TULLAWONG STATE HIGH SCHOOL

Soaring to great heights

SENIOR COURSE GUIDE

2022

Year 10

Contents

Key Contacts

Executive Team

Principal	Ms Kiah Lanham	
Deputy Principals	Mr Geoff Hooton	Year 7 & Bambara House Deputy
	Mr Harley Dawson	Year 8 & Alinta House Deputy
	Mr Joshe Newton	Year 9 & Kiata House Deputy
	Ms Arlene Walker	Year 10 & Garagah House Deputy
	Mr David Ferguson	Year 11/12 & Wooroonga Deputy
Business Manager	Mrs Nicole Wilson	

Leadership Team

Guidance Officers	Ms Kate Jessup
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	Mrs Elyse Gilbert
Head of Department Arts	Mrs Zoe Wells
Head of Department Culture & Engagement	Mr Chris Bubke
Head of Department English	Ms Sonia Dow
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Head of Department Science	Ms Shannon Trims
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Head of Department Teaching & Learning	Ms Liana Nation

Welcome

Welcome to the Tullawong State High School community. We are proud to serve our community by fulfilling & upholding our school's Vision, Mission & Values.

Vision

Empowering students to reach their full potential

Mission

Fostering a positive school culture for learning, allowing all students to create their future.

Values

Integrity – being Honest and having strong morals

Diligence – doing things to be the best person you can be

Courage – Making the right choice even when it is difficult

Respect – treating others how you would like to be treated

Curriculum Learning Overview

Tullawong State High School offers a broad range of educational pathways in Senior School. Our school aims to provide students with the opportunity to access learning experiences across the key learning areas.

YEAR 10

Students in year 10 study the following core subject areas. In addition to their core study areas, students will also choose 2 elective subjects to study throughout the duration of year 10.

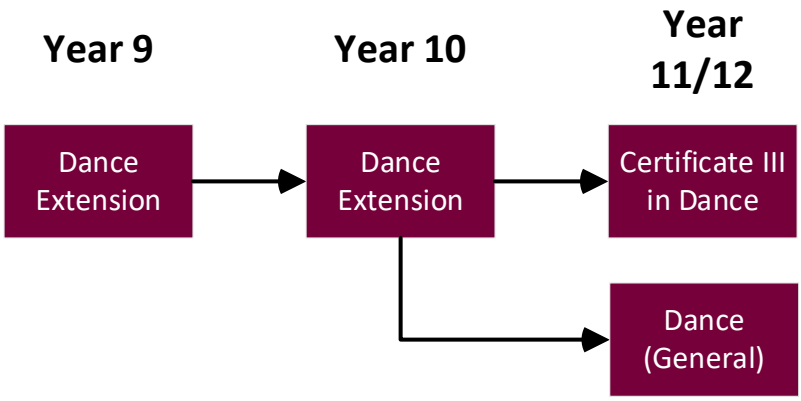
Year 10 Curriculum Plan						
Core	**English**	**Mathematics**	**Science**	**History**	**HPE**	**IGNITE**
Electives Rotations*	**Art, Dance, Dance Extension, Drama, Fashion, Media Arts, Music, Business, Civics & Citizenship, Digital Technologies, Food Studies, Design, Engineering Skills, Furnishing Skills, Rugby League Development, Geography**					

* Electives run subject to numbers and staffing

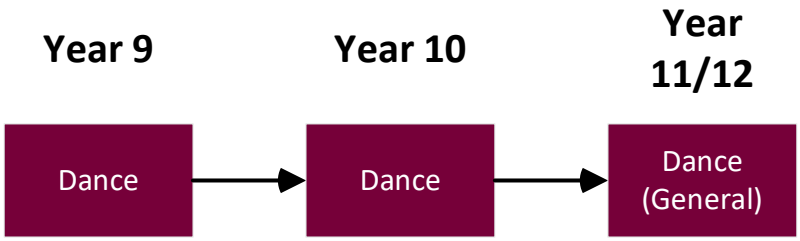
SENIOR *Arts* GUIDE

Learning Pathways – The Arts

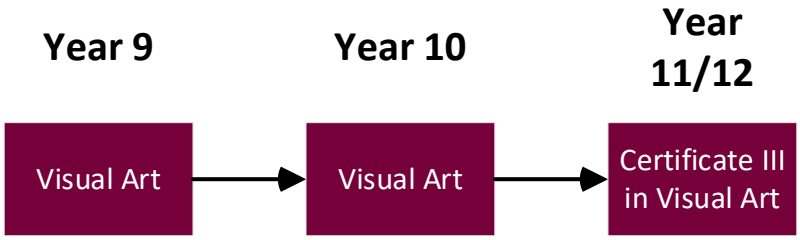
Dance Extension



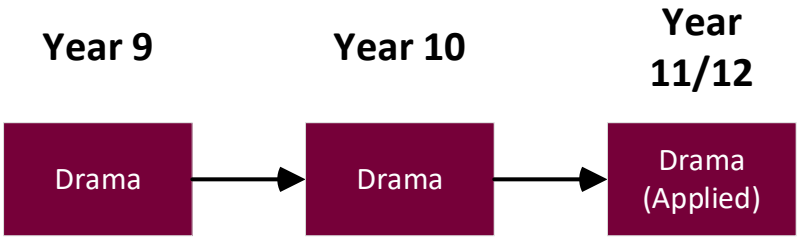
Dance



Visual Arts

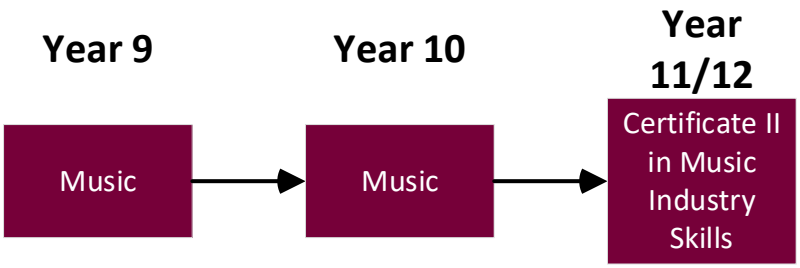


Drama

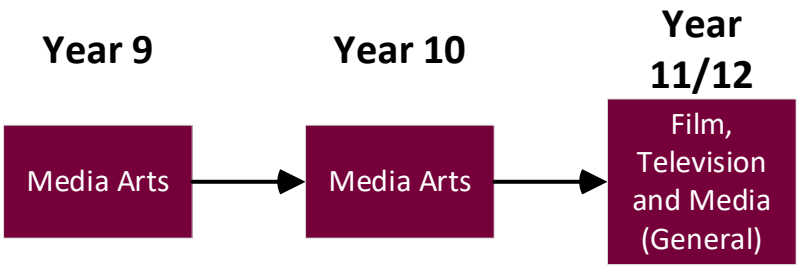


Learning Pathways – The Arts

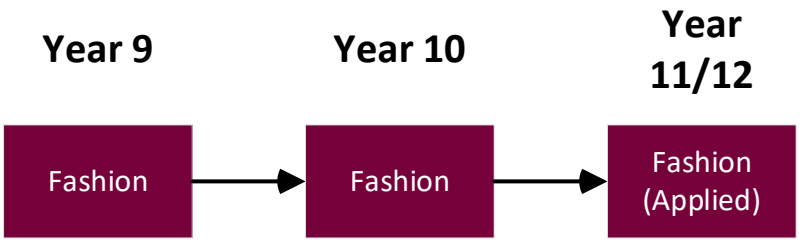
Music



Media Arts



Fashion



Year 10 Dance Extension

Purpose

Dance is the study of movement, the body's capabilities and how it is used to communicate a choreographic intention. Dance Extension is an audition-based course that extends and nurtures students who are gifted and talented in the areas of dance performance and choreography. Dance Extension follows the Australian Curriculum and provides students with concentrated technical training in the areas of Ballet, Jazz, Contemporary, Musical Theatre and Hip Hop, opportunities to choreograph and skills to analyse and evaluate their own and others dance work with an emphasis on building their 21st century skills.

*Please note that Dance extension is through audition entry only

Key skills

- Analyse the choreographer's use of the elements of dance, choreographic devices, form and production elements to communicate choreographic intent in dances they make, perform and view.
- Evaluate the impact of dance from different cultures, places and times on Australian dance.
- Choreograph dances by manipulating and combining the elements of dance, choreographic devices, form and production elements to communicate their choreographic intent.
- Rehearse and perform dances, demonstrating technical and expressive skills appropriate to the genre and style.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: Dance Technique IV** This unit will further develop students technical and performance skills in a range of artistic dance genres including: Ballet, Jazz, Contemporary, Lyrical, Hip Hop and Musical Theatre.	**Dance Project** - Performances
Unit 2	**Unit 2: Dance on Screen** This unit will explore how social media and new forms of technology have impacted the art form.	**Dance Project** - Performance - Choreography
Unit 3	**Hit The Lights IV** This unit will provide students with the opportunity to learn, rehearse and polish large dance works in preparation for Dance Night.	**Performance**
Unit 4	**Unit 4: Dance in the Community** This unit will allow students to explore the role and function of dance in society and the community.	**Dance Project** - Performance - Choreography

Pathways

The usual progression of study from year 10 Dance Extension would be into further study of Senior General Dance in Year 11 and 12. Dance Extension opportunities exist through audition for students in Year 11 and 12 with the opportunity to study a Certificate III in Dance.

Year 10 Dance

Purpose

Dance is the study of movement and the body's capabilities and how it is used to communicate a choreographic intention. Through dance, students represent, question and celebrate human experience and explore how movement is used as the medium for personal, social, political, historical, emotional and physical communication. Dance has the capacity to engage, inspire and enrich all students, excite the imagination and encourage students to reach their creative and expressive potential. Students choreograph, rehearse, perform and respond as they engage with dance practice and practitioners in their own and others' cultures and communities.

Key skills

- Analyse the choreographer's use of the elements of dance, choreographic devices, form and production elements to communicate choreographic intent in dances they make, perform and view.
- Evaluate the impact of dance from different cultures, places and times on Australian dance.
- Choreograph dances by manipulating and combining the elements of dance, choreographic devices, form and production elements to communicate their choreographic intent.
- Rehearse and perform dances, demonstrating technical and expressive skills appropriate to the genre and style.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: Moving Through Broadway** In Unit 1, students explore the style of Musical Theatre and how it is used to entertain, delight and captivate an audience through performance.	**Performance**
Unit 2	**Unit 2: Moving Through Innovation** In Unit 2, students explore how technology impacts, enhances and manipulates dance performance and the meaning that is communicated to audiences.	**Project** - Extended Response - Choreography
Unit 3	**Unit 3: Moving Through What Moves Me** In Unit 3, students will investigate how choreographers use dance to communicate a social, political or cultural issue, to an audience to convey a viewpoint.	**Choreography**

Pathways

The usual progression of study from year 10 Dance would be into further study of Senior General Dance in Year 11 and 12.

Year 10 Visual Art

Purpose

Visual Arts is the study of how visual mediums and representations engage, inspire, motivate and enrich the community. In Visual Art, students make and respond using visual arts knowledge, understanding and skills to represent meaning associated with personal and world views. Students undertake this journey by exploring and using a range of visual techniques, technologies, practices and processes and develop a personal visual aesthetic in response to stimuli.

