



**MAZENOD
COLLEGE**



Year 10

Curriculum Handbook

2020

Contents

Introduction	3
Contacts	4
The Lower School Curriculum	5
Learning Diversity	6
Learning, Homework & Assessment	7
Religious Education	8
Health & Physical Education	9
English	10
Humanities & Social Sciences	12
Mathematics	14
Science	16
Industry & Enterprise	17
Electives	18
Health & Physical Education Electives	19
Digital Technologies	20
Commerce	21
Design & Technology	22
Visual Arts	24
Performing Arts	26

Introduction

Year 10 is the first year of Senior School for our students and a key phase in the Mazenod Journey. This is a year in which concrete decisions are made about the pathway that each student will follow towards the completion of his secondary education.

The curriculum for Year 10 reflects this increasing specialisation as the students are given more time to explore and deepen their skills in areas of passion and interest.

This is particularly evident in the selection of electives. In Years 8 and 9, the selections were very broad, while in Year 10 they become more specific .

The Subject Selection program in Term Two will be an exciting time students and their parents with a fortnight-long period of presentations and workshop to support the students in their pathway selection for Year 11 and 12. This will bring about deep conversations between parents and their sons about their futures.

In the core curriculum, examinations will be a feature at the conclusion of each semester. This year is one where each student must taken on board his responsibility for his learning by adopting regular study habits to develop the skills needed for lifelong learning.

Alongside our curricular offerings, I urge you to support your son's engagement in the wide array of co-curricular learning opportunities at the College. These include sport, dance, Young Vinnies, debating, music, games clubs and much more. The full range of offerings can be found in the [Co-Curricular Booklet](#) on the College website.

As parents and adults, we can support boys' learning through staying active and engaged in what they are doing in their courses. Listening to draft presentations , helping quiz their knowledge in preparation for examinations and showing interest in their current learning topics are just a few ways to support academic progress.



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The Lower School Curriculum

Mazenod College delivers the Western Australian Curriculum in all learning areas. Learning from Years 7 to 9 is characterised by increasing choice and autonomy for students as they begin to explore their own interests and take greater control over their learning.

7

The five core learning areas are Religious Education, English, Humanities & Social Sciences, Mathematics, and Science. In addition to these, students study Health & Physical Education, the Arts, Italian, Design & Technology, and Digital Technologies.

There are no electives in Year 7, but students get an experience of some of the elective offerings that will be available to them in Year 8. These are:

Italian	Drama	Music
Visual Art	Design & Technology	Digital Technologies

8

In Year 8, streaming is introduced in Mathematics, with the grouping of students into Standard and Extended classes. Additionally, Modified Maths and English classes are introduced for students who cannot access the standard content of those courses. Literacy support also takes place during English and Maths.

In Year 8, students select 8 elective courses, each for a semester. From these, students must select one each from Digital Technologies, Design & Technology, Visual Arts and Performing Arts subject areas. There is a wide selection of courses and these can be found in this handbook.

9

In Year 9, streaming is introduced in English, with the grouping of students into Standard and Extended classes. Additionally, Modified Science is introduced alongside the equivalent Maths and English classes for students who cannot access the standard content of those courses.

In Year 9, students select 6 elective courses, each for a semester. Students can select whichever courses they choose. There is a wide selection of courses and these can be found in the Year 9 Curriculum Handbook.

In Term Three, Year students do 90 minute exams in Religious Education, Mathematics, Humanities & Social Sciences, and Science.

10

In Year 10, streaming occurs in Maths, English, Science and in Religious Education. The Industry & Enterprise is introduced as an invitational program that prepares students to Vocational Education and Training. Students choose four semester elective units to study, with more time given to the these.

In Term Two, Year 10s undergo the Subject Selection Program, which prepares them to select pathways and courses for Senior School in Term Three. Students who have not prequalified for OLNA by achieving Band 8 in NAPLAN Reading, Writing and Numeracy will do OLNA to meet the literacy requirements for WACE. There are exams in both semesters in Year 10.

Learning Diversity

Isn't it amazing that we are all made in God's image, and yet there is so much diversity among his people?

- Desmond Tutu

Mazenod enrolls 150 new students each year, and among these are a rich tapestry of individual gifts, experiences and needs.

Most of that diversity is catered for in the everyday work of the classroom and in the pastoral leadership of the College staff. Through differentiated Success Criteria and extra help, our aim is for all students to make progress academically, socially and spiritually.

Some students, however, need further support to meet their learning needs. To help meet the needs of all learners, Mazenod dedicates resources to three areas for learning diversity: Learning Support, Gifted & Talented, and Aboriginal Education.

Learning Support

The Learning Support Team consists of teachers, education assistants and school psychologists. These staff members support students with particular educational and social-emotional needs.

Students with particular learning needs will typically be on some kind of documented plan. These plans include:

Curriculum Adjustment Plan (CAP)

Students on CAPs will usually have a diagnosed learning or social-emotional difficulty. The CAP serves as a guide for teachers to make adjustments to the instruction, the environment or the assessment of learning for these students. A student on a CAP will still be taught and assessed against the year-level curriculum. These students may also receive extra support from the Learning Support Team.

Individual Education Plan (IEP)

Students on IEPs usually need significant learning support and are often supported by an Education Assistant.

In all cases where a documented plan is in place, parents, carers and the students themselves will be part of the process.

Gifted & Talented

Among our students are those with learning needs that demand that they go beyond the curriculum. These students may not necessarily be achieving the highest grades, but other indicators might suggest that they have cognitive needs that are not being met by the curriculum.

Gifted and talented students are identified through classroom achievement, teacher observation and testing.

In Year 8, gifted students will have opportunities to engage in extra-curricular activities to support their curiosity and their competitiveness. These include the Da Vinci Decathlon, the Have Sum Fun competition, the Ethics Olympiad and the Euler Mathematics program.

In Year 8 and 9, the opportunities for these students expand to include the RiOT Gifted and Talented elective and the Explore Science elective as well as the Specialist Band Program.

In Year 10, students are extended in their curriculum through the streaming of their courses whilst also being invited to engage with the variety of extra-curricular academic competitions.

Aboriginal Education

While Mazenod is located in Whadjuk Noongar country, it draws Aboriginal students from across the state in addition to the metropolitan area.

Mazenod is committed to supporting the learning ambitions of its Indigenous students while acknowledging and celebrating Aboriginal culture and history.

Aboriginal students are supported by our Aboriginal Education Coordinator. All Aboriginal students in the College will be on **Personalised Learning Plans (PLP)**. These documented plans will focus on the following four key questions for the student:

1. Where is the student now?
2. Where should the student be?
3. How will they get to where they should be?
4. How will we know when they get there?

Learning, Homework & Assessment

All learning activities, whether they be class activities, homework, or assessment aim to give the engaged learner guidance on the following questions:

Homework

Homework is an essential part of the learning. Homework task allows for students to consolidate their learning, practise a skill, or come to class with prior knowledge for the next lesson.

