students will not only be creating art works, but will be exposed to a wide variety of art and artists through excursions, guided research and various other mediums. Students will gather inspiration for their art works from all aspects of their lives and experiences, both within and outside the College environment.

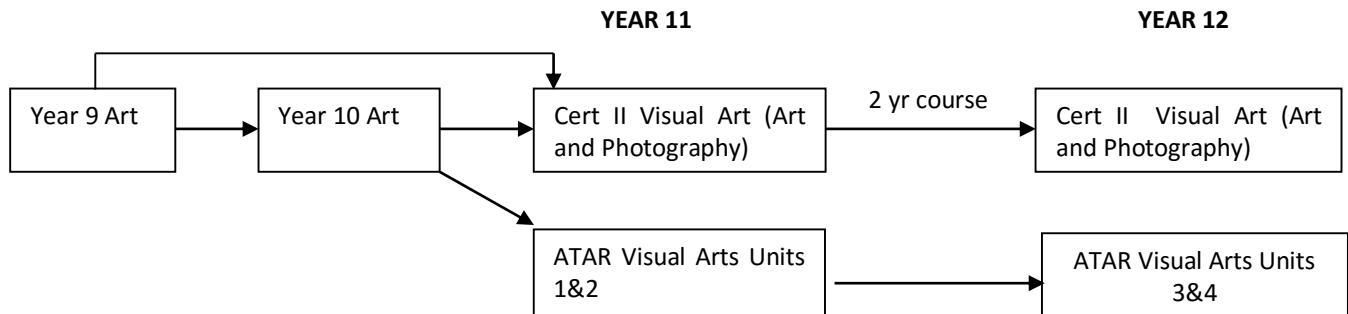
The study and creation of art works is a wonderful way for young people to make sense of the world and encourages self-expression and self-belief. The Wesley Art Space is a well-equipped, state of the art facility overlooking the beautiful Swan River – what better place to become inspired!

Areas to be studied in Year 9 include:

- Ceramics
- Graphic Design (including the use of an air brush)
- Painting (acrylic & oils)
- Print making (screen printing)
- Sculpture (additive & subtractive techniques.)

This subject is assessed through the four Arts learning outcomes: Arts Ideas, Arts Skills and Processes, Arts in Society and Reflecting, Responding and Evaluating. Students will produce a number of art works which will become part of a comprehensive portfolio.

FUTURE PATHWAYS



English

Enquiries to: Ms Alana Stanley

Code: 9ENG

All students are required to study English in both semesters of Year 9.

The Year 9 English course is divided into three levels: Practical, Standard and Further, in order of increasing difficulty. There is commonality across all three levels in curriculum, content and assessment focus, however, each level is adjusted to suit the needs and abilities of the students in those classes.

Students are initially placed in a level of Year 9 English based on their performance in Year 8 English assessments and diagnostic testing, together with teacher recommendations. However, student course allocations are reviewed regularly and if a student's performance warrants movement into a more appropriate class, then this will occur.

ORGANISATION AND CONTENT

The Year 9 English curriculum is constructed around the three interrelated strands of language, literature and literacy. Together, these strands focus on developing students' knowledge, understanding and skills in listening, reading, viewing, speaking, writing and creating.

The Western Australian English curriculum aims to ensure that students:

- learn to listen to, read, view, speak, write, create and reflect on increasingly complex and sophisticated spoken, written and multimodal texts across a growing range of contexts with accuracy, fluency and purpose
- appreciate, enjoy and use the English language in all its variations and develop a sense of its richness and power to evoke feelings, convey information, form ideas, facilitate interaction with others, entertain, persuade and argue
- understand how Standard Australian English works in its spoken and written forms and in combination with non-linguistic forms of communication to create meaning
- develop interest and skills in inquiring into the aesthetic aspects of texts, and develop an informed appreciation of literature.

The Year 9 English course therefore explores a wide variety of print texts, including poetry, novel, graphic novel, persuasive writing and drama. Students learn how to identify the key ideas within these texts and to understand how conventions and language techniques are used to create meaning. A variety of non-print texts, including feature film, are also studied. Students are introduced to filmic codes and conventions and learn how to identify the ways in which directors manipulate their viewers.

Students also create their own written, visual and multimodal texts, developing increasingly sophisticated language skills. Both units feature an oral component in which students develop their confidence and strategies for speaking in front of an audience and in group situations.