Key skills

- Evaluate how representations communicate artistic intentions in artworks students make and view.
- Evaluate artworks and displays from different cultures, times and places.
- Analyse connections between visual conventions, practices and viewpoints that represent their own and others' ideas.
- Identify influences of other artists on their own artworks.
- Manipulate materials, techniques and processes to develop and refine techniques and processes to represent ideas and subject matter in their artworks.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: DRAWING TECHNIQUE III** This unit will further develop students drawing skills and technical proficiency through the exploration of the elements and principles of art to create a folio of two-dimensional art work. Area of focus will be on the artist Christo and detailed tonal drawing techniques with a range of drawing media – graphite, charcoal, soft pastels and water colour. Students will complete an in-depth multi-modal presentation analysing a still life artist/artwork and the elements and principles of art in their chosen two-dimensional artwork.	**Visual Art Project** - Making - Extended Written Response
Unit 2	**Unit 2: SCULTPURE II** Students will design and create a functional ceramic sculpture inspired by organic or inorganic forms. Students will research various textures from objects and plan a clay tile with their chosen theme. A functional sculptural vessel will then be created building on prior knowledge of hand building techniques, with focus on high relief texture, intaglio and glazing techniques.	**Making**
Unit 3	**Unit 3: PAINTING TECHNIQUE III** In this unit students will explore the art movements of Abstract Art and Surrealism. Students will develop their understanding of painting techniques to produce a large-scale painting using acrylic paint.	**Making**
Unit 4	**Unit 4: PRINTMAKING 101** This unit will introduce students to printmaking skills through a range of lino printmaking tasks focusing on the representation of nature in art. Students will complete a design process, make multiple lino prints on cartridge and calico using ink, water colour and fabric dyes.	**Making**

Pathways

The usual progression of study from year 10 Visual Arts would be into further study of Certificate III In Visual Arts in Year 11 and 12.

Year 10 Drama

Purpose

Drama is study of the human condition and the exploration of social, political, historical and cultural communities through an expression of voice and movement. Drama has the capacity to engage, entertain, inspire and enrich all students. In making and staging Drama, students learn how to be focused, innovative and resourceful and collaborate to take on responsibilities for Drama presentations. They can explore their imagination and take risks in storytelling through role and dramatic action.

Key skills

- Identify and analyse how the elements of drama are used, combined and manipulated in different styles.
- Evaluate how they and others from different cultures, times and places communicate meaning and intent through drama.
- Devise, interpret and perform drama.
- Manipulate the elements of drama, narrative and structure to control and communicate meaning.
- Apply different performance styles and conventions to convey status, relationships and intentions.
- Use performance skills and design elements to shape and focus theatrical effect for an audience.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: Storytellers of the Sacred** This unit explores the style of Australian Gothic that emerged from Realism and was influenced by European gothic texts and art. Students will explore scripts (theme, narrative, settings, characters) and staging options that bring the style to life. **Dramatic Forms/Styles:** Australian Gothic	**Drama Project** - Scriptwriting - Reflection
Unit 2	**Unit 2: Masters of Mayhem** In this unit, students will explore the historical context of 16th century Italy, and the theatrical style of Commedia Dell'Arte. They will study conventions of physical and verbal comedy, and develop a group scenario that incorporates current social and political references. **Dramatic Forms/Styles:** Commedia Dell'Arte	**Drama Project** - Journal - Performance
Unit 3	**Unit 3: Reporters of Reality** This unit involves the students reflecting on the theatrical style of Realism, and the methods that Stanislavski developed for actors to convey an in-depth understanding of a character and their psychology. They will analyse the elements of Drama and conventions of Realism in order to respond to live theatre. **Dramatic Forms/Styles:** Realism	**Drama Project** - Extended Response - Performance
Unit 4	**Unit 4: Transformers of Tragedy** The dramatic style of Elizabethan theatre will be explored in this unit as a tool to analyse tragedy in script and performance. Students will understand the current practice of adapting inherited texts to more contemporary contexts for current audiences. **Dramatic Forms/Styles:** Elizabethan Theatre	**Drama Project** - Character Profile - Presentation

Pathways

The usual progression of study from year 10 Drama would be into further study of Senior Applied Drama in Year 11 and 12.

Year 10 Music

Purpose

Music is the study of how sound is arranged to communicate an intention or viewpoint. Music is a basic expression of the human experience and is used to celebrate, enrich, inspire, commiserate, entertain and motivate. Through performing, composing and listening with intent to music, students have access to knowledge, skills and understanding which can be provide a greater understanding of the world around them. Skills and techniques developed through participation in music learning allow students to manipulate, express and share sound as listeners, composers and performers.

Key skills

- Analyse different scores and performances aurally and visually.
- Evaluate the use of elements of music and defining characteristics from different musical styles.
- Use their understanding of music making in different cultures, times and places to inform and shape their interpretations, performances and compositions.
- Interpret, rehearse and perform solo and ensemble repertoire in a range of forms and styles.
- Interpret and perform music with technical control, expression and stylistic understanding.
- Use aural skills to recognise elements of music and memorise aspects of music such as pitch and rhythm sequences.
- Use knowledge of the elements of music, style and notation to compose, document and share their music.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: Pillars of Music – Classical and Orchestral (20 weeks)** In this unit, students will develop an understanding of historical and complex styles of music. They will understand the contexts surrounding earlier styles of music, and influences from different countries and cultures. They will demonstrate their understanding of how elements and concepts were manipulated to communicate different ideas and meanings across styles. Students will also demonstrate aural recognition and memorising skills, as well as notation skills. Students will study the genres of Classical and Orchestral music.	**Music Project** - Analysis - Performance
Unit 2	**Unit 2: Pillars of Music - Film Music and Soundtracks (20 weeks)** In this unit, students will expand on concepts developed in the previous unit in regards to the function of large ensembles and drawing inspiration from all styles and genres to communicate a particular meaning. Students will demonstrate knowledge and skills in interpreting and manipulating various elements and defining characteristics from different styles and genres, and develop further skills in recognition, composition, and interpretation of viewpoints. Students will study the genres of Film Music and Soundtracks.	**Music Project** - Composition - Performance - Aural Response Exam

Pathways

The usual progression of study from year 10 Music would be into further study of Certificate II in Music Industry Skills in Year 11 and 12.

Year 10 Media Arts

Purpose

Media Arts is the study of creating representations of the world and telling stories through communications technologies such as television, film, video, newspapers, radio, video games, the internet and mobile media. Through gaining knowledge, understanding and skills of technologies and how they function, students will develop enjoyment and confidence to participate and experiment with the media-rich culture and practices that surround them. Skills in creative and critical thinking allow students to develop a sense of curiosity and discovery to explore perspectives of consumers and become socially aware producers of media content.

Key skills

- Analyse how social and cultural values and alternative points of view are portrayed in media artworks they make, interact with and distribute.
- Evaluate how genre and media conventions and technical and symbolic elements are manipulated to make representations and meaning.
- Evaluate how social, institutional and ethical issues influence the making and use of media artworks.
- Produce representations that communicate alternative points of view in media artworks for different community and institutional contexts.
- Manipulate genre and media conventions and integrate and shape the technical and symbolic elements for specific purposes, meaning and style.
- Apply design, production and distribution processes.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: Representations** In Unit 1, students will be introduced to the concept of representations of society in film across various time periods and cultures. They will be able to analyse and evaluate how these viewpoints are portrayed in films and how various issues can influence the making and use of different media artworks. Students will be able to produce their own representations of cultures and societies that communicate alternative points of view for different contexts. They will demonstrate this through the manipulation of conventions and elements for specific purposes, meanings and style.	**Media Project** - Extended Response - Multimedia Production
Unit 2	**Unit 2: Adaptations** In Unit 2, students will demonstrate an understanding of adaptations and the differences in products across various platforms according to their contexts of production. They will analyse and evaluate the differences in how alternative points of view are communicated, and be able to demonstrate an understanding of the issues associated with the platforms in producing representations. Students will be able to produce and communicate their own platform adaptation by manipulating elements and conventions to suit alternative points of view and contexts of production. They will be able to integrate and shape the elements and ideas for specific purposes, meanings and styles	**Media Project** - Extended Response - Multimedia Production

Pathways

The usual progression of study from year 10 Media Arts would be into further study of Senior General Film, Television and New Media in years 11 and 12.

Year 10 Fashion

Purpose

Fashion is an integral part of everyday life which shapes an individual's personal identity. Fashion is influenced by culture, history and functionality, economic considerations, personal taste, peer groups, availability and trends. Fashion is the study of applying design, aesthetic and construction to a range of clothing items and collections using the mentioned influences. Through gaining knowledge, understanding and skills of design and construction technologies and how they function, students will develop the confidence and self-expression to design experiment with the aesthetics of a range of fashions styles. Skills in creative, critical thinking and problem solving allow students to develop a sense of curiosity and social awareness about the impact that fashion has on a wider scale.

Key skills

- Explain how people working in the fashion industry consider factors that impact on design decisions and the technologies used to produce products, services and environments.
- Identify the changes necessary to designed solutions to realise preferred futures they have described.
- Produce designed solutions for identified needs or opportunities.
- Evaluate the features of technologies and their appropriateness for purpose.
- Create fashion solutions based on a critical evaluation of needs or opportunities.
- Establish detailed criteria for success, including sustainability considerations, and use these to evaluate their ideas and designed solutions and processes.
- Create and connect design ideas and processes of increasing complexity and justify decisions.
- Communicate and document projects, including marketing for a range of audiences.
- Apply sequenced production and management plans when producing designed solutions, making adjustments to plans when necessary.
- Select and use appropriate technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Unit 1: The artistic elements of fashion** This unit will introduce students to the artistic elements of design with a focus on the contemporary style of fashion. Students will explore how the elements of design are manipulated in successful fashion designs to create interest. Students will apply this knowledge by creating annotated mood boards incorporating the elements of designs and examples of fashion.	**Fashion Project** - Mood Boards - Design Pitch
Unit 2	**Unit 2: The art of steam punk – a subgenre of fashion** This unit will introduce students to the steam punk genre and sustainability surrounding denim production. Students will design and create a steam punk inspired garment that utilises an upcycled denim garment. The final product must be a garment and can not be an accessory.	**Fashion Project** - Design Folio - Product
Unit 3	**Unit 3: The art of print designs in fashion** This unit will introduce students to print designs for designing fabrics. Students will explore both manual and digital techniques of print design and fabric development. Students will observe a current fashion label for inspiration and create two original print designs to be used in future designs of their choice.	**Fashion Project** - Mood Board - Print Example
Unit 4	**Unit 4: The art and origin of the Australian fashion industry** This unit explores the origin of the fashion industry in Australia, including indigenous perspectives ranging from traditional to modern designers. Students will complete a profile on a chosen modern Australian fashion designer.	**Oral Presentation**