Year 10 students can begin to expect up to and over two hours of homework each night.

Homework is monitored by teachers to ensure that students complete it to a standard that reflects a commitment to learning.

School Assessment

Throughout the year, students do assessments that provide feedback to the students and teachers about learning and teaching.

The Mazenod College [Assessment Policy](#) is available on the College website and in the students' diaries.

Assessments can take many forms and may be modified to meet the needs of individual students.

Examination

At the end of each semester, students will complete two-hour examinations that cover Religious Education, English, Mathematics and Science.

OLNA

IN Year 9, the students did their final NAPLAN. These tests occur in May and are completed online.

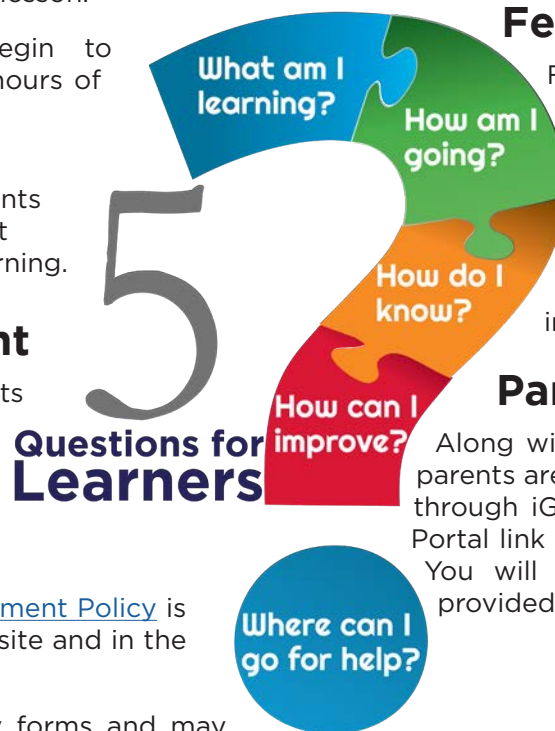
Feedback

Feedback on student learning takes on several forms: written feedback on tasks, peer feedback, verbal feedback during a lesson.

The key to the feedback is the engagement of the student in using the feedback for his improvement.

Parent Engagement

Along with reports and other information, parents are able to access assessment marks through iGloo, which is accessible from the Portal link at the top of the College website. You will need to use your login details provided by the College.



Religious Education

Rationale

Religious Education is the first learning area for all Catholic Schools. It is in this course that our students come to understand the teachings, beliefs and values of the Catholic Church.

The Religious Education course is an academic program that is compulsory for all students through to Year 12. In Senior School, the course can be studied as an ATAR subject towards university entry.

The Religious Education program explores the interplay between religion, society and individuals. It examines the nature of religion and how it offers individuals and their communities an understanding of the world around them. As students develop the knowledge, understanding, values and skills of this course, they understand ways to interact and communicate with people about the diversity of religious beliefs and practices.

The study of Religious Education at Mazenod will help our students to appreciate their role in sustaining a socially just world in which all are created in eyes of God.

The Year 10 Religious Education course is streamed into Extended RE and Standard RE with an Industry & Enterprise English Class as part of the Industry & Enterprise Program program. All courses follow the same program with instruction and assessment adjusted to the stream of the class.

RELIGIOUS EDUCATION

TERM ONE: VOCATION - CALLED TO BE AND TO BECOME

The content is built around the following areas: The basic human vocation, Discovering personal vocation, The Christian vocation, Marriage is a vocation, Ministerial Priesthood, Religious life and Life Everlasting.

TERM TWO: THE SEARCH FOR FREEDOM

The content is built around the following areas: Freedom to make responsible moral choices, making morally good choices, God's restoration of human freedom, God revealed the Old Law and the New Law, The New Law of True Freedom, The Sacrament of True Freedom.

TERM THREE: THE HOLY SPIRIT'S ACTION THROUGH CONSCIENCE AND THE CHURCH

The content is built around the following areas: Alone with God, Making judgement of Conscience, Four Principles of Conscience, Challenges recognising the voice of Conscience, The Holy Spirit guides Conscience, The Characteristics of the Church, The growth of the Church, Renewal of the Church through the Holy Spirit.

TERM FOUR: VOCATION - CALLED TO BE AND BECOME

The content is built around the following areas: Concern for Justice, Human injustice in the world, Jesus as the realisation of God's justice, Jesus restores Justice in people's hearts, Jesus calls Christians to promote Social Justice, The Church promotes Social Justice.



Health & Physical Education

Year 10 Achievement Standard

Health Education

At Standard, students explain the impact of social and cultural influences on personal identity and health, safety and wellbeing, including stereotypes and gender, diversity and cultural differences. They analyse media messages about health, and propose and evaluate interventions to improve individual and community health and wellbeing.

Students evaluate the impact of emotional responses on relationships and apply skills and strategies to promote respectful relationships, such as taking action to address disrespect or other inappropriate behaviour.

Physical Education

At Standard, students select, use and evaluate individual movement skills and sequences and implement tactics appropriate to the physical activity context, based on the outcome of previous performances. They apply appropriate technique while performing skills that increase in complexity.

Students describe acceleration and force absorption in relation to physical activity and improving performance. They describe ways to measure hydration and perceived exertion in response to physical activity. Students demonstrate ethical behaviour in competitive contexts and apply skills and strategies to improve team performance.

Course Outline

TERM ONE

In Term One, students transfer learned specialised movement skills with increasing proficiency and success in the contexts of cricket and swimming. They use feedback to improve their own and others' performance with greater consistency, and critically evaluate movement responses based on the outcome of previous performances. Through the application of biomechanical principles to analyse movement, students broaden their understanding of optimal techniques necessary for enhanced athletic performance. In Health, through the Keys4Life program, the students focus on being healthy, safe and active in the community.

TERM TWO

Students transfer learned specialised movement skills with increasing proficiency and success in the contexts of soccer and athletics. They use feedback to improve their own and others' performance with greater consistency, and critically evaluate movement responses based on the outcome of previous performances. Through the application of biomechanical principles to analyse movement, students broaden their understanding of optimal techniques necessary for enhanced athletic performance. In Term Two, the Keys4Life program continues.

TERM THREE

Using a range of Invasion/evasion sports students use feedback to improve their own and others' performance with greater consistency, and critically evaluate movement responses based on the outcome of previous performances. Through the application of biomechanical principles to analyse movement, students broaden their understanding of optimal techniques necessary for enhanced athletic performance. In Health, students study external influences on health decisions based on nutrition and evaluate their impact on personal identity and the health of the broader community.

TERM FOUR

Students self-assess their own and others' leadership styles and apply problem-solving approaches to motivate participation and contribute to effective team relationships. They are also provided with opportunities to assume direct control of physical activities in coaching, coordinating or officiating roles. The Keeping Safe Child Protection Curriculum is the focus for Term Four.