ACHIEVEMENT STANDARDS

Reading and Viewing

At Standard, students analyse the ways that text structures can be manipulated for effect. They analyse and explain how images, vocabulary choices and language features work to create meaning. They 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.

Writing and Creating

Students understand how to use a variety of language features to create different levels of meaning. They understand how interpretations can vary by comparing their responses to texts to the responses of others. In creating texts, students demonstrate how manipulating language features and images can create innovative texts. Students create texts that respond to issues, interpreting and integrating ideas from other texts. They edit for effect, selecting vocabulary and grammar that contribute to the precision and persuasiveness of texts and using accurate spelling and punctuation.

Speaking and Listening

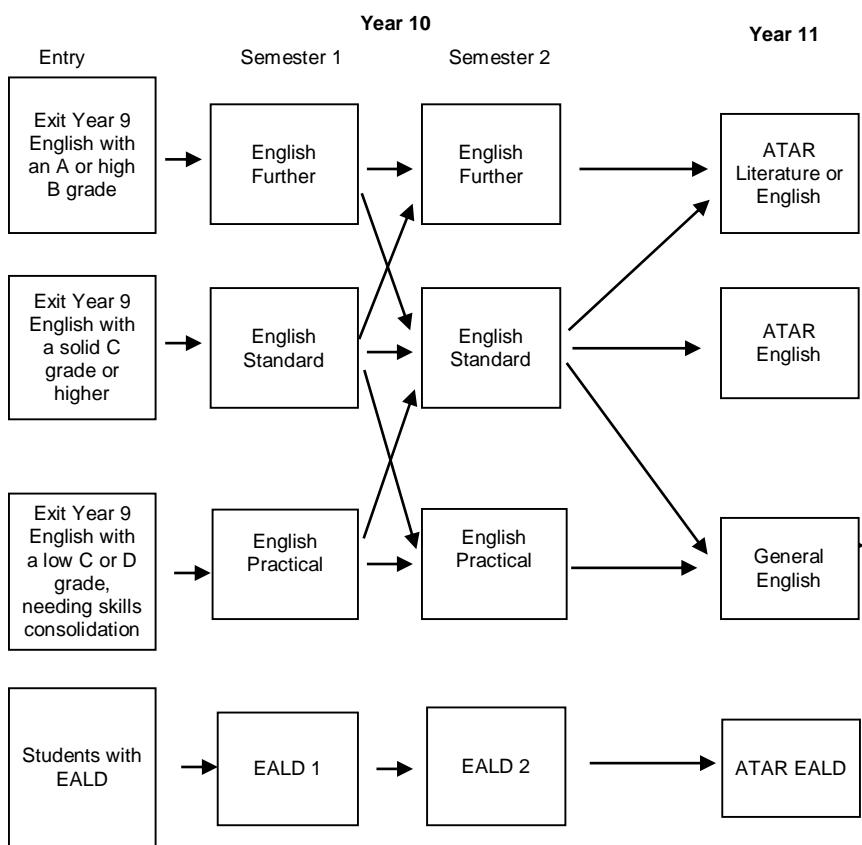
Students listen for ways texts position an audience. They understand how to use a variety of language features to create different levels of meaning. Students understand how interpretations can vary by comparing their responses to texts to the responses of others. In creating texts, they demonstrate how manipulating language features and images can create innovative texts. Students create texts that respond to issues, interpreting and integrating ideas from other texts. They make presentations and contribute actively to class and group discussions, comparing and evaluating responses to ideas and issues.

ASSESSMENT

In-class and take-home formative and summative assessments will include short answers, extended analytical responses, imaginative and persuasive writing, multimodal text construction and oral presentations.

ENGLISH PATHWAYS

Depending on student performance, the course leads to English Further, Standard or Practical in Year 10.



Humanities and Social Sciences

Enquiries to: Mr Mike Filer

Code: 9HAS

ORGANISATION AND CONTENT

The Humanities and Social Sciences learning area develops students' understanding of how individuals and groups live together and interact with their physical and cultural environment. Students develop a respect for cultural heritage and a commitment to social justice, the democratic process and sustainability. These inform decision making that contributes to community cohesion and a positive future.

It provides students with opportunities to acquire knowledge, skills and values that enable them to analyse and reflect on their place in contemporary society. They develop critical-thinking and problem-solving skills through the investigation of issues, reflect on civic rights and responsibilities and actively explore and participate in the world around them.