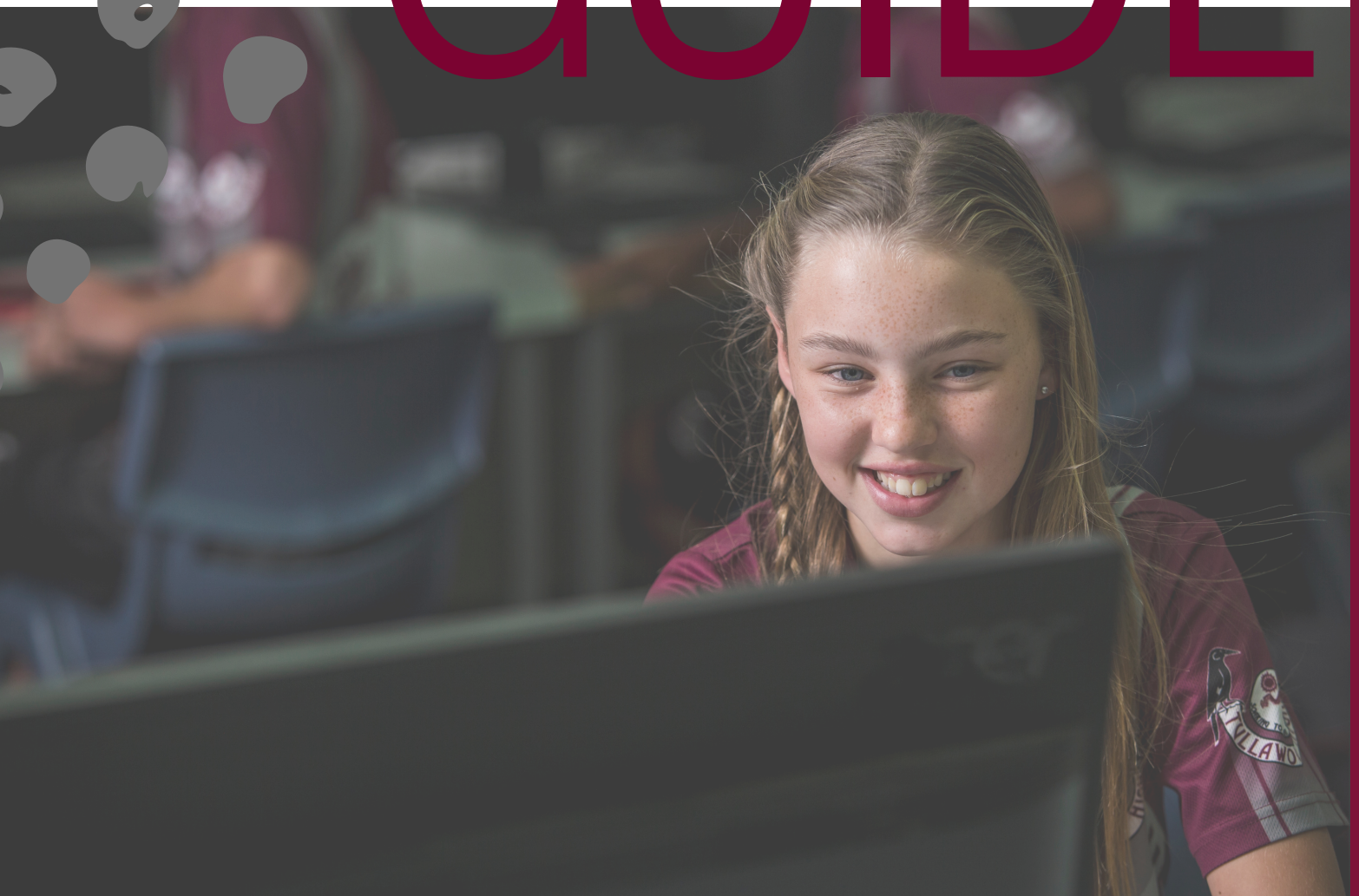
Pathways

The usual progression of study from year 10 Fashion would be into further study of Senior Applied Fashion in years 11 and 12.

SENIOR

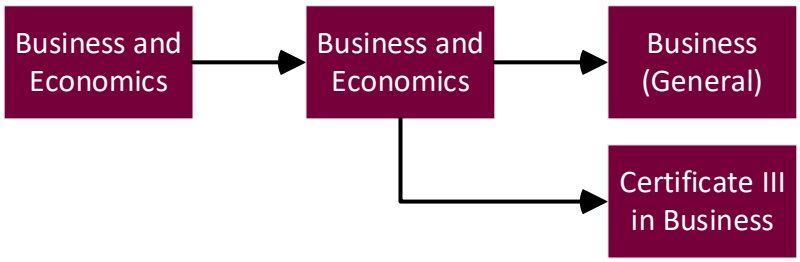
Business, IT & Home Economics

GUIDE

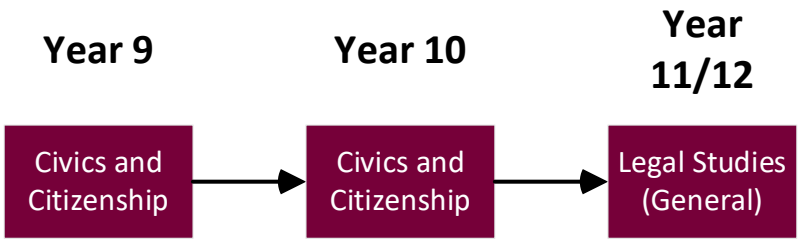


Learning Pathways – Business, IT & Home Economics

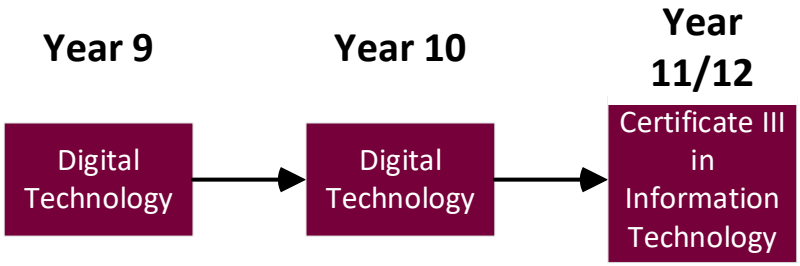
Business



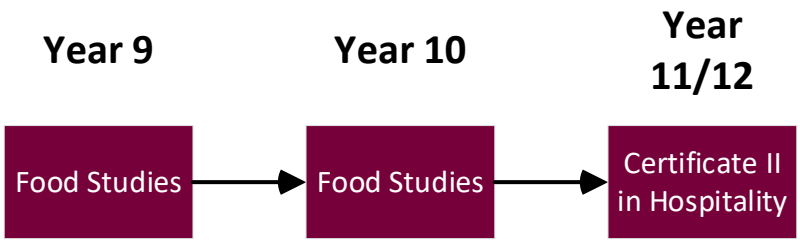
Civics and Citizenship



Digital Technology



Food Studies



Year 10 Business

Purpose

Economics and Business empowers students to shape their social and economic futures and to contribute to the development of prosperous, sustainable and equitable Australian and global economies. The study of economics and business develops the knowledge, understanding and skills that will equip students to secure their financial futures and to participate in and contribute to the wellbeing and sustainability of the economy, the environment and society.

The Year 10 curriculum gives students the opportunity to further develop their understanding of economics and business concepts by considering Australia's economic performance and standard of living. The ways governments manage the economy to improve living standards is explored, along with the reasons why economic performance and living standards differ within and between economies. Students explore the nature of externalities and why the government intervenes to ensure that prices reflect the depletion of resources or costs to society. Students examine the consequences of decisions and the responses of business to changing economic conditions, including the way they manage their workforce.

Key skills

- Students asking questions about a contemporary issue or event and planning and conducting investigations.
- Students gather information and data from a range of sources to investigate the issue or event.
- Students will critically examine information and data and accounting for different perspectives.
- Make informed decisions using economic reasoning and applying economics and business knowledge, skills and concepts to familiar and new situations.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1 Managing economic performance and standard of living	In this unit, students will develop and apply enterprising behaviours and capabilities, and knowledge, understanding and skills or inquiry, to investigate a familiar, new and complex hypothetical national, regional or global economics or business problem (for example, using economic data and information for a hypothetical developing country to devise a five year plan with strategies governments could use to manage the economy and improve living standards).	1. Extended Response – Investigation. 2. Examination – Combination response
Unit 2 Improving business productivity	In this unit, students will develop and apply enterprising behaviours and capabilities, and knowledge, understanding and skills or inquiry, to investigate a familiar, new and complex hypothetical national, regional or global economics or business problem (for example: exploring how governments, businesses and individuals respond to changing economic conditions such as rise of Asia, ageing of population and increasing demand for health and social services, rapidly advancing technology, shift to a clean energy economy as a result of climate change.)	1. Project – group work. 2. Assignment - report

Pathways

The usual progression of study from year 10 Business would be into further study of Senior General Business or Certificate III Business in Years 11 and 12.

Year 10 Civics and Citizenship

Purpose

Civics and Citizenship aims to ensure students develop a lifelong sense of belonging to and engagement with civic life as an active and informed citizen in the context of Australia as a secular democratic nation with a dynamic, multicultural, multi-faith society and a Christian heritage. They further deepen their knowledge, understanding and appreciation of the values, principles, institutions and practices of Australia's system of democratic government and law, and the role of the citizen in Australian government and society.

The Year 10 curriculum develops student understanding of Australia's system of government through comparison with another system of government in the Asian region. Students examine Australia's roles and responsibilities within the international context, such as its involvement with the United Nations. Students also study the purpose and work of the High Court. They investigate the values and practices that enable a democratic society to be sustained.

Key skills

- Students develop civic knowledge and understanding.
- They learn to apply citizenship skills to investigate political and legal systems, and the nature of citizenship, diversity and identity in contemporary society.
- They explore ways they can actively shape their lives, value their belonging in a diverse and dynamic society, and contribute locally, nationally, regionally and globally.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1 Global influences on Australia's democracy	In this unit, students explore key concepts relating to Australia's federal Parliament in particular the key question 'What influences shape the operation of Australia's political system?	Written task - assignment: Investigation – extended response essay
Unit 2 Law and Order	In this unit, students will explore the key features of Australia's court system and the key principles of Australia's justice system. Students identify, gather and sort information and ideas from a range of sources, to explain how the court system and justice system provide justice and resolve contentious issues. They account for different points of view and recognise how consensus is reached. They develop an evidence-based argument, using subject-specific language.	Investigation – Persuasive speech

Pathways

Students will progress from Year 10 Civics and Citizenship, in preparation for the progression to the General subject Legal Studies in Years 11 and 12. While enrolled in the General Subject Legal Studies, these students will have the opportunity to also register for the external VET course, the Certificate IV in Crime and Justice.

Year 10 Digital Technologies

Purpose

Technologies ensures that all students benefit from learning about and working with traditional, contemporary and emerging technologies that shape the world in which we live. By applying their knowledge and practical skills and processes when using technologies and other resources to create innovative solutions, independently and collaboratively, they develop knowledge, understanding and skills to respond creatively to current and future needs.

The Year 10 curriculum gives students the opportunity to plan and manage digital projects using an iterative approach. They define and decompose complex problems in terms of functional and non-functional requirements. Students design and evaluate user experiences and algorithms. They design and implement modular programs, including an object-oriented program, using algorithms and data structures involving modular functions that reflect the relationships of real-world data and data entities. They take account of privacy and security requirements when selecting and validating data. Students test and predict results and implement digital solutions. They evaluate information systems and their solutions in terms of risk, sustainability and potential for innovation and enterprise. They share and collaborate online, establishing protocols for the use, transmission and maintenance of data and projects.