English

Year 10 Achievement Standard

Reading and Viewing

At Standard, students evaluate how text structures can be used in innovative ways by different authors. They explain how the choice of language features, images and vocabulary contributes to the development of individual style. They develop and justify their own interpretations of texts. They evaluate other interpretations, analysing the evidence used to support them.

Writing and Creating

Students show how the selection of language features can achieve precision and stylistic effect. They explain different viewpoints, attitudes and perspectives through the development of cohesive and logical arguments. They develop their own style by experimenting with language features, stylistic devices, text structures and images. Students create a wide range of texts to articulate complex ideas. They demonstrate understanding of grammar, vary vocabulary choices for impact, and accurately use spelling and punctuation when creating and editing texts.

Speaking and Listening

Students listen for ways features within texts can be manipulated to achieve particular effects. They show how the selection of language features can achieve precision and stylistic effect. Students explain different viewpoints, attitudes and perspectives through the development of cohesive and logical arguments. They develop their own style by experimenting with language features, stylistic devices, text structures and images. Students create a wide range of texts to articulate complex ideas. They make presentations and contribute actively to class and group discussions, building on others' ideas, solving problems, justifying opinions and developing and expanding arguments.

The Year 10 English course is streamed into Extended English and Standard English with an Industry & Enterprise English Class as part of the Industry & Enterprise Program program

Industry & Enterprise English

TERM ONE

The focus for this term is the world of workplaces. You will explore the ideas behind the changing world of employment, rights and responsibilities and working conditions in workplaces in Australia and around the world.

Throughout the term, you will examine and produce a range of different texts. This term includes a study of the novel *The Dead I Know*, about a character who has a rather interesting job.

TERM TWO

In this unit you will look at a range of texts which aim to persuade us to take action. You will look at the ways we can be manipulated by texts to respond in particular ways and the ways that the creators of texts use specific techniques to make us act. You will look at some excerpts from visual texts including documentary excerpts, films, advertising campaigns as well multimodal texts and persuasive speeches. You will also have a wonderful opportunity to write your own speech presentation and present them to an audience in a TED talks style 'expo', encouraging them to act.

TERM THREE

The focus for this unit will be preparation for the job seeking process. Many of you will be looking for some form of Employment in the future, whether in a part time or casual position, or later on in full-time employment. We will practise our letter-writing, undertake mock interviews and write résumés skills to make sure you present yourself in the best possible way.

TERM FOUR

Despite how far we have developed as world Citizens, a damaging issue which lingers in our society and continues to create huge divisions between social groups is prejudice. You will study the contemporary classic novel *To Kill a Mockingbird* by Harper Lee, a coming of age story which explores the prejudice which existed in the 1930s Deep South. You will explore the historical and social context of this text and develop an understanding of these important time periods.

Standard English

TERM ONE: STORIES & PERSPECTIVES

This unit is based around the study of narrative texts and the ways that authors create engaging stories which explore unique perspectives. You will read the novel, *The Curious Incident of the Dog in the Night-time*, and consider how it explores unique perspectives. Developing essay writing skills and structured writing is also a strong focus of this unit. Based on your reading, you will use your knowledge of narratives to create an engaging and original narrative from an alternative perspective in the novel.

TERM TWO: PERSUASION

In this unit, you will look at a range of texts which aim to persuade us to take action. You will look at the ways we can be manipulated by texts to respond in particular ways and the ways that the creators of texts use specific techniques to make us act. You will look at some excerpts from visual texts including documentary excerpts, advertising campaigns as well as multimodal texts and persuasive speeches.

TERM THREE: THIS IS AUSTRALIA

In this unit, you will look at a wide range of text types that represent different Australian experiences. You will examine, poetry, photography and drama and the ways that these show different definitions of what it means to be Australian. You will look at the conventions of these different text types and explore how they construct varying representations. Through the medium of drama, you will create a scene from an original drama which explores an aspect of what you believe is the 'real Australia'. You will then study the feature film *Last Cab to Darwin* and produce an essay response to the text.

TERM FOUR: INJUSTICE

Despite how far we have developed as world citizens, a damaging issue which lingers in our society and continues to create huge divisions between social groups is prejudice. You will study the contemporary classic novel *To Kill a Mockingbird* by Harper Lee, a coming of age story which explores the prejudice which existed in the 1930s Deep South. You will explore the historical and social context of this text and develop an understanding of these important time periods.

Extended English

TERM ONE: THE HORROR THE HORROR

This unit is a genre study of the enduring Horror genre. It will begin by defining the genre and its history before undertaking a study of various Horror extracts. After that, the class will undertake a novel study of *I am Legend* by Richard Matheson and then finally lead to composing a Horror creative text of your own.

TERM TWO: WAR PERSPECTIVES

This unit will be focused on the theme of war and the different perspective on this always contentious and present event in our world. We will explore a series of war poetry, prose and imagery, developing your ability to closely analysis a range of texts using metalanguage related to visual texts, and poetry. The course of study will lead you to an extended film study of *Dirty Wars*, a text that provides an engaging perspective on war.

TERM THREE: TRAGEDY

Tragedy is an ancient genre that speaks across millennia because it engages our deepest flaws as human beings. In this unit, you will study *Oedipus Rex* by Sophocles and Shakespeare's *Othello*. Trust us, you will be talking about these for years! This unit will give you a strong grounding for future studies in this subject. By engaging with this unit, you will see how the stories we still tell have their patterns in age-old literature. Additionally, you will develop your analytical writing skills as well as your ability to convey information in innovative ways.

TERM FOUR: INJUSTICE

Despite how far we have developed as world citizens, a damaging issue which lingers in our society and continues to create huge divisions between social groups is prejudice. You will study the contemporary classic novel *To Kill a Mockingbird* by Harper Lee, a coming of age story which explores the prejudice which existed in the 1930s Deep South. You will explore the historical and social context of this text and develop an understanding of these important time periods. The text itself was created during the civil rights movement in the 1960s and you'll look at the way that an author's context, including their values and attitudes, can influence the way that a text is constructed. You will also have an exam at the end of this unit.

Humanities & Social Sciences

Year 10 Achievement Standard

At Standard, students construct a range of questions and hypotheses involving cause and effect, patterns and trends, and different perspectives. They use a range of methods to select, record and organise relevant information and/or data from multiple sources. When interpreting sources, students identify their origin and purpose, and draw conclusions about their usefulness. They examine sources to compare different points of view/perspectives and describe different interpretations. Students analyse information and/or data to identify simple patterns, trends, relationships and/or change over time. They draw evidence-based conclusions, using information and/or data to consider multiple perspectives and/or to propose action in response to contemporary challenges. Students develop a range of texts appropriate to the type of discussion and/or explanation required. They use subject-specific terminology and concepts, and provide evidence from a range of sources to support conclusions, and acknowledge these sources.