As mandated by the Western Australian Curriculum, all Year 9 students are required to study Humanities and Social Sciences units in both semesters. This is broken down into the broad subjects of Civics and Citizenship, Economics and Business, Geography and History. In order to accommodate the various learning needs across the cohort, there are three levels of increasing difficulty: Practical, Standard and Further. The curriculum content will remain common throughout all three levels and the assessment will remain the same for the Standard and Further classes. Practical classes will receive adjusted assessments that better reflect the individual learning requirements, students will receive both a Wesley grade and a Western Australian Curriculum grade that demonstrates where they sit according to the achievement standards provided by the School Curriculum and Standards Authority.

Initially Year 9 students will be placed in HASS classes based upon their Year 8: academic performance (% and grades); testing (NAPLAN and Assessment Services); capabilities (the new learning habits); and teacher feedback. Class placement is regularly reviewed and at the end of a term or semester students may be moved to ensure they are working at a level consistent with other members of the class.

The knowledge, skills and understandings essential for success in further study within the social sciences are the foundation of the course. The study of these four units is compulsory:

Civics & Citizenship

This unit will encourage students to understand the importance of active and informed citizenship to a democratic system of government, how citizens participate and influence decisions as well as how their choices are influenced by others. Students will study Australia's democratic values, the beliefs and policies of political parties and the voting systems used to elect representatives in Australia. There is an emphasis on critical thinking and analysis regarding contemporary events and issues to discuss how they demonstrate the strengths and challenges of democracy and justice in Australia.

Economics and Business

This unit will explore why and how participants in the global economy are dependent on each other. The main focus will be on the historical and current Australian economy and our relationship with Asian nations in cultural and economic exchange. There is emphasis on data interpretation, critical thinking and analysis of contemporary events like the Free Trade Agreements, China's growth and implications for students in the future.

Geography

This unit addresses the interconnectedness of the physical environment and human use of it. The characteristics of the physical environment, world biomes and the processes that influence the production of food and food security are studied. This includes their significance as the source of food and fibre as well as how the associated environmental challenges impact the sustainability of our environment. There is an emphasis on interrelationships and spatial associations as well as the student-directed exploration of issues.

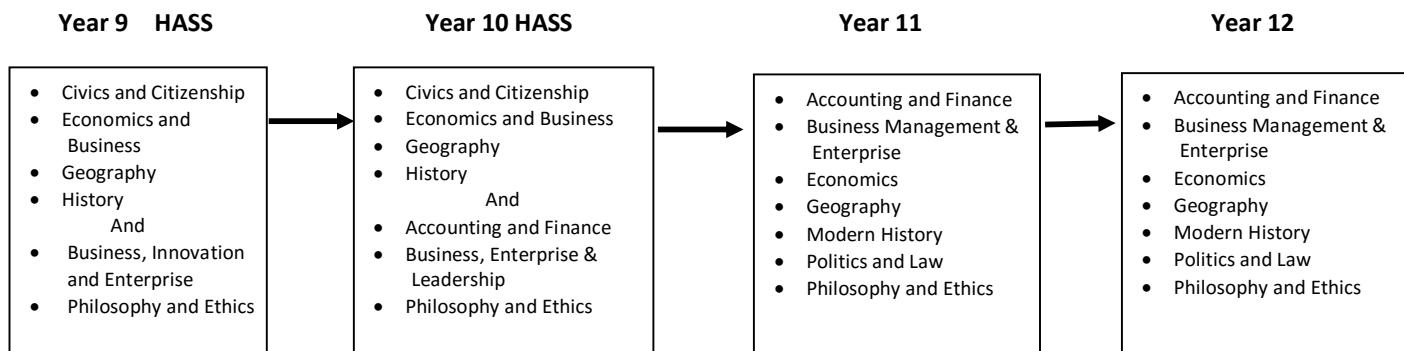
History

This unit will develop understandings around sources, perspectives and significance of historical events and people. The cause and effect of key developments, including the Industrial Revolution, on modern society is explored. An exploration of Australia's involvement in World War One and an analysis of its significance to the nation in the past and present is a core study of this unit. There is an emphasis on the source analysis, its evidence and empathy through document studies.

ASSESSMENT

Students will receive both formative and summative assessment. There will be two or three major summative assessment items in each unit that may consist of inquiry tasks, written responses as well as multimedia and oral presentations.