Key skills

- Analyse and evaluate data from existing computer games to determine what makes an effective game.
- Evaluate the design and production process of a computer game.
- Define and decompose problems in terms of functional requirements and constraint
- Design and create a game using the Scratch software
- Plan and manage the production of a digital game

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1 Making a Text-based adventure Game	Through this unit students will learn how to create a text-based adventure game. Through the creation of the game they will learn how to use global variables, return values from function, design a main program loop and create classes.	Project: Students are to design and develop a text-based adventure game using the Python programming language.
Unit 2 Graphics Design	Through this unit students will learn how to meet the needs of a client in the graphics design industry. As they develop a portfolio of work they will be introduced to the Adobe suite of graphics programs including, Photoshop and Illustrator.	Project: Students are to develop a portfolio of work based on a client's needs. They will also explain the use of data compression in the graphic design industry. Students will also record all their professional communication with the client.
Unit 3 Tower defence	Through this unit students will learn about data compression and networked system security through the development of a tower defence game that operating a web browser. Through the development this game student will learn to use arrays to store and retrieve data.	Report: Students will develop a tower defence game for web. They will create a deconstruct a privacy policy for the game.
Unit 4 Professional games development	Design and implement modular programs, including an object-oriented program, using algorithms and data structures involving modular functions that reflect the relationships of real-world data and data entities.	Project: Students will develop a Bomb Jack game using the Godot engine.

Pathways

The usual progression of study from year 10 Digital Technologies would be into further study of Senior Certificate III in Information Technology in years 11 and 12.

Year 10 Food Studies

Purpose

The study of food, nutrition and home economics enrich and impact on the lives of people and societies globally. Australia needs enterprising individuals who can make discerning decisions about the development and use of technologies and who can independently and collaboratively develop solutions to complex challenges and contribute to sustainable patterns of living. Food studies can play an important role in transforming, restoring and sustaining societies and the natural, managed and constructed environments.

The Year 10 curriculum gives students the opportunity to investigate and select from a range of technologies − materials, systems, components, tools and equipment. They consider the ways characteristics and properties of technologies can be combined to design and produce sustainable designed solutions to problems for individuals and the community, considering society and ethics, and economic, environmental and social sustainability factors. Students use creativity, innovation and enterprise skills with increasing independence and collaboration.

Key skills

- Explain factors that influence the design of products, services and environments to meet present and future needs
- Create designed solutions for each of the prescribed technologies contexts based on an evaluation of needs or opportunities
- Develop criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas and designed solutions and processes
- Create and adapt design ideas, make considered decisions and communicate to different audiences using appropriate technical terms and a range of technologies and graphical representation techniques
- Apply project management skills to document and use project plans to manage production processes
- Independently and safely produce effective designed solutions for the intended purpose

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1 ***Special Dietary Needs***	In this unit, students will investigate a range of special diets and understand how to modify recipes for various dietary requirements.	Assignment and Practical Product
Unit 2 ***The Art and Science of Baking***	This unit will explore baking techniques, common ingredients and their uses in baking along with common faults in baked products.	Assignment with Practical Product - Cake Stall
Unit 3 ***Indigenous Flavours***	An investigation into Bush Tucker through to contemporary cuisine in Australia.	Assignment with Practical Product
Unit 4 ***Restaurant service***	This unit will introduce students to the Hospitality industry by learning about the workings of restaurants in order to create a mini restaurant for invited staff.	Assignment with Practical Product (2-course meal)

Pathways

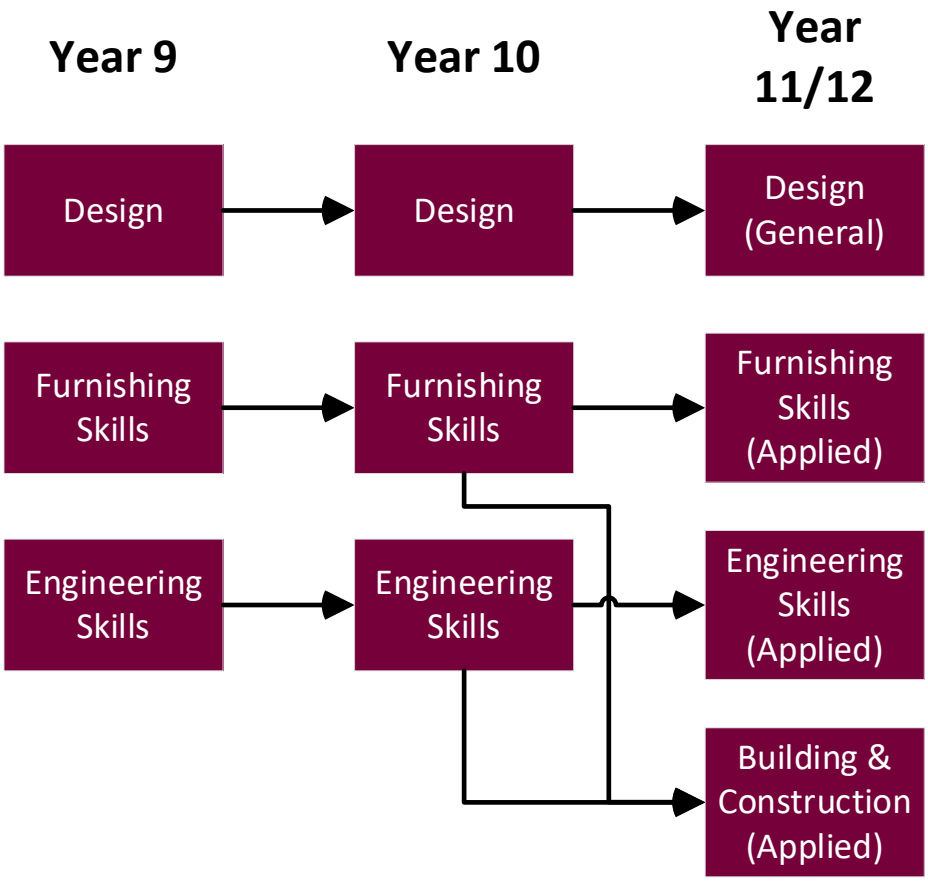
The usual progression of study from year 10 Food Studies would be into further study of Senior Certificate II in Hospitality in years 11 and 12.

SENIOR

Design Technologies

GUIDE

Learning Pathways – Design Technologies



Year 10 Design

Purpose

Design and Technologies students work independently and collaboratively, to provide solutions to problems, through the application of an iterative design process. Students will learn how to analyse needs, opportunities, and existing solutions to develop criteria for success. They generate and represent ideas using a range of technologies including a variety of graphical representation techniques, and low fidelity prototyping and evaluate these against their criteria to refine their solutions.

Students that undertake year ten Design and Technologies will have the opportunity to experience design through the lens of existing design careers (architecture, interior design, industrial design, etc) as well as consider the impact of social trends, cultural expectations and sustainable considerations on the future of design.

Key skills

- explain how designers consider factors that impact on design decisions
- identify the changes necessary to designed solutions to realise preferred futures they have described.
- establish detailed criteria for success, including sustainability considerations, and use these to evaluate ideas, design solutions, and processes
- create and connect design ideas and processes of increasing complexity and justify decisions through annotation
- communicate and document design projects, including marketing to potential sponsors

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Beach haus**: Students are introduced to the principles of design, and how design movements apply these principles. As they work through an iterative design process students learn how to create, connect and evaluate ideas to propose a design concept.	**Beach Haus:** Students create design ideas for a two-bedroom beach house, justify their decisions and final concept
Unit 2	**Wonderpark**: Students learn how amusement park rides use different forms of energy and force to create rides that appeal to demographics. Students examine infographics and learn how the application of simple images and limited text can convey information to different audiences	**Wonderpark**: Students create and connect design ideas for an amusement park ride, justify decisions and market their proposal
Unit 3	**Design this:** Students undertake a series of design challenges, some individual, some collaborative, to hone their design skills as they prepare for their exam.	**Examination** Students respond to a seen stimulus and unseen design brief, to propose a concept.
Unit 4	**Future focus** Students analyse social, ethical, and sustainable factors that impact designed solutions. They will learn how product life-cycle thinking can influence design decisions, as they dream up their preferred future.	**Future focus** Students will explain how factors impact design decisions, and identify changes necessary to realise their preferred future

Pathways

Students wishing to pursue a career within the design field (e.g., Architect, Interior designer, Industrial designer) have the opportunity to select General Design in years 11 and 12.

Year 10 Engineering Skills

Purpose

Engineering introduces students to the practical skills required to construct working prototypes. A strong emphasis is placed on health and safety within the workshop environment, and the relationship between safety and quality of production.

Through the lens of engineering principles and systems. Students will have the opportunity to create high-quality prototypes of their own designs in addition to producing prototypes to specification.

Key skills

- evaluate the features of technologies and their appropriateness for purpose for one or more of the technologies contexts.
- establish detailed criteria for success, including sustainability considerations, and use these to evaluate ideas, design solutions, and processes
- create and connect design ideas and processes of increasing complexity and justify decisions through annotation
- communicate and document design projects, including marketing to potential sponsors
- independently and collaboratively apply sequenced production and management plans when producing designed solutions, making adjustments to plans when necessary.
- select and use appropriate technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Introduction to Engineering**: Students are introduced to the importance of working skilfully and safely to produce high quality prototypes to specifications. Students learn how to follow production plans to ensure prototypes are fit for purpose.	**Prototype:** Students use appropriate technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.
Unit 2	**Engineering principles and systems**: Students investigate and make judgements on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions	**Gantry**: Students create design ideas for a gantry crane, justify decisions and produce a working prototype for testing
Unit 3	**Design this:** Students evaluate the features of technologies and their appropriateness for purpose.	**Trebuchet** Students create design ideas for a trebuchet, justify decisions and produce a working prototype for testing
Unit 4	**Production Skills** Through this unit students learn to select and use appropriate technologies to produce high-quality prototypes suitable for the intended purpose. Students will examine the relationship between working safely and skilfully	**Examination**

Pathways

Students that wish to develop their practical skills and pursue a trade post school should continue their studies through our senior subjects: Building and Construction; or Engineering Skills.

Year 10 Furnishing Skills

Purpose

Furnishing introduces students to the practical skills required to construct furnishing prototypes. A strong emphasis is placed on health and safety within the workshop environment, and the relationship between safety and quality of production.

Through the lens of materials and technologies specialisations students will investigate and make judgements on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions. Students will have the opportunity to create high-quality prototypes of their own designs in addition to producing prototypes to specification.

Key skills

- explain how designers consider factors that impact on design decisions
- evaluate the features of technologies and their appropriateness for purpose for one or more of the technologies contexts
- establish detailed criteria for success, including sustainability considerations, and use these to evaluate ideas, design solutions, and processes
- create and connect design ideas and processes of increasing complexity and justify decisions through annotation
- communicate and document design projects, including marketing to potential sponsors
- select and use appropriate technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Sustainable materials**: Students learn fundamental production skills as they construct a prototype to specification. Students also learn to use problem solving skills to create design solutions based on critical evaluation of needs, and evaluated through defined criteria for success.	**Coffee Table:** Students create design ideas for a bespoke coffee table, justify their decisions and produce a plan to construct a prototype.
Unit 2	**Sustainable material choices**: Students learn how designers/furniture makers consider factors that impact on their decisions when designing furniture. They identify material selection criteria and learn methods to evaluate materials based on these criteria. Students will also enact and modify their production plans as they construct their bespoke coffee table designs.	**Material selection**: Students investigate and make judgements on the characteristics and properties of materials suitable for their bespoke coffee table designs
Unit 3	**Design styles** Students learn how to establish detailed criteria for success based on analysis of form and function.	**Ambient light** Students will create and connect ideas for an ambient light
Unit 4	**Production skills** Through this unit students learn to select and use appropriate technologies to produce high-quality prototypes suitable for the intended purpose. Students will examine the relationship between working safely and skilfully	**Make It** Students will produce high quality ambient light prototypes suitable for their intended purpose.