Students describe key features of the Westminster system and Australia's democratic values. They make comparisons between Australia's democracy and the political system of one other country. Students identify the international agreements Australia has ratified, and make connections between these agreements and the rights and responsibilities of citizens. They explain how Australia's democracy, and other democracies,

may be undermined, and identify the safeguards that protect Australia's democratic system.

Students use economic indicators to analyse the economic performance of the Australian economy. They describe how government policy is used to manage the economy and improve economic performance and living standards, including the redistribution of income and wealth. Students describe how businesses respond to changing economic conditions, and explain how the different sectors in the economy are interdependent.

Students describe how the places in which people live influence their wellbeing and opportunities. They describe the interconnections between people and natural environments, and compare how the characteristics of places and natural environments can be influenced, changed and managed by people over time. Students predict the consequences of the changes, and describe the alternate views on strategies to sustainably manage a geographical challenge.

Students identify the causes and effects of World War II and the development of people's rights and freedoms, describing their significance from a range of perspectives. They refer to key events, the actions of individuals and groups, and beliefs and values, to explain patterns of change and continuity over time. Students describe different interpretations of the past, and identify the evidence used to support these interpretations.



The Year 10 Humanities and social Sciences course is taught on a rotational basis with students changing classes for new disciplines within the area. These disciplines are: History, Geography, Economics, and Politics and Law.

History

In this unit, students will develop their historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability. These concepts are investigated within the historical context of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context.

At the end of this unit of study students will be able to identify the causes and effects of World War II and the development of people's rights and freedoms, describing their significance from a range of perspectives. They will refer to key events, the actions of individuals and groups, and beliefs and values, to explain patterns of change and continuity over time. Students will also be able to describe different interpretations of the past, and identify the evidence used to support these interpretations.

Geography

The first unit begins with an overview of human wellbeing and development around the world. Students will gain an understanding of how to measure and map human wellbeing and will also be able to evaluate and justify the reasons for the spatial variations between countries in selected indicators of human wellbeing. There is a focus on issues affecting the development of places and their impact on human wellbeing and the role of international and national government and non-government organisations' initiatives in improving human wellbeing in Australia and other countries.

The second unit will start an overview of the natural and human processes that shape coastlines. Students will then investigate the major challenges facing the sustainability of coasts, and the environmental worldviews - including those of Aboriginal and Torres Strait Islander Peoples - that influence how people perceive and respond to these challenges. Students will investigate a specific coastal area in Australia and one other country, focusing on the environmental changes occurring in these study areas. The unit of work will also involve a field-trip to a coastal area in Perth where land use change and sustainability of the ecosystem will be examined.

Economics

In Economics students will gain knowledge and understanding of Macroeconomic and Microeconomic concepts building on the Economic knowledge and understanding gained in previous years. Skills include questioning, researching, analysing, evaluating, communicating and reflecting.

Concepts include: scarcity, opportunity cost, supply, demand and price equilibrium, specialisation and trade, interdependence, markets, economic performance and living standards, circular flow of income model, business cycle, taxation, innovation and marketing.

Civics & Citizenship

Year 10 Civics and Citizenship aims students to continue to build on their understanding of the concepts of democracy, democratic values, justice, and rights and responsibilities by exploring Australia's roles and responsibilities at a global level and its international legal obligations. They inquire in to the values and practices that enable a resilient democracy to be sustained. Students will describe key features of the Westminster system and Australia's democratic values.

Students will make comparisons between Australia's democracy and the political system of one other country i.e. Indonesia or China. Students will identify the international agreements Australia has ratified, and make connections between these agreements and the rights and responsibilities of citizens. They will explain how Australia's democracy, and other democracies, may be undermined, and identify the safeguards that protect Australia's democratic system.

Mathematics

Year 10 Achievement Standard

Number and Algebra

At Standard, students recognise the connection between simple and compound interest. They solve problems involving linear equations and inequalities. Students make the connections between algebraic and graphical representations of relations. They expand binomial expressions and factorise monic quadratic expressions. Students find unknown values after substitution into formulas. They perform the four operations with simple algebraic fractions. Students solve simple quadratic equations and pairs of simultaneous equations.

Measurement and Geometry

Students solve surface area and volume problems relating to composite solids. They recognise the relationships between parallel and perpendicular lines. Students apply deductive reasoning to proofs and numerical exercises involving plane shapes. They use triangle and angle properties to prove congruence and similarity. Students use trigonometry to calculate unknown angles in right-angled triangles.

Statistics and probability

Students compare data sets by referring to the shapes of the various data displays. They describe bivariate data where the independent variable is time. Students describe statistical relationships between two continuous variables. They evaluate statistical reports. Students list outcomes for multi-step chance experiments and assign probabilities for these experiments. They calculate quartiles and inter-quartile ranges.

The Mathematics course in year 10 is streamed into Modified, Standard, and two Extended courses. The extended courses are streamed depending on the ability of the students.

Modified Mathematics

TERM ONE

The focus for the first term of Standard Mathematics is on working with indices and developing skills in algebra.

TERM TWO

The first part of this term focuses on developing student skills and understanding in trigonometry.

TERM THREE

Students learn how to interpret data using statistics and apply this knowledge to understanding our world.

TERM FOUR

Students learn about measurement and how we use length, width, area and perimeter in everyday life.

Standard Mathematics

TERM ONE

In this term students develop the skills with indices, including negative indices and scientific notation. In the second half the term students develop the algebra skills by working with simplifying algebraic expressions and factorising trinomials.

TERM TWO

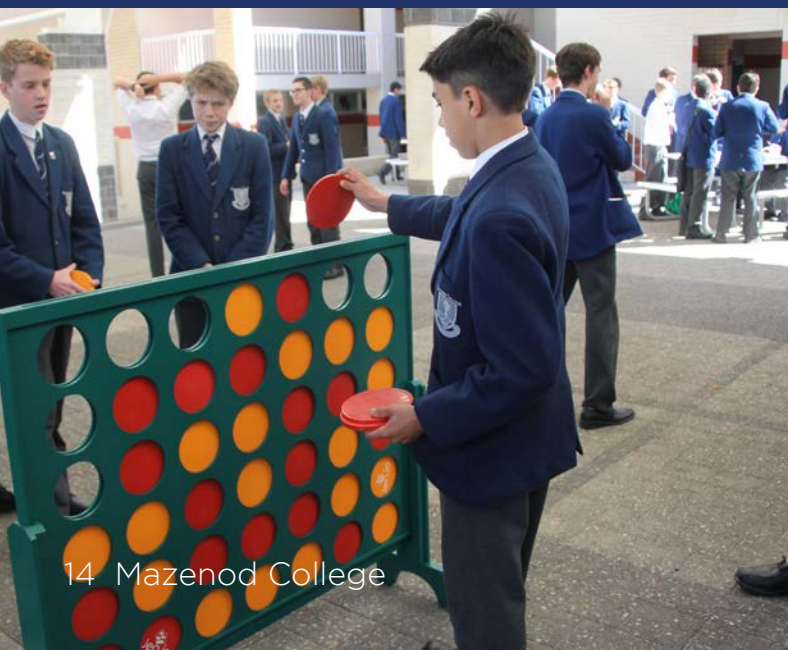
Students begin the term with trigonometry by learning how to calculate angles of elevation and depression as well as bearings. In the second half the term students learn about statistics, including interpreting graphs and tables and developing their own graphical representations of statistical data. At the end of the term, students will learn about financial mathematics, including simple interest, compound interest, and tax tables.

