

---

**RINGWOOD SECONDARY COLLEGE**



# Middle School

## Course Selection Handbook 2021



Bedford Road Ringwood, Victoria 3134

---

## Table of Contents

Page 3: Middle School Contact Information

Page 4: Middle School Program Overview

Page 5: College Laptop and ACE Programs

Page 6: Vocational Education and Training (VET)

Page 7: Early-entry VCE

Page 8: Year 9 Program Overview

Page 9: Year 10 Program Overview

Pages 10-11: Course Selection Process & Timelines

Page 12: Year 9 Studies Offered

Pages 13 - 39: Year 9 Subject Course Outlines

Page 40: Year 10 Studies Offered

Pages 41 - 82: Year 10 Subject Course Outlines & Pathways



# Middle School Contact Information



**Matthew Tucker**  
Assistant Principal of  
Sub Schools  
[mtucker@ringwoodsc.vic.edu.au](mailto:mtucker@ringwoodsc.vic.edu.au)



**Kim Watson**  
Head of Middle  
School  
[kwatson@ringwoodsc.vic.edu.au](mailto:kwatson@ringwoodsc.vic.edu.au)



**Caitlin May**  
Frazer House  
Coordinator  
[cmay@ringwoodsc.vic.edu.au](mailto:cmay@ringwoodsc.vic.edu.au)



**Marissa Lee**  
Freeman House  
Coordinator  
[mlee@ringwoodsc.vic.edu.au](mailto:mlee@ringwoodsc.vic.edu.au)



**Peter Vlahos**  
Jackman House  
Coordinator  
[pvlahos@ringwoodsc.vic.edu.au](mailto:pvlahos@ringwoodsc.vic.edu.au)



**Tessa Henley**  
Mabo House  
Coordinator  
[thenley@ringwoodsc.vic.edu.au](mailto:thenley@ringwoodsc.vic.edu.au)



**Virginia Watson**  
InterGREAT  
Coordinator  
[vwatson@ringwoodsc.vic.edu.au](mailto:vwatson@ringwoodsc.vic.edu.au)



**Annette Niven**  
ACE Program  
Coordinator  
[aniven@ringwoodsc.vic.edu.au](mailto:aniven@ringwoodsc.vic.edu.au)



**Stacey Miriklis**  
Careers and VET  
Coordinator  
[smiriklis@ringwoodsc.vic.edu.au](mailto:smiriklis@ringwoodsc.vic.edu.au)



**Helen Doherty**  
Careers  
Practitioner  
[hdoherly@ringwoodsc.vic.edu.au](mailto:hdoherly@ringwoodsc.vic.edu.au)



**Sharlene Hetherington**  
Wellbeing & Work  
Experience  
[shetherington@ringwoodsc.vic.edu.au](mailto:shetherington@ringwoodsc.vic.edu.au)



**Karen Hallam**  
Wellbeing  
Coordinator  
[khallam@ringwoodsc.vic.edu.au](mailto:khallam@ringwoodsc.vic.edu.au)

# Middle School Contact Information

The Middle School Program at Ringwood Secondary College provides a rich and varied curriculum which aims to engage students' interests, broaden their horizons and equip them with the knowledge and skills necessary to facilitate a smooth transition into the College's VCE and VCAL programs.

The program for Years 9 and 10 includes both core and elective studies and has been designed to meet students' diverse educational needs. Students are formally assessed against the Victorian Curriculum at the end of each Semester, while also receiving ongoing feedback and reporting throughout the year. Subject teachers, House Coordinators and the Head of Middle School work closely together to ensure that the progress of each student is monitored and that individually tailored support structures can be set in place for those needing extra help. The Middle School team is driven by their shared purpose of establishing a sense of Community and students are encouraged to participate in a wide range of curricular and extra-curricular programs including student leadership, public speaking, sport, music, production, and academic competitions to offer new learning opportunities that develop the whole individual and foster a sense of belonging.

Careers education is emphasised in the Middle School Program with Year 9 students participating in 'My Career Insights' to support their vocational planning and Year 10 students undertaking a Work Experience program.

To support student engagement in the Middle School, Year 9 students participate in the InterGREAT program and Year 10s can supplement their studies by undertaking either a VET program or an early-entry VCE study. Year 9 students will also attend a week-long City Experience in Melbourne. The program is designed to build their confidence, cooperative learning and problem-solving skills, as well as educating them about the history and culture of their local city.

A special feature that becomes accessible in the Middle Years is the College's camps program which provides numerous local, national and international travel opportunities. In Year 9, all students participate in the Phillip Island Adventure camp, where they engage in experiential learning, challenging themselves through various physical activities and building strong relationships with their peers. In Year 10, students have the unique opportunity to join the Central Australia Tour to explore the Northern Territory's expansive natural features and rich Indigenous culture. Other optional travel experiences include the annual Production Camp and Bike Tour of coastal Victoria, or the triennial International Odyssey & Performing Arts World Tours, World Challenge or the French Language Tour.



## College Laptop Program

All Year 9, 10 & 11 students participate in the 1:1 laptop program. From Year 9, students transition from using an iPad in their core subjects to a laptop. The laptop program was introduced a number of years ago to enhance student learning and assist in developing autonomous and independent learners who are confident and creative. Increased access to these intuitive devices leverages learning that is interactive, differentiated and collaborative, preparing students to operate more effectively in our digital age.

The laptops are supplied by Apple under a three-year lease which provides students with access to high-quality computers including software and technical support for the duration of the lease. Subscription to the program can be undertaken through one of the following two options:

1. Tier 1 support provides students with 24/7 usage.
2. Tier 2 support provides students with daytime use of the laptop whilst at school. Students collect their laptop prior to their first class and return it at the end of the school day.

More information can be found on the College website:

<http://www.ringwoodsc.vic.edu.au/student-laptop-program>

## ACE Program

### ACHIEVEMENT, COMMITMENT, EXCELLENCE

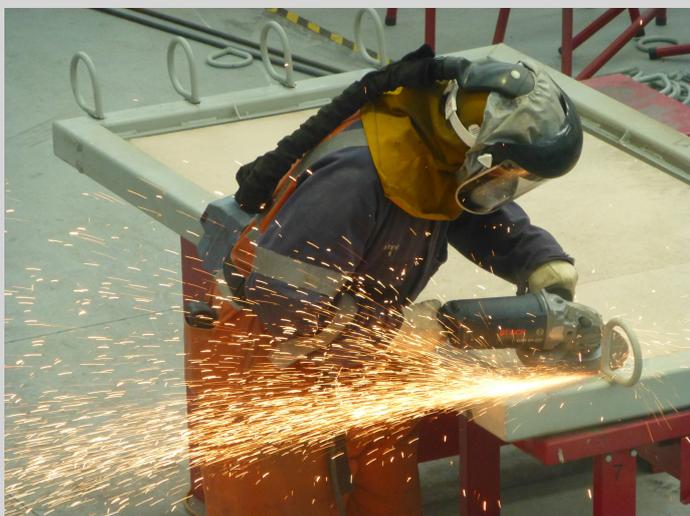
The ACE Program for high achieving students continues in Years 9 and 10 with its aim of engaging and challenging high ability students to reach their full potential through an accelerated educational program. Students in the Year 9 ACE class undertake an enriched and rigorous curriculum for the core subjects of English, Humanities (Geography & History), Mathematics, and Science. They continue their study of language and participate in mainstream, mixed-ability classes for their elective subjects. Students in the Year 10 ACE Program will have the opportunity to study components of English Language and Literature as part of their Year 10 English study and will be encouraged to select an early-entry VCE subject. Those who completed Extension Maths in Year 9 will also be able to study another VCE subject, Advanced General Maths, while those who completed ACE Maths in Year 9 will enrol in an enhanced Year 10 Maths class.



## Vocational Education and Training (VET) Studies

The VET Program is designed to broaden students' educational opportunities by enabling them to undertake preliminary vocational training as part of their overall school program. Students are able to combine general and vocational studies, explore career options and pathways, learn in the workplace and develop skills that prepare them for the workforce and further study. VET courses are nationally recognised programs that contribute to VCE or VCAL studies. Students in Year 10 can access a VET course in place of one of their elective subjects each semester.

Most courses run on Wednesday afternoons from 1.00pm until 5.30pm, although some VET courses require a full-day training. All VET courses require students to complete an application form which are available at the Careers Office. Please note that all VET courses incur an additional cost.



Automotive Technology, Dance, CISCO and Engineering.

Students can apply to undertake one of these or another of the many VET courses offered at different schools and institutions across our network including:

- Acting, Film & TV
- Allied Health
- Animal Studies
- Automotive
- Beauty Services
- Building
- CISCO
- Academy of Interactive Entertainment IT
- Community Services
- Creative Industries
- Dance
- Early Childhood Education and Care
- Electrotechnology
- Engineering
- Equine Studies
- Fashion Design
- Design Fundamentals
- Graphic Design Fundamentals
- Hairdressing
- Horticulture
- Hospitality
- Make-up and Skincare
- Music Industry
- Plumbing
- Sport and Recreation

## Early-entry VCE

Academically capable Year 10 students have the opportunity to complete a VCE Unit 1 & 2 study as part of their Year 10 program. Students completing a Unit 1 & 2 in Year 10 will normally complete the Unit 3 & 4 study of that subject in Year 11. The benefit of this is that students will have a sixth study to contribute to their Australian Tertiary Admission Rank (ATAR) and will have gained valuable experience managing the expectations of VCE Learning Outcomes and SACs. Students must receive an overall grade of 'B+' or higher to be guaranteed the opportunity to complete Units 3 & 4 in the following year. At Ringwood Secondary College, students study six subjects in Year 11 and five in Year 12. This program is not for students seeking to spread their VCE over three years due to academic difficulties or to only undertake four subjects in Year 12.

Students who are interested in undertaking a Unit 1 & 2 study should submit a VCE Expression of Interest Sheet. Eligibility is determined based on a combination of a student's academic analytics, teacher recommendations and the professional judgement of the Middle and Senior School teams. The final decision as to whether a student has the opportunity to participate in this program will be made by the Head of Middle School and Assistant Principal.

### VCE subjects offered to Year 10s include:

#### Arts:

Media Units 1 & 2

Studio Design Units 1 & 2

Visual Communication Design Units 1 & 2

#### Health & Physical Education:

Health & Human Development Units 1 & 2

Physical Education Units 1 & 2

#### Humanities:

Business Management Units 1 & 2

Geography Units 1 & 2

Legal Studies Units 1 & 2

#### Science

Biology Units 1 & 2

Psychology Units 1 & 2

Environmental Science Units 1 & 2

#### Technology

Food Studies Units 1 & 2

Product and Design & Technology Textiles Units 1 & 2

Product and Design & Technology Wood Units 1 & 2



## Year 9 Program overview

### CORE PROGRAM:

#### English

English

English as an Additional Language (EAL)

#### Mathematics

Mathematics

Numeracy Support

#### Science

Science

#### Humanities

Geography

History

#### Health & Physical Education

Health

Physical Education

#### Cross Curriculum

InterGREAT

### ELECTIVE SUBJECTS:

#### Cross Curriculum

Duke of Edinburgh Program (by application)

#### Languages

French

Indonesian

#### Technology

Computer Aided Drawing (CAD)

Food Studies

Information Technology

Product Design and Technology: Textiles

Product Design and Technology: Wood

Robotics

Systems Engineering

#### The Arts

Art

Dance

Drama

Media

Music

Musical Theatre

Photography

Visual Communication Design

### Typical structure of the Year 9 program

\*PPF= Periods per fortnight

YEAR 9	CORE PROGRAM						ELECTIVE PROGRAM		
<b>Semester 1</b>	English (7 PPF)	Maths (7 PPF)	Geography (5 PPF)	Science (5 PPF)	PE (4 PPF)	interGREAT (7 PPF)	Health (5 PPF)	Semester Elective (5 PPF)	Semester Elective (5 PPF)
<b>Semester 2</b>	English (7 PPF)	Maths (7 PPF)	History (5 PPF)	Science (5 PPF)	PE (4 PPF)	interGREAT (7 PPF)	Semester Elective (5 PPF)	Semester Elective (5 PPF)	Semester Elective (5 PPF)

## Year 10 Program overview

### CORE PROGRAM:

#### English

English or English as an Additional Language (EAL)

#### Mathematics

Mathematics, Extension Maths or Numeracy Support

#### Science

Students must select once Science subject from:

Environmental Chemistry, Forensic Science, Projectile Science  
or Science Investigations

#### Humanities

History 20th Century

#### Health & Physical Education

Health

### ELECTIVE SUBJECTS:

#### English

Creative Writing and Literature

#### Health & Physical Education

Active for Life and Physical Education

#### Humanities

Business and Economics, Dollars and Sense, Geography,  
Heroes Through History and Philosophy

#### Languages

French or Indonesian

#### Technology

Auto Small Engine Technology, Bakery Delights, IT  
Programming, IT Web Technologies, Product Design and  
Technology: Textiles, Product Design and Technology: Wood,  
Restaurant Delights and Systems Engineering

#### The Arts

Art, Dance, Drama, Media, Music and Visual Communication  
Design

#### Science

Environmental Chemistry, Forensic Science, Projectile Science,  
Science Investigations and Psychology

### Typical structure of the Year 10 program

\*PPF= Periods per fortnight

YEAR 10	CORE PROGRAM				ELECTIVE PROGRAM		
<b>Semester 1</b>	English (8 PPF)	Maths (8 PPF)	Science (8 PPF)	Bounce (2 PPF)	Health (8 PPF)	Semester Elective (8 PPF)	Semester Elective (8 PPF)
<b>Semester 2</b>	English (8 PPF)	Maths (8 PPF)	History (8 PPF)	Bounce (2 PPF)	Semester Elective (8 PPF)	Semester Elective (8 PPF)	Semester Elective (8 PPF)

## Course Selection Process

This handbook provides students with a concise description of all subjects, both core and elective, that are offered as part of the Ringwood Secondary College Middle School Program. This information should be read and carefully considered before a course of study is selected.

When planning subjects for selection, students should complete the relevant Student Course Selection sheet which can be downloaded from the [Ringwood Secondary College website](#). Please be sure to refer to the timeline for subject selection on the next page of this handbook.

### Guidelines for Course Selection

In Year 9, students will study:

- English, Mathematics, Science, Physical Education and InterGREAT (year length studies)
- History, Geography and Health (semester length studies)
- Plus five electives of their choice (semester length studies)

In Year 10, students will study:

- English and Mathematics (year length studies)
- History, Science and Health (semester length studies)
- Plus five electives of their choice (semester length studies)

### Advice about choosing electives

As students progress through Secondary College they have increasing choice within their course. Students should use this opportunity to carefully consider all options by familiarising themselves with the information provided in this handbook.

When considering each elective they should ask:

- How interested in this subject am I?
- Did I like this subject when I studied it previously?
- What ability do I have in this subject?
- What skills will I develop by studying this subject?
- How useful will this subject be to me in the future?
- Am I closing options by not studying this subject?

### Other things to consider:

- Students who enjoy Art and are considering a career in this field are advised to continue this study. Entry into Art courses at Tertiary level is extremely competitive and relies on the presentation of a folio of work. The greater experience, the more likely the student is of having highly developed skills.
- A foreign language, once dropped, is not easily picked up at secondary college but a new language can be started at University or at Saturday morning or evening classes.
- Finally, students should check to see that they have chosen a broad range of subjects and not narrowed their options. It is quite normal for students to be uncertain about their career goals when in Years 8 or 9, so it is important that they keep their options open.
- Please note that some elective subjects may not run due to insufficient interest.



## Course Selection Process

1. Students will attend a remote assembly where they will be shown how to access this Middle School Handbook and learn about the process of subject selection for their following school year as follows:
  - Year 10 in 2021- Wednesday 29th July in period 1
  - Year 9 in 2021- Tuesday 28th July period 5
2. Students will be encouraged to read through this handbook to develop an understanding of both the core studies and elective programs offered.
3. Parents will be invited to attend a remote assembly via Zoom to learn about the subject selection process and how to support their child. These will take place as follows:
  - Year 10 in 2021 - Wednesday 29th July at 6:30pm
  - Year 9 in 2021 - Tuesday 4th August at 6:30pm

\*A link will be emailed to all students and parents in the week prior to these assemblies with instructions on how to access the meeting. This will also be placed on Compass. Please note that each assembly will aim to cover all aspects of the subject selection process and there will be an opportunity for students and parents to ask questions.
4. After their relevant assembly, students will have an opportunity to consider the electives on offer and use the subject selection planning sheets to develop their preferred elective program. This should be done in accordance with the guidelines outlined in this document.

\*Note that students entering Year 9 need to make three additional elective choices and students entering Year 10 need to make four additional choices as a back up in the event that their preferred subject is unavailable.
5. Subject selections for Year 9 (2021) should be made online via the link on the Ringwood Secondary College Portal.
6. Subject selections for Year 10 (2021) will be done with either a coordinator or the student's InterGREAT teacher during week 6 (Wednesday 19th August).

### Timeline for Year 9 of 2021

Date	Event
Tuesday 28th July	Student Teams Assembly during Bounce (p.5)
Tuesday 4th August	Parent Zoom Assembly 6.30pm (via link on Compass)
Tuesday 11th August	Duke of Edinburgh Applications due
Wednesday 19th August	Successful candidates for Duke of Edinburgh announced
Friday 21st August	Subject sections must have been entered via link on Compass

### Timeline for Year 10 of 2021

Date	Event
Wednesday 29th July	Student Teams Assembly during InterGREAT (p.1)
Wednesday 29th July	Parent Zoom Assembly 6.30pm (via link on Compass)
Monday 10th August	Early-entry VCE applications close
Tuesday 11th August	VET applications due
Thursday 13th August	Early-entry VCE decisions announced
Wednesday 19th August	Subject Selections entered during InterGREAT

## Year 9 Studies Offered

The following pages provide a Course Outline and Topics Covered for both the core studies and elective program at Year 9:

Page	Subject
13	English
14	Mathematics
15	Science
16	Geography
17	Hstory
18	Health
19	Physical Education
20	InterGREAT
21	Duke of Edinburgh
22	French
23	Indonesion
24	Computer Aided Drawing (CAD)
25	Food Studies

Page	Subject
26	Information Technology
27	Product Design and Technology: Textiles
28	Product Design and Technology: Wood
29	Robotics
30	Systems Engineering
31	Art
32	Dance
33	Drama
34	Media
35	Music
36	Musical Theatre
37	Photography
38	Visual Communication

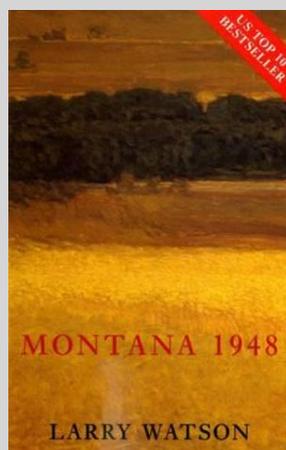
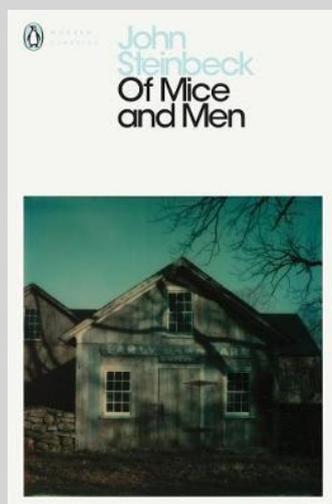
## English

### Course Outline & Assessment

English is a core subject, incorporating written expression, reading fiction and non-fiction texts, and speaking and listening. Students develop their skills in writing formal analytical essays, creative responses and persuasive texts. They read and analyse literary and film texts, and persuasive texts, as well as reading novels for pleasure. Speaking and listening skills are developed through informal class discussions, and both formal and dramatic oral presentations. The texts studied in this course include: 'Of Mice and Men' by John Steinbeck, 'Montana 1948' by Larry Watson and a film study. This course is designed to build upon skills learnt in Years 7 and 8, and prepares students for English at the senior level.