Pathways

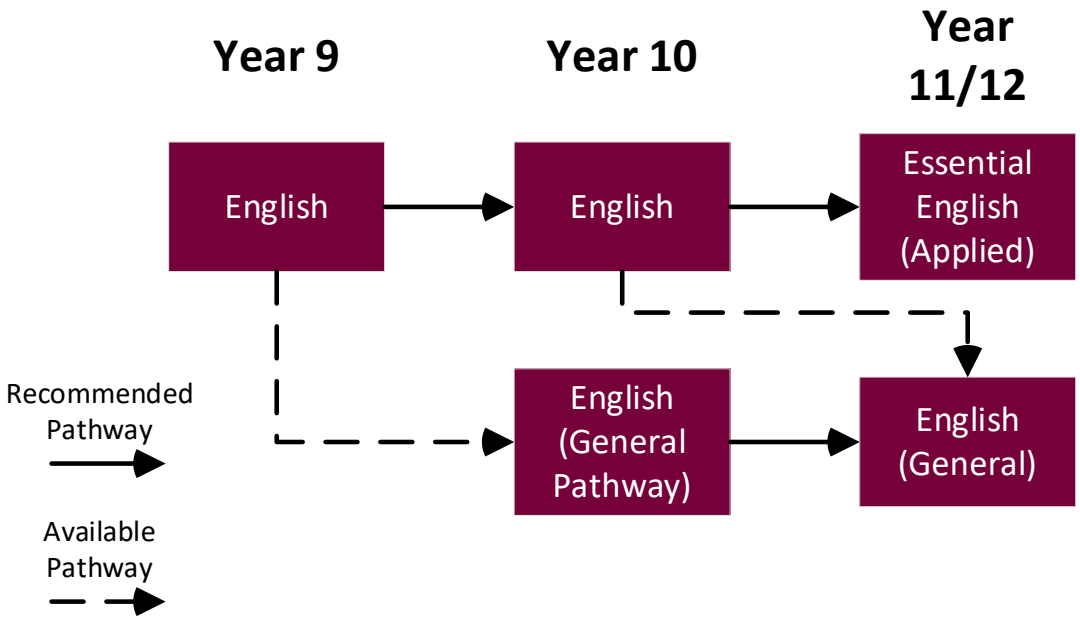
Students will have the opportunity to continue their studies through either the skills or general pathway.

Skills Pathway: Students that wish to develop their practical skills and pursue a trade post school should continue their studies through our senior subjects: Building and Construction; or Furnishing Skills.

General Pathway: Students wishing to pursue a career within the design field (e.g., Architect, Interior designer, Industrial designer) have the opportunity to select General Design in years 11 and 12.

SENIOR *English* GUIDE

Learning Pathways – English



Year 10 English

This subject is currently under redevelopment for 2022 and we are unable to provide accurate subject information at this time.

Yea 10 English (General Pathway - Elective)

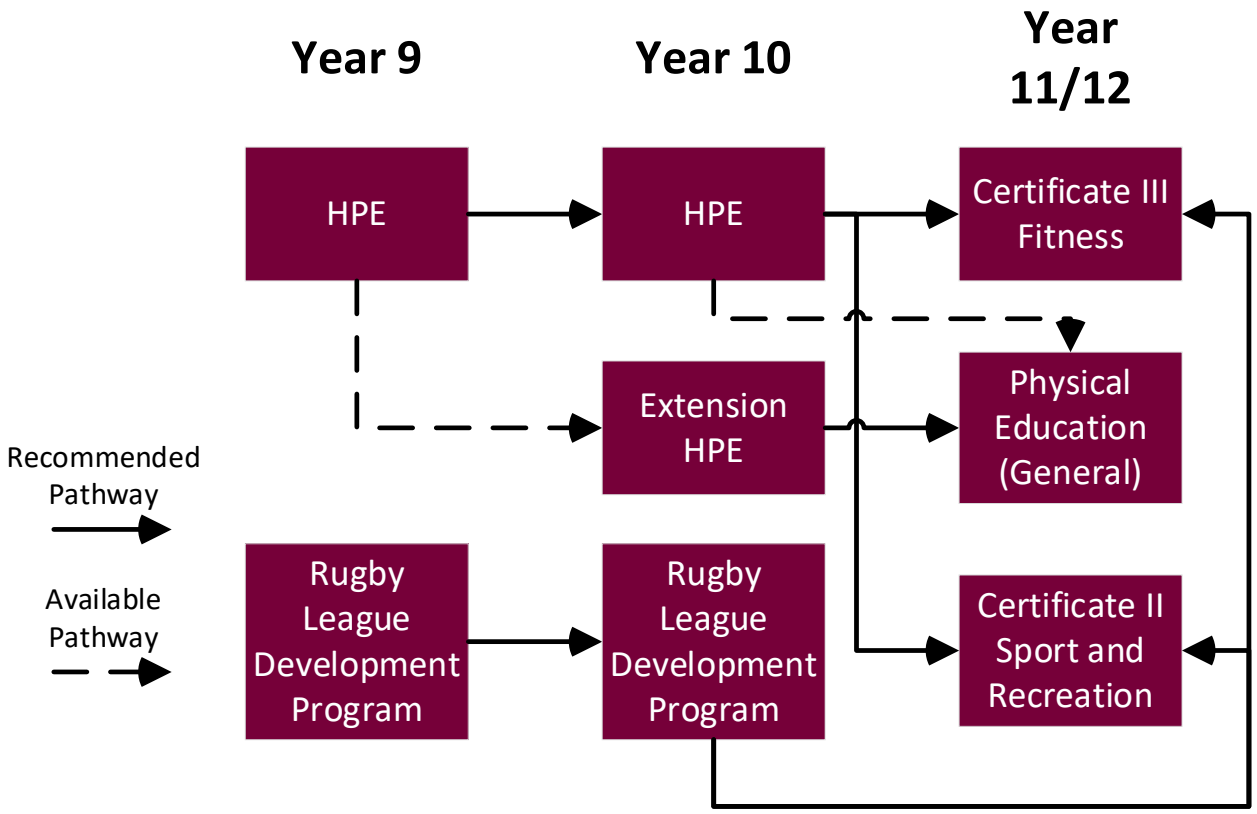
This subject is currently under redevelopment for 2022 and we are unable to provide accurate subject information at this time.

SENIOR

Health & Physical Education

GUIDE

Learning Pathways: Health and Physical Education (HPE)



Year 10 Health and Physical Education

Purpose

"In an increasingly complex, sedentary and rapidly changing world it is critical for every young Australian to not only be able to cope with life's challenges but also to flourish as healthy, safe and active citizens in the 21st century. This is a strong investment in the future of the Australian population" (Australian Curriculum). Health and Physical Education reflects the dynamic and multi-dimensional nature of health and recognizes the importance of physical activity in the lives of individuals and groups in our society. HPE offers students opportunities to develop knowledge, understandings, processes and skills necessary to make informed decisions about their physical wellbeing and health.

At the core of Health and Physical Education is the acquisition of movement skills and concepts to enable students to participate in a range of physical activities – confidently, competently and creatively. As a foundation for lifelong physical activity participation and enhanced performance, students acquire an understanding of how the body moves and develop positive attitudes towards physical activity participation. They develop an appreciation of the significance of physical activity, outdoor recreation and sport in Australian society and globally. Movement is a powerful medium for learning, through which students can practise and refine personal, behavioural, social and cognitive skills. Health and Physical Education at Tullawong State High School provides Year 7 students with an experiential curriculum that is contemporary, relevant, challenging and physically active.

Key skills

- Students access, synthesise and apply health information from credible sources to propose an action plan related to physical activity levels, trends and choices in the community.
- Students propose and evaluate interventions to improve fitness and physical activity levels in their communities.
- Students analyse the impact attitudes and beliefs about diversity have on community connection and wellbeing.
- Students examine the role physical activity has played historically in defining cultures and cultural identities.
- Students demonstrate leadership, fair play and cooperation across a range of movement and health contexts.
- Students apply decision-making and problem-solving skills when taking action to enhance their own and others' health, safety and wellbeing.
- Students apply and transfer movement concepts and strategies to new and challenging movement situations.

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	In this unit, students will access, synthesise and apply health information from credible sources to propose an action plan related to physical activity levels, trends and choices in the community. In order to do this they will learn about what physical activity is, the benefits of physical activity, trends in physical activity levels and community resources that enable physical activity. Students will develop a criteria in order to evaluate the effectiveness of their action plan to improve fitness and physical activity levels in the school and wider communities. In this unit, students will apply and transfer movement strategies to new and challenging movement concepts such as gym-based programs, yoga, tai chi, outdoor circuits and boot camps to apply decision-making and problem-solving skills that enhance their own and others health, safety and wellbeing.	**In the theory unit students will** be assessed on accessing information from secondary sources and synthesising information in the form of a survey in order to apply this information to propose an action plan. This action plan will be aimed at increasing the activity levels of the community and presented as either an essay or a multimodal presentation. Students will be assessed on how they evaluated the effectiveness of their action plan in improving the fitness and physical activity levels in the school/wider community. **In the practical unit students will** participate in a range of health and fitness physical activities, demonstrating an application and transfer of movement strategies from more simple exercises to new and challenging activities. Students will also be assessed on their decision-making and problem-solving skills in relation to making health and fitness decisions that enhance their own and others' health, safety and wellbeing.

Unit 2	In this unit, students will analyse the impact that attitudes and beliefs about diversity have on community connection and wellbeing. They will do this by understanding about diversity, ideologies, stereotypes, influences on community connection, and the importance of wellbeing. They will also examine the role physical activity has played historically in defining cultures and cultural identities around the world, and within Australia.	**In the theory unit students will** develop responses to a specific scenario in order to analyse the impact that attitudes and beliefs about diversity have on a person's community connection and wellbeing. Students will also respond to a specific scenario in order to examine the role that physical activity has played historically in Australia in defining our culture and cultural identities.
	In this unit, students will demonstrate leadership, fair play and cooperation across a range of sports from around the world including traditional Australian Indigenous games, physical activities from the Asian region such as yoga, Thai Chi, and Tae Kwon Do, and various football codes such as AFL, NFL, NRL, and soccer. Within these sporting contexts, students will apply and transfer movement concepts and strategies from sports they have more experience with, to new and challenging movement situations and games.	**In the practical unit students will** be assessed on their demonstration of leadership, fair play and cooperation in the sports the class participates in. They will be assessed on how they apply and transfer movement concepts and strategies to new and challenging movement situations.