FUTURE PATHWAYS



Health and Physical Education

Enquiries to: Mr Paul Deegan

Code: 9HPE

ORGANISATION AND CONTENT

Health and Physical Education provides students with an understanding of health issues and the skills needed for confident participation in sport and recreational activities. This enables students to make responsible decisions about health and physical activity and to promote their own and others' health and well-being.

Physical Education	Health Education
Swimming, Strength and Conditioning, Athletics, Badminton, Softcrosse, Soccer, Cricket, Tennis and Basketball	Instruction occurs via research assignments on age-appropriate topics such as Alcohol, Nutrition, Relationships, Health Lifestyles , Puberty and Fitness

The program covers a comprehensive range of skills, practices, understandings, tactics, laws and strategies associated with sports and recreational pursuits. Students are introduced to a number of different activities, progressing from simple body movements through to more complex ball and implement games. In addition, important health aspects and desirable fitness outcomes are integrated into the courses.

LEARNING OUTCOMES

The West Australian Curriculum Framework Document for Health and Physical Education describes student achievement in four outcomes that provide a framework for kindergarten to Year 12 curriculum, namely Skills for Physical Activity, Knowledge and Understandings, Self-management Skills and Interpersonal Skills. Our programs use a variety of different sporting contexts to integrate all of these outcomes into a package, allowing the students to demonstrate their competence in a range of media.

ASSESSMENT

The nature of the sporting context guides which outcomes provide the primary focus for teaching and learning. Whilst each unit has a different emphasis, the assessment process involves an appropriate mix of self, peer and teacher assessment to monitor student achievement across the full range of activities.

FUTURE PATHWAYS

Health and Physical Education is a compulsory subject offered as a 1 semester unit in Year 10. The Health and Physical Education Faculty also offer a Sports Science unit for Year 10 students which further investigates some theoretical aspects of the subject. This is particularly useful for those students interested in pursuing the Physical Education Studies pathway in Years 11 and 12 which can be used for Tertiary entrance.

Languages

Chinese-Second Language

French-Second Language

Indonesian-Second Language

Languages

Enquiries: Mrs Claire Leong

Codes: 9FSL, 9CHI, 9IND

Wesley College does not currently offer any languages courses for students who have a background in French, Chinese or Indonesian (Background Language courses or First Language Courses). All courses at Wesley College are Second Language courses.

RATIONALE

The need for more Australians to have knowledge of at least one other language is now widely recognised both at government level and in the wider community. Globalisation, increased ease of travel, and advanced information and communication technologies have accelerated the movement of people and ideas throughout the world. Knowledge of a second language enables students to respond positively to the opportunities and challenges of our rapidly changing world.

Language students learn to communicate, interact and negotiate across languages and cultures - skills that are highly valued in the workplace. They are more accepting of diversity, more tolerant of others and more aware of their place in the international community. They acquire a sound knowledge of the system of their target language, a deeper understanding of how their own first language works, critical and analytical thinking skills and flexibility of thought.

ORGANISATION AND CONTENT

FRENCH and INDONESIAN

The French and Indonesian courses are continuations of the Year 8 language courses. They aim to further develop students' ability to communicate meaningfully in French or Indonesian while increasing their awareness and appreciation of the culture of the countries in which these languages are spoken. Students will be supported to acquire elementary conversational proficiency and will engage with a wide variety of text types. In the course of their language studies students will also develop a deeper sense of self-identity and understanding of their own culture.

Topics will be suitable for adolescent boys and may be topical in nature.

CHINESE

The Chinese course differs from the French and Indonesian courses in that it is currently not offered as a WACE course at Wesley College. We are looking at making this possible. The course aims to expose students to Chinese culture and traditions, and to enable them to acquire elementary conversational proficiency in the Chinese language. It is directed at non-background students who may later enter professions in which they may deal with Mandarin speakers and therefore would find an understanding of Chinese culture, business practices and a basic level of Mandarin language useful for social purposes. The Year 9 Chinese course is a continuation of the Year 8 course.

ASSESSMENT

Students' achievement of learning outcomes is assessed both formally and informally. Students can show they have achieved the desired learning outcomes during class activities and through project work and homework.

FUTURE PATHWAYS

French and Indonesian can be studied to Year 12 at Wesley College and can be used for university entrance. They can also be studied as part of many university degree courses and at TAFE. Chinese is offered up to Year 10 level only and there are many university and TAFE courses that offer courses at different entry points.