Assessment will focus on major areas: Reading and Viewing, Writing and Speaking and Listening.

- Film as Text
- Text Analysis
- Argument Analysis
- Persuasive Writing
- Analytical Writing
- Creative Writing
- Persuasive Oral



Topic covered:

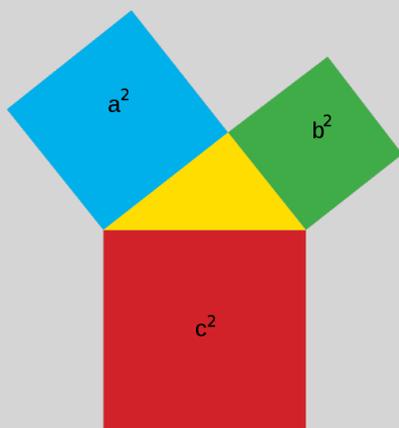
## Mathematics

### Course Outline & Assessment

The Mathematics program aims to develop an appreciation of Mathematical processes and their applications. It seeks to enable students to understand the connections between theoretical learning in this knowledge area and the application of that learning in the physical world, and to utilise problem-solving and investigation skills.

The assessment for this course consists of:

- Topic tests (50% of overall grade)
- Assignments (20% of overall grade)
- End of semester exams (30% of overall grade)



### Topics Covered

#### Measurement

Including how to find area, volume and surface area.

#### Consumer Arithmetic

Including simple interest.

#### Algebra

Including using letters to represent numbers, substituting values, and using index laws to simplify expressions.

#### Probability

Including determining outcomes for two-step chance problems using tree diagrams.

#### Statistics

Including constructing stem and leaf plots and histograms, and comparing data displays.

#### Straight Line graphs

Including linear graphs using technology, and their application to real-life problems.

#### Geometry

Including solving problems using ratio and scale factors.

#### Equations

Including solving multi-step equations.

#### Trigonometry

Including the investigation and application of Pythagoras' Theorem and trigonometric ratios in solving problems in right-angled triangles.



## Science

### Course Outline & Assessment

Science in Year 9 is designed to build on the research and practical skills that students established in Junior Science. The course makes use of the 1:1 laptop programme and students have the opportunity to analyse data electronically, introduce multimedia into their project work and engage in high-level individual web-based research. The subject is an activity-based curriculum in the areas of Biology, Chemistry, Physics, Environmental Science and Astronomy.

Students will be assessed by topic tests, assignments and homework and practical work including laboratory based tasks that build on theory and develop understanding.



### Topics Covered

- Chemistry (including structure of the atom, the periodic table and radioactivity)
- The Human Body (including the eye, hearing and the nervous system)
- Electricity (basic circuits)
- Ecosystems.



## Geography

### Course Outline & Assessment

In Year 9 Geography students examine the natural and human worlds and seek to understand how they impact people's lives. The topics we specifically focus upon include the different Biomes of the World as well as the positive and negative Impacts of Globalisation and Tourism. These topics allow students to develop their skills as they ask questions about the world they live in. Students will learn to gather, interpret and represent different types of data and come to understand some complex issues that affect our world.

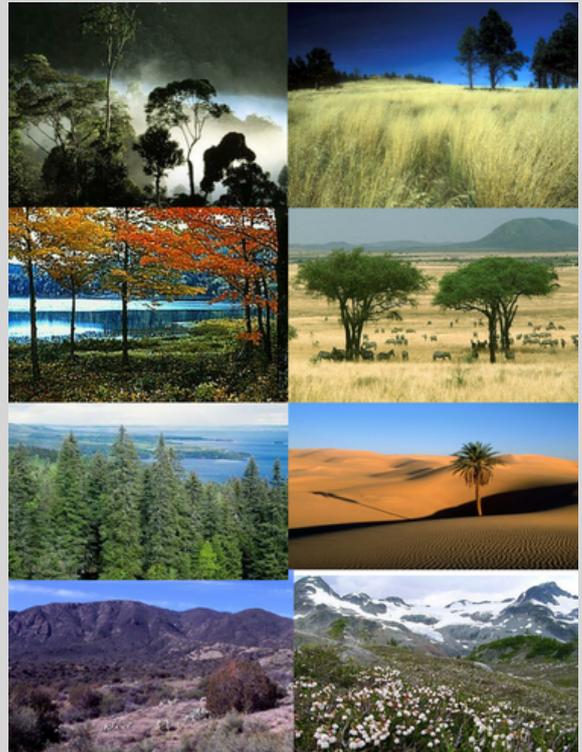
Assessment will focus on the following major areas:

Biomes and Food Security report, Chocolate trade data analysis task & Impact of Tourism



### Topics Covered

- International Trade
- Biomes
- Tourism



## History

### Course Outline & Assessment

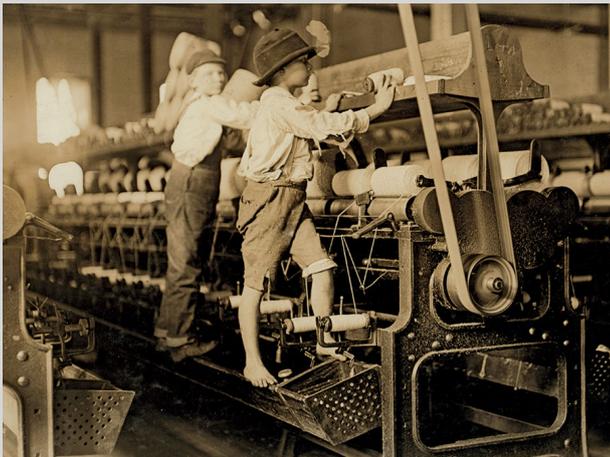
In Year 9 History we consider how Australia was impacted by, and has changed since, European settlement. Specific units focus on the Industrial Revolution, the gold fields and World War One. Students will build their investigative skills as they develop lines of inquiry and seek to understand different points of view about the past.

Assessment will focus on the following major areas:

Industrial Revolution Extended Response, The Gold Fields Document Analysis & WW1 Soldier Digital History Task

### Topics Covered

- Industrial Revolution
- The Gold Rush
- World War One



## Health

### Course Outline & Assessment

Health Education aims to provide students with an understanding of how they think, feel and act. The course explores critical thinking, values clarification and decision-making.

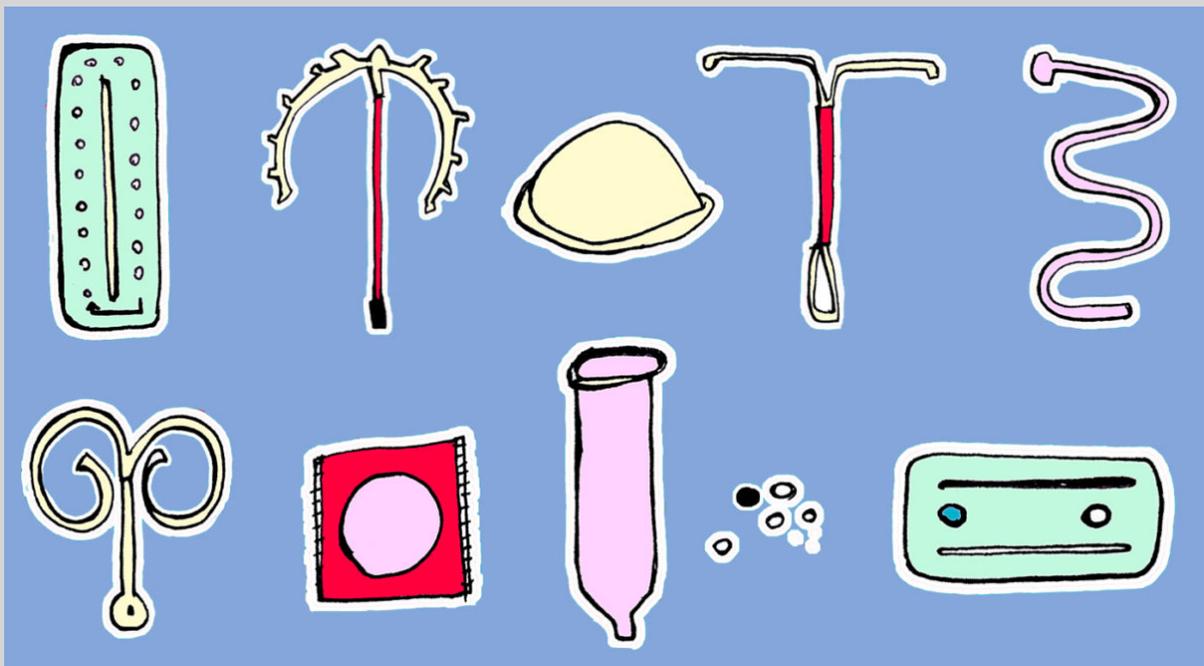
Students are assessed upon their ability to contribute positively to classroom discussions in a thoughtful manner, their research and use of ICT skills, media files, tests, visual displays and assignments.

There are three areas of assessment:

1. Assignments contributing to 80% of the overall assessment
  - My health review
  - Youth health promotion campaign
  - Sexual health board game
2. Tests contributing 20% to the overall assessment
3. Class work contributes to an overall S/N

### Topics Covered

- Components of Health
- Introduction to drugs & alcohol
- Reproductive Systems - Includes the documentary: BBC The Human Body Series 'An Everyday Miracle'.
- Contraception
- Communication
- Risk Taking
- Relationships
- Values
- STIs



## Physical Education

### Course Outline & Assessment

The aim of the course is to allow all students the opportunity to participate in a range of activities, which enable them to develop practical skills and theoretical knowledge in a wide variety of physical and recreational pursuits.

Students will take part in the following units of work: Invasion sports, Striking/Fielding sports and Net/Wall sports. Each unit will run for a term with a game sense approach, where students focus on tactics and decision making to help them develop an understanding of the games. Students will also take part in a fitness and recreation unit where they will explore their own fitness and have the opportunity to link in with community resources to experience various training methods and recreational classes for improved fitness.

Assessment will vary for different units of work and will range from tests, assignments, measurement of skill levels and the level of involvement and participation in class activities.

### Topics Covered

- Invasion Court Sports
- Invasion Field Sports
- Striking & Net/Wall Sports
- Dance
- Fitness & Recreation



## InterGREAT

### Course Outline & Assessment

The InterGREAT program has been designed to engage, address and nurture the unique needs of students at this critical age of their social, academic and emotional development. InterGREAT seeks to create real learning experiences for Year 9 students both within the classroom and within the extended community. Included in this program are the major activities of Year 9 Adventure Camp and City Experience Week, along with many guest presentations throughout the year. InterGREAT also aims to promote a heightened understanding of the self and the self in the world.

Assessment in this subject will culminate in various projects throughout the year including:

- Personal Project
- Making a Difference Filmmaking Documentary
- Global Challenge
- Discover Melbourne Project
- Career Research Task
- Weekly Reflection Tasks



### Topics Covered

The program will enable students to pursue personal and community service projects and provide a framework for hands-on learning. It also allows for students to develop a social responsibility and ethical thinking when considering these themes across the year:

- Term 1: The Self
- Term 2: The Self in the Community
- Term 3: The Future Self
- Term 4: The Self in the World



## Duke of Edinburgh

Cost Involved: approximately \$800  
By application and acceptance only

### Course Outline & Assessment

The Duke of Edinburgh's Award Program in Year 9 is a year-long subject. The program aims to offer students the opportunity to develop new life skills and engage in a variety of challenging activities. Throughout the year, the two classes will take part in a number of camps (overnight camps in Term 1 and a three-day bush walk in Term 4), excursions (orienteering and cross country skiing), community service, personal extension, as well as cooperative and teamwork tasks. These tasks develop students' interpersonal and personal skills such as teamwork, leadership, and creative and logical thinking. Students will also gain their level one First Aid Certificate in Term 4.



The class is limited to 40 students (two classes of 20 students) due to transport, staffing and funding limitations. Students are selected on the basis of their application and recommendations from the Year 8 Coordinators and teachers who identify those students who would most benefit from the program. Work habits, such as effort and behaviour

are also taken into consideration, as is base fitness level indicated by their beep test result from PE class.



### Topics Covered

Achieving the Duke of Edinburgh's Award is a large focus of this course and students will need to commit a number of extra-curricular hours to complete their Bronze Award within the year.

The Duke of Edinburgh Award requires students to:

- undertake community service
- learn a new skill (e.g. a musical instrument, cooking)
- complete a recreation component

In addition to scheduled class time, students undertake an average of one hour per week for three months for each of the three areas listed above, extending one of them to six months. An expedition component, which is covered by the camps.

### Application

Students are required to access an Application Form which is available on Compass and the Middle School section of the College Website. **Completed applications must be submitted to the Miss Kristy Usher via Teams by 3.30pm on Tuesday 11th August.** Students will receive confirmation by Wednesday 19th August if they are successful in their application. Only successful applicants should select Duke of Edinburgh's Award Program in their online subject selection.



## French

### Course Outline & Assessment

The French course at Ringwood Secondary College is a vibrant, exciting and interactive course intended to have a practical value by teaching students to listen, read, speak and write the language as it is written and spoken in France and French-speaking countries. Exciting extension activities outside the classroom are also provided, which can enrich personal skills and resources and make learning fun. Competitions, film studies, French theatre exhibitions and restaurant/café visits are enjoyable activities and help foster the spirit of language learning. The topics studied are taken from the student's personal world and the broader Francophone world. We look at topics such as household chores, daily routines and holiday plans in conjunction with present, future and past tenses. Technology plays an important role in the French course to give access to authentic and current material through the use of the laptop.

Assessment is based on tests, oral assessment, listening comprehension tests, projects and homework sheets.

### Topics Covered

- Hobbies and weekend activities
- Jobs, 'The World of Work'
- French culture and travel
- French food and healthy eating
- French media and books
- 'Where I live'
- School



## Indonesian

### Course Outline & Assessment

The Year 9 Indonesian course aims to build on students' passion and knowledge of Indonesian language and culture from their Junior studies. Students will be introduced to increasingly complex grammar patterns and will be encouraged to communicate more in Indonesian. They will also practise their Indonesian writing skills by corresponding with a pen-friend from our sister school in Indonesia. Indonesia is Australia's closest neighbour and is the fourth most populated country in the world with over 240 million speakers of Indonesian. Language learning develops students' awareness of how other people speak and live and builds tolerance of cultures other than our own. Learning a second language not only enriches personal communication skills but also increases career opportunities.

Students will have the opportunity to use their Indonesian language skills outside of the classroom in an authentic environment and can potentially participate in a Homestay and Cultural trip to Indonesia.



### Topics Covered

#### Body and Health

Students learn the vocabulary for certain body parts and develop the ability to describe illnesses and health concerns.

#### Going to the Market

They will understand how to bargain for fruits and vegetables in an Indonesian market using the correct vocabulary.

#### Eating out in Indonesia

Students will be able to order a meal and eat respectfully according to Indonesian culture which they will put into practise at a local Indonesian restaurant.

#### The Home

They will be able to describe details about their family home.



## Computer Aided Drawing (CAD)

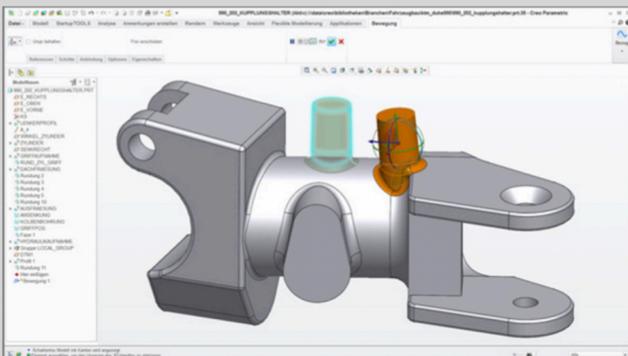
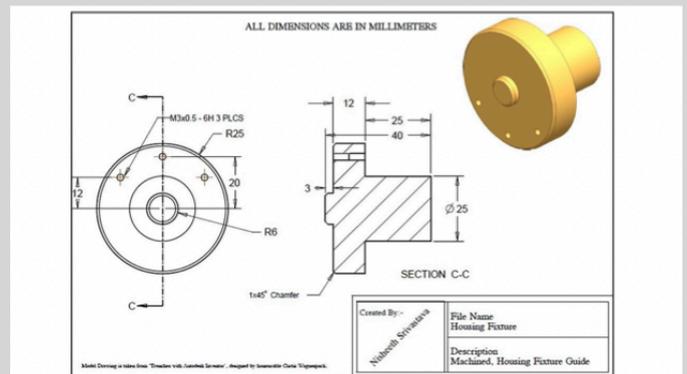
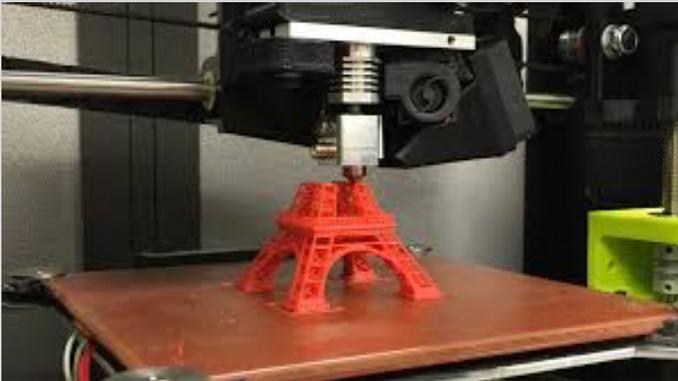
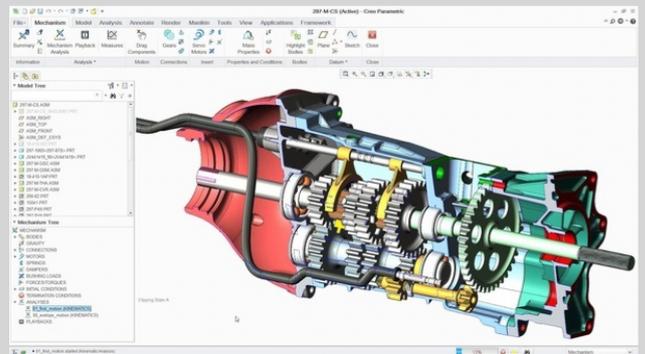
### Course Outline & Assessment

This course introduces design concepts and skills using (CAD), Creo software as an introduction. The aim is to support students to develop their skills using 3D computer modelling that will enhance their ability to analyse and produce real life objects. Students learn to critically analyse 3D graphic concepts to gain a sound understanding of their potential pitfalls of the process of conveying ideas and information by computer modelling.

Assessment includes digital folio development, finished CAD drawings, drawing analysis and extended tasks.

### Topics Covered

- Interpreting Drawings
- 3D modelling using CAD
- Creating drawings
- Converting CAD to other formats



## Food Studies

### Course Outline & Assessment

Food plays such an important part in everyone's life that we should all have the basic skills to use and enjoy it. Food studies will provide students with the opportunity to develop the skills that will enable them to prepare foods for themselves and others confidently. Students will expand their knowledge of food and health and be taught to make informed decisions regarding their food choices.

Assessments will include participation in practical activities, pizza design brief and cultural food project.