TERM THREE

Students begin the term with linear modelling. They then return to deepen their understanding of the uses of statistical data as well as their understanding of financial mathematics.

TERM FOUR

In this term students work with simultaneous equations by solving inequalities, solving simultaneous equations graphically, and solving through substitution and elimination.



Extended Mathematics 1

TERM ONE

In the first half of this term, students hone their algebraic skills as well as their skills with number. In the second half of the term, students learn about linear functions, including solving simultaneous equations and finding gradients of lines in linear functions.

TERM TWO

The focus for term two is on trigonometry. Students perform a range of trigonometric calculations and apply their understandings to real-world, complex situations. Students learn how to work with practical problems involving sine, cosine and tangent. Students also study geometry through congruent triangles and geometric proofs.

TERM THREE

In the first half of this term, students develop their understanding of probability. Students then engaged with quadratic functions and simultaneous equations.

TERM FOUR

Students use the unit circle to find trigonometric values and work with algebraic representations of transformations associated with trigonometric graphs. They then move into index laws and learn about the concept of half-life, applying this to real-world situations.

Extended Mathematics 2

TERM ONE

Students begin the term by studying algebra, including factorising, adding and subtracting algebraic functions, and solving quadratics. They then move into working with linear functions and statistics.

TERM TWO

Students start the term by continuing with their study of statistics before developing the skills and understandings in trigonometry.

TERM THREE

Students begin the term by stating probability, including constructing Venn diagrams, tree diagrams, and understanding conditional probability. They then move into the study of quadratic functions and understanding parabolas and their properties. Students then learn about sequence and series, including arithmetic and geometric progressions.

TERM FOUR

In this term students learn about indices and surds, which includes a review of index laws, exponential growth and decay, compound interest, and exponential equations.



Science

Year 10 Achievement Standard

Science Understanding

At Standard, students analyse how the periodic table organises elements and use it to make predictions about the properties of elements. They explain how chemical reactions are used to produce particular products and how different factors influence the rate of reactions. Students apply relationships between force, mass and acceleration to predict changes in the motion of objects. They explain the concept of energy conservation and represent energy transfer and transformation within systems. Students describe and analyse interactions and cycles within and between Earth's spheres. They describe the evidence for scientific theories that explain the origin of the universe and the diversity of life on Earth. Students explain the processes that underpin heredity and evolution.

Science as a Human Endeavour

Students analyse how the models and theories they use have developed over time.

Science Inquiry Skills

Students develop questions and hypotheses and independently design and improve appropriate methods of investigation. They describe how they have considered reliability, safety, fairness and ethical actions in their methods. When analysing data, selecting evidence and developing conclusions, students identify any sources of uncertainty. They evaluate the validity and reliability of claims made in secondary sources with reference to the evidence cited. Students construct evidence-based arguments and select appropriate representations to communicate science ideas.

In Year 10, Science is streamed into Standard and Extended Science in addition to the Industry & Enterprise Science course, which is part of the Industry and Enterprise Program. Standard and Extended courses are delivered on a rotation with teachers adjusting course delivery for the stream of the classes. Industry & Enterprise Science is delivered through a modified curriculum and taught by the same teacher all year.

PHYSICAL SCIENCE

Students study the way energy is conserved in a system in a way that can be explained by describing energy transfers and transformations. Students also study the motion of objects and how this can be described and predicted using the laws of physics.

EARTH & SPACE SCIENCE

Students explore the idea that the universe contains features including galaxies, stars and solar systems, and that the Big Bang theory can be used to explain the origin of the universe. Also, they learn how global systems, including the carbon cycle, rely on interactions involving the biosphere, lithosphere, hydrosphere and atmosphere.

BIOLOGICAL SCIENCE

Students study the transmission of heritable characteristics from one generation to the next involves DNA and genes. Additionally, they study the theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence.

CHEMICAL SCIENCE

Students study the atomic structure and properties of elements are used to organise them in the Periodic table. They also study how different types of chemical reactions are used to produce a range of products and can occur at different rate.



Industry & Enterprise



The **Industry & Enterprise Program** is an invitational program for student in Year 10 with particular skills in the Design & Technology learning area.

With the changing curriculum expectations and the needs that have arisen from the changing employment market, a stand alone program has been developed for a select group of Year 10 students.

The Industry and Enterprise course is designed to assist students who have been identified as having difficulties in the core subject areas.

The program consists of 16-18 students who have been recognized as having good hands skills and are most likely to enter a trade or apprenticeship.

A modified curriculum that has greater relevance and practical application has been developed for this core group. The program is designed on the assumption that the students enrolled will progress to a General pathway in Year 11 and who are likely to study a VET certificate.

As part of the I&E program, students engage in workplace learning. Each term students participate in work experience giving students an opportunity

to try different trades. Work experience assists students with their potential career pathway with time in the actual discipline or trade.

Through this program, students gather first hand knowledge about different trades and the activities that are undertaken. It also provides them with a good understanding of their suitability for the trade. Students are required to keep a logbook and evidence of the tasks they have completed. This will assist TAFE applications in the future.

In addition to their core subject learning, students undertake a variety of other courses that will improve their employability and competitiveness for post-school options. These include:

- Creating a USI Number
- White Card Construction Course
- Fire Extinguisher Course
- Senior First Aid Course
- Try a trade bricklaying course

Electives

In Year 10, students are free to choose any of the electives with placements determined by class size and timetabling.

Students choose 4 electives with more time allocated for study than in Year 8 and In Year 9,

Note: Some units are whole-year courses and count as two unit to your total selection of 4 units.

Although Year 10 electives are not prerequisites for Senior School, students considering pursuing these areas in Senior School are strongly advised to select these electives in Year 10.

