# Our Lady of Sion College

# Year 9, 2027 Curriculum Handbook

# Contents

# Principal's Message

Learning at Our Lady of Sion College is grounded in our motto, Truth in Love. It challenges you to seek understanding with compassion, pursue excellence with humility, and treat others with generosity and respect. It shapes not only what you learn, but who you are becoming.

Our Year 9 curriculum is designed so that you feel known, valued and confident in your learning. It fosters curiosity, independence and growth, helping you develop the skills and confidence to lead, aspire and thrive.

Our vision is to sow the seeds of hope, discover and grow the gifts within you, and inspire a commitment to justice. This comes to life through a learning program that values your voice, supports your wellbeing, and challenges you to grow.

This handbook outlines your Year 9 learning program for 2027. It will guide you through the subjects you will study and the opportunities ahead. As you progress through Year 9, you will begin to experience increasing choice through a broader range of elective opportunities, allowing you to explore your interests, strengths and emerging pathways.

I encourage you to read this handbook carefully with your parents or carers, as it contains important information about the subjects you will study. You will see that it provides a broad range of subjects whilst covering the Victorian Curriculum.

I wish you all the best in your studies for 2027.

Rebecca Cetrola

College Principal

# Year 9 Curriculum Structure

The curriculum at Our Lady of Sion College provides a Catholic education imbued with the Sionian charism. The Year 9 curriculum focuses on the development of important skills including literacy, numeracy, interpersonal and interdisciplinary skills as well as the development of key knowledge and skills from within the various disciplines. The curriculum offers a significant number of units and is structured to offer students a degree of flexibility to allow for personal talents and gifts to develop.

Year 9 students learn within a rigorous, challenging, supportive and contemporary learning environment that promotes personal excellence. The curriculum provides engaging learning programs that encourage students to use their talents to the best of their abilities and to strive for excellence. The learning program is personalised through the wide offering of units available as well as through learning support and enrichment.

The Year 9 curriculum structure consists of core and elective units. A unit runs for the length of a semester. Within each Learning Area, students may have the option of selecting from a range of electives. Descriptions of all units are provided in this handbook.

## Core Units

Year 9 students are required to study the following units across the year:

- Religious Education
- Mathematics
- English
- Ayin
- Science
- Language (same language that was studied at Year 8)
- Health and Physical Education Core Unit (one semester)
- Wellbeing for Learning

## Electives

Students are required to undertake an elective from column A plus four electives from columns B to E, as outlined in the table below:

| A | B | C | D | E |
|---|---|---|---|---|
| **Health and Physical Education: select one** | **Arts: select one** | **Humanities: select one** | **Technologies: select one** | **Additional elective: select one** |
| Body Talk | Creative Practice | Geography: Connecting People and Places | **Design and Technologies**<br>Food Studies – Delicious and Nutritious | Literature |
| Play the Game! | Drama | History | Food Studies – Tastes of the World | STEAM: Science by Design |
| | Media | | Textiles | Any other elective from columns B, C, D and E |
| | Music | | **Digital Technologies**<br>Imagine, Create and Animate in 3D | |
| | Visual Communication Design | | Learn to Code | |

## Subject Selection Process

There are many factors to consider when selecting preferences for Year 9 subjects. After reading this handbook, consider discussing choices with the relevant Learning Area Leader and teachers of the subject as well as current Year 9 students who are studying similar electives to those in which you are interested.

Please remember to select preferences for subjects based on interests and abilities. The following key dates are relevant to the 2027 subject selection process:

| | |
|---|---|
| 17 June | 2027 Curriculum Handbooks available on website |
| 21 July | Year 9, 2027, Subject Selection Seminar (students only) |
| 4 August | Web preferences open 4.00 pm |
| 10 August | Web preferences close and is due 8.00 am |
| 10 August | Web preferences receipt due to Homeroom teachers |