Pathways

Students will progress from Year 10 HPE into a number of senior pathway opportunities when pre-requisites are met, including General Physical Education, Certificate III in Fitness or Certificate II in Sport & Recreation in Year 11 and 12.

Year 10 Rugby League Development Program

Purpose

In the Rugby League Development Program in Year 10, students are given the opportunity to develop both practical and social skills in an inclusive environment. The Rugby League Development program is embedded within the Health and Physical Education subject area, and recognises the importance of providing students with a curriculum opportunity that focuses on building the skills and practical aspects of Rugby League. In senior, students are extended in this area with the use of technology, video analysis and peer feedback to improve skills in gameplay.

The Rugby League Development Program has a values-based focus with a clear goal of developing students who can contribute positively to society. To maintain their position in the program students must uphold a high standard in behaviour, effort, and self-discipline. The program runs for the entire year and is supported through mentoring, training and education from nationally accredited associations and industry experienced coaches.

Key skills

- Students propose and evaluate interventions to improve fitness and physical activity levels in order to participate in rugby league
- Students demonstrate leadership, fair play and cooperation when training, officiating and playing games
- Students apply decision-making and problem-solving skills when taking action to enhance their own and others' health, safety and wellbeing in rugby league
- Students apply and transfer movement concepts and strategies in response to tactical plays in rugby league
- Students work collaboratively to design and apply solutions to improved performance in rugby league

Course Structure & Assessment Overview

Course Outline	Assessment Summary
Throughout the year, students will set short and long term progress and performance goals to do with their physical ability and their gameplay. They will facilitate this by using a journal to outline goals, track progress, results and pre and post activity reflection. Students will develop knowledge of motor learning and skill acquisition in the game of Rugby League. They will use video footage, collaborative learning and peer feedback to evaluate their performance and address their needs as the performer to optimise their performance during gameplay. Students analyse and examine the role the National Rugby League plays in celebrating diversity and the impact it has on cultures and community connection.	In the practical unit students will be assessed on the following skills: 1. Leadership, fair play and cooperation • Leading warm ups, drills and games • Positive encouraging • Including all ability levels 2. Decision-making and problem-solving skills • Pass selection • Use of space • Tackle selection • Changing body position 3. Apply concepts to new and challenging situations • Attacking Strategy • Defensive Strategy 4. Make judgements about their own and others skills and performances • Refining own skills to improve performance • Positive communication to peers about their performance 5. Work collaboratively to apply solutions to challenges • Execution of plays • Team work to achieve a try • Communication in defence In the theory units students will be assessed on the following. • Record results for various fitness tests in journal and central location • Propose SMARTER goals based on performance • Track goals in journal every lesson (Pre & post lesson reflections) • Evaluate the effectiveness of your goal based on the strengths and limitations encountered Evaluate emotional responses throughout the lessons (barriers, enablers, class members)

	• Select a position specific skill from the list provided.. • Work in pairs to perform the selected skill and provide feedback about your partner's performance and record video footage for baseline data. • Identify rate limiters and strengths within your own and your partner's performance. • **Propose** 2 training activities to assist in improving the identified areas of weakness for each • Complete training activities and compare your improved performance of specialised movement skill. • **Evaluate** how the proposed training activities have improved your performance. **Evaluate** how your successful performance of this skill adds value to your team's performance during a game.

Pathways

Students will progress from Year 10 HPE into a number of senior pathway opportunities when pre-requisites are met, including General Physical Education, Certificate III in Fitness or Certificate II in Sport & Recreation in Year 11 and 12.

Year 10 Health and Physical Education Extension

Purpose

Health and Physical Education reflects the dynamic and multi-dimensional nature of health and recognizes the

importance of physical activity in the lives of individuals and groups in our society. Year 10 Physical Education Extension offers students an opportunity to engage with content that they will experience should they select General Physical Education in Year 11 and 12. Whilst this subject is not a pre-requisite for selecting General Physical Education in Year 11 and 12, this subject is designed to assist students in developing the core content knowledge and skills required to be successful in the senior version of the subject. Practical and theoretical learning experiences will be integrated where possible, with practical lessons structured to develop a further understanding of the theoretical concepts.

As with General Physical Education in Year 11 and 12, there is a large assessment focus on the ability of students to analyse and evaluate their own performances using video analysis and written communication in a range of sporting contexts. Thus, students selecting Physical Education Extension in Year 10 are recommended to be achieving at a high level in subjects such as English. This is to ensure that students have the opportunity to be successful in the theoretical assessment tasks associated with this subject.

Key skills

- Critical analysis of contextual factors that influence decisions and behaviours
- Access to, and synthesis and application of health information from credible sources to propose and justify responses to health situations
- Application and transfer of movement concepts and strategies to new and challenging movement situations
- Application of criteria to make judgments about and refinement of their own and others' specialised movement skills and movement performances

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	In this unit, students will participate in a variety of athletics events and through the investigation of the factors involved in a throwing event will develop an understanding of biomechanics.	In the theory unit students will complete a folio relating to the Biomechanics of an athletics throwing event. The folio will involve filming the throw, an analysis of the throw and designing strategies to improve performance. In the practical unit students will partake in a variety of athletics events and be assessed on multiple aspects of their engagement and/or performance.
Unit 2	In this unit, students will learn the skills involved with Volleyball and use this sport as a vehicle to understanding concepts related to skill acquisition.	In the theory unit students will complete an exam related to the focus unit of skill acquisition within a volleyball context. In the practical unit students will engage with the sport of volleyball and be assessed on multiple aspects of their engagement and/or performance.

Unit 3	In this unit, students will participate in the sport of golf and within that context will develop an understanding of the principles of and strategies used in sports psychology.	In the theory unit students will complete an investigative report relating to sports psychology and strategies used with a focus on golf. In the practical unit students will learn the skills of golf while using the techniques of sports psychology. Other sports may also be included as needed.
Unit 4	In this unit, students will use touch football fitness training to investigate the production of ATP, the three energy systems, training methods, principles of training and periodisation.	In the theory unit students will complete an exam relating to energy systems and training. In the practical unit students will participate in touch football and undertake fitness-based activities relating to the training methods and principles studied.

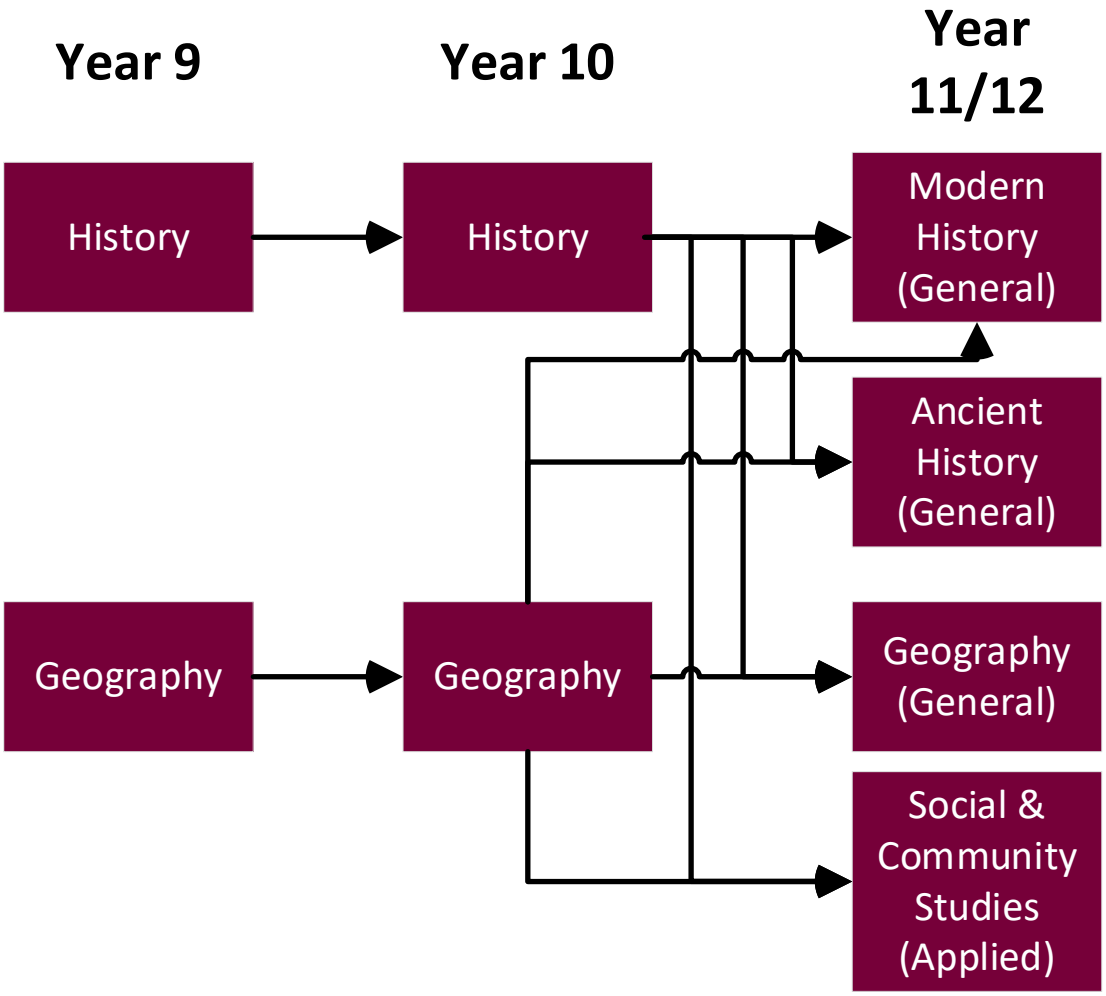
Pathways

Students will progress from Year 10 HPE into a number of senior pathway opportunities when pre-requisites are met, including General Physical Education, Certificate III in Fitness or Certificate II in Sport & Recreation in Year 11 and 12.

SENIOR *Humanities* GUIDE

Learning Pathways – Humanities

History & Geography



Year 10 History

Purpose

The Year 10 curriculum provides a study of the history of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context. The twentieth century became a critical period in Australia's social, cultural, economic and political development.

The content provides opportunities to develop historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability. These concepts may be investigated within a particular historical context to facilitate an understanding of the past and to provide a focus for historical inquiries.

The history content at this Year 10 involves two strands: historical knowledge and understanding, and historical skills. These strands are interrelated and have been developed to be taught in an integrated way, and in ways that are appropriate to specific local contexts.

Key skills

- use chronological sequencing to demonstrate the relationship between events and developments in different periods and places
- use historical terms and concepts
- identify and select different kinds of questions about the past to inform historical inquiry
- evaluate and enhance these questions
- identify and locate relevant sources, using ICT and other methods
- identify the origin, purpose and context of primary and secondary sources
- process and synthesise information from a range of sources for use as evidence in an historical argument
- evaluate the reliability and usefulness of primary and secondary sources
- identify and analyse different historical interpretations (including their own)
- develop texts, particularly descriptions and discussions that use evidence from a range of sources that are referenced
- select and use a range of communication forms (oral, graphic, written) and digital technologies

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**World War II** Students investigate wartime experiences through a study of World War II in depth. This includes a study of the causes, events, outcome and broader impact of the conflict as an episode in world history, and the nature of Australia's involvement. Students will examine of significant events of World War II, including the Holocaust and use of the atomic bomb and experiences of Australians during World War II (such as Prisoners of War (POWs) and Kokoda.	Examination - Short Responses to Historical Sources
Unit 2	**Rights and Freedoms (1945- present)** Students investigate struggles for human rights in depth. This will include how rights and freedoms have been ignored, demanded or achieved in Australia. There is a focus on the significance of the following for the civil rights of Aboriginal and Torres Strait Islander Peoples: 1962 right to vote federally; 1967 Referendum; Reconciliation; Mabo decision; Bringing Them Home Report (the Stolen Generations) and the Apology.	Investigation - Independent Source Investigation

Pathways

The deep Historical knowledge and skills developed as a result of the study of this course will prepare students for further development in either Senior Ancient or Modern History, and is available to students in Year 11 and 12 if prerequisites are met.