Important: A bonus scheme for university entrance is offered to students who complete the study of a language in Years 11 and 12. At the University of Western Australia and Curtin University, 10% of a language student's final score for his WACE language course is added to his aggregate score. The student is not required to study a language at university.

In other states incentive schemes are offered at the Australian National University, the University of Sydney, the University of New South Wales, the University of Queensland, Melbourne University, Monash University and the University of Adelaide.

There are many career paths for which knowledge of a language is valuable: eg. hospitality, the Diplomatic Service, tourism, interpreting, telecommunications, engineering, medicine, building, sciences, international law, journalism, international banking, mining, public relations, teaching, commerce, marketing, Public Service, computing, the Defence Forces.

Mathematics

Enquiries to: Mr Andrew Pateman

Code: 9MAT

We want our students to enjoy mathematics and come to see the subject as a useful and engaging problem solving activity. For those whose memory of school mathematics is dominated by repetition of similar looking exercises from a text book it will not be difficult to see that something different is required, if we are to indeed allow most of our students to do the mathematics described in the opening sentence.

As a school we have developed long term transfer goals to describe our aspirations. For mathematics we expect students to independently:

- Explore situations mathematically; identify patterns, generalise relationships and communicate findings
- Apply mathematical thinking to solve problems
- Employ mathematical strategies to reach informed conclusions

ORGANISATION AND CONTENT

Whilst there is a common curriculum across Year 9 Mathematics, there are two streams: Further and Standard. These streams have a common assessment structure (that is, the same number, type and timing of assessments), but assessments will differ to help cater for the broad range of student achievement. In the years when it is deemed necessary, a Practical course will be formed to cater for students who have difficulty accessing the Year 9 curriculum. Students are initially placed in a level determined by their performance in the Year 8 mathematics program as well as NAPLAN and Academic Assessment Services testing and teacher recommendation. Placements are reviewed regularly in order that students are working at a level appropriate to their abilities, achievements and efforts.

The **Mathematics Standard** course consists of an amalgam of mathematical skills and applications intended to be relevant, interesting and attainable by most students. It is based on the Western Australian Curriculum – Year 9 Mathematics. This course should provide a sound mathematical basis for general tertiary entry in later years.

The **Mathematics Further** course consists of the Standard Mathematics course with a heavier emphasis on algebraic concepts. The course is augmented by extension topics designed to broaden students' mathematical horizons and provides pathways that should provide a strong mathematical background for Engineering, Surveying, Physical Science and Computing. Further Mathematics students participate in the Australian Mathematics Competition.

The Western Australian Curriculum: Mathematics

Four proficiencies are articulated in the curriculum documents: fluency, understanding, problem solving and reasoning. These strands describe the actions in which students can engage when learning and using the content and are the focus of the mathematics program rather than the content described below.

In Year 9, students have opportunities to:

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

Science

Enquiries to: Mr Ian Simpson

Code: 9SCI

ORGANISATION AND CONTENT

The Year 9 Science course empowers students to be questioning, reflective and critical thinkers about scientific issues. The course is based on a holistic view of science knowledge and starts with topical questions that are of interest to young people. It draws on the traditional disciplines of science, such as biology, chemistry, earth science and physics as resources to enable students to investigate issues that are interesting and relevant in a modern world.

This course provides opportunities for students to consider contemporary scientific developments and to appreciate different perspectives and world views. This process enables them to make informed judgements and decisions about questions that directly affect their lives and the lives of others.

Science students study a series of units, each of approximately a term's duration. These units cover the disciplines of Biology, Chemistry, Earth Science and Physics.