# Support available

The following staff are happy to answer questions that you may have about Year 9 subject selection:

| | |
|---|---|
| Allison Stott<br>astott@sion.catholic.edu.au | Deputy Principal – Learning and Teaching |
| Christine Kralj<br>ckralj@sion.catholic.edu.au | Deputy Principal – Student Wellbeing |
| Anna Gionfriddo<br>agionfriddo@sion.catholic.edu.au | Deputy Principal – Faith and Mission |
| Sarah Chalmers<br>schalmers@sion.catholic.edu.au | Director Learning Diversity |
| Brooke O'Hara<br>bohara@sion.catholic.edu.au | Careers and Pathways Counsellor |
| Amy Garnham<br>agarnham@sion.catholic.edu.au | Religious Education Learning Leader |
| Alexandra Bleazby<br>ableazby@sion.catholic.edu.au | Arts Learning Leader |
| Melissa Walsh<br>mwalsh@sion.catholic.edu.au | English Learning Leader |
| Isabelle Rebecca<br>irebecca@sion.catholic.edu.au | Health and Physical Education Learning Leader |
| Belinda Buchanan<br>bbuchanan@sion.catholic.edu.au | Humanities Learning Leader |
| Gail Amato<br>gamato@sion.cathlolic.edu.au | Languages Learning Leader |
| Paul Davis<br>pdavis@sion.catholic.edu.au | Mathematics Learning Leader |
| Hannah Muller<br>hmuller@sion.catholic.edu.au | Science Learning Leader |
| Anthony Barry<br>abarry@sion.catholic.edu.au | Technologies Learning Leader |
| Jennifer Tilley<br>jtilley@sion.catholic.edu.au | Year 9 Wellbeing and Growth Leader |

(Correct at time of preparation)

# Wellbeing for Learning

## Learning Program

The Wellbeing for Learning curriculum aims to build in students:

- A desire to live fully and flourish for their own benefit and that of others
- Develop self-awareness and self-management that help students understand and regulate their emotions, behaviours, strengths, and challenges.
- Build positive relationships and social skills enabling students to communicate effectively, show empathy, collaborate with others, and contribute positively to their community.
- Promote resilience, wellbeing, and engagement in learning by equipping students with strategies to cope with challenges, maintain positive mental health, and actively engage in their learning.

At Year 9 students are taught skills to manage life-school balance and build resilience, both academically and for their personal wellbeing. Students learn to identify and recognise emotions, and maintain a well-grounded sense of self confidence. Discovering ways of effectively communicating and seeking support is an important part of this process. The result is the ability to set and monitor progress towards the achievement of personal and academic goals. The Wellbeing for Learning Program aims are achieved through:

- Helpful thinking and positive self-talk
- Emotion recognition and regulation
- Interpersonal skill development to manage challenging social situations
- Communication
- Planning and time management
- Self care

Specific to Year 9 is a focus on being kind to oneself and others, showing curiosity in their learning and personal life and having the courage to try new and challenging experiences.

## Key Question

How can I be curious, kind, and courageous in ways that help me grow, connect with others, and overcome challenges?

## Learning Outcomes

It is intended that students will:

- Build social relationships with one another and the wider school community
- Learn to manage personal learning and build positive work habits
- Explore a range of topics current to their own stage of development
- Contribute to class discussions and activities
- Work collaboratively in teams
- Reflect upon inter-personal relationships and employ conflict management strategies.

## Success Criteria

Students will be able to:

- Recognise and understand their emotions, strengths, and areas for growth, and use appropriate support networks when needed.
- Demonstrate curiosity, kindness, and respect in their interactions and engagement with others and new learning experiences.
- Develop resilience and perseverance by responding positively to challenges and setbacks.
- Set meaningful personal and academic goals and take steps to achieve them with courage and intention.
- Reflect on their behaviours, relationships, and learning to support ongoing personal and social development.

# List of Subjects

**Religious Education**

| | |
|---|---|
| **Arts:** | Creative Practice<br>Drama<br>Media<br>Music<br>Visual Communication Design |
| **Ayin** | |
| **English:** | English<br>Literature (one semester elective) |
| **Health and Physical Education:** | Core Subject<br>Body Talk<br>Play the Game! |
| **Humanities:** | Civics, Citizenship and Business<br>Geography: Connecting People and Places<br>History |
| **Languages:** | Chinese<br>French<br>Italian |
| **Mathematics** | |
| **Science:** | Core Unit<br>STEAM: Science by Design |
| **Technologies – Design and Technologies:** | Food Studies – Delicious and Nutritious<br>Food Studies – Tastes of the World<br>Textiles |
| **Technologies – Digital Technologies:** | Imagine, Create and Animate in 3D<br>Learn to Code |

# Subject Outlines

## Religious Education

### Semester 1: The Spirit of Women

#### Learning Program

Students explore the means by which we understand scripture in its social, historical and theological contexts. They investigate what life was like for women Before the Common Era (BCE) and in First Century Palestine – their roles, customs, struggles, and daily lives. The students explore significant female characters of the Old Testament such as Sarah, Miriam, Ruth, and Naomi, who are introduced as examples of people faithful to God despite hardship. They investigate images and perceptions of Mary in the following ways:

- Scriptural perspectives on Mary in each of the four Gospels
- The person of Mary as the mother of Jesus
- Church teachings about Mary
- Visual representations of Mary which have been responses to various theological developments in the Church
- Mary as viewed by other religions and cultures
- Mary as a model of discipleship for today's world.