Year 10 Geography

Purpose

Year 10 Geography aims to ensure that students develop a sense of wonder, curiosity and respect about places, people, cultures and environments throughout the world. It allows students to develop a deep geographical knowledge of their own locality, Australia, the Asia region and the world. Students also have the opportunity to develop the ability to think geographically, using geographical concepts and the capacity to be competent, critical and creative users of geographical inquiry methods and skills. By the end of this study, students will become informed, responsible and active citizens who can contribute to the development of an environmentally and economically sustainable, and socially just world.

The content of this year level is organised into two strands: geographical knowledge and understanding, and geographical inquiry and skills. These strands are interrelated and have been developed to be taught in an integrated manner, and in ways that are appropriate to specific local contexts.

Key skills

- apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative points of view
- develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts
- evaluate sources for their reliability, bias and usefulness and select, collect, record and organise relevant geographical data and information, using ethical protocols, from a range of appropriate primary and secondary sources
- represent, Interpret and analyse multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies
- present findings, arguments and explanations in a range of appropriate communication forms, selected for their effectiveness and to suit audience and purpose; using relevant geographical terminology, and digital technologies as appropriate
- reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal

Course Structure & Assessment Overview

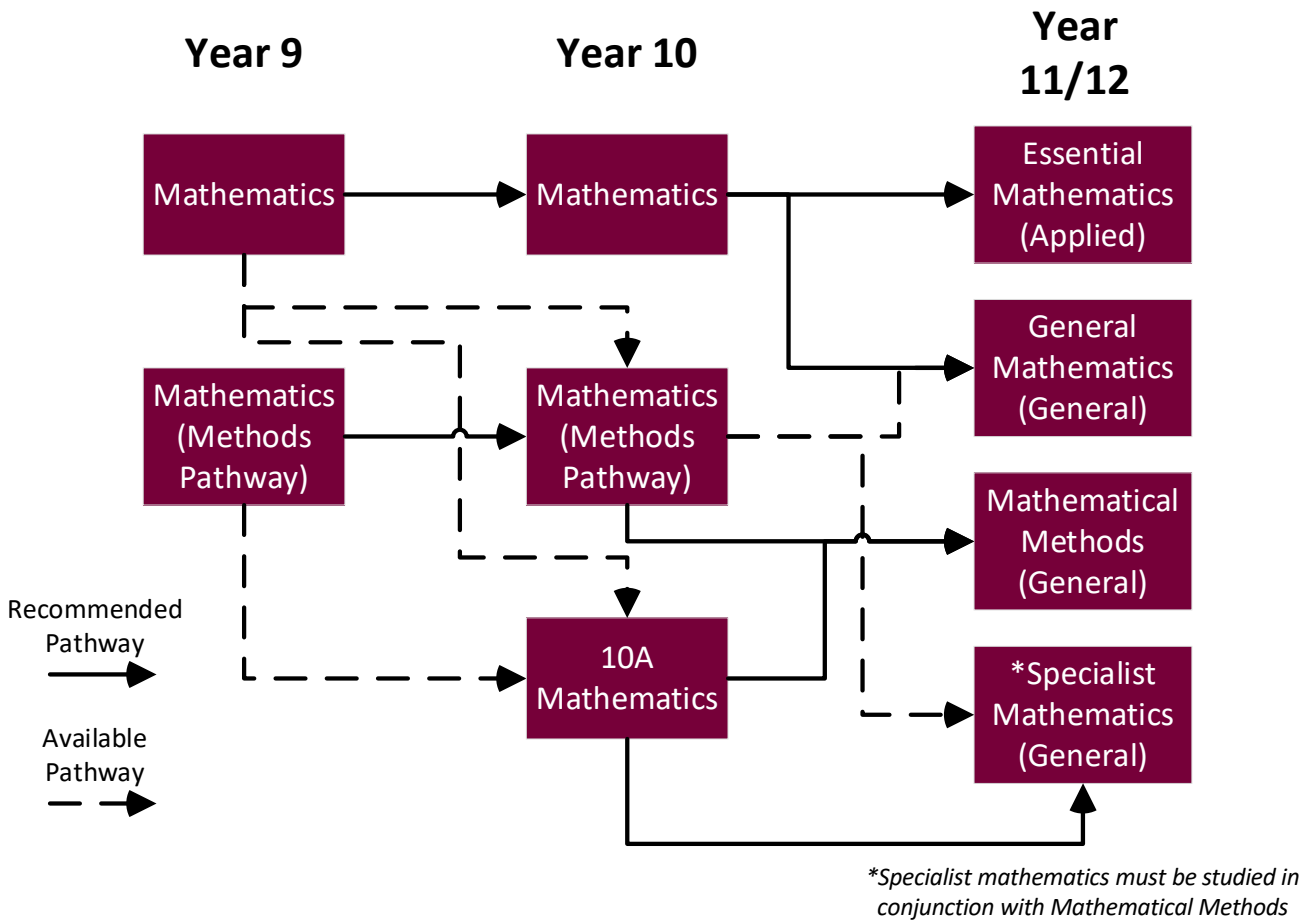
	Unit Outline	Assessment Summary
Unit 1	**Geographies of Human Wellbeing** This unit examines the different concepts and measures of human wellbeing, and the causes of global differences in these measures between countries. Students explore spatial differences in wellbeing within and between countries, and evaluate the differences from a variety of perspectives. They explore programs designed to reduce the gap between differences in wellbeing. These distinctive aspects of human wellbeing are investigated using studies drawn from Australia, India and across the world as appropriate.	Examination – Combination response
Unit 2	**Environmental Change and Management** Environmental change and management' focuses on investigating environmental geography through an in-depth study of a specific environment. The unit begins with an overview of the environmental functions that support all life, the major challenges to their sustainability, and the environmental world views – including those of Aboriginal and Torres Strait Islander Peoples – that influence how people perceive and respond to these challenges. Students investigate a specific type of environment and environmental change in Australia and one other country. They apply human–environment systems thinking to understand the causes and consequences of the change and geographical concepts and methods to evaluate and select strategies to manage the change	Investigation – Data Report

Pathways

The deep Geographical knowledge and skills developed as a result of the study of this course will prepare students for further development in either Senior Geography, and is available to students in Year 11 and 12 if prerequisites are met.

SENIOR *Maths* GUIDE

Learning Pathways – Mathematics



**Specialist mathematics must be studied in conjunction with Mathematical Methods*

Year 10 Mathematics

Purpose

Learning mathematics creates opportunities for and enriches the lives of all Australians. It is important that students become confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens.

Year 10 will follow the Australian Curriculum for Mathematics, which develops the three strands of Number and Algebra, Measurement and Geometry and Statistics and Probability. These strands describe the content that is to be taught and learnt within the Australian Curriculum. Mathematics is also developed around the four proficiency strands of Understanding, Fluency, Problem Solving and Reasoning. These proficiencies describe how content is explored or developed; that is, the thinking and doing of mathematics. The strands provide a meaningful basis for the development of concepts in the learning of mathematics and have been incorporated into the content descriptions of the three content strands. This approach has been adopted to ensure students' proficiency in mathematical skills develops throughout the curriculum and becomes increasingly sophisticated over the years of schooling.

Key skills

- **Understanding:** includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, comparing simple and compound interest in financial contexts and determining probabilities of two- and three-step experiments
- **Fluency:** includes factorising and expanding algebraic expressions, using a range of strategies to solve equations and using calculations to investigate the shape of data sets
- **Problem solving:** includes calculating the surface area and volume of a diverse range of prisms to solve practical problems, finding unknown lengths and angles using applications of trigonometry, using algebraic and graphical techniques to find solutions to simultaneous equations and inequalities and investigating independence of events
- **Reasoning:** includes formulating geometric proofs involving congruence and similarity, interpreting and evaluating media statements and interpreting and comparing data sets

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	Solve a variety of problems involving linear, simultaneous and quadratic equations, inequalities and calculate compound interest.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 2	Solve problems involving surface area and volume of composite shapes, trigonometry, simple algebraic fractions and recognise the relationship between parallel and perpendicular lines.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 3	Assign probabilities to multi-step experiments, including dependent and conditional events, as well as apply deductive reasoning to solve numerical and geometric proofs.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 4	Construct various data displays, including box plots and scatter plots, to compare data sets, describe data and statistical relationships to evaluate statistical reports in a problem-solving and modelling task.	1200 words Up to 10 pages (excl. appendices) 4 weeks (incl. 6hr in class)

Pathways

The usual progression for students from Year 10 Mathematics will be into Senior Mathematics, generally Essential Mathematics or General Mathematics. Students may choose to study one of either Essential Mathematics, General Mathematics or Mathematical Methods, depending on prerequisites. Students can also study Specialist Mathematics as an elective in senior, in conjunction with Mathematical Methods, depending on prerequisites.

Year 10 Mathematics (Methods Pathway)

Purpose

Learning mathematics creates opportunities for and enriches the lives of all Australians. It is important that students become confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens.

Year 10 will follow the Australian Curriculum for Mathematics, which develops the three strands of Number and Algebra, Measurement and Geometry and Statistics and Probability. These strands describe the content that is to be taught and learnt within the Australian Curriculum. Mathematics is also developed around the four proficiency strands of Understanding, Fluency, Problem Solving and Reasoning. These proficiencies describe how content is explored or developed; that is, the thinking and doing of mathematics. The strands provide a meaningful basis for the development of concepts in the learning of mathematics and have been incorporated into the content descriptions of the three content strands. This approach has been adopted to ensure students' proficiency in mathematical skills develops throughout the curriculum and becomes increasingly sophisticated over the years of schooling.

The Methods Pathway class will support students to develop skills in preparation for senior mathematics (Mathematical Methods and Specialist Mathematics). This class will also engage in content that forms pre-knowledge for the 10A Mathematics elective subject.