BIOLOGY	CHEMISTRY	EARTH SCIENCE	PHYSICS
Interdependence of living things <ul style="list-style-type: none">• organisms in an ecosystem• food chains and webs• short/ long term changes in an ecosystem• ecosystems• cycling of matter and energy flow Structure and Function <ul style="list-style-type: none">• organs and systems• interdependence of systems Reproduction and change <ul style="list-style-type: none">• adaptations, survival and diversity	Structure, properties, uses <ul style="list-style-type: none">• elements, compounds and mixtures at the particle level• elemental symbols• atomic and kinetic theory• elements and compounds at the atomic level• substances can be grouped• common chemical formulae• properties and uses of materials based on their structure• atomic structure and ion formation• elements in the periodic table• interpret formulae Interaction and Change <ul style="list-style-type: none">• identifying chemical reactions• safety with chemicals: use, handling, disposal• chemical reactions and the kinetic theory• Balancing chemical equations	Sustainability <ul style="list-style-type: none">• sustainable use of resources• environmental change Earth forces and materials <ul style="list-style-type: none">• rock types and their formation• weathering and erosion• fossils and geological time• features of minerals• structure of the Earth• plate tectonics• volcanoes• earthquakes Relationship between earth, solar system etc <ul style="list-style-type: none">• Atmosphere	Concepts of energy <ul style="list-style-type: none">• How Energy moves from one region to another through particles and waves• Wave phenomena, reflection, refraction, diffraction• safe and responsible use of energy• practical applications of energy and forces• Light energy, vision• Lenses, mirrors,• Sound Energy, speed of sound, hearing• Heat Energy, temperature changes, phase changes, heat transfer mechanisms, insulation• electrical energy<ul style="list-style-type: none">◦ Electrical circuits◦ Circuit diagrams series and parallel◦ Resistance◦ Practical applications of electrical energy Transfer and Transformation <ul style="list-style-type: none">• methods of energy transfer• conservation of energy• electrical circuits

ASSESSMENT

Weightings:-

ASSESSMENT COMPONENT		APPROXIMATE WEIGHTINGS
Concepts & Content	Tests	30-60%
	Research Investigations	10-30%
Investigating Scientifically	Scientific Reports	30-60%

FUTURE PATHWAYS

Year 10 Chemistry, Physics, Biology, Integrated Practical Science

Technologies and Enterprise Elective Column

**Heads of Learning Areas: Mr Alan Drakesmith
Mr Mike Filer**

Materials and Design - Metalwork

Materials and Design - Woodwork

Robotic Game Design

Business Innovation and Enterprise

ORGANISATION AND CONTENT

This is an elective subject where students learn the principles of problem solving following the 'research, design and making' approach to project work. Projects will be constructed from a range of metal products giving students exposure to a wide variety of materials, skills and techniques.

Students will complete set tasks to acquire specific skills and knowledge that lead to open ended problems being solved. Creativity and individuality are strongly encouraged, and a high standard of presentation is required.

This year students will make a small car, recycled nuts and bolts metal figurines, a spark plug plane, an aluminum men's dress ring as well as an open ended design project of the student's choice. In making these projects students will be given the opportunity to work with many materials, hand tools and machines, learning skills in welding, lathe work, sheet-metalwork and general construction. Sketching and 'project planning' are also both important aspects of the course.

ASSESSMENT

Assessment is based on the students' achievement in the construction of projects, and design folios documenting the students' planning for construction.

FUTURE PATHWAYS

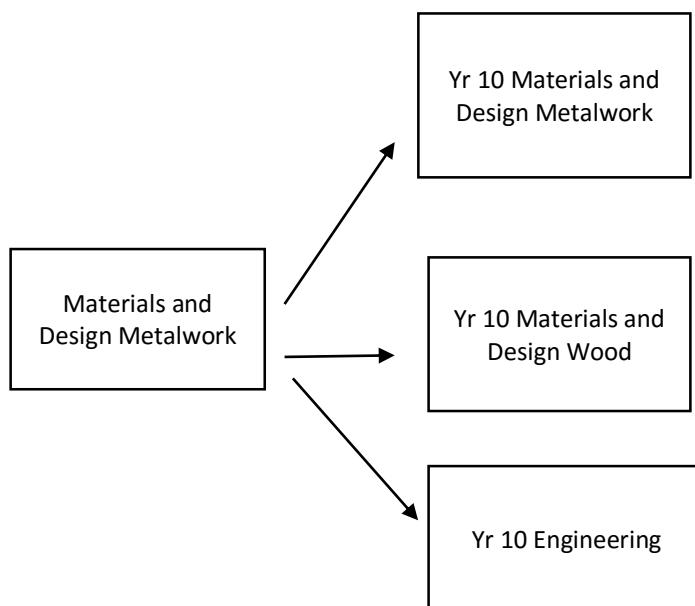
Metalwork in Year 10

Metalwork, in Year 10

Materials Design Technology - Metalwork in Year 11 and Year 12

TAFE trade course and apprenticeships

Numerous employment opportunities.



ORGANISATION AND CONTENT

This is an elective subject where students apply the principles of problem-solving following the 'research, design and making' approach. Projects will be made predominantly in wood and will be of both, a set skills nature and an open ended problem solving variety with room for creativity and individuality in much of the students' work.