Students explore the experiences of selected contemporary women and consider the lessons that can be taken from their stories. They will be encouraged to contemplate the role they will play as young women, within their families, communities and the wider world, now and in the future.

#### Key Questions

- How have women used their individual talents and attributes to inspire others and inspire change?
- What can we learn from the experiences of other women about leading our own lives meaningfully?

#### Learning Outcomes

It is intended that students will:

- Understand literary forms and themes within scripture and their purpose
- Critically evaluate Biblical themes and/or characters and analyse their impact on historical individuals and/or groups today
- Discriminate in the way they use a variety of sources
- Explore how Mary is depicted in the Gospels
- Investigate Church teaching about Mary
- Explore how Mary is interpreted in other religions and cultures
- Reflect on Mary is an example of discipleship for all Christian people.

#### Assessment Tasks

- Socratic circles
- Exegesis
- Research and reflection task
- Ongoing reflective journal

# Religious Education

## Semester 2: Made in the Image of God

### Learning Program

Students explore the concept 'made in the image of God' in relation to their own sense of self, their relationships, their actions and those of the wider world. They understand the concept through dialogue with each other and a study of its scriptural origins. Students identify and investigate qualities that reflect a respect for the dignity of the human person through a number of events, issues and people and are invited to reflect on their own past and future actions in relation to these. They encounter examples such as stories of forgiveness, compassion, service and reconciliation as instances of respect for human dignity. Throughout their study, students are invited to ongoing reflection of the concept and its applications.

Students explore types of human relationships and discuss the nature of a good relationship that reflects an appreciation of each person being made in God's image. They analyse Scripture (1 Corinthians 13) to develop a biblical understanding of love and discuss the difference between sex and sexuality. Students analyse the portrayal of love and relationships in the media to investigate common views in our society and discuss adult relationships other than marriage. They explore Church teachings on informed conscience and decision-making.

### Key Questions

- What informs our position on ethical and moral issues?
- Are there core human qualities that reflect a respect for human dignity?

### Learning Outcomes

It is intended that students will:

- Explain and reflect on the term 'made in the image of God' in relation to their sense of self and actions towards others
- Explain the concepts of good and evil in relation to contemporary worldviews
- Reflect on different views of good and evil to appreciate the importance and impact of a moral stance in society
- Interpret ways right relationships are expressed within Catholic Social Teaching and the social teachings of other faith traditions
- Explain the foundations on which people base their ethical and moral stance
- Interpret key life issues, applying critical discernment processes
- Reflect on an understanding of responsibility and how it informs social, ecological and political actions locally and globally.

### Assessment Tasks

- Group research and analysis task
- Reflective writing task
- Ongoing reflective journal
- Scripture analysis

# Arts

## Creative Practice

### Learning Program

Students will undertake a range of structured media explorations across different practical areas, which may include drawing, painting, printmaking or sculpture. They will draw inspiration from the work of artists who use similar ideas, imagery, materials or techniques. A visual diary will be maintained with visual and annotated records of processes used in the development of their own artworks. This process of evaluation and refinement will be integral to the development of technical competence and aesthetic awareness.

Students will discuss and analyse how the selection, combination and manipulation of art elements, principles, skills, techniques, media, materials and technologies construct meaning in selected artworks. The student's interpretation of artworks from a range of historical and cultural contexts will be evaluated and explored.

### Key Questions

- What is Art?
- How are the different stages of the art process used to develop a final artwork?
- What impact does an artist's environment and experiences have on ideas and meaning communicated through art?
- How can we evaluate what we create with reflection on the artistic process and how potential audiences might interact with what we create?