### Topics Covered

- Safe and hygienic food handling practices to prevent food spoilage and food poisoning
- The use of the 'Australian Guide To Healthy Eating' to assess food choices
- Methods of meal preparation
- Methods of preparing a variety of flour mixtures
- Researching and implementing solutions to a design brief
- The use of appropriate tools and equipment to produce optimum results
- Food sustainability
- Sensory evaluation on a range of food items



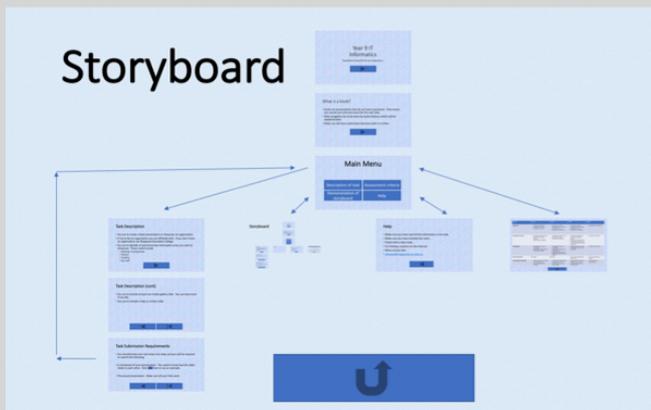
## Information Technology

### Course Outline & Assessment

Information Technology develops further skills in informatics and software development. Students study how to use Excel to analyse large sets of data, do complex calculations and display information in charts and tables. Students also study how to make interactive Powerpoint presentations that include builds, transitions, animations and action buttons to create engaging presentations. Students are introduced to the Python programming language that is used in years 10, 11 and 12. They will learn to simulate events such as dice rolling and card drawing to develop simple games that can be further developed according to the student's imagination. The skills learned in this course are important ones that can be used in all other subjects.

### Topics Covered

- Excel - Formulae, calculations, graphs & charts.
- PowerPoint - Templates, builds, transitions, animations, action buttons, kiosk presentations.
- Python - Variables, arrays, FOR loops, IF statements, basic game design, random numbers, cards and dice.



```
class Item():  
    """The base class for all items"""  
  
    def __init__(self, name, description, value):  
        self.name = name  
        self.description = description  
        self.value = value  
  
    def __str__(self):  
        descStr = self.name + '\n====\n' + self.description  
        return descStr
```

## Product Design and Technology: Textiles

### Course Outline & Assessment

The Product Design and Technology Textiles course introduces students to fashion design and garment construction, expanding their knowledge of crafts. Basic skills covered in Junior studies are extended and many new skills are introduced. Students will develop their confidence in taking personal measurements, using commercial patterns and interpreting printed instructions.

Students will complete two practical work requirements:

1. Investigate, design and produce boxer shorts
2. Investigate, design and produce a product of their own choice, such as tracksuit pants, hoodies, pyjamas, a Christmas decoration or stocking

Students will be introduced to design briefs and will keep an accurate journal for each practical work requirement.

### Topics Covered

- Measurement
- Design
- Construction
- Sewing Machine use
- Safety
- Pattern use
- Design briefs



## Product Design and Technology: Wood

### Course Outline & Assessment

Woodwork Technology at Year 9 level concentrates on the practical and creative aspects of woodwork. The course aims to develop a sense of achievement in designing and producing models of practical value whilst developing skills which will allow those students who elect Year 10 Woodwork Technology to tackle either more advanced practical work, or the more creative forms of woodwork, with some degree of confidence in their own ability and knowledge of the medium. There is clear value in developing woodwork skills for all students in practical, vocational or recreational situations.

This structured course is aimed at introducing students to the creative aspects of woodwork whilst allowing for a continuation of the practical techniques and skills developed in Year 7. Students are required to complete two models, keep a journal and complete an investigation.

### Topics Covered

- Designing a product from a set design brief
- Planning and time management
- Producing a designed product safely using hand and power tools.
- Evaluating the finished product against the your initial design



## Robotics

### Course Outline & Assessment

Robotics will introduce students to the design, manufacturing and evaluation processes in a number of technological applications. Students will gain an understanding of the components that are used to build a system. Robotics will be investigated through the construction of models using VEX robots and the Arduino microcontroller. Although a considerable amount of time will be involved in practical work, students will become aware of the increasingly greater role Robotics plays in our everyday lives and its effects on our society, through worksheets and research topic.

Assessment will involve the following aspects:

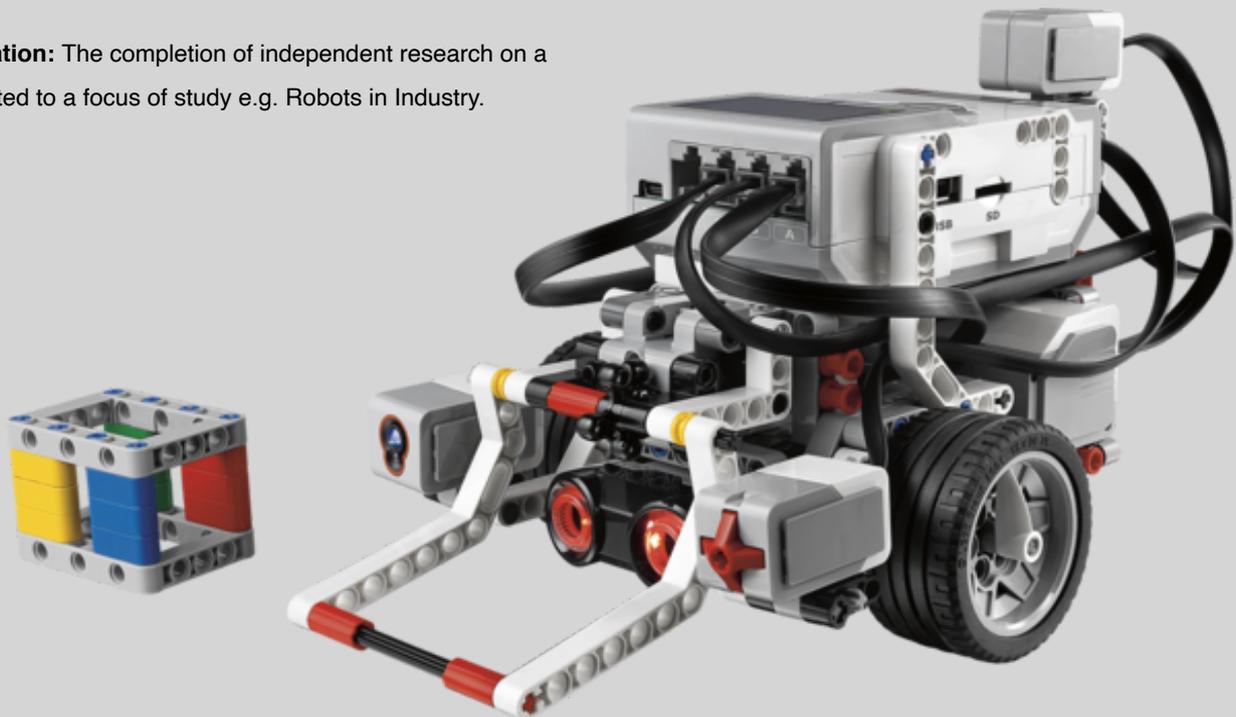
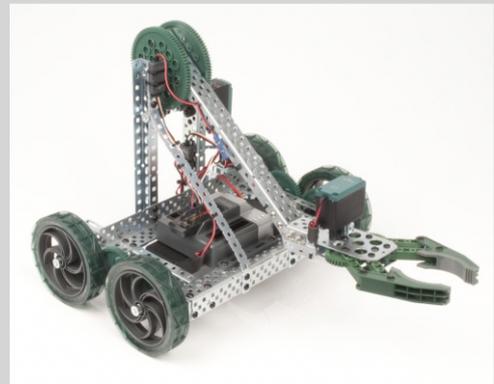
**Production:** The student must make products that utilise appropriate skills and techniques and demonstrate their implementation of the design briefs.

**Journal:** The completion of an organised record of work, including investigations and evaluation of components to build robots.

**Investigation:** The completion of independent research on a topic related to a focus of study e.g. Robots in Industry.

### Topics Covered

- Mechanical systems
- Electrical systems
- Basic movement
- Advanced control including obstacle avoidance.



## Systems Engineering

### Course Outline & Assessment

This course will provide the skills necessary to design and produce a product that will perform a function devised by the student. Continuing from earlier technology studies, Systems Engineering will expand on students' design and fabrication skills and will also introduce client-based portfolio work. Projects in Year 9 will expose students to a vast array of more elaborate design options than previous years. They will be encouraged to use a variety of materials, construction techniques and processes related to the expansion of fabrication skills. Research investigations are an integral component of the course assisting in the understanding of how sustainable materials can be implemented with chosen design parameters.

The course is divided into two areas of study; the portfolio (powerpoint) component and the practical component. Theory work consists of a client based portfolio and research task work that will account for 60% of the final result, where practical work is criteria assessed and will account for the remaining 40%.

### Topics Covered

- Effective portfolio design and development
- Reading and drafting technical drawings
- Sketching
- Fine machine work utilising the Lathe
- Fine measurement
- Shaping
- Forming
- Drilling
- Soldering
- Safety



## Art

### Course Outline & Assessment

The Year 9 Art course encourages students to develop their practical and theoretical ideas and skills. Students will explore the art forms of drawing, painting and printmaking and create finished artworks. Students will also describe, analyse and interpret artworks to determine how artists communicate ideas and convey meaning in artworks.

Assessment includes the development, finished artwork and art analysis. The course features three major assessment tasks:

1. Research printmaking artists, materials, techniques, and processes and create their own lino prints. (40% of the overall grade)
2. Study the art movement of Surrealism, artists and techniques and use this knowledge to create their own Surrealist-inspired artwork. (40% of the overall grade)
3. Describe, analyse and interpret artworks using appropriate art concepts and terminology. (20% of the overall grade)

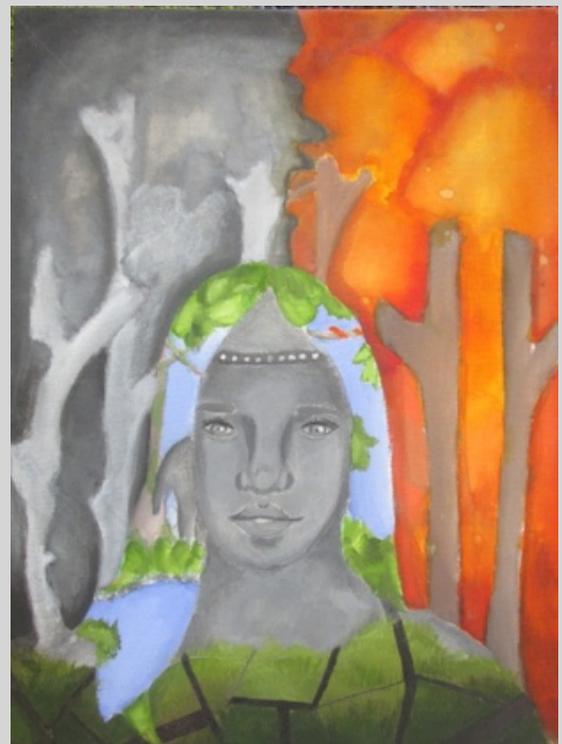


### Topics Covered

**Printmaking:** carving and printing lino.

**Painting:** learning about art movements and creating an artwork which features Surrealist signs and symbols

**Art analysis:** writing about art and considering artists' use of materials and techniques, art elements and principles, interpretation and meaning



## Dance

### Course Outline & Assessment

Students will learn about dance from different cultures and styles. They build on their confidence and awareness of how the body can be used for specific dance styles. They gain an understanding of how to create movement as a choreographer and are given the opportunity to develop a dance that showcases their skills as well as communicates ideas to an audience. They acquire technical dance ability in a variety of styles while working safely in large and small groups.



### Topics Covered

#### Dance History and Traditions

Students participate in teacher-led class workshops in cultural dance styles, such as African, Bollywood and Indigenous dance as well as traditional dance styles, such as jazz, hip hop, contemporary tap and ballet. They complete research tasks on their chosen style to gain greater understanding of the history of movement and how dance influences popular culture.

#### Choreography

Students explore their own personal dance style while creating choreography in small groups.

#### Present and Perform

They learn dances in different styles to perform in small and large groups to develop and showcase their performance skills. They consider the communication intention of a choreographer in the performance of their work.



## Drama

### Course Outline & Assessment

Students can tap into their creative side by creating and developing unique characters, relationships and situations. They experiment with the use of voice and movement with their peers to explore comical situations and dramatic potential. They experiment using different production devices such as sound, makeup, costume and script interpretation to suit different audiences.



### Topics Covered

#### Ensemble performance

Students will work together to create new work influenced by inspirational images, texts and videos.

#### Acting

They learn how to manipulate their voice, facial expression, movement and gestures to create 3D characters who react to situations. After all, acting is reacting!

#### Present and Perform

Students will script and perform their own dramas, making deliberate artistic choices to create dramatic meaning for an audience. They will work collaboratively with a creative team to direct the blocking and staging of dramatic action.

#### Production Areas

Students will use different production areas such as lighting, sound, makeup, costume, props and direction to enhance performances.



## Media

### Course Outline & Assessment

The course is an introduction to the study and creation of media, and the media's influence in contemporary society.

Students will be introduced to the ways in which the media creates, distributes and markets information and texts.

The course is directed towards students who have a genuine interest in creating media and gaining a deeper understanding of how media can affect and influence us on a daily basis.

Assessment tasks will include; creating and editing a movie poster, a short-film analysis and text deconstruction, the creation and production of a music video.

For more information go to: <http://scriptclickcreate.weebly.com>

### Topics Covered

#### Media Production

- Pre-production (planning)
- Production (filming or photography)
- Post-production (editing and marketing)

#### Media Theory

- Impact that the media has in everyday life
- Written, visual and oral communication
- Media analysis and text deconstruction

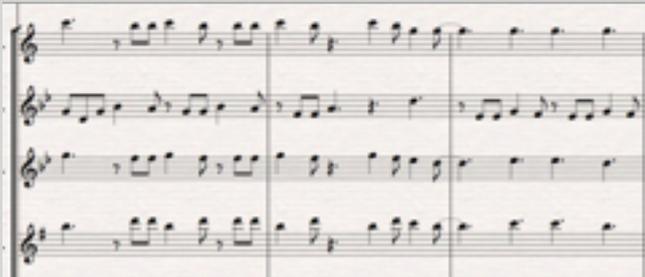


## Music

### Course Outline & Assessment

This course has a practical focus and is designed to help students improve their performance capability and their understanding of how to compose and arrange musical compositions. This course is suitable for students who wish to study VCE Music and introduces some of the content and style of assessments that will be encountered in VCE. Learning an instrument is recommended when choosing this subject as the course is more comprehensive and challenging than Year 7/8 core music.

Assessment includes performance, original composition, music technology and critical responses to music.



### Topics Covered

#### Performance

Students choose an instrument they wish to perform on. This may be an instrument they study privately or an instrument which they wish to learn more about. Students are then provided with a range of strategies and also investigate ways to improve their performance capability on their instrument. Assessment for this outcome is based on improvement and not on a set benchmark meaning any entry skill level is suitable.

#### Performance Styles

Students learn about different styles of music to add informed interpretations of styles to their performance. Students learn about a range of styles of music including aspects such as; history, significant artists and stylistic features. Students choose a style of music to investigate.

#### Composition

Students learn how to practically structure theoretical concepts learnt in year 7 and 8 Music to create their own compositions as well as arranging music for different instruments. Students will create and perform their own composition.



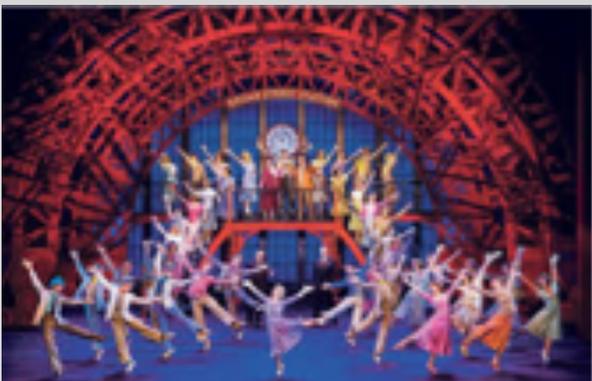
## Musical Theatre

### Course Outline & Assessment

*"We sing because we can't speak anymore. Dance is an extension of that - we dance because we can't speak anymore."*

— Kristin Chenoweth

Sometimes speaking to get our voice heard is just not enough. In musical theatre we draw upon other important skills to help express ourselves. This subject is a taste test of all the wonderful skills we learn in the Performing Arts. The subject will specifically encourage students to participate in a range of Performing Arts activities to learn skills incorporating music, dance, drama, and media with the intention of the opportunity to perform an ensemble creation of their own Mini Musical.



### Topics Covered

#### Performing Arts Skills

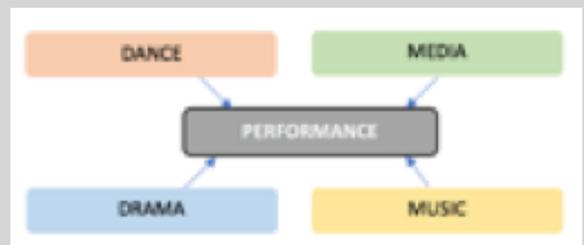
Students will participate in a number of focused class activities to learn more about expressive skills in drama through melodramatic performances, dance. They will learn how music and expressive skills can be used to add energy to a scene.

#### Musical theatre Style

Students engage with famous musicals and learn repertoire from them to gain an understanding of the musical theatre style.

#### Present and Perform

Students have the opportunity to showcase their skills in the different discipline areas in a group task which they create their own 'Mini Musical'. The students are completely in charge of the themes, script writing, song choice and choreography, each taking on an integral part of the artistic team to create a one-of-a-kind musical.



## Photography

### Course Outline & Assessment

The year 9 Photography course encourages students to build on their photographic interest by enhancing camera handling knowledge and digital editing skills. Students will be introduced to a variety of basic compositional rules to assist with artistically composing photographs. Students will also learn to use digital editing software such as Photoshop to adjust and enhance images produced and InDesign to present their photographs.

Students are encouraged to have access to their own photographic device that they bring to every class such as a phone, iPad, digital camera or Digital SLR. Please note that the school library has cameras for students to borrow, but these are limited.

The course features three major assessment tasks:

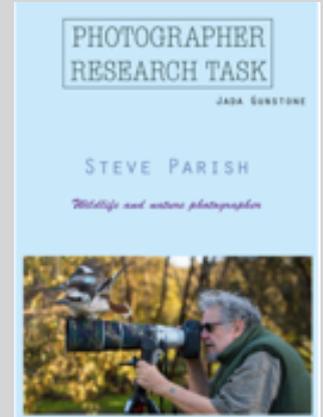
**Technical Journal** - Students study compositional rules such as cropping, dutch tilt and angles and capture these through photographs on their device. This is presented in Adobe InDesign.

**30 Day Photo Collage** - Students take photos to represent a variety of themes. These photos are then adjusted in Adobe Photoshop using features such as hue and saturation and can be combined with editing tools to enhance the images. The photos are then arranged into a collage format.