Key skills

- **Understanding:** includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, comparing simple and compound interest in financial contexts and determining probabilities of two- and three-step experiments
- **Fluency:** includes factorising and expanding algebraic expressions, using a range of strategies to solve equations and using calculations to investigate the shape of data sets
- **Problem solving:** includes calculating the surface area and volume of a diverse range of prisms to solve practical problems, finding unknown lengths and angles using applications of trigonometry, using algebraic and graphical techniques to find solutions to simultaneous equations and inequalities and investigating independence of events
- **Reasoning:** includes formulating geometric proofs involving congruence and similarity, interpreting and evaluating media statements and interpreting and comparing data sets

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	Solve a variety of problems involving linear, simultaneous and quadratic equations, algebraic fractions and inequalities.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 2	Solve problems involving compound interest, surface area and volume of composite shapes, trigonometry and recognise the relationship between parallel and perpendicular lines.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 3	Assign probabilities to multi-step experiments, including dependent and conditional events, as well as apply deductive reasoning to solve numerical and geometric proofs.	Examination: Written 60min + 5min perusal Calculator Allowed Written
Unit 4	Construct various data displays, including box plots and scatter plots, to compare data sets, describe data and statistical relationships to evaluate statistical reports in a problem-solving and modelling task.	1200 words Up to 10 pages (excl. appendices) 4 weeks (incl. 6hr in class)

Pathways

The usual progression for students from Year 10 Mathematics (Methods Pathway) will be into Senior Mathematics, generally Mathematical Methods and Specialist Mathematics. Students may choose to study one of either Essential Mathematics, General Mathematics or Mathematical Methods, depending on prerequisites. Students can also study Specialist Mathematics as an elective in senior, in conjunction with Mathematical Methods, depending on prerequisites.

Year 10A Mathematics (Elective)

Purpose

Learning mathematics creates opportunities for and enriches the lives of all Australians. It is important that students become confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens. 10A Mathematics will also support students to become critical, creative and lateral thinkers within a world full of opportunities in STEM.

Students studying Year 10A Mathematics will engage in content, from the Australian Curriculum, within and beyond Year 10 Mathematics. The content is still generally aligned to the three strands of Number and Algebra, Measurement and Geometry and Statistics and Probability. Proficiency strands do not exist for the 10A Mathematics curriculum; however, the content can be aligned to proficiencies. Students will also begin to explore content that underpins the learnings of Specialist Mathematics, through linking Year 10 and 10A curriculum to Specialist Mathematics. This exposes students to complex, creative and unique aspects of mathematics that they are not necessarily exposed to within the regular curriculum.

The 10A Mathematics curriculum will support students' learning within Year 10 Mathematics. Students will study 10A Mathematics in conjunction with Year 10 Mathematics.

Key skills

- **Understanding:** includes applying the four operations to surds and complex numbers, identifying numbers as belonging to one, or more, sets including $\mathbb{Z}$, $\mathbb{Q}$, $\mathbb{C}$ and $\mathbb{R}$, calculating $\sqrt{-1}$, making connections between equations of relations and their graphs, using the factor and remainder theorems and applying matrix operations to 2x2 and 3x3 matrices and calculating the inverse of 2x2 matrices
- **Fluency:** includes factorising and solving complex quadratic expressions using a range of strategies, using and applying log and index laws to logarithms and exponentials, identifying exact values for trigonometric ratios, identifying identify matrices and transpose matrices,
- **Problem solving:** includes using algebraic and graphical techniques to find solutions to quadratic equations, calculating the surface area and volume of spheres, cones, pyramids and cylinders, applying trigonometry to calculate the area of a triangle, solving higher order polynomials and solving matrix equations
- **Reasoning:** includes formulating geometric proofs involving circles, evaluating the appropriateness of logarithms and exponential functions to model scenarios and explain why not all matrices have an inverse

Course Structure & Assessment Overview

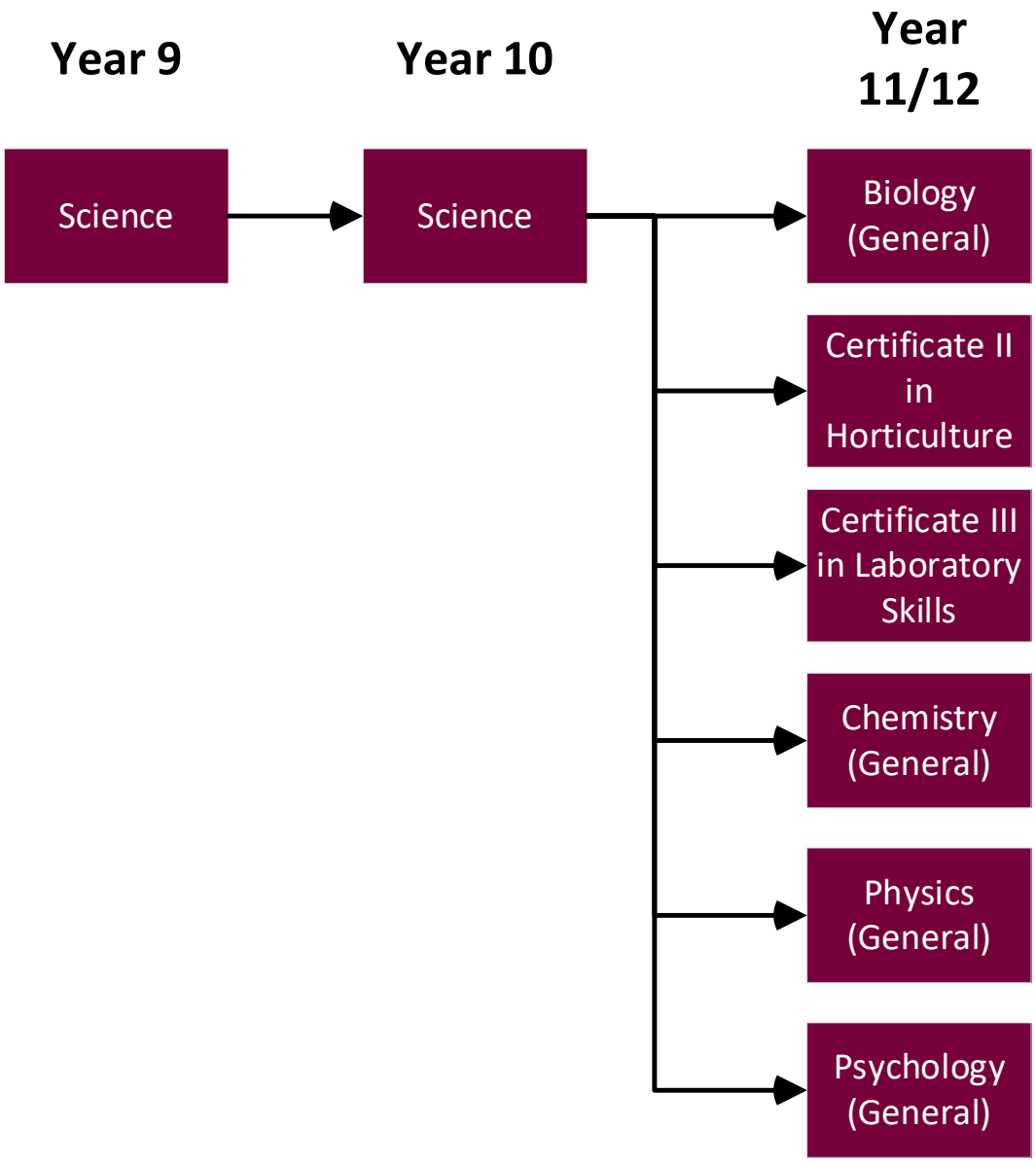
	Unit Outline	Assessment Summary
Unit 1	Describe numbers as rational, irrational, real, imaginary or complex, solve problems involving surds and complex numbers and factorise and solve non-monic quadratics equations by completing the square and using the quadratic formula.	Examination: Written 2 x 60min + 5min perusal Non-calculator and Calculator Allowed
Unit 2	Make connections between functions (including parabolas, hyperbolas and circles) and their graphs, identify trigonometric functions on the unit circle and solve trigonometric equations, solve surface area and volume problems involving spheres, cylinders, cones and pyramids.	Examination: Written 2 x 60min + 5min perusal Non-calculator and Calculator Allowed
Unit 3	Solve higher order polynomials using the remainder theorem and factor theorem, solve exponential and logarithmic functions and represent these functions on the Cartesian plane using transformations and apply deductive reasoning to solve complex geometric proofs involving circles and angles in circles.	Examination: Written 2 x 60min + 5min perusal Non-calculator and Calculator Allowed
Unit 4	Calculate the sum, difference, scalar product, product , powers, determinants and inverses of matrices, identify an identity matrix, transpose matrices, solve matrix equations using matrix algebra and apply Leslie matrices to real-world scenarios.	1200 words Up to 10 pages (excl. appendices) 4 weeks (incl. 6hr in class)

Pathways

The usual progression for students from Year 10A Mathematics will be into Specialist Mathematics (in conjunction with Mathematical Methods). Students may choose to study one of either Essential Mathematics, General Mathematics or Mathematical Methods, depending on prerequisites. Students can also study Specialist Mathematics as an elective in senior, in conjunction with Mathematical Methods, depending on prerequisites.

SENIOR *Science* GUIDE

Learning Pathways – Science



Year 10 Science

Purpose

Students are naturally curious about the world around them and Science empowers them with opportunities to challenge their understanding of important Science concepts, processes and practices. Critical and creative thinking skills are developed to draw evidence-based conclusions and apply these to real world contexts.

Year 10 will follow the Australian Curriculum for Science, which develops the three interrelated strands of Science Understanding, Science as a Human Endeavour and Science Inquiry Skills. Students explore systems at different scales and connect microscopic and macroscopic properties to explain phenomena. Students explore the biological, chemical, geological and physical evidence for different theories, such as the theories of natural selection and the Big Bang. Students develop their understanding of atomic theory to understand relationships within the periodic table. They understand that motion and forces are related by applying physical laws.

Key skills

- Questioning and predicting based on scientific knowledge
- Planning and conducting a range of investigation types
- Processing and analysing data and information
- Evaluating quality of data and identifying improvements
- Communicating ideas, findings and evidence-based solutions using scientific language and representations

Course Structure & Assessment Overview

	Unit Outline	Assessment Summary
Unit 1	**Genetics and Evolution:** Students will explore genetics and heredity. They will examine the relationship between DNA, genes and the physical characteristics of an organism by analysing monohybrid crosses and pedigrees and use patterns and trends. They will also develop an understanding of how the diversification of life from a single ancestral species is explained by Darwin's theory of evolution by natural selection.	**Short Response Exam:** Students will explain the processes that underpin hereditary and evolution.
Unit 2	**Reactions Matter:** Students will collect and analyse data to identify patterns in atomic structure and the properties of elements and how these relate to the organisation of the periodic table. Students make predictions and draw conclusions from experimental data about the products of chemical reactions represented in balanced chemical equations.	**Student Experiment:** Students are to develop an experiment on reaction rate. They will then analyse and explain the results in a report.
Unit 3	**Physics and the Universe and Earth Systems:** Students explore features of the universe and consider different scientific theories for the origin and fate of the universe. They will explore how the Earth's four spheres make up the global systems. They will consider how matter cycles within and between these spheres are affected by human impacts.	**Short Response Exam:** Students will analyse data to explain the changes in motion, the interactions between earth's spheres and the origin of the universe.
Unit 4	**Introduction to Psychology:** Students explore the scientific method as the process for producing contemporary research in psychology. An understanding of the original philosophical debates to inform psychology — including free will versus determinism, and nature versus nurture — provides an essential lens for examining all perspectives within psychology.	**Research Investigation:** Students describe and explain concepts, theories, models and systems, and their limitations.

Pathways

The deep knowledge and skills developed as a result of the study of this course will prepare students for further development in Senior Science. The usual progression would then be the study of Biology, Chemistry, Physics, Psychology, Certificate II in Horticulture and Certificate III in Laboratory Skills in Year 11 and 12.