### Learning Outcomes

It is intended that students will:

- Work within and across areas of painting, printmaking, drawing, ceramics, applying decision-making skills to find the most effective way to implement ideas, design, create and make artworks devised from a range of stimuli (creating and making, and creativity)
- Evaluate, reflect on, refine and justify their work's content, design, development and their aesthetic choices (creating and making, reflection, evaluation and metacognition)
- Observe, research and critically discuss a range of contemporary, traditional, stylistic, historical and cultural examples of artworks in a range of disciplines and forms (exploring and responding)
- Analyse, interpret, compare and evaluate the stylistic, technical, expressive and aesthetic features of artworks created by a range of artists using appropriate art terminology (exploring and responding, reflection, evaluation and metacognition).

### Assessment Tasks

- Painting task
- Portraiture task
- Printmaking task
- Visual analysis

# Arts

## Drama

### Learning Program

The unit focuses on play-making techniques, improvisation and scripted performance work. Students develop characterisation skills, building on voice and movement in the scripted performances, as well as use the play-making process to create their performance works. Students will perform in class, as well as the viewing of a public performance of a Shakespearian script. The unit will culminate in a class showcase of an array of scripted Shakespeare scenes in a performance evening of famous monologues, duologues and ensemble pieces. Students will work effectively within an ensemble and solo environment to combine the elements of drama in order to create a meaningful piece of theatre. This course requires creativity, analysis and collaboration.

### Key Questions

- How can characters be created, manipulated and developed from established scripts?
- How can scripts be adapted and refined to create different interpretations?
- How can play-making techniques such as research enhance the realisation of characters?

### Learning Outcomes

It is intended that students will:

- Create and make artworks devised from a range of stimuli (creating and making, exploring and responding, creativity)
- Maintain a record of how ideas develop in the creating, making and presenting of their performance works (reflection, evaluation and metacognition, exploring and responding)
- Experiment with innovative possibilities within the parameters of a task (creativity, creating and making)
- Select and use thinking processes and tools appropriate to particular tasks (reflection, evaluation and metacognition).

### Assessment Tasks

- Scripted monologue performance
- Shakespeare performance
- Performance analysis of self-devised work
- Performance analysis of a professional performance

# Arts

## Media

### Learning Program

In this unit, students will focus on the media production process, creating both a music video and album artwork. Students are introduced to codes and conventions associated with the genre and will create representations that manipulate media elements. They will examine and produce a production design plan, including concept development, written planning documentation, and visual planning documentation. The students will develop practical skills through the use and implementation of technical equipment, incorporating software such as iMovie and Adobe InDesign, as well as hardware which will include the use of cameras.

### Key Questions

- What is Media?
- What are codes and conventions, how can these be implemented by media producers?
- What are conventions of a music video and album artwork, how can we reproduce these?
- What is a production design plan, how can we go about creating our own?
- What processes should we undertake throughout the development, pre-production, production, and post-production stages of creating a production?

### Learning Outcomes

It is intended that the student will develop:

- Conceptual and perceptual ideas and representations through design and inquiry processes
- An understanding of the use of techniques, materials, processes, and technologies
- Critical and creative-thinking skills, Media Arts languages, knowledge of Media Arts theories and practices
- Respect for and acknowledgment of the diverse roles, innovations, traditions, histories, and cultures of artists, designers, commentators and critics
- An understanding of Media Arts social, cultural and industry practices
- Confidence, curiosity, imagination, enjoyment, and a personal aesthetic.

### Assessment Tasks

- Production design plan
- Music video (film)
- Album artwork (print)
- Visual analysis test

# Arts

## Music

### Learning Program

In this subject, students will be given opportunities to develop their music performance and industry skills. Students will present performances both as soloists and in group situations. Students will also continue developing music theory, aural and analysis skills and apply these skills through the creative outlet of arranging and performing.

### Key Questions

- How can students develop music performance skills on their instrument/voice (in solo and group settings) that integrates music literacy, aural comprehension and expressive outcomes?
- Can students apply ICT skills, using different software platforms, to better understand and utilise notation systems?

### Learning Outcomes

It is intended that students will:

- Explore and apply the key structural features of musical works; for example, the characteristic use of specific compositional devices, in realising plans for their own music works (exploring and responding, and creating and making)
- Explore and evaluate music written by composers, identifying the influences on their music through discussion, using appropriate language that compares the use of specific elements and compositional devices (exploring and responding)
- Work to develop their own personal style in performance, developing ways to successfully communicate expressive elements of music (creating and making)
- Apply their knowledge and understanding of particular musical styles to combine and manipulate elements to create their own music (creating and making).