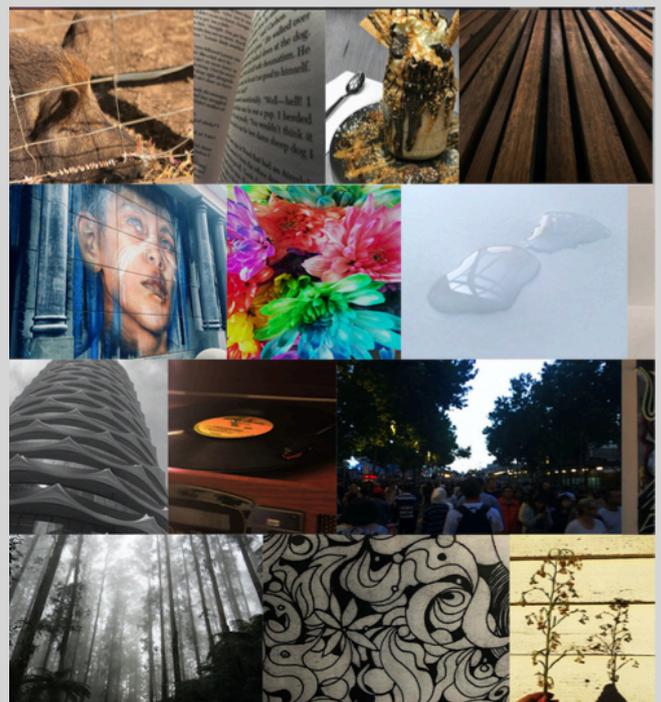
**Photographer Research Project**- Students research an inspirational traditional or contemporary photographer and analyse the way they use compositional rules and techniques, art elements and art principles and visual language. They compare photographs and photographer's style to identify any similarities and differences that may exist.

### Topics Covered

- Compositional Rules
- Camera Handling
- Adobe Photoshop
- Editing and Filters
- Adobe InDesign
- Photographic Styles
- Elements and Principles
- Visual Language



	<p>This photograph effectively demonstrates <b>Cropping</b> by having a good focus on the drain- it's not blurry. The subject of the picture is cropped out enough for it to be tricky to immediately tell what it is (a drain).</p> <p>To improve my cropping skills, next time I could try an crop a bit more of the object out, as in this picture is it quite dominating in comparison to the ground. By cropping out more of the drain, it might prompt people to think about the picture more, to try and figure out what it is that's in the picture.</p>
	<p>This photograph effectively demonstrates <b>Cropping</b> by only showing half of the lock and a good amount of the background. The focus on the numbers of the lock is pretty clear as well, making it stand out more.</p> <p>To improve my cropping skills, next time I could think about the light reflecting brightly off the metal, and maybe find a lock that was slightly more in shadow so that the reflection wasn't too bright.</p>



## Visual Communication

### Course Outline & Assessment

The Year 9 Visual Communication Design course encourages students to build on their manual and digital design skills whilst learning and actively practicing the design process in their folio. Students will broaden their design thinking strategies and will become stronger at 2D and 3D technical drawing and developing visual ways of conveying information. Students will also learn to apply digital editing software such as Photoshop and Illustrator to produce final presentations.

The course features three major assessment tasks:

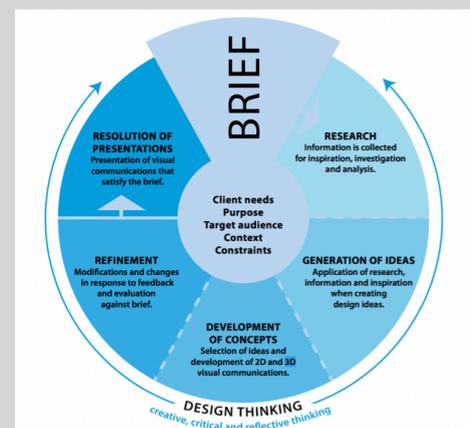
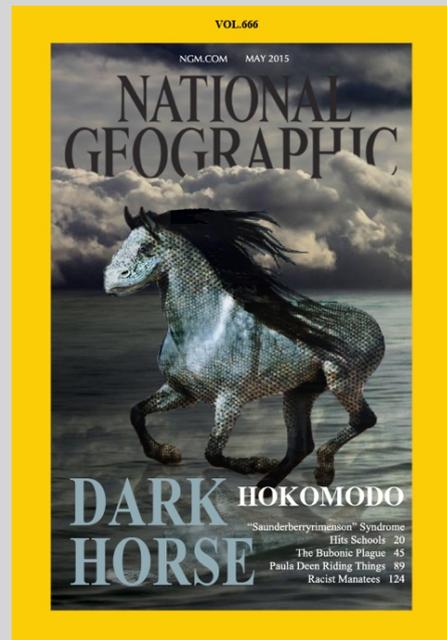
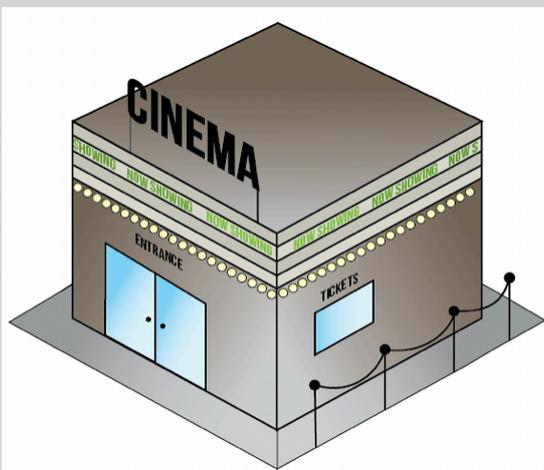
**Photoshop Magazine:** Students design a front cover for the well-known National Geographic Magazine using Photoshop. It will showcase a “new animal”, along with a traditional compositional layout (33% of the overall grade).

**Building:** Students design a Planometric building using Illustrator. It will showcase specific features related to the building of choice (33% of the overall grade).

**Analysis:** Students will write about a piece of visual communication and consider a designer’s target audience, purpose, use of materials, media and methods, elements and principles and influences (34% of the overall grade).

### Topics Covered

- Design Process
- Design Thinking Strategies
- Photoshop
- Illustrator
- Planometric Drawing
- Orthogonal Drawing
- Materials, Media and Methods
- Elements and Principles
- Purpose and Target Audience



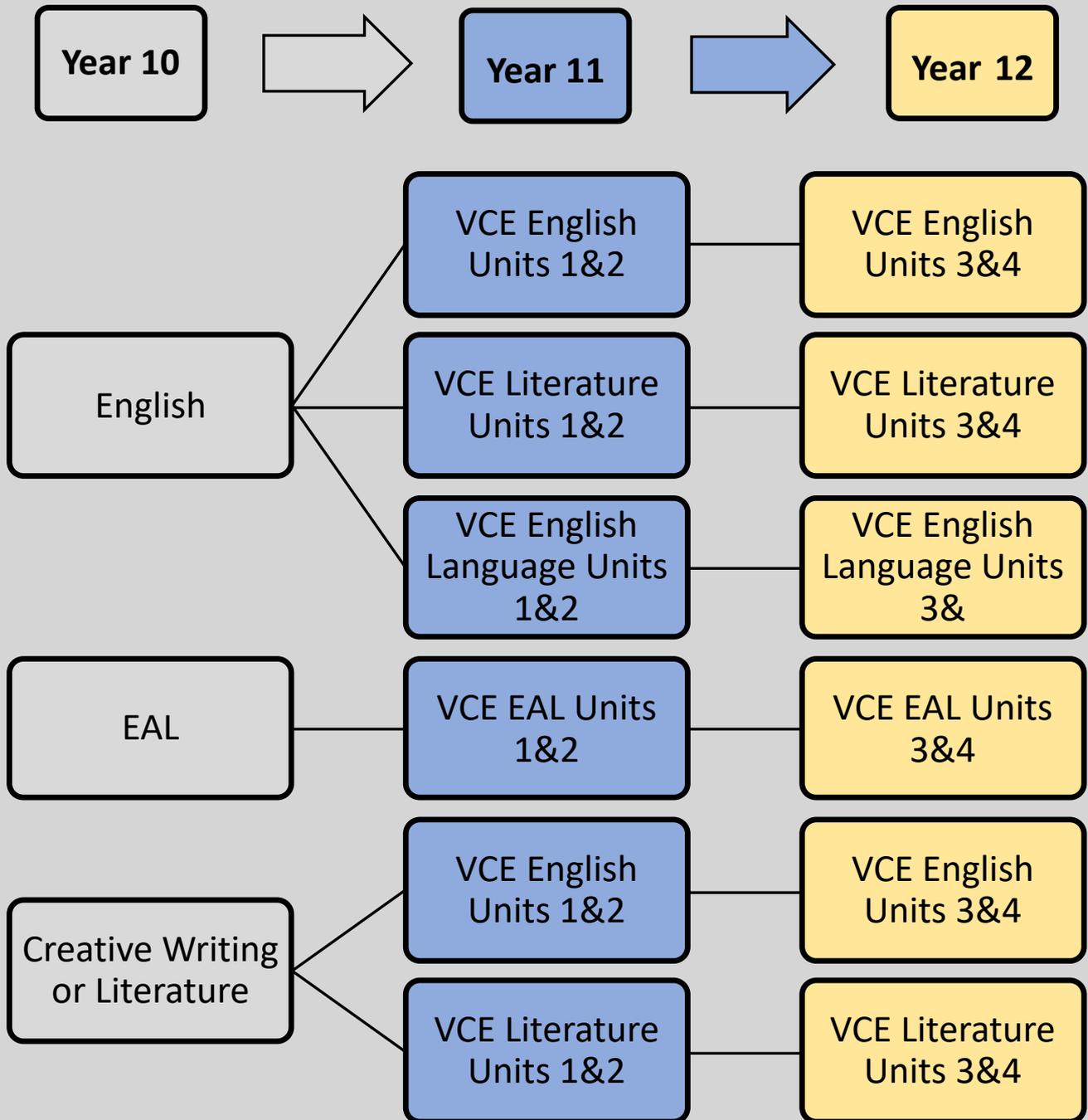
## Year 10 Studies Offered

The following pages provide either a Studies Pathways or Course Outline and Topics Covered for both the core studies and elective program for Year 10:

Page	Subject
40	English Studies Pathway
41	English
42	Creative Writing
43	Literature
44	Mathematics Studies Pathway
45	Mathematics
46	ACE Mathematics
47	Extension Mathematics
48	Science Studies Pathway
49	Environmental Chemistry
50	Forensic Science
51	Projectile Science
52	Science Investigations
53	Psychology
54	Humanities Studies Pathway
55	History: 20th Century Australian
56	Business and Economics
57	Dollars and Sense
58	Geography
59	Heroes Through History
60	Philosophy

Page	
61	Health & Physical Education Pathways
62	Health
63	Active for Life
64	Physical Education
65	Systems Engineering
66	Language Studies Pathways
67	French
68	Indonesian
69	Arts Studies Pathways
70	Art
71	Dance
72	Drama
73	Media
74	Music
75	Visual Communication Design
76	Technology Studies Pathways
77	Auto Small Engine Technology
78	Bakery Delights
79	IT Programming
80	IT Web Technologies
81	Product Design and Technology: Textiles
82	Product Design and Technology: Wood
83	Restaurant Delights
84	Systems Engineering

# English Studies Pathways





## Creative Writing

### Course Outline & Assessment

This course is not just about writing stories: it is about capturing a voice and making sense of experiences through writing. This course involves students in exploring the craft and art of writing as they produce their own writing, through a variety of activities. Students will explore the creation of character and voice, different writing forms and the challenging and exciting role of editing. The focus in this subject is on writing.

The course is divided into three areas for assessment:

- Journal: a collection of ideas, character outlines, plans for plots, brainstorming and observations on other writing which contributes to 20% of the assessment.
- Class exercises: a collection of the weekly exercises exploring different approaches to writing, also contributing 20%.
- Portfolio: a collection of two polished pieces, complete with drafts, planning and handwritten notes/ideas of writing across different writing styles. This is worth 60% of the overall assessment.

### Topics Covered

- Defining effective writing
- Narrative construction
- Working with narrative elements
- Children's books
- Character development
- Exploring the senses
- Poetic approaches
- Editing and reviewing

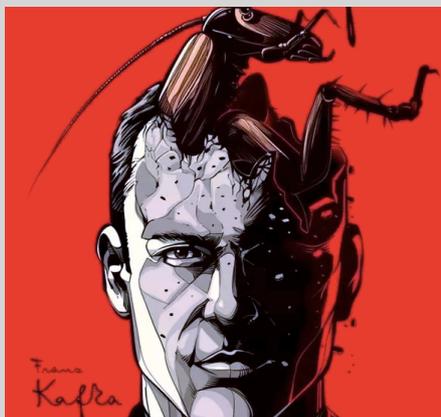
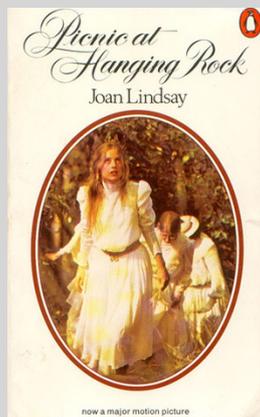
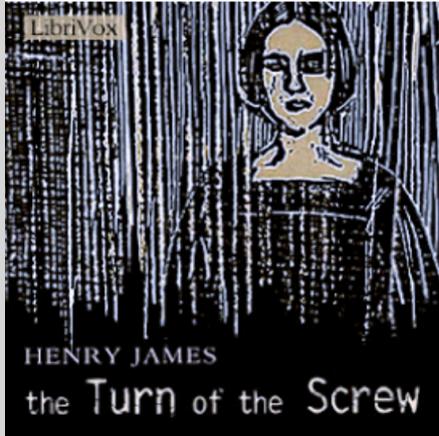


## Literature

### Course Outline & Assessment

Literature is a subject for lovers of reading, deep-thinking and fun discussions. Students study classic literature, including poetry and plays; but also contemporary texts, including films. Students will respond to these texts both creatively and through interpretation and close analysis; students will engage with a range of opinions on different literary eras and genres. Being in a classroom of thoughtful readers reinforces skills required in any English course; however, the subject is of value, enjoyment and interest whatever the student's further studies may be. The course is divided into:

Poetry Analysis and Recording worth 20%, Novella and Film Adaptation – Comparative written response 30%, Creative Short Stories 25% & Novella Close Analysis 25%.



### Topics Covered

**Reading and Analysing Poetry** Students study an anthology of curated poems from classic and contemporary forms. Students analyse features and conventions of specific poetry, imagery and different interpretations in order to produce their own poetry recording and a reflective commentary.

### Analysing Adaptations

Students will study a set novella focusing on setting, plot and narrative voice and compare the same features and conventions in a film adaptation of the same text. Students will produce a comparative written analysis to demonstrate their understanding of the notion that when the form changes, meaning can change for the reader/audience.

### Creative Response

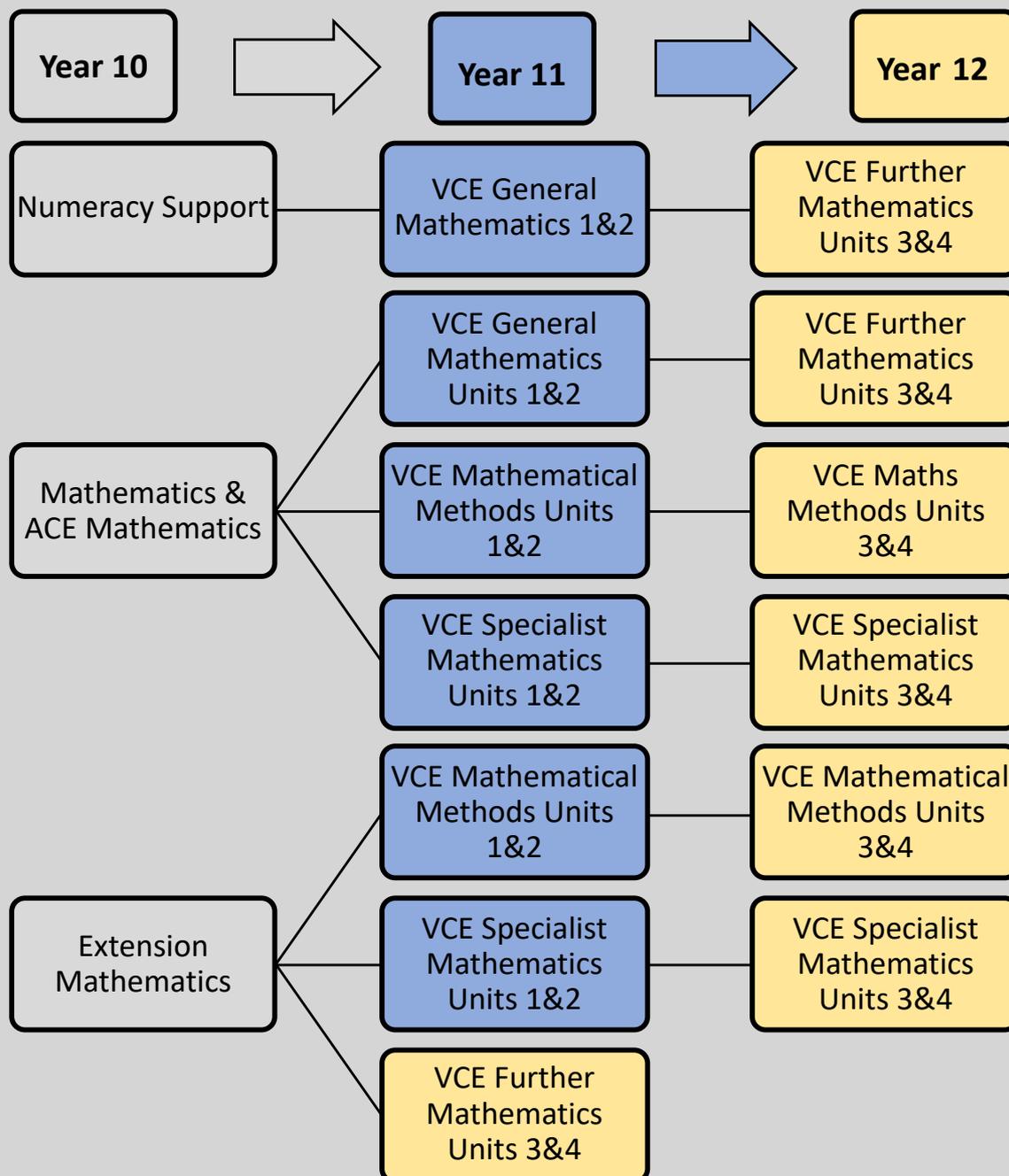
Students are given a range of short stories in order to focus on the imaginative techniques used for creating and recreating a literary work. They then choose one of the writers studied as a stimulus to create their own short story that will incorporate similar style and authorial concerns.

### Close Analysis

Students will study a different novella with the aim being to examine and explore the language, style and construction of the text. Working on selected passages of the text, students will analyse how structure, context, imagery and ideas within specific passages contribute to an understanding of the text as a whole.



# Maths Studies Pathways



## Mathematics/ACE Mathematics

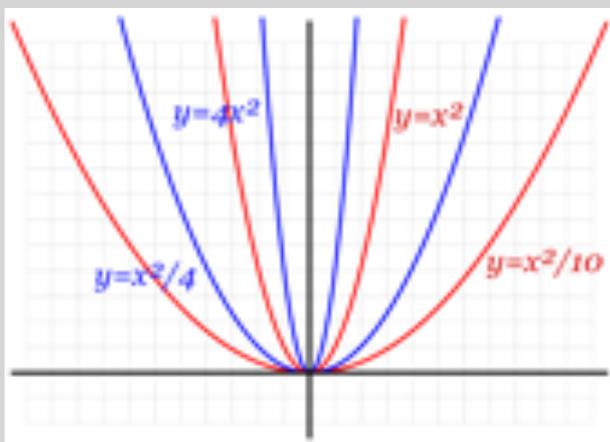
### Course Outline & Assessment

This course is designed to prepare students for VCE Mathematical Methods Units 1 & 2. Students will undertake a range of mathematical studies and learn to solve problems with and without the aid of Computer Algebra System(CAS) technology.