Design & Technology Units			
No. of Units	Name	No. of Units	Name
1	Design (1 unit course)	1	Metalwork (1 unit course)
2	Design (2 unit course)	2	Metalwork (2 unit course)
1	Electronic Engineering (1 unit course)	1	Woodwork (1 unit course)
2	Electronic Engineering (2 unit course)	2	Woodwork (2 unit course)

Digital Technologies Units			
No. of Units	Name	No. of Units	Name
1	UI and UX Design or Web Design II	1	Machine Learning and Artificial Intelligence
1	Programming: Computer Science	1	Networking Fundamentals

Visual Arts Units			
No. of Units	Name	No. of Units	Name
1	Art (1 unit course)	1	Media Studies (1 unit course)
2	Art (2 unit course)		

Performing Arts Units			
No. of Units	Name	No. of Units	Name
1	Drama (1 unit course)	1	Music (1 unit course)
2	Drama (2 unit course)	2	Music (2 unit course)

Health & Physical Education Units			
No. of Units	Name	No. of Units	Name
1	Outdoor Education	2	Sport Science (2 unit course)
1	Specialised Physical Education		

Industry & Enterprise Units			
No. of Units	Name	No. of Units	Name
2	Industry & Enterprise Program	2	Certificate I Construction (I&E Program)

Commerce Units			
No. of Units	Name	No. of Units	Name
1	Commerce Unit 1: Business Management and Enterprise	1	Commerce Unit 2: Personal Finance for Young Adults

Health & Physical Education Electives



HPE (2 unit course) Sport Science

Sports Science provides students with an opportunity to develop their practical skills and strategies, and to explore these in contexts similar to those studied in Years 11 and 12 Physical Education Studies.

The practical component links the human body systems to the sporting movements required in sports such as badminton, floorball, softball and other sports not usually covered in physical education classes. Practical assessment is based on skill development, execution and technique in these sports.

Students examine the functional anatomy of the human body. Structure and function of the skeletal and muscular systems are studied to explain how the human body creates movement. They also investigate recent developments in Biomechanics, Sports Psychology and Motor Learning & Coaching, and apply these in a practical context.

HPE (1 unit course) Specialised Physical Education

This practical course is offered to students who enjoy HPE and want to further develop their skills and strategies. A variety of sports that are not covered in physical education classes are selected, such as flag gridiron, lacrosse and badminton. Students are given the opportunity to improve their skills and understanding of the methods to improve performance. Students ability to transfer tactical knowledge and strategies from one context to the next is a focus. Practical performance in the selected sport forms the basis for student assessment in this course.

HPE (1 unit course) Outdoor Education

Year 10 Outdoor Education aims to educate students about environmental awareness and risk management. This course will allow students to explore topics such as navigation, orienteering, bush survival, first aid, minimal impact, hiking, camping, fishing and mountain biking.

Outdoor Education is about learning life skills which are facilitated in the outdoors and the learning objectives of this course include: developing teamwork skills, decision making and problem solving skills, improving communication, instilling leadership qualities, and fostering initiative and resourcefulness. The course culminates with a 2-3 day expedition where the skills and knowledge learned in the course are put into practice.

Please note there is a limited number of places offered in Outdoor Education for logistical and safety reasons. Selection criteria will be based on suitability to the subject and recommendations from classroom teachers and the Head of the Health & Physical Education Department.

Digital Technologies

Year 10 Achievement Standard Digital Technologies

At Standard, students describe the role of hardware and software in managing, controlling and securing access to data, in networked digital systems. They describe the process of simple compression of data and how content data is separated from presentation data. Students apply techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, and consider privacy and security requirements. They analyse, visualise and model processes and entities, and their relationships, using structured data. Students create a design for algorithms represented diagrammatically and in structured English, including iteration. They validate algorithms and programs, using commonly accepted methods. Students implement data storage and organisation techniques within a programming environment. They create interactive solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities.

In digital technologies, students identify the needs of the client/stakeholder to determine the basis for a solution. They create and critique briefs. Students investigate components/resources to develop increasingly sophisticated solutions, identifying and considering associated constraints. They apply design thinking, creativity, enterprise skills and innovation to develop, modify and communicate design ideas of increasing sophistication. Students design possible solutions, analysing designs against criteria, including functionality, accessibility, usability and aesthetics, using appropriate technical terms and technology. They select, justify and safely implement and test appropriate technologies and processes to make solutions. Students provide relevant analysis of design processes and solutions against student-developed criteria. They work independently, and collaboratively to manage projects, using digital technology and an iterative and collaborative approach. Students consider time, cost, risk, safety, production processes, sustainability and legal responsibilities.

Digital Technologies (Unit 1) UI and UX Design or Web Design II

This course offers a design focused approach to web, user interface and user experience design. It will introduce students to the art of making beautiful app interfaces and websites. This practical course takes students through the project management process using a variety of resources including Adobe Illustrator, InDesign, Dreamweaver, HTML and CSS. Students will develop an understanding of the fundamentals of design to create diagrams, wireframing, mockups and prototypes of app and web interfaces.

Digital Technologies (Unit 2) Programming: Computer Science

This course explores computer science by covering topics such as programming, physical computing, HTML/CSS, and data.

Students engage with computer science as a medium for creativity, communication, problem solving, and fun. The course inspires students as they build their own websites, apps and games developing essential computational thinking skills and advanced computing knowledge.



Digital Technologies (Unit 3)

Machine Learning and Artificial Intelligence

Machine Learning and Artificial Intelligence is an exciting area of technology and as we see more self driving cars, robots and similar technologies, we need to understand how it works and how we can make it work for us. This unit will explore what Machine Learning and Artificial Intelligence are, what it is used for and we will work to develop our own intelligence to help solve every day or complex problems.

Digital Technologies (Unit 4)

Networking Fundamentals

Modern life will not be possible without computer networks so an understanding of how they work is beneficial. We will undertake learning in how to setup and maintain computer networks and use technology available to give students a real-world experience running a computer lab. We hope to link up with industry to give students some recognition of their knowledge and skills.

Commerce

Commerce (Unit 1)

Business Management & Enterprise

The course aims to provide a detailed study of starting, owning and operating a small business. Students are challenged to become entrepreneurs and to use technology to create innovative business solutions. Topics include: Ethics, Investment, Commercial Law, Marketing, Product/Service Research and Development, Introduction to Accounting, Financial Modelling, Management Skills and Decision Making. Students prepare a comprehensive business plan including marketing and financial plans. They should become highly proficient in Excel. Competitions include CPA Plan Your Own Business and ASX Share Market Game. This unit will assist students who intend to pursue a career in Finance, Economics or achieve a trade and/or operate their own business.

Commerce (Unit 2)

Personal Finance for Young Adults

This Unit is an in-depth study of personal finance for young adults. Activities include: Buying a Car assignment, Insurance, Budgeting, Banking, operating a Market stall, Share Markets, Taxation, Income sources, Saving, Investing and Credit. Books investigated include: 'The Four Pillars of Investing: Lessons for Building a Winning Portfolio'. 'Generation Earn: The Young Professionals Guide to Spending, Investing, and Giving Back'. Students will experience being an entrepreneur working in a small team, play the Visa Financial Football World Class Game and The ASX Schools Share Market Game.