The program develops the basic skills learned in Year 8 with an emphasis on presentation of designs, consolidating safe working procedures in the use of power tools and machines, and broadening the range of materials, tools and techniques used in this area.

Students will make a storage box, laminated bowl (turned on a lathe), use a range of machines and hand tools to create a gumball dispenser and a selection of other projects. This is an important course of study for students contemplating doing Woodwork in Year 10 as it sets up the skill base of the students preparing them for a more creative experience in Year 10

ASSESSMENT

Assessment is based on the students' achievement in the construction of projects, and design folios documenting the students' planning for construction.

FUTURE PATHWAYS

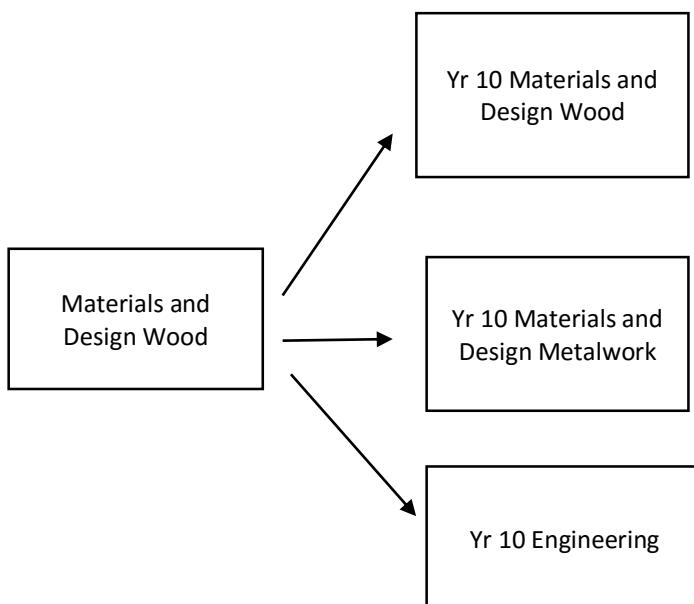
Woodwork courses in Year 10

Materials Design and Technology Woodwork General units 1 and 2 in Year 11, then 3 and 4 in Year 12

University – Bachelor of Arts (Furniture Design) 3 years

Forest Heritage Centre – Diploma of Art (Furniture Design) 2 years

Numerous employment opportunities in the Furnishing Industries



ORGANISATION AND CONTENT

This course has been designed to cater for the student who enjoys the challenges of problem-solving on the one hand and likes to engage in creative design on the other. Through a series of guided examples students become familiar with the code structure and the algorithms used in this environment and develop interesting and creative graphics, which will culminate in the development of a totally original robotic project towards the end of the unit.

To put the industry relevance of the games programming courses into context, games development is a billion dollar worldwide industry with a shortage of skilled employees with formal training. Some \$AU91.5 billion dollars of interactive video games were sold in 2015 according to the Game Developers Association of Australia (GDAA). That's more than the worldwide box office takings for the film industry in the same year. In Australia the story is similar: Australians spent \$1.161Billion in 2012 on games software and hardware, and this figure is ramping up yearly.

A robot is a system that contains sensors, control systems, manipulators, power supplies and software all working together to perform a task. Designing, building, programming and testing a robot is a combination of physics, mechanical engineering, electrical engineering, structural engineering, mathematics and computing. The type of robots that you will encounter most frequently are robots that do work that is too dangerous, boring, onerous, or just plain nasty. Most of the robots in the world are of this type. They can be found in auto, medical, manufacturing and space industries. In fact, there are over a million of these type of robots working for us today.

Students will use a variety of programming languages and graphics design software in assisting in the development of programming robotic solutions and graphics which emphasise the use of essential structured programming techniques and skills. For example students will use programming languages such as Flash, Gamemaker, Scratch and SmallBasic and graphics programs such as Fireworks and Photoshop to develop solutions for familiar and unfamiliar problems.

The course has been designed to allow students to copy and implement sample programs and then experiment with modified versions to test their comprehension. The design of the user interface allows for a strong component of creativity. The use of graphical representation models is an integral part of the solution stage. The course deals with the programming constructs of sequence, selection (branching) and iteration (repetition); program layout and documentation- identification and comments; program testing and error trapping; modularisation - procedures, functions, arrays sequential and random access files.