Year 10 ACE Mathematics is only available to students who participated in Year 9 ACE Mathematics. Students in Year 10 ACE Mathematics will cover all topics from the Year 10 Mathematics curriculum, but got deeper into the topics.

The assessment for this course consists of:

- Topic tests (50% of overall grade)
- Assignments (20% of overall grade)
- End of semester exams (30% of overall grade)



### Topics Covered

#### Trigonometry

Students will learn rules for finding unknown angles and side-lengths in right-angle triangles, and apply this knowledge to real-world applications.

#### Linear Algebra

Students will learn to solve linear equations, sketch straight line graphs, and solve simultaneous equations.

#### Measurement

This topic focuses on area of two dimensional shapes as well as surface area and volume of three-dimensional objects.

#### Indices and Surds

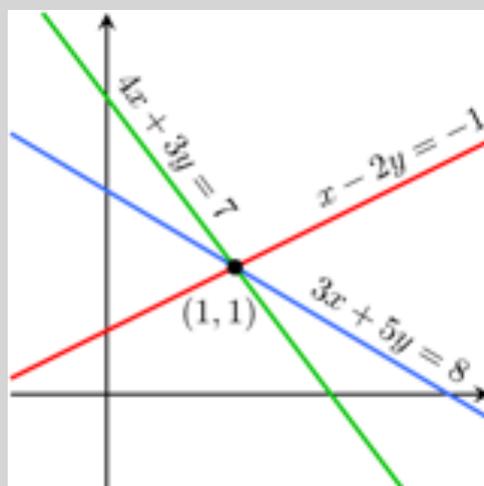
Students will simplify expressions using index laws and perform operations with irrational numbers (surds).

#### Quadratic Equations & Graphs

In this topic, students will learn to solve quadratic equations, as well as sketch graphs of parabolas.

#### Probability

This topic includes basic chance, one and two step probabilities (e.g. what is the chance of rolling two sixes in a row?), Venn diagrams and tree diagrams.



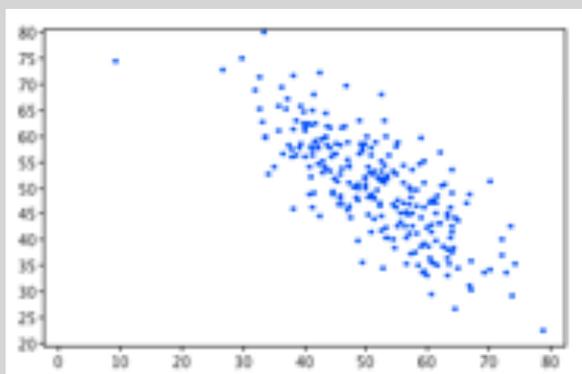
## Extension Mathematics

### Course Outline & Assessment

This course is available to selected students who have completed the Year 9 Extension Mathematics Course.

The assessment for this course consists of:

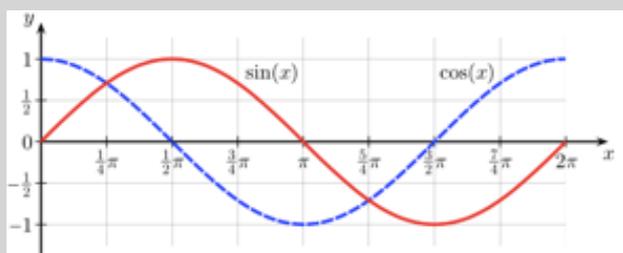
- Topic tests (50% of overall grade)
- Assignments (20% of overall grade)
- End of semester exams (30% of overall grade)



$$x^2 + \frac{b}{a}x + \left(\frac{b}{2a}\right)^2 = -\frac{c}{a} + \left(\frac{b}{2a}\right)^2$$

$$\left(x + \frac{b}{2a}\right)^2 = -\frac{c}{a} + \frac{b^2}{4a^2}$$

$$\left(x + \frac{b}{2a}\right)^2 = \frac{b^2 - 4ac}{4a^2}$$



### Covered

Selected units of work from the Year 10 Victorian Curriculum Syllabus, 10A Victorian Curriculum Syllabus and selected introductory topics for VCE Specialist Mathematics.

**Probability:** investigation of media reports and their planning & implementation

**Quadratics:** applications to real world problems

**Real Number:** rational and irrational numbers and performing operations with surds and fractional indices

**Polynomials:** applications of the factor and remainder theorems to solve problems

**Trigonometry:** sine, cosine & area rules and circular functions

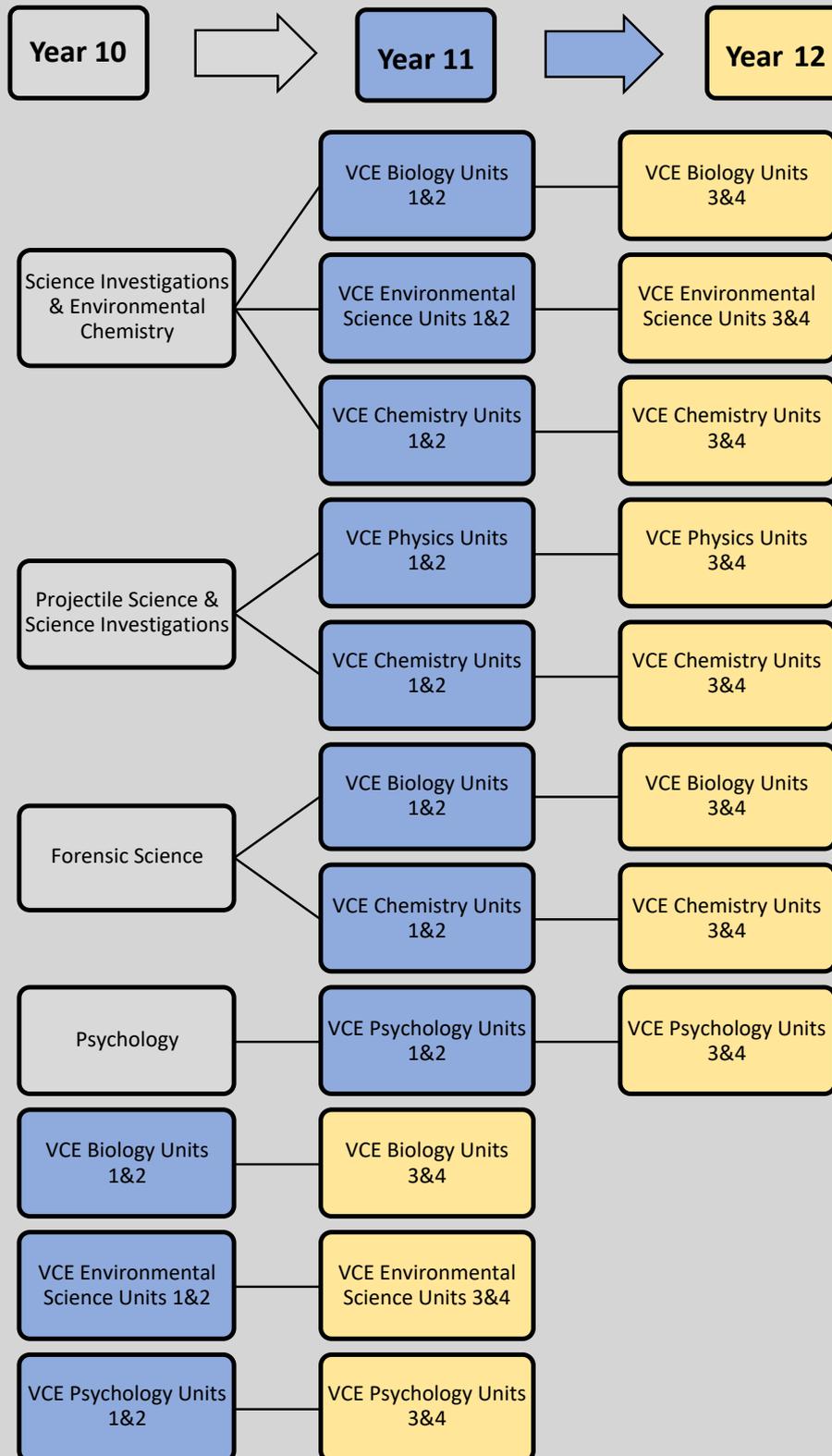
**Functions & Relations:** using function notation to describe the relationship between dependent and independent variables in modelling contexts

**Complex Numbers:** defining and identifying the properties of complex numbers

**Vectors:** representation, magnitude and direction of plane vectors



# Science Studies Pathways



## Environmental Chemistry

### Course Outline & Assessment

This course has been developed as an introduction to Environmental Science Units 1-4 and Chemistry units 1 & 2. Students will be introduced to chemistry concepts, including properties and chemistry of water and this will lead into how chemistry can be used to monitor environmental damage, such as pollution that has occurred in river systems and lakes. The course is divided up into: Practicals (25%), Assignments (including a scientific poster) (20%), Topic Tests (30%) & Exam (25%).



### Topics Covered

#### Atomic Theory & Periodic Table

Students will be able to demonstrate knowledge of basic atomic theory and how the periodic table is formed

#### Principles of Bonding

Students will investigate ionic bonding and covalent bonding

#### Chemical Reactions

Students will investigate different chemical reactions related to ecological concepts such as photosynthesis, redox and precipitate reactions

#### Chemistry of Water

Students will obtain an understanding of the importance of water to all living organisms

#### Earth Science

Students will investigate the different biogeochemical Cycles such as the water cycle and they will discover how pollution can impact on the waterways. Students will undertake a major project to determine how polluted two different waterways are using data logging equipment to test water samples. They will create a scientific poster on their findings.



# Forensic Science

## Course Outline & Assessment

This course provides students the opportunity to participate in a range of activities to develop their theoretical knowledge, analytical skills and practical ability in a variety of disciplines within Forensic science.

The course is divided into practical experiments, assignments, unit tests and an end of semester exam.



## Topics Covered

### Biology in Forensics

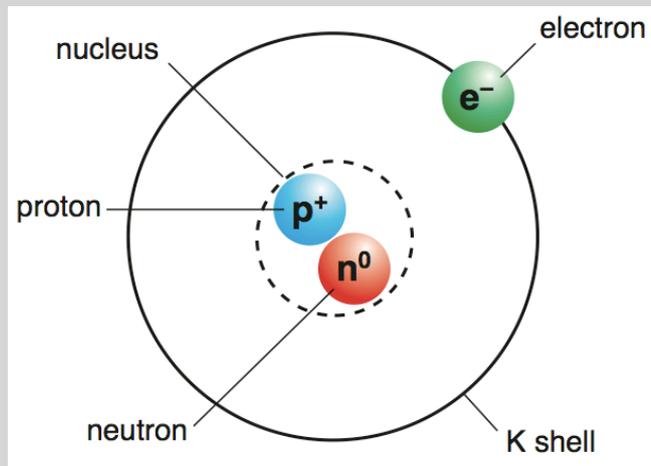
Students will explore types of evidence, blood analysis, DNA profiling, fingerprinting, hair and fibre analysis, entomology and anthropology.

### Chemistry in Forensics

Students will explore atomic structure, the periodic table, chemical reactions, acids and bases and chromatography.

### Physics in Forensics

Students will explore Newton's Laws of Inertia and skid mark analysis

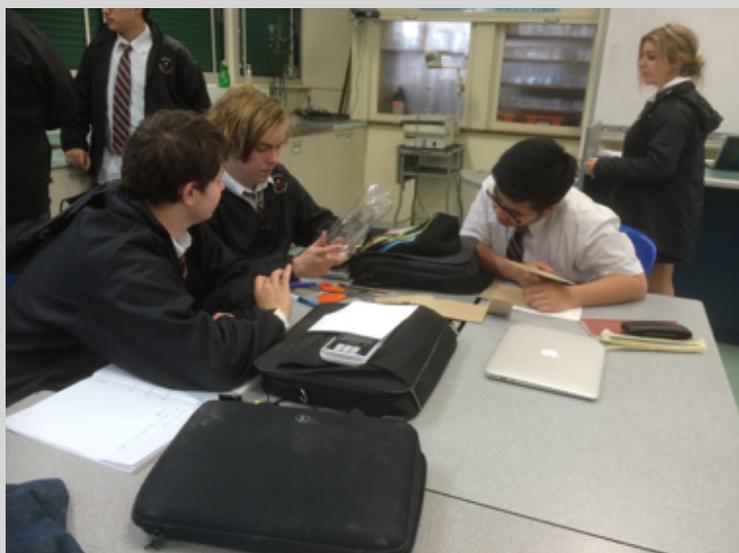
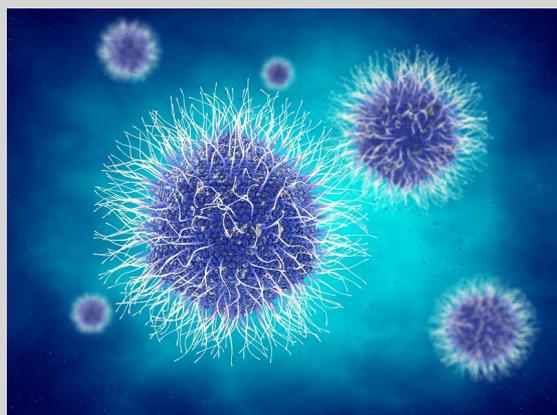


## Projectile Science

### Course Outline & Assessment

This course has science concepts drawn from chemistry, physics and biology. Students investigate pathogens, how disease is spread, chemical reactions, and projectile motion. In the latter part of the semester the students will conduct a self-designed practical task investigating the motion of rockets.

The course is divided into three areas of study: Chemical reactions, Motion, and Diseases. Assessment focuses on scientific inquiry skills and knowledge. The assessment comprises of practical work (20%), 2 assignments (20%), tests (30%) and end of semester exam (30%).



### Topics Covered

#### Chemical Reactions

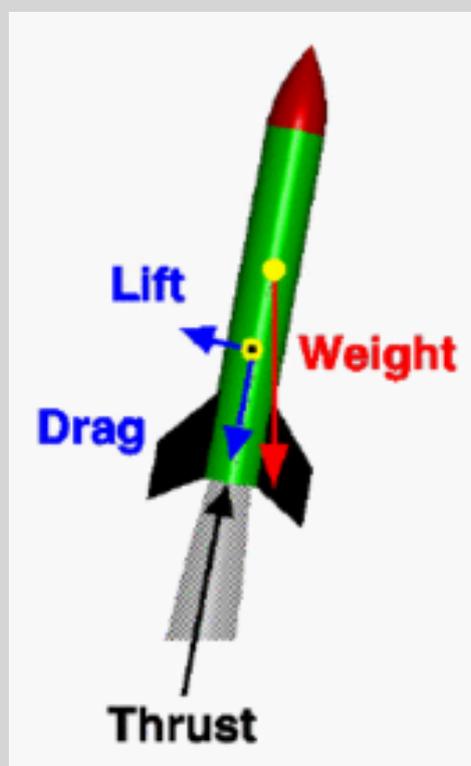
The concept of chemical reactions will be investigated, and students will learn about rocket propulsion and consider different types of reactions that link to everyday life.

#### Motion

Students investigate displacement, velocity, acceleration, and Newton's Laws. Various experiments are conducted to collect data on forms of motion. This area of study concludes with a student design investigation of rocket flight.

#### Disease

Students investigate how disease spreads, and the type and effect of various pathogens. Concepts are linked with chemical reactions and motion at a pathogen level.

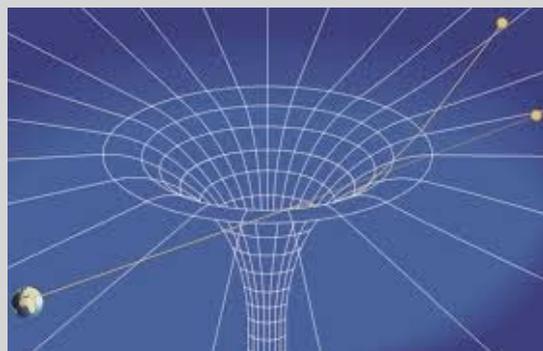


## Science Investigations

### Course Outline & Assessment

This course delivers theoretical and practical components from the year 10 Victorian Curriculum for Science and Unit 1 and 2 VCE Key Science Skills from the VCE Science study designs. The content covers the topics of Biology/Environmental Science, Chemistry, and Physics. There is a specific focus on practical work and investigation research.

Students will be assessed on their knowledge and skills in this subject through investigation reports (50%), Practical skills (25%), and a semester exam (25%).



### Topics Covered

#### Chemistry

Students will learn about different chemistry experimental techniques and Chemistry theory. They will be given an opportunity to design and undertake research and an investigation to develop a better understanding of an area of interest in Chemistry.

#### Biology/Environmental Science

Students will learn that heritable characteristics are transmitted from one generation to the next by genes and DNA. They will also recognise the importance of fertilisation and meiosis in the passing on of genetic information from parents to offspring. The issue focus of this topic is genetics and the use of biotechnology in reproduction and genetic manipulation.

#### Physics

Students will learn that global systems rely on interactions between the hydrosphere, lithosphere, atmosphere and biosphere. Students will model nutrient cycles and investigate how human activity can affect global systems. Students will also investigate why global warming and renewable energies have become issues in our community.



# Psychology

## Course Outline & Assessment

This course has been developed as an introduction to the VCE Psychology units 1-4. It covers key areas of Psychology such as research methods, the brain, clinical psychology and forensic psychology. Students will develop key skills in the scientific method required as they progress towards their senior years. The course is divided into three assessment tasks: An introduction to Psychology test, Student Directed Research & Classwork.



## Covered

### Research Methods

Includes developing hypotheses and identifying variables, planning and undertaking investigations and the study of ethics.

### Study of the Brain

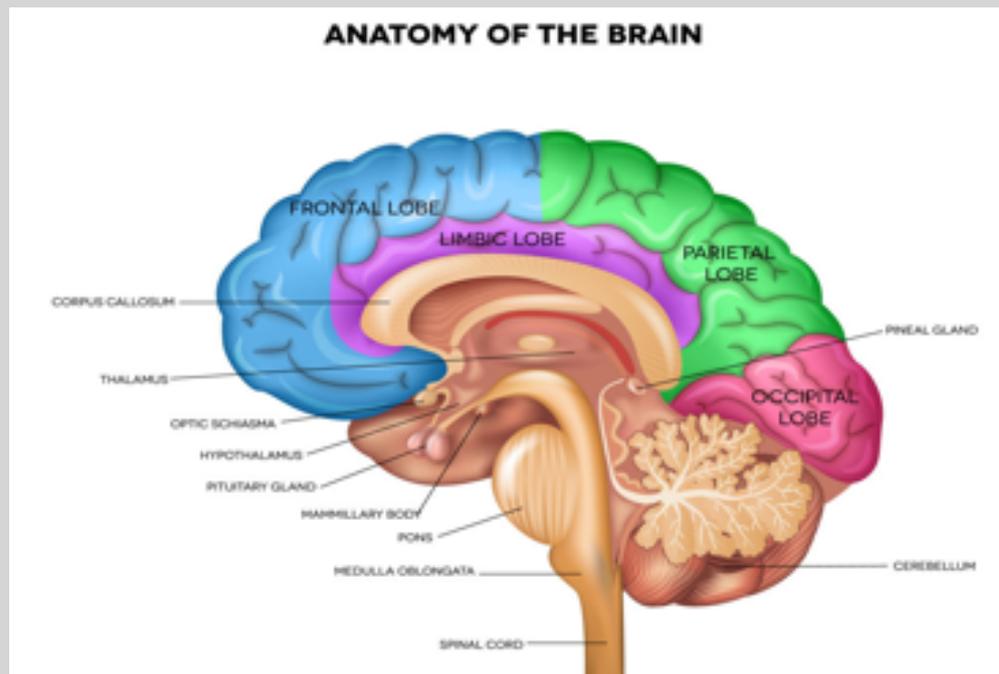
Understanding of brain structure and function.