### Assessment Tasks

- Performance (solo and group) including a major recital
- Listening response
- Music literacy and aural assessments

It is recommended that students undertaking Year 9 Music engage in individual or small group instrumental lessons.

# Arts

## Visual Communication Design

### Learning Program

Students will work through the VCD design process to meet specified briefs in the fields of practice; messages and environments. They use creative, critical and reflective thinking strategies throughout the semester to enhance the effectiveness of visual communications for a specific audience.

Students will build basic design knowledge by exploring design elements and their application in a variety of contexts. They will also analyse the works of designers exploring various types of design and their purposes.

### Key Questions

- What is Visual Communication Design?
- How does design function in the real world?
- What types of designs exist in the world around them?
- How does context affect the content of designs?
- What are ways in which we as designers can respond to a design brief?
- How can a broad range of ideas be generated in adherence with a design brief?
- What ways can we evaluate the success of our concepts?

### Learning Outcomes

It is intended that students will:

- Explore the nature of a design brief and how a client and audience would shape a desired design for a product or event (exploring and responding)
- Apply their knowledge of design elements and principles both through annotation and practical exploration in their folios, trialling media, methods and materials that best suit the brief (creating and making, and creativity)
- Practise skills and techniques through illustration and technical drawing, looking at elevations, packaging nets and paraline systems and other methods of graphic design styles, i.e. illustration, objects, architecture, pencil, paint and collage techniques (creating and making and creativity)
- Create a folio which will include self-assessment and reflection on the overall quality of ideas (reflection, evaluation and metacognition).

### Assessment Tasks

- Exploration of technical drawing conventions
- Exploration of messages design task
- Exploration of environments design task
- Design analysis

# Ayin

## Learning Program

The Ayin program delivers an integrated Humanities Curriculum using an engaging, Inquiry Based Learning model. Students work in a range of groupings including electives, small groups and individuals. Students participate in two units over the course of the year: My Global Footprint and Cultural Diversity and Australian Citizenship. They participate in a camp experience to Canberra, making strong curriculum links and focussing on the nationhood of Australia. Students also prepare for the world of work, with a portfolio of documents for job applications including a resume, cover letter and a career action plan. Students explore their rights and responsibilities as citizens and the ways they participate within our Australian Democracy. As part of the Ayin Program, all students have opportunities for personal development; participating in the Duke of Edinburgh's International Award.

## Key Questions

- Who am I? How can I become a more reflective, self-aware learner?
- Where am I? How can I connect in a meaningful way with my community?
- Where am I? How can I develop a greater understanding of the world in which we live?

## Learning Outcomes

It is intended that students will:

- Demonstrate awareness of complex social conventions
- Process and synthesise complex information and complete activities focusing on problem-solving and decision-making, which involve a wide range and complexity of variables and solutions
- Employ appropriate methodologies for creating and verifying knowledge in different disciplines
- Participate in a range of citizenship activities including those with a national or global perspective, at school and in the local community
- Use pertinent questions to explore, clarify and elaborate on complex meaning
- Analyse events that contributed to Australia's social, political and cultural development
- Explain aspects of increasing global interconnections in the twentieth and twenty-first centuries.

## Assessment Tasks

- Inquiry presentation on the Australian Capital City and Nationhood
- Portfolio of documents for job applications
- Group design process tasks
- Socratic circle discussion
- Interview and biography in an exploration of personal Histories
- Completion of the required hours for the Duke of Edinburgh's International Award

# English

## Semester 1: English

### Learning Program

Students interact with peers, teachers, individuals, groups and community members in a range of face-to-face and online environments. They experience learning in familiar and unfamiliar contexts, including local community, vocational and global contexts. Students interpret, create, evaluate, discuss and perform a wide range of literary texts designed to inform, entertain, critique, question and persuade. These include various types of media texts, including newspapers, film and digital texts, fiction, non-fiction, poetry and multimodal texts, with themes and issues involving levels of abstraction, higher order reasoning and intertextual references. They develop a critical understanding of the contemporary media and the differences between media texts, while exploring figurative and rhetorical language. Students create a range of imaginative, informative and persuasive text types including narratives, procedures, discussions, literary analyses, transformations of texts and reviews.

### Key Questions

- How do social and political contexts shape responses to ideas and issues?
- How do media texts work to shape audience response?
- How can I expand my perspective by sharing my personal reading with others?
- How can I adapt the stylistic features of texts to produce my own pieces of writing?