FUTURE PATHWAYS**Year 9**

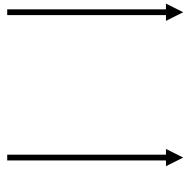
Robotic Game Design

Year 10

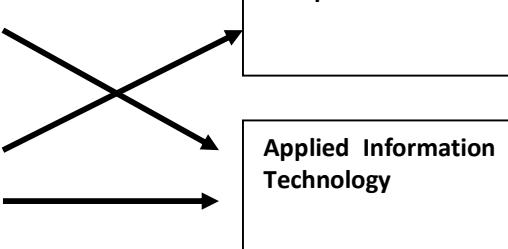
Computer Science

Years 11 and 12

Computer Science



Applied Information
Technology



Code 9BIE**Aims**

This course aims to develop enterprising spirit through initiative using business concepts as a foundation to decision-making. It will build students business literacy by deepening their understanding of entrepreneurial decision-making, business competition and innovation.

Students may explore contemporary social, science, technological, economic and environmental problems or issues in Australia and the global market. They will build their knowledge and understandings of community needs, equity, ethics and political decision-making as well as explore the notions of advancement, sustainability and productivity through a problem-solving and futuristic lens. Students will develop critical and creative thinking skills that will generate ideas and proposals.

Opportunities may exist to interact with organisations or businesses and their leaders that pose problems and promote entrepreneurial thinking, learning and experimentation. Students will be required to develop a solution-focused product that addresses an innovation need through research, product development and publishing to outline compelling arguments for an innovation to occur.

This course builds on prior knowledge of Year 8 Business Ventures that focuses on product development and revenue. It also sets the foundation for the Year 10 Business Enterprise and Leadership course.

Ungrouped Column

Philosophy and Ethics

Organisation and Content

This is an exciting course which aims to provide students with an introduction to Philosophy and Ethics, building on the work carried out in Year 8. Sometimes students will be perplexed and challenged and at other times they will have to learn to stand their ground arguing for their case. This is good Philosophy and will give opportunity for students to really think about what they know, understand and believe and hear how that is different from the views of others. In listening to others they will build up respect for a range of opinions and arguments, some of which they will agree with and others which they will really want to challenge.

This course is designed to be fun, open to students of all abilities, provides opportunity to ask questions, discuss, debate and be creative. It deals with issues that have challenged human beings for centuries and continues to perplex them today. Questions that will be tackled throughout this course include:

- If God is good would he allow evil events to take place (but...what is 'evil'?)
- If I don't get attached to things, will that stop suffering when those things are taken away?
- If everything in the universe needs a cause, does the universe need a cause?
- Has nature got any purpose?
- Does evolution get rid of God?
- Is the world designed?
- If it is designed, does it need a designer?
- If I am an atheist do I have any beliefs?
- Should God be put on trial?

Students will engage in regular communities of inquiry where every view is welcome, though every view will be challenged. Students will be expected to build on the points of others, and there will be an opportunity for some students to take part in the Philosothon competition of WA, where students from a range of schools dialogue over particular questions. This is a very popular event, where students showcase their thinking and reasoning skills and parents and family members observe the groups as they dialogue around topics such as, *is plastic surgery a social evil?*

Current affairs and world events are also studied within the course as the study of Philosophy, Religion and Ethics is always relevant and takes place in the context of a world with which students have to engage as thinking human beings. There will also be the opportunity for students to study core philosophical texts to stretch their learning and give them an insight into how ideas develop. The assessment criteria are as follows:

Assessment Table	
Weighting	
50%	Knowledge and understanding/analysis and evaluation; How philosophical argument works; knowledge of scholarly argument and analysis of philosophical and theological positions; clarification and evaluation of arguments, including the construction of arguments and counter arguments by students using philosophical logic and reasoning. Assessments which allow for demonstration of these skills will be undertaken in class and at the end of the course and can include written short and extended answers, as well as student presentations.
50%	Philosophical Inquiry: Participation in student led communities of inquiry around an agreed question for discussion; essential philosophical skills assessed, including critical evaluation of arguments, clarification of terms, understanding of key areas of development and rigorous inquiry.

Future pathways include: WACE Philosophy and Ethics in Year 10, WACE Philosophy and Ethics in Year 11 and Year 12

The study of Philosophy and Ethics is highly valued both by universities and employers. It deals with real world issues, tries to find clarity and wisdom on highly complex issues and demonstrates that a student can think carefully about a range of issues. These skills are necessary in fields as diverse as medicine and law, business and sport.