### Clinical Psychology

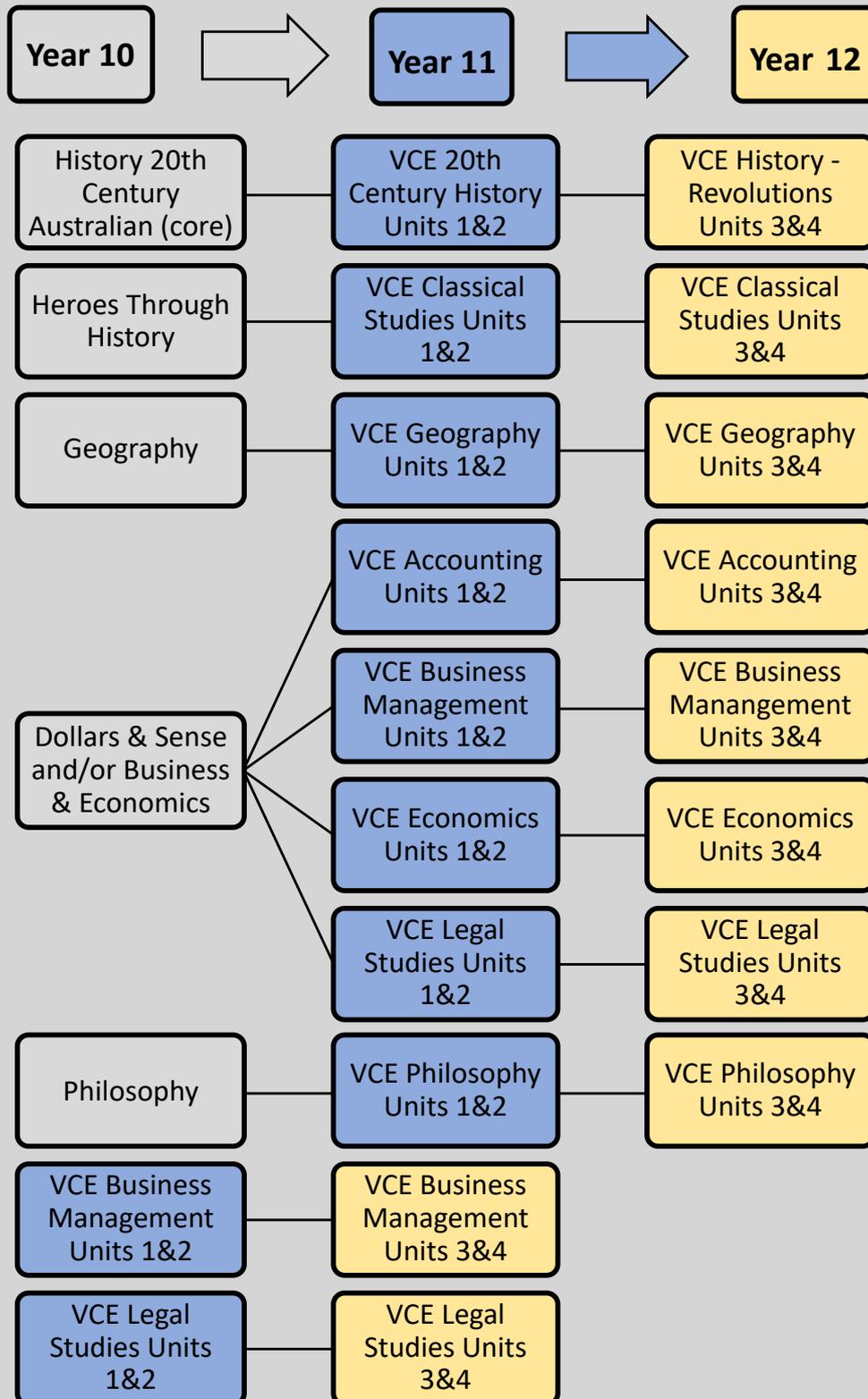
What is mental health and mental illness? How do we diagnose mental illness?

### Sleep and Dreams

The stages of sleep, sleep disorders and dreams will be looked at if time is available.



# Humanities Studies Pathway



# History - 20th Century Australian

## Course Outline & Assessment

This course seeks to build from learning in Year 9 by examining the world in the 20th Century. This century of war, technological development and struggles for freedom is intensely interesting and worthy of close study.

This course features four major assessment tasks:

- Document analysis
- Research report
- Digital History video
- End of unit exam



## Topics Covered

### Between the Wars

This unit examines the rapid changes the world endured in the wake of World War 1.

### World War II

This unit focuses on the causes, major events and consequences of this devastating war.

### Rights and Freedoms

This unit looks at the various rights movements that took place in the second half of the 20th Century with a particular focus on Indigenous Australians' fight for justice.



# Business and Economics

## Course Outline & Assessment

This course is about understanding how economic choices impact individuals, business and the broader economy. It also serves as valuable preparation for VCE Commerce subjects such as Economics, Business Management, Legal Studies or Accounting.

The course features assessment tasks which include:

- Marketing plan
- Small business project
- Job Advertisement
- Topic test (Economics)



## Topics Covered

### Marketing

Students create an Advertisement for a Lego product.

### Innovation & Entrepreneurship

Students complete a small business project, turning their idea into a small business.

### Work & Work Futures

Students consider the way the work environment is changing. They create an advertisement for a position within their small business.

### How Economic decisions impact you

Students learn some key economic concepts for a topic test.



## Dollars and Sense

### Course Outline & Assessment

This course explores the various forms of investment and money management. A key focus is placed on the various ways to invest money, learning about taxation and superannuation, the stock market, banking, scams, clever spending and personal budgeting. Through extensive use of the internet, computer simulations and the media, students will acquire skills and understanding of the financial world. Dollars & Sense also serves as valuable preparation for VCE Commerce subjects such as Accounting, Business Management, Legal Studies or Economics.

Assessment includes workbook, a range of assessment tasks including the sharemarket game, research projects, movie making and presentations.

### Topics Covered

#### Budgeting, Banking and Saving

Students plan for a major purchase in their life.

#### Scams

Students create a video campaign warning people about a particular scam.

#### Investments

Students research different companies as part of the ASX Sharemarket Game.

#### Employee Rights,

#### Superannuation and Tax

Students research their rights and obligations as employees.





# Heroes Through History

## Course Outline & Assessment

This course argues that we can understand different cultures throughout history by examining their heroes, as heroes reveal what people desire, fear and wish to emulate.

We study three different cultures, from ancient times to modern day, and use the fictional heroes from this time as a lens to focus on the unique features of each group of people.

The course features three major assessment tasks:

- Research Report
- Creative Digital Task
- End of unit test

## Topics Covered

### Ancient Greece

This unit examines the mighty heroes of ancient Greece who sought glory and wealth and examines their values and priorities.

### Medieval Europe

This unit focuses on heroes like Robin Hood and King Arthur in order to understand aspects of medieval European culture.

### Present Day

This unit examines the fictional heroes of today and asks the big question: what do they reveal about us?



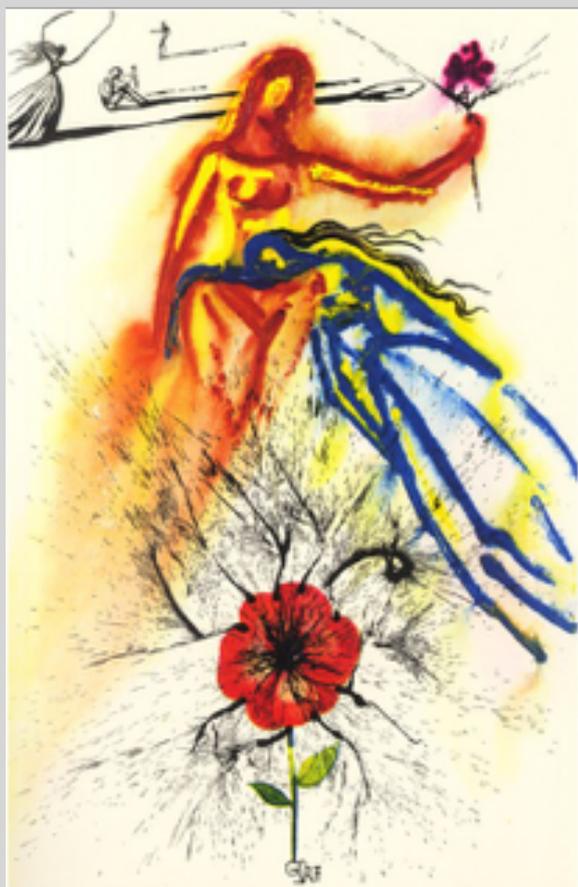
# Philosophy

## Course Outline & Assessment

This course seeks to introduce you to a new way of thinking and looking at the world. It is a subject based around questions, discussions and thinking. In Philosophy, we look at questions (and answers) around how we should live, what we can know, what is real and what is the right thing to do.

The course features three major assessment tasks:

- Short-answer study of 'The Truman Show.'
- Podcast on the ideas of a philosopher of your choice
- Written investigation into an ethical issue



## Topics Covered

### What is real and what can we know?

Should we trust our beliefs? Does the truth matter? Can we time travel?

### What does a good life look like?

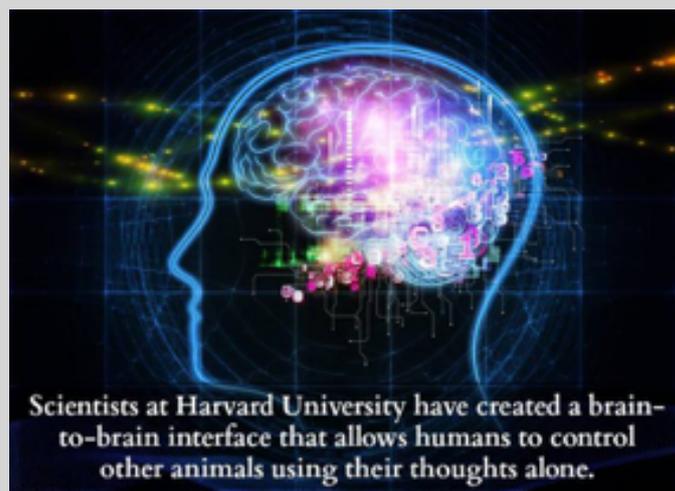
What sort of society should we live in? What drives us to behave the way we do?

### What is the right thing to do?

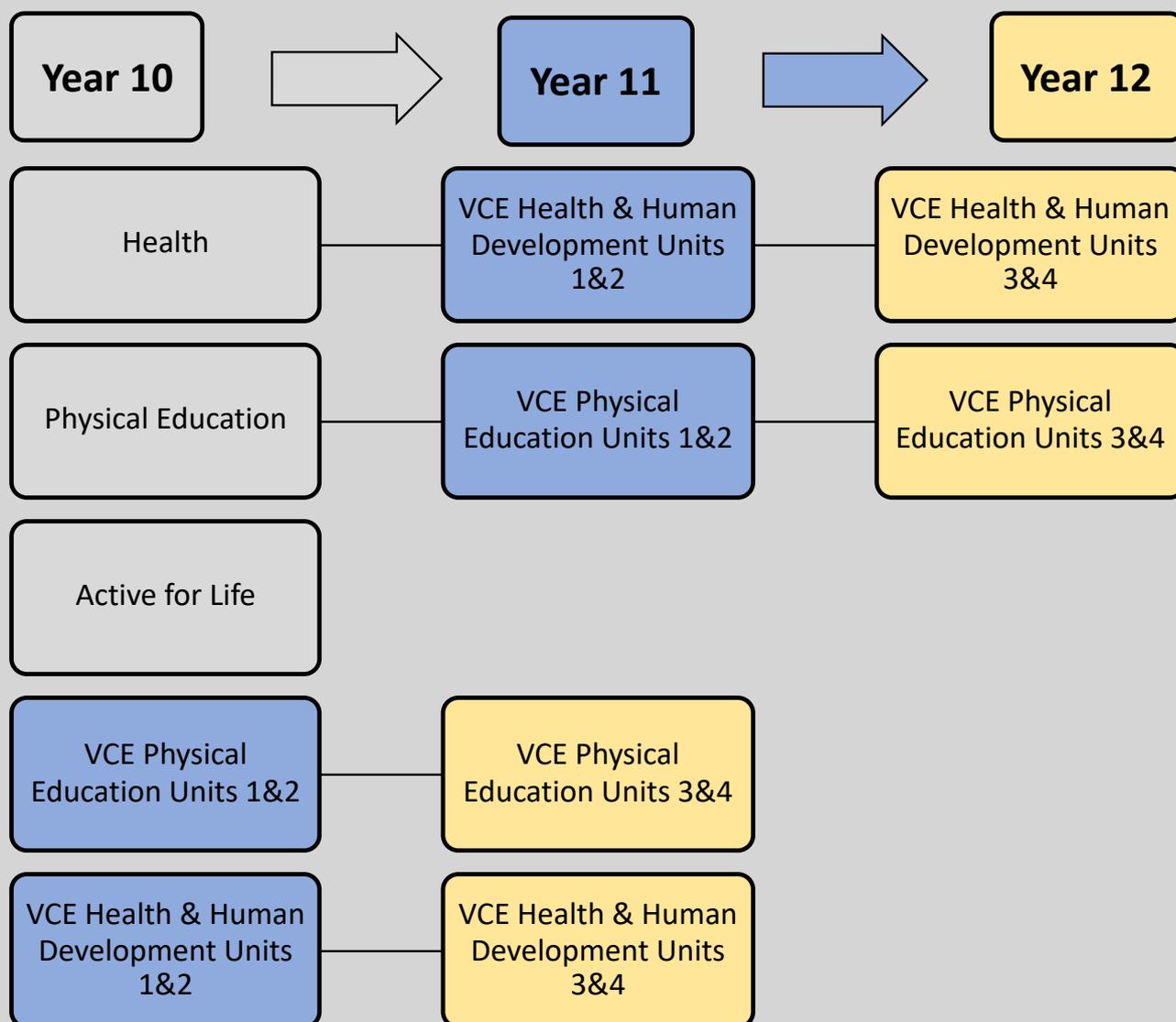
Looking at the foundations of morality and examining which 'code' is the best one to live by. The ethics of animals, war, love, fame etc.

### The 21st century

What sort of world might we be living in the near future? Do we have answers to some of the key questions the future is going to pose to us?



# Health & Physical Education Studies Pathways



## Health

### Course Outline & Assessment

This Unit focuses on the personal and social capabilities, where students learn to develop health-promoting behaviours such as safe driving. We explore factors that influence identities, relationships, decisions and behaviours. Students research and apply health information from credible sources.

Three areas of assessment:

**Assignments** contributing 50% to the overall assessment

- Media file oral presentation
- Road safety TV Ad

**Tests and examinations** contributing 50% to the overall assessment

- Nutrition test
- Semester examination

**Class work** which contributes to an overall S/N



### Topics Covered

#### Introduction to Health

Dimensions of health and wellbeing, the World Health Organisation definition of health & major causes of mortality and morbidity for Australia's youth

#### Nutrition

Function of nutrients, 'That Sugar Film', food models such as the Australian Guide to Healthy Eating & food labelling and other factors that influence food selection

#### Drugs

Legal and illegal drugs (such as Ice)

#### Mental health and wellbeing

Resilience, positive mental health & mood disorders

#### Road Safety

Road rules and safety, METEC excursion & purchasing a safe car

#### Respectful relationships and sexuality

Respectful and non-respectful relationships & sexual preferences



\*Cost: \$170

## Active for Life

### Course Outline & Assessment

This course involves investigating, participating in and evaluating a wide variety of recreational facilities, activities and pursuits available in the local and wider community. It has both theory and practical components and examines movement, physical activity, body systems, water safety, government guidelines and basic first aid practices.

This subject alone does not provide sufficient background information for students who intend to take VCE units in Physical Education. There is a cost of approximately \$170 per student attached to the program to cover activities, instructors and transport.

The course is divided into three areas: Theory assessment contributes 20%, a Major Project contributes 30% and Practical assessment contributes a further 50% towards the overall grade. Theory assessment includes written tests and class work. The Major Project involves an investigation of recreational facilities and activities in your local area. The practical assessment includes participation, involvement, activity evaluation reports and skill development.



### Topics Covered

#### Movement and Physical Activity

Students will examine why people participate in physical activity and will investigate government initiatives including the NPAG model.

#### Water Safety

Students complete online modules relating to Water Safety and Risk-Taking behaviours.

#### Body Systems

Students will briefly study the skeletal system, the muscular system and the cardiovascular system.

#### First Aid and CPR

Students will learn basic first aid including CPR and management and treatment techniques for sporting injuries.

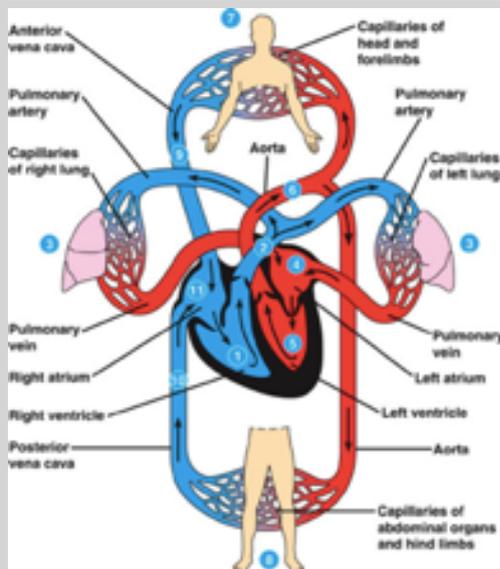
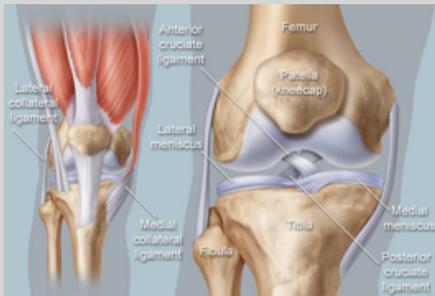


## Physical Education

### Course Outline & Assessment

This course has strong theory and practical components and is considered to be very beneficial for students planning to study VCE units in Physical Education. It aims to develop practical and theoretical knowledge regarding movement and physical activity, how the body systems work and ways to measure and improve fitness.

The course is divided into two areas: Theory assessment contributes 80% and practical assessment contributes 20% towards the overall grade. Theory assessment includes written tests, assignments and laboratory exercises. The practical assessment includes participation, skill development and gameplay.



### Topics Covered

#### Movement & Physical Activity

Students will define skills and the importance of fundamental motor skills, explore information processing and decision making in sport, classify movement skills and investigate the stages of learning.

#### Skeletal System

Students will identify and classify the major bones within the body, explore their functions and types of movement and analyse the key features of major joints with the body.