Design & Technology

Year 10 Achievement Standard Design & Technology

At Standard, students consider social, ethical and sustainability factors that impact on designed solutions, complexity of design, and production processes. They outline how design decisions, and/or economic, environmental and social sustainability is influenced by emerging technologies. In engineering principles and systems, students identify the process of combining of materials with force, motion and energy to create solutions. In materials and technologies specialisations, students combine a range of characteristics and properties of materials, systems, components, tools, technologies and equipment to create designed solutions.

With all Design and Technology contexts, students identify the needs of the client/stakeholder to determine the basis for a solution. They create and critique design briefs. Students investigate components/resources to develop increasingly sophisticated solutions, identifying and considering associated constraints. They apply design thinking, creativity, enterprise skills and innovation to develop, modify and communicate design ideas of increasing sophistication. Students design possible solutions, analysing designs against criteria, including functionality, accessibility, usability and aesthetics, using appropriate technical terms and technology. They select, justify and safely implement and test appropriate technologies and processes to make solutions. Students provide relevant analysis of design processes and solutions against student-developed criteria. They work independently, and collaboratively to manage projects, using digital technology and an iterative and collaborative approach. Students consider time, cost, risk, safety, production processes, sustainability and legal responsibilities.



Design (1 or 2 unit course)

Design

This course is designed to further expand the knowledge and skills learned in Years 8 and 9. Students revisit Computer Aided Design through a number of different software applications such as Autodesk Inventor, ArchiCAD, and 2D Design to design their own products and design solutions. Students will then test their designs through manufacture by making use of 3D printers, 3-D Modelling and VR software, and Laser Cutters. Emphasis is placed on the technical correctness of drawings together with the overall visual impact as a graphic communication of a solution to a drawing problem. ArchiCAD work will be based around a residential design with specific requirements and Inventor work will be creating an object for a client with a specific need.

Emphasis is placed on the technical correctness of drawings together with the overall visual impact as a graphic communication of a solution to a drawing problem.

Woodwork Unit (1 or 2 unit course)

Woodwork

This course is designed to encourage students to expand their knowledge of woodworking practices and to extend them to develop and construct projects. The course also extends student's knowledge of various machines and specialised woodworking equipment as well as developing an understanding of plans and working drawings.

A focus of this subject will be product design. Students will be asked to solve a design problem in which they will need to come up with their own solution. In doing so the students will learn the relevant design processes needed as well as how to communicate their ideas through the use of Free Hand Sketching and Computer Aided Drafting.

Throughout the course the students are introduced to a range of hand tools and safe working practices are strongly promoted.

Students should be aware that this course forms part of the foundation for the Materials Design and Technology (General) Woodwork course

and also the Certificate II in Furnishings (pathways) course in Year 11.

It is strongly recommended that any student who wishes to study the above subjects in Year 11 should select a Woodwork unit in Year 10.

Metalwork (1 or 2 unit course)

Metalwork

This course is designed to encourage students to expand their knowledge of metalworking practices and to extend them to develop and construct projects. The course also expands their knowledge of machine tools and specialised metalworking equipment as well as developing an understanding of plans and working drawings.

Students will be asked to solve a design problem in which they will need to come up with their own solution. In doing so the students will learn the relevant design processes needed as well as how to communicate their ideas through the use of Free Hand Sketching and Computer Aided Drafting. Throughout the course the students are introduced to a range of machines and tools and safe working practices are strongly promoted. The course will provide the solid foundation vital for those students who are looking to take on Certificate II in Engineering Pathways (metals) or General Materials Design & Technology (metals) in Years 11 and 12. Safety will underpin all teaching and learning experiences.

Engineering Unit (1 or 2 unit course)

Electronic Engineering

The content and assessment of this course is divided between theory and practical work and will build on skills learned in the Year 9 course, however no prerequisites are required. Theory in the course includes electrical safety, basic electronic principles, understanding and recognition of components, calculations in resistance, capacitance and simple circuit laws. Practical work involves the construction of integrated circuitry on manufactured printed circuit boards. Students will also program simple electronic and robotic devices to perform specific functions.

Students will investigate needs, opportunities and problems that are defined in a design brief. They devise a solution that considers factors such as function, environment, materials, components and parts. As part of this process students will be introduced to elements of design and the use of Computer Aided Drafting (CAD) programs.

Practical work involves the construction of integrated circuitry on manufactured printed circuit boards.

Visual Arts

Year 10 Achievement Standard Visual Art

At Standard, students prepare ideas that relate to a personal style and chosen studio discipline. They explore media, materials, techniques and technologies, documenting results to plan choices. Students apply elements and principles and visual art conventions, to suit a chosen art style and/or art form. They consider design alternatives and exhibit evidence of a personal style. Using visual art language, students describe artistic influence and provide reflective comments about decisions made in the creative process. They identify features of an art style and apply them to the exploration of ideas. Students maintain a plan in the development of an idea for a final design, produce a finished artwork and communicate their own artistic intention. Students use equipment and materials in a safe manner. They select techniques, materials and processes to represent an idea, subject or style. They make choices about

presentation conventions and consider audience context. Students provide an artist statement about their own interpretation of an idea, theme and audience.

Students analyse art forms, from different times and places and provide responses about meaning, style and intent. They present personal opinions and judgements, and use visual art language to describe the artwork of others. Students comment on how visual conventions are used to enhance composition. They provide an interpretation about artwork from different cultures and discuss artists' intent. Students make comparisons between artwork from different times and describe meaning, viewpoints, similarities and differences, supported by visual evidence. They judge the effectiveness and importance of artwork. Students provide a reflection of their own artwork and the artwork of others.