#### Muscular System

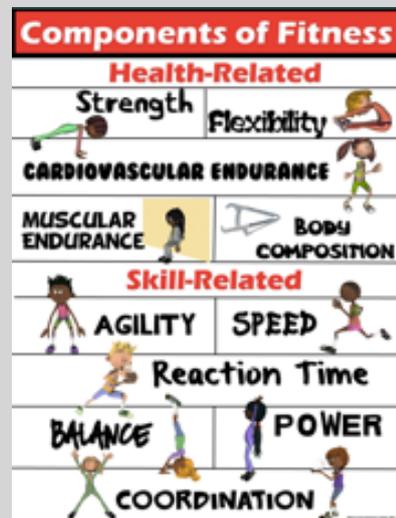
Students will identify and classify the major muscles of the body and compare the different types of muscular contractions through movement.

#### Cardiovascular System

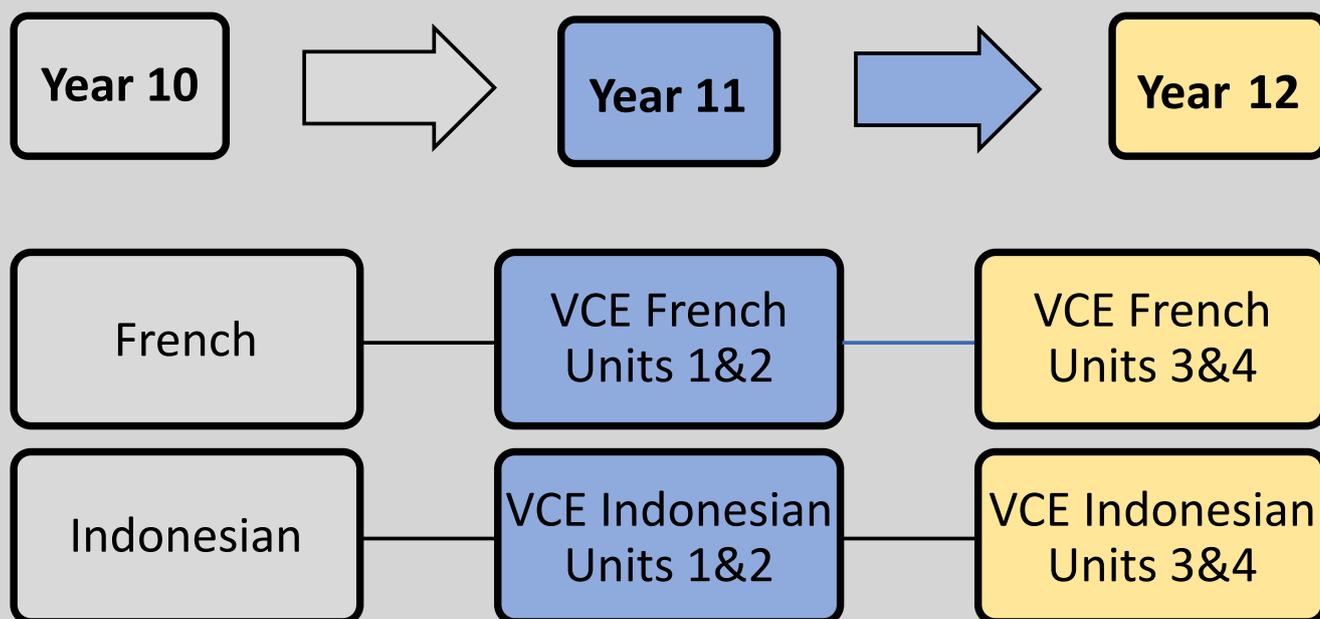
Students will identify the key functions of the cardiovascular system, explore the anatomy of the heart, blood and blood vessels and look at the role of the cardiovascular system during exercise.

#### Fitness Components & Training

Students will explore the different fitness components and training methods, understand the benefits of fitness testing and undertake their own battery of tests.



## Language Studies Pathway



## French

### Course Outline & Assessment

This Year 10 French course builds on the knowledge attained in the junior years. The course revises grammar and introduces new tenses and vocabulary as well as exploring intercultural connections. Students will be able to attend external excursions to explore the French speaking community in Melbourne. By the end of Year 10, students will have developed a rich vocabulary of the target language.

Similarly to Year 7-9 French, students are assessed on their skills in the reading and translating, writing, listening and speaking components. Students' intercultural knowledge and understanding will also be assessed throughout each semester through a variety of engaging cultural tasks which aim to discuss local and global issues in not only France but in various cultures. Each assessment is equally weighted at 20%.



### Topics Covered

'Raconte-moi ton week-end!' (Tell me about your weekend)

By using past tense, students will describe the kind of activities they completed during the weekend.

#### 'Autrefois' (In older days)

Students will learn how to describe historical events and changes.

#### 'Qu'est-ce qui s'est passé?' (What happened?)

During this topic, students will describe and narrate news-worthy events.

#### 'À la recherche du bonheur' (Pursuit of happiness)

In future tense students will describe their ambitions for the future and describe what they'd like to achieve to be happy.

#### 'Et plus tard...?' (Future plans)

Students will engage with vocabulary about future employment.

#### 'Sorties en ville' (Outings in town)

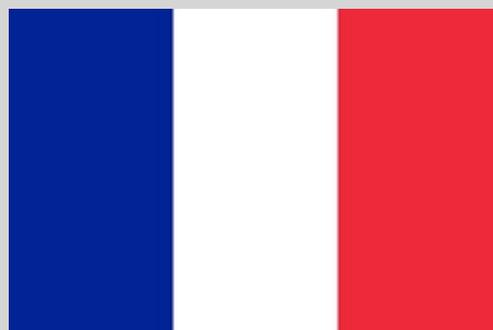
Students will learn vocabulary about places in town as well as exploring cultural similarities and differences.

#### 'Bien manger pour bien vivre (Eat well to live well)

Students will describe their eating habits and will engage with vocabulary about nutrition.

#### 'En pleine forme?' (In full form)

Following the previous unit, students will learn about health and will compare health issues globally.



## Indonesian

### Course Outline & Assessment

This course has a strong focus on grammar and vocabulary. It builds on the knowledge gained in Years 7-9 Indonesian and is typically challenging by nature. That said, learning Indonesian is also incredibly rewarding as by Year 10 students are able to communicate more and more in the target language. The course is designed to set students up for the demands of VCE Indonesian and like Year 9, students will have the opportunity to use their Indonesian language skills outside of the classroom in an authentic environment. By continuing on with their Indonesian journey at Ringwood SC, students will also give themselves the opportunity to potentially participate in a Homestay and Cultural trip to Indonesia.

The course is divided into five different topics and students will be assessed on their reading/translating, writing, listening and speaking skills. Students' intercultural knowledge and understanding will also be assessed throughout each unit through a variety of fun and engaging cultural tasks.



### Topics Covered

#### In the City

Learn how to ask for and give directions in Indonesian and learn the vocabulary for different landmarks located in the city.

#### Indonesian Film and TV

Learn about Indonesian culture and teen life through film. Learn how to write an engaging and critical film review in Indonesian. Attend the Indonesian Film Festival.

#### Seasons and Weather

Learn how to ask about and comment on the weather.

#### The Indonesian Environment

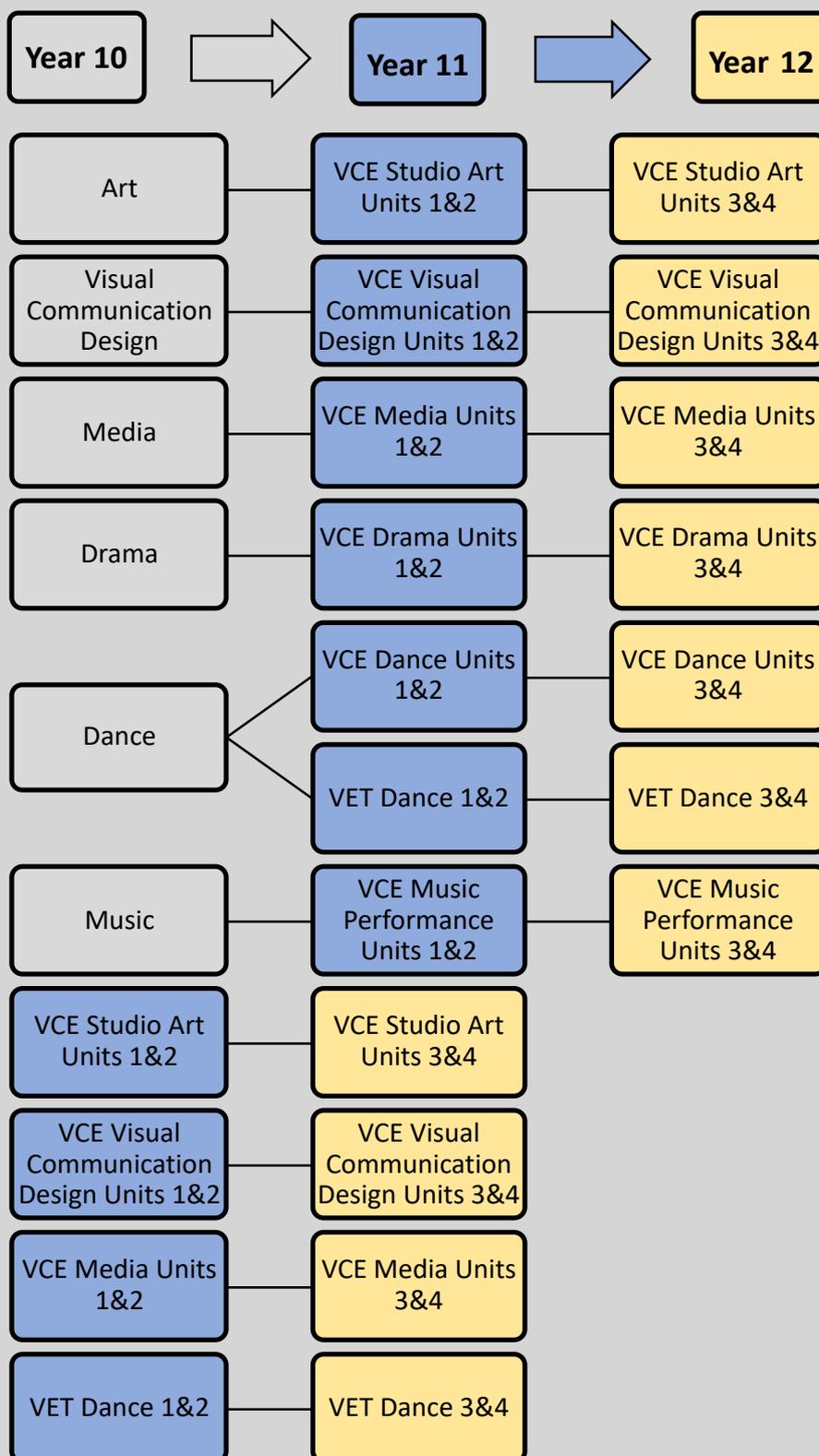
Learn about the Indonesian environment and the environmental challenges they face in the future.

#### Future Aspirations

Learn how to express your future aspirations and write a resume and conduct a job interview in Indonesian.



# Art Studies Pathways



## Art

### Course Outline & Assessment

This course encourages students to develop their artistic skills and explore their individual styles in a variety of mediums such as watercolour, charcoal and ink, whilst learning about different art forms such as painting, manual and digital drawing and collage. There is a focus on the studio process, where students explore, develop and refine their ideas and concepts and document their journey in a visual diary. Students refresh their understanding of the different art movements and learn a range of theoretical knowledge to prepare them for VCE Studio Arts.

The course features three major assessment tasks:

**Art and Appropriation** - Produce an artwork that deliberately copies an existing famous artwork and combine this with popular culture to create a contemporary artwork with a new message, using various mediums of choice.

**Materials and Techniques** - Explore and develop ideas, experiment with a range of materials, techniques and processes and investigate art elements and principles to produce and evaluate finished artwork/s.

**Analysis** - Analyse a variety of traditional and contemporary artworks using appropriate art terminology and concepts such as materials, techniques and processes, art elements and principles, visual language, influences and the art industry such as conservation, curators and gallery characteristics.

### Topics Covered

- Materials, Techniques and Processes
- Artforms
- Aesthetics and Style
- Visual Language
- Art Movements
- Appropriation
- Studio Process
- Art Industry
- Excursions to Galleries



## Dance

### Course Outline & Assessment

Dance provides students with an opportunity to develop their skills differently to what they would experience in any other classroom. Dance allows students to work together and independently in order to hone their skills in physical coordination, fitness, creativity, problem solving and kinaesthetic awareness. In Dance, we allow students to draw upon their creative side. Students will strengthen their understanding of how to create a personalised movement vocabulary and better understand themselves as a dancer, performer and human being. Students will also strengthen their own technical ability in order to perform their own and other choreographer's works to artistically portray a concept or storyline to their audience.



### Topics Covered

#### Technique

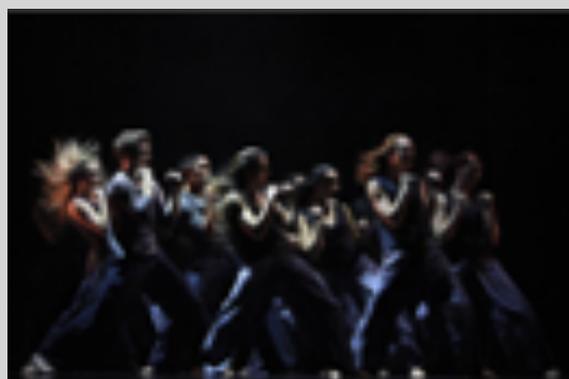
Students will develop the ability to lead a physical warm-up which adheres to safe dance practices. Students will broaden their knowledge of how to look after their body as a dancer through diet, personal wellbeing and muscular control. Students will develop the ability to understand how common dance injuries occur and how to manage these effectively to best look after themselves.

#### Exploration

Students will strengthen their analytical skills by applying their knowledge of dance to the written form. Students will study a combination of professional solo and group dance performances in order to evaluate how dancers are able to communicate their intention to an audience.

#### Choreography

Students will develop confidence in their own ability to perform and choreograph dance works. In Dance we look at a range of styles such as Contemporary, Jazz and Hip Hop in order for students to continue developing a personalised movement vocabulary that is specific to them as a dancer. Students will learn and develop choreography that portrays an intention which allows them to manipulate their performance skills to showcase artistry.



## Drama

### Course Outline & Assessment

This course focuses on creating characters and telling stories in various ways. Students learn the skills of creating performances, becoming characters and building a relationship with an audience. The course also focuses on the technical aspects of a performance as well how to analyse professional theatre.



### Topics Covered

#### Performance

Students develop and sustain different roles and characters to realise dramatic intentions and engage audiences. They perform devised and scripted drama in different forms, styles and performance spaces. They plan, direct, produce, rehearse and refine performances. They select and use the elements of drama, narrative and structure in directing and acting and apply stagecraft. They use performance and expressive skills to convey dramatic action and meaning.

#### Stage Craft

Students maintain safety in drama and in interaction with other actors and extend their exploration of ways that they and others nurture, develop and sustain drama practice.

#### Theatre Analysis

Students analyse the elements of drama, forms and performance styles and evaluate meaning and aesthetic effect in drama they devise, interpret, perform and view. They use experiences of drama practices from different cultures, places and times to evaluate drama. As they make and respond to drama, students explore meaning and interpretation, forms and elements and how drama can influence and challenge. They evaluate actors' success in expressing the directors' intentions and the use of expressive skills in drama they view and perform and identify characteristics of performance and theatrical styles.

#### Dramatic Skills

Structure drama to engage an audience through manipulation of dramatic action, forms and performance styles and by using design elements. Manipulate combinations of the elements of drama to develop and convey the physical and psychological aspects of roles and characters consistent with intentions in dramatic forms and performance styles.

## Media

### Course Outline & Assessment

The Year 10 Media course will include a mix of practical the theory-based units. The media has the power to influence the way people spend their time, and the way they perceive themselves and others. It is a platform for the creation and exchange of personal, social, cultural, national and global identities. The media entertain, educate, inform and provide channels of communication.

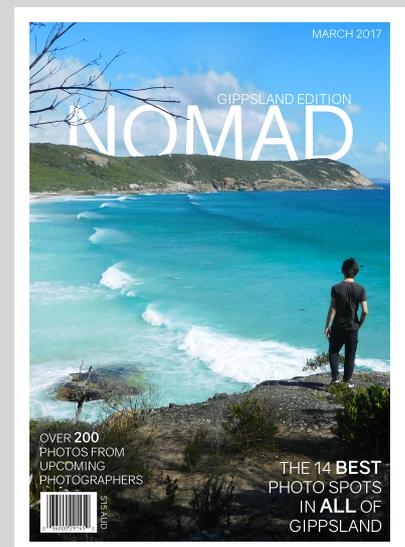
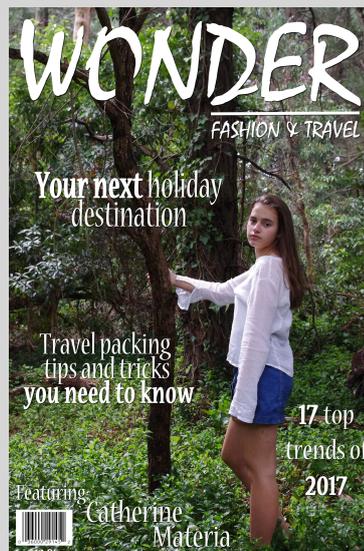
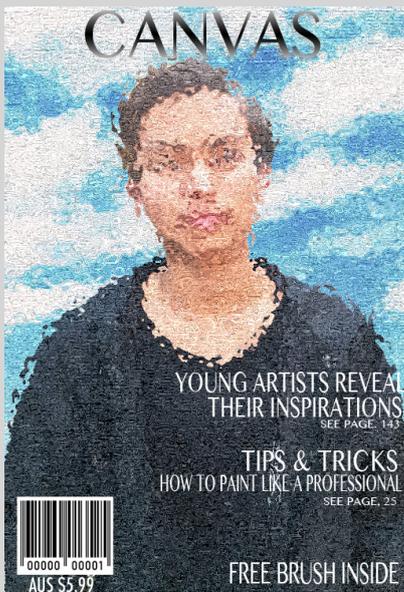
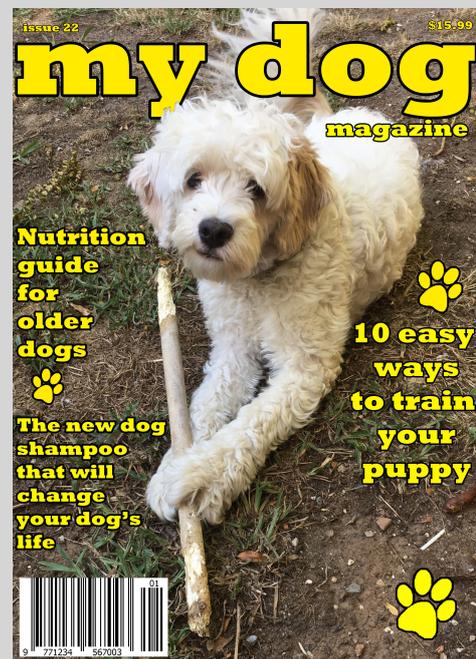
The Year 10 Media course will include the following areas of practical and theoretical study across the semester:

- Magazines
- Film Analysis
- Short Film Production:
- Music videos / Short narrative films

For more information go to: <http://scriptclickcreate.weebly.com>

### Topics Covered

- Codes and Convention of film and print
- Technical skills using media equipment
- Analysis of media products and concepts
- Creating and making media products
- Exploring and responding to media products



## Music

### Course Outline & Assessment

Year 10 Music is an elective classroom music course that runs for a semester. This course has been comprehensively designed to excel students in all levels of music study, musical backgrounds and abilities. All students who love music and wish to be challenged and grown in their musical knowledge, skills and experience are strongly encouraged to elect this subject. This subject is an essential and thorough preparation for students who wish to continue studying Music at VCE level and beyond, or to support their musical interests outside of school. Learning an instrument and/or completing Year 9 music is a recommended prerequisite for those considering this subject.



### Topics Covered

#### Performance

Students will have the opportunity to compose and perform in both solo and ensemble situations, exploring a range of compositional elements, styles and performance etiquettes. Classes cover class performances on the keyboard, guitar and voice – perfect for students who are learning an instrument for the first time or wish to refine their skills from Year 7 to 9 Music.

#### Musicianship

Students refine their aural skills and theoretical knowledge learnt in years 7-9. Students will take part in ear training exercises to develop their aural skills which will in turn improve their capacity as a musician.

#### Assignments and Music Composition Folio

Students will complete written tasks, in order to become experts on their chosen instrument/s. This includes music career pathways investigation. Students will also learn how to create a compositional folio using the latest music notation software.

#### Music Technology

Music Technology is also explored in this course, to enhance students' compositional tasks and overall enjoyment of Music. Music Technology is utilised through IT music software such as Garage Band, Audacity and Logic, to accentuate their compositions and performances.



## Visual Communication Design

### Course Outline & Assessment

This course has a focus on developing practical and theoretical skills and knowledge related to the Design Process and the 3 Design Fields – Industrial, Environmental and Communication. It encourages students to develop their manual and digital drawing skills by following technical conventions, applying materials, media and methods and embedding the design elements and design principles. Students learn about the design brief and how this is used to direct the design process and the variety of presentation formats available to represent visual communication designs. This course prepares students for VCE Visual Communication Design.

The course features three major assessment tasks:

**Industrial Design** - Create an object and use 2D and 3D drawing methods along with rendering to communicate a realistic representation of the object.

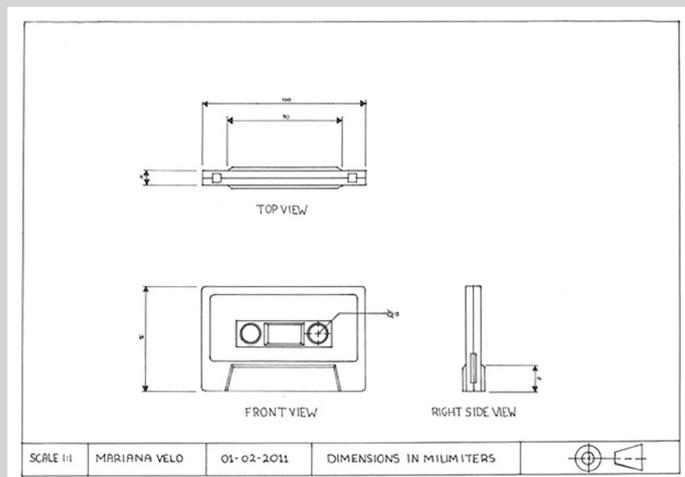
**Environmental Design** – Create an accurate and scaled structural design by following a design process aimed to increase design thinking, technical drawings skills and digital/manual skills.

**Communication Design** – Analyse an existing piece of type or imagery using appropriate terminology and then recreate a new suitable graphic design for print or digital media.

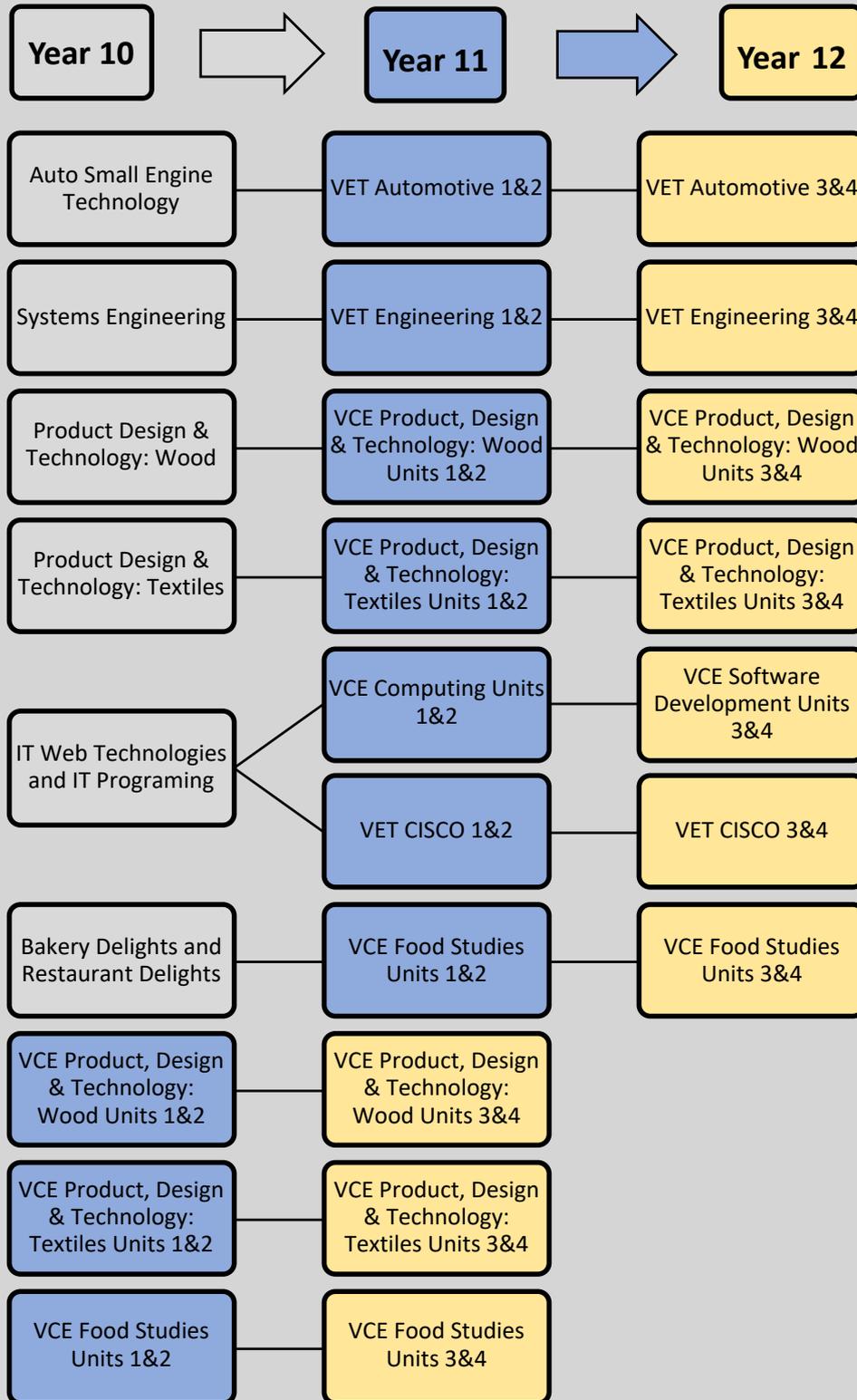
### Topics Covered

Topics Covered

- Observation Drawing
- Visualisation Drawing
- Orthogonal Drawing
- Isometric and Planometric Drawing
- Perspective Drawing
- Rendering
- Manual and Digital Methods
- Floor plans and Elevations
- Target Audience and Purpose
- Creative, Critical and Reflective Thinking



# Technology Studies Pathways



## Auto Small Engine Technology

### Course Outline & Assessment

The Technology Automotive course arms students with the necessary skills to restore an engine to a healthy running state. They will be trained in the use of specialist tools and measuring equipment and will also undertake studies pertinent to full size cars, such as automotive wiring.

This course also provides students with the skills necessary to successfully negotiate the legal requirements around purchasing their first automobile. Students will also gain experience and an understanding of the theory behind the operation of multi-cylinder internal combustion engines.

### Topics Covered

#### Internal Combustion Engine Fundamentals

This unit introduces the basic operating principles of the internal combustion engine. From Multi-cylinder engines to the new hybrid and electric vehicles.

#### Sustainability, Cars and the Environment

Students will study the technologies that have impacted the automotive industry, areas from the operating efficiencies of modern vehicles to their disposal.

#### Practical task – Recondition a Honda Engine

Students will be issued an operational small engine to disassemble. Students are required to recondition the engine to a correct running state.



\*Cost Involved: \$85

## Bakery Delights

### Course Outline & Assessment

Have you ever wondered what makes your cake rise? Why your cake goes brown in the oven but not in the microwave? What makes puff pastry flaky, but your short-crust crumbly? How to make the perfect loaf of bread or the most authentic pizza dough? This course is comprehensive in both theoretical and practical skills, with a focus on both sweet and savory baked goods. This subject will be of interest to students who are currently or planning to work in the food industry; complete Food Studies in VCE, or for those purely wanting to learn more about something we put into our bodies everyday- food! Students will cover a range of topics very relevant to today's society including current food trends, the war on waste, the sustainability of food packaging and the functional properties of ingredients in foods.

The course is divided into two areas: Theory assessment contributes 60% and practical assessment contributes 40% towards the overall grade. Theory assessment includes two design projects. The practical assessment includes independent and cooperative work skills and safety and hygiene practices.



### Topics Covered

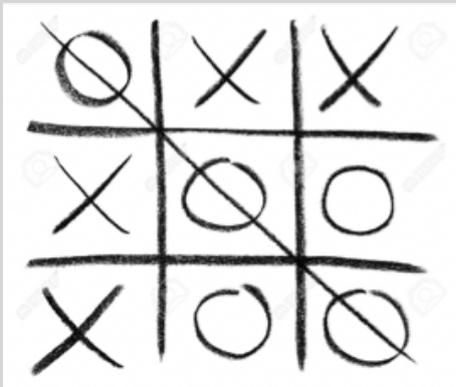
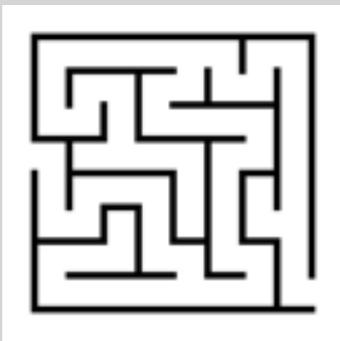
- Safe and hygienic food handling practices to prevent food poisoning and spoilage
- The recommendations of the 'Australian Guide to Healthy Eating'
- Savoury Baked Goods including using yeast to make a variety of products
- Researching and implementing solutions to design briefs
- Food Labelling and Packaging
- Food Trends
- Food Sustainability



## IT Programming

### Course Outline & Assessment

Programming gives students the opportunity to design and develop powerful stand-alone applications using one of the most widely used languages in the world. Python is an object-oriented programming language that runs across all platforms. It is easy to learn and supported by wide range of resources.



### Topics Covered

#### Algorithm Design

Using tools such as flowcharts and pseudocode to describe solutions to problems such as how to find the winning move in tic-tac-toe, how to find a path through a maze or how to crack a cipher.

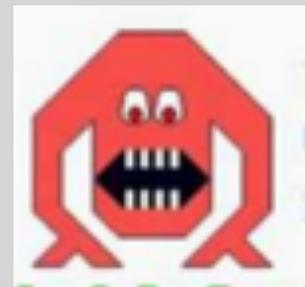
#### Building Digital Solutions

Build applications in Python that are modular, efficient and capable of bringing the students' imaginations to the real world.

- Variables, arrays and complex data structures
- IF statements, FOR loops and other control structures to manage the flow of the application
- Files and databases to store data
- Design and development of student designed applications

```
from Tkinter import *  
  
def doConvertTemp(aTemp):  
    fResult = aTemp * (9.0/5.0) + 32  
    return fResult  
  
def convert_handler():  
    print 'Handler called'  
    cTemp = float(txtCTemp.get())  
  
    fTemp = doConvertTemp(cTemp)  
  
    txtFTemp.delete(0,END)  
    txtFTemp.insert(0,fTemp)  
  
main = Tk()  
main.geometry('400x200+100+100')  
main.title('Temperature Converter v0.1')
```

```
class Item():  
    """The base class for all items"""  
  
    def __init__(self, name, description, value):  
        self.name = name  
        self.description = description  
        self.value = value  
  
    def __str__(self):  
        descStr = self.name + '\n====\n' + self.description  
        return descStr
```



## IT Web Technologies

### Course Outline & Assessment

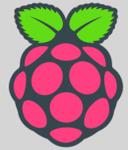
Web Technologies introduces students to a range of technologies that underpin powerful web servers.

Students learn about the LINUX operating system as the base for a web server. They will learn how to manage files, users, groups and permissions so they can customise the operating system and prepare it for the addition of the APACHE web server engine, the MARIADB database engine and the PHP server-side programming language.

### Topics Covered

- Configuration of Raspbian, Apache, MariaDB and PHP
- Creating and serving web pages
- Relational Database design and management
- Dynamic web pages and server-side scripting

The Raspberry Pi forms the base of the web-server. Students will learn how to manage this powerhouse microcomputer.



MariaDB is a powerful SQL database engine that allows students to manage and serve information.

Raspbian is a powerful Linux operating system that supports the server.



Apache is the most common web server application on the internet today. Around 45% of all web sites are served by Apache servers.



PHP is a server-side language that add enormous programmability to a website.



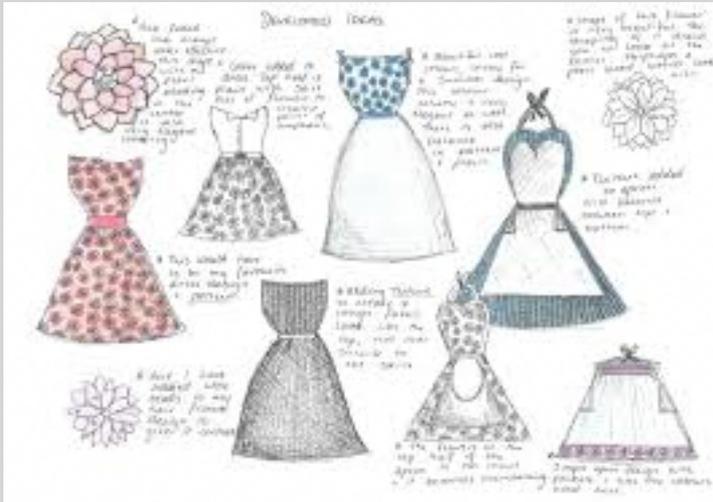
## Product Design and Technology: Textiles

### Course Outline & Assessment

The Textiles course at Year 10 level focuses on learning about product design. Students will learn how to develop products for a specific client and work within the constraints of a design brief. They will complete research and gather inspiration to form their own ideas and put these into practice through the development of a product. Students learn about risk management and safety within a design setting. Students complete a folio and a final product. All practical work is based on theory and research that is developed throughout the course. This course will prepare students to continue studying Product Design and Technology – Textiles at VCE, as well as help students to gain folio skills for future subjects studied in the Art, Design and Technology Faculty.

### Topics Covered

- **Famous Fashion designers** - Research a famous designer, discover their inspirations
- **Designing** - using a teacher directed task to develop a design brief to satisfy a need.
- **Producing** - create a garment from scratch, using both hand and machine methods.
- **Evaluation** of their own and others' work



# Product Design and Technology: Wood

## Course Outline & Assessment

Product Design and Technology is an integral part of the total curriculum at Ringwood Secondary College. As a practical based folio subject its major emphasis is on the development of the students knowledge and skills in the elements of design, using available equipment, both hand and power. The students acquire knowledge of design, best process, tool use and affective material selection. Skills involved in this subject are useful to students in making decisions on their career path as well as learning practical skills that can useful in life.

Assessment will be based on the development of design folio, practical work and the completion of an evaluation of the processes used to make their chosen design.



## Topics Covered

### Design

Create a design brief for a major product, taking into consideration construction methods and effective and honest use of processes and materials

### Production

Effectively use of hand tools, machines, equipment and processes to construct a chosen design.

### Evaluation

Use of Digital Technology to Evaluate the Finished Product.



## Restaurant Delights

### Course Outline & Assessment

This course is comprehensive in both theoretical and practical skills. It is directed towards a variety of students - those who are considering continuing in Food Studies at VCE level and those who have an interest in food practice and theory. Whilst not compulsory, the course is recommended for students who are considering undertaking Food Studies at VCE, for those who are interested in working in the hospitality industry or those students with an interest in the pleasures of food. The course focuses on practical and theoretical study of a range of foods that make up the courses of a menu.

The course is assessed in the following areas:

- Major projects based on the design process.
- Entertaining Design Project where students work in groups of four to plan and prepare a restaurant style meal.
- Practical assessment of each student's independent and collaborative skills.



### Topics Covered

#### Australian Guide to Healthy Eating

Understanding the important link between food and life-long positive health.

#### The Science of Food

Understanding the natural components of food and their impact on ingredients and consequently food.

#### Food Safety & Hygiene

The importance of keeping food safe to prevent contamination and illness.

#### Food Sustainability

Understanding the impact our food production systems have on the environment.

#### Presentation Styles of Food

Students learn to present food to enhance the characteristics and appeal of the food.

#### Influences on Food Choices

An examination of the various influences we have on our food choices, or example, culture, religion, food allergies and intolerances, vegetarianism.

#### Sensory Evaluation of Food

Students apply sensory terminology to the food they have produced to be able to assess the characteristics of that food.



## Systems Engineering

### Course Outline & Assessment

Materials and Systems involves the design, creation, operation and evaluation of an integrated product. It will develop the students' understanding of the systems design and manufacturing process. It will also highlight the range of factors that influence the planning, sustainable construction materials content and evaluation of the given system. The course will provide students with the skills necessary to design and produce a mechanical and/or electronic system which will perform a function designed by the student. Continuing from earlier Materials/Technology and Digital Technology classes, Materials and Systems is considered to be beneficial for students planning to study VCE Systems Engineering in future.



### Topics Covered

#### Technical drawing

This unit will introduce correct parameters and layout of the industry standard technical diagram. Inclusions such as common measurement and symbol placement as well as isometric and orthographic presentation.

#### Systems Engineering

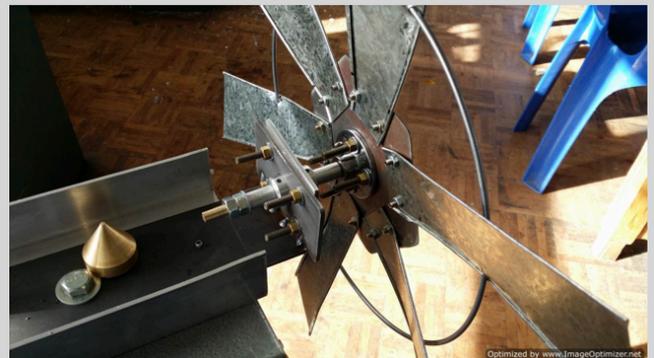
An introduction to Systems where students will study a broad range of designs from their simplest form to more advanced. Students will learn how they can effectively implement a suitable and achievable design.

#### Fabrication and Materials

Fabrication skills and also correct selection and use of equipment are addressed. This also includes variation of technique working with a wide selection of materials of different physical make up.

#### Effective Portfolio Design

Students will study portfolio design and content; what is necessary to include and how to tackle a successful portfolio.



---

# RINGWOOD SECONDARY COLLEGE

---



Bedford Road Ringwood, Victoria 3134

---