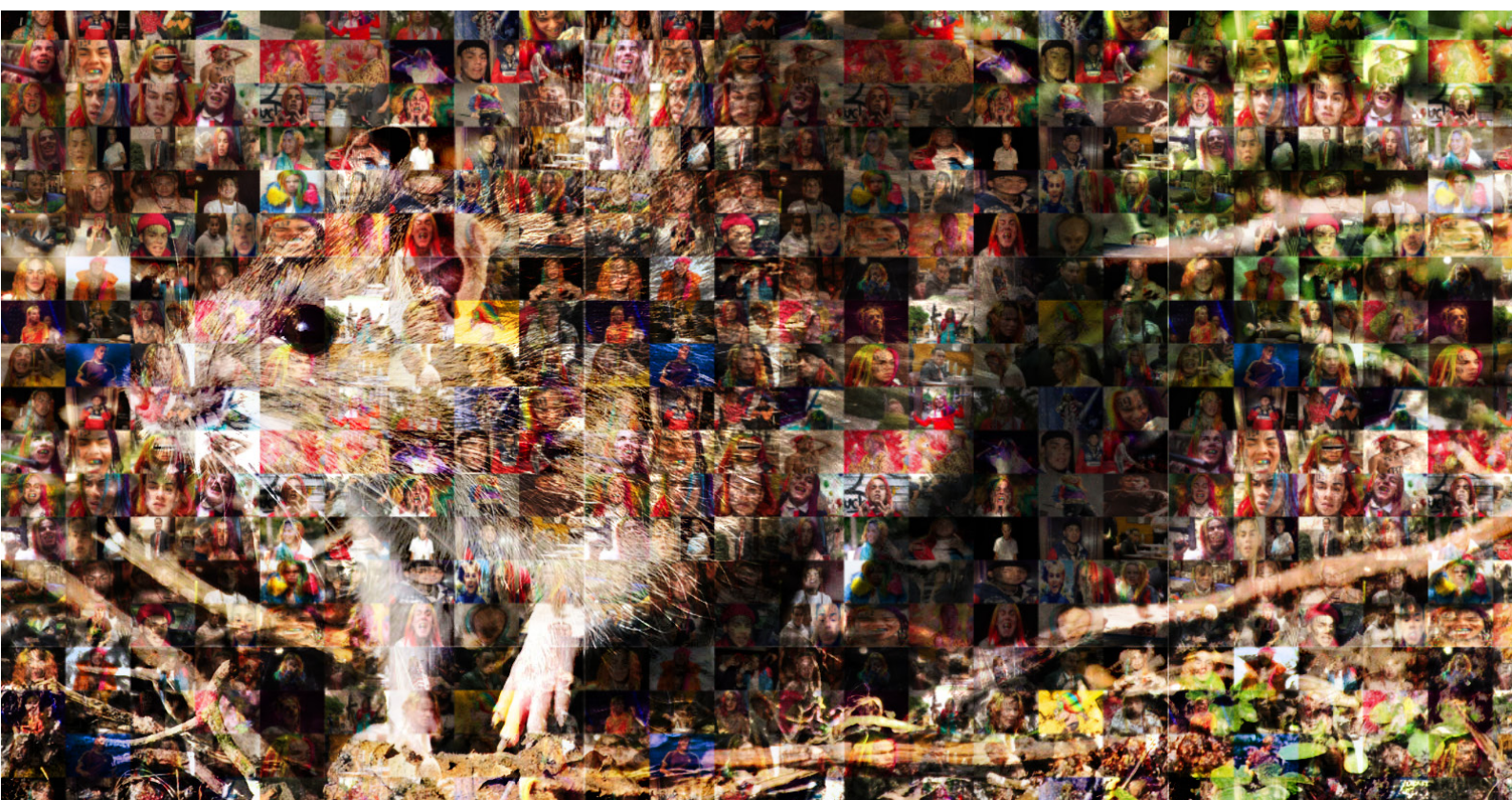


Art (1 or 2 unit course) Art

Year 10 Art will build upon ideas and skills learnt in Years 8 and 9. Students choosing either course will require some degree of drawing competency to cope with the level expected.

In both courses, Art appreciation is covered in preparation for the Year 11 Art courses, however, the emphasis is on the development of practical skills, encouraging creative thinking and the production of original works of art.

Students will complete projects in the areas of sculpture, printmaking, graphics and painting, whilst developing practical skills in using a variety of advanced media, including digital 'image manipulation' software.



Media (1 or 2 unit course) Media Studies

This course provides students with an opportunity to dive into the suspense genre through a variety of modes including film, podcasts and television. It is a hands on, investigative unit that requires students to ask questions about the world they live in, particularly focusing on the way we see law enforcement in contemporary society. Students will work together to write, produce and present their own crime podcast to further support their understanding of suspense and representations.

Year 10 Achievement Standard Media Arts

At Standard, students apply mostly correct media terminology specific to the task and chosen context. They select and use codes with some effectiveness to construct meaning, select and combine narrative conventions appropriate to genre or purpose and use some conventions to position audience. Students use selection processes to construct representations of ideas, issues and people that reflect or challenge values. They demonstrate social and cultural sensitivity in media work by complying with controls and audience values. Students complete most required planning, and select and safely use technology to create and edit planned media work, applying problem-solving processes with mostly effective results. They fulfil most personal and team timeline responsibilities and contribute to some team problem solving.

Students describe, in their own work and the work of others, aspects, and explain the impact, of media work in relation to audience and purpose in a variety of contexts. They describe the impact of past and current trends on how audiences use media.

Performing Arts

Year 10 Achievement Standard Drama

At Standard, students use contemporary processes, including improvisation and approaches to rehearsal, to select and shape the elements of drama for devised and scripted drama. They demonstrate awareness in performance of drama forms and styles, spaces of performance and design and technologies to communicate dramatic meaning and to impact on audience.

Students engage in reflective and analytical processes to make links between the choices made in performance and their effect on dramatic meaning and impact on audience. They accurately use a range of generalised drama terminology in their oral and written responses.

Drama (1 or 2 unit course)

Drama

This course is fun and creative, designed to complement those wishing to follow a Drama ATAR or General path of study in Year 11 and 12. The two main focuses of study are Australian Drama and World Theatre that will be explored through play building, improvisation and scripted works.

Students will also get to practically engage with the production roles learning how to create dynamic costumes, functional stage designs and operate the technology required for lighting and sound. All learning will be consolidated through the use of graphic organisers that will scaffold the students' ability to write short and extended responses required in the upper school programs of study.





Music (1 or 2 unit course) Music

This course has its focus on musicianship, composition, performance, digital music technology and production skills such as recording, promotion and stage management.

Project assessments include composing music to media, remixing, recording individual and group performances, and developing music industry vocational skills. The study of these areas will culminate in a professional CD recording of student devised performance work.

Students are involved in all elements of the CD project - CD cover design, music composition, CD recording performance, and input into the studio mixing and track mastering.

Students will use software such as Mixcraft, Logic Pro and Ableton Live. This course is designed to give students an insight into the practical and vocational elements of the music industry.

Due to the performance aspect of this course, it is essential that students who take this option also learn a musical instrument, either privately or through the College.

Students are also encouraged to play an active role in the department at performances throughout the year in the various college ensembles and bands, to enable them to be eligible for the next Visual and Performing Arts Tour.

Year 10 Achievement Standard Music

At Standard, students identify, apply, notate and perform rhythmic and melodic concepts and harmonic progressions in major and minor keys, with some partial or inconsistent responses. They improvise, select and integrate elements of music to create musical works, developing and maintaining compositional ideas, with some inconsistency. Students use generally accurate notation and incorporate some appropriate stylistic conventions and expressive devices. They perform with generally sound technique and some appropriate expression and stylistic performance conventions. With some guidance, they consider blend and balance when playing with an ensemble and endeavour to adjust pitch, tone and volume.

Students identify, analyse and compare the use and purpose of the elements of music in a range of works, using some appropriate music terminology and making occasional references to stylistic application. They identify and compare musical characteristics, considering stylistic features and contributions made by key composers, performers and/or artists, and make connections between social, historical and cultural contexts.



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