### Learning Outcomes

It is intended that students will:

- Read and view imaginative, informative and persuasive texts that explore ideas and information related to challenging topics, themes and issues (reading)
- Produce, in print and electronic forms, texts for a variety of purposes, including speculating, hypothesising, persuading and reflecting (writing)
- Improve the accuracy and readability of their writing by developing confidence using a range of language techniques and the identification and use of appropriate grammatical conventions language (writing)
- Critically evaluate the spoken language of others and select, prepare and present spoken texts for specific audiences and purposes (speaking and listening).

### Assessment Tasks

- Analytical response exploring issues, themes and ideas in literary texts
- Analysis of persuasive media texts
- Production of creative texts designed to argue, inform, reflect, and explain
- Oral presentations.

# English

## Semester 2: English

### Learning Program

Students interact with peers, teachers, individuals, groups and community members in a range of face-to-face and online/virtual environments. They experience learning in familiar and unfamiliar contexts, including local community, vocational and global contexts. Students interpret, create, evaluate, discuss and perform a wide range of literary texts designed to inform, entertain, critique, question and persuade. These include various types of media texts, including newspapers, film and digital texts, fiction, non-fiction, poetry, dramatic performances and multimodal texts, with themes and issues involving levels of abstraction, higher order reasoning and intertextual references. Students develop a critical understanding of the contemporary media, and the differences between media texts. They explore language features including successive complex sentences with embedded clauses, a high proportion of unfamiliar and technical vocabulary, figurative and rhetorical language, and dense information supported by various types of graphics presented in visual form. Students create a range of imaginative, informative and persuasive text types including narratives, procedures, discussions, literary analyses, transformations of texts and reviews.

### Key Questions

- How do social, historical and political contexts shape responses to ideas and issues?
- How does language work to both empower and disempower?
- How do the lives and actions of people make significant change?

### Learning Outcomes

It is intended that students will:

- Read and view imaginative, informative and persuasive texts that explore ideas and information related to challenging topics, themes and issues (reading)
- Produce, in print and electronic forms, texts for a variety of purposes, including speculating, hypothesising, persuading and reflecting (writing)
- Improve the accuracy and readability of writing, developing confidence using a range of language techniques and the identification and use of grammatical conventions (writing)
- Critically evaluate the spoken language of others and select, prepare and present spoken texts for specific audiences and purposes (speaking and listening).

### Assessment Tasks

- Analytical response exploring issues, themes and ideas in texts
- Oral presentations
- Analysis of persuasive media texts
- Production of creative texts designed to argue, inform, reflect, and explain.

# English

## Year 9 Literature

### Learning Program

Students explore literary texts and enter analytical discussions  to develop confidence in the use of metalanguage to describe and discuss particular structures and features of language and texts. Students explore the power of language and the ways it can influence roles and relationships, and represent ideas, information and concepts. They learn that texts can be created for multiple purposes. Students develop a critical understanding about the ways that writers and producers of texts try to position readers to accept particular views of people, characters, events, ideas and information. They learn to use formal language to construct spoken and written texts for a range of purposes and audiences. Students extend their knowledge of the structure of a variety of text forms and practice writing in detail about challenging ideas and information. They work cooperatively in discussion groups, to explore and analyse challenging themes and issues.

### Key Questions

- How do texts inform, impact, reflect and help us understand the human condition?
- How are texts created and interpreted?
- How does literature reflect times, ideas and places?

### Learning Outcomes

It is intended that students will:

- Read and view imaginative, informative and persuasive texts that explore ideas and information related to challenging topics, themes and issues (reading)
- Produce, in print and electronic forms, texts for a variety of purposes, including speculating, hypothesising, persuading and reflecting (writing)
- Students improve the accuracy and readability of their writing, developing confidence using a range of language techniques and the identification and use of grammatical conventions (writing)
- Critically evaluate the spoken language of others and select, prepare and present spoken texts for specific audiences and purposes (speaking and listening).

### Assessment Tasks

- Comparative writing and reflection on texts and their interpretation in other forms
- Reading journal, extended writing and close passage analysis.

# Health and Physical Education

## Core Unit

### Learning Program

Students learn to apply more specialised movement skills, strategies and concepts in different environments. Students will enhance body awareness and control through participation in activities related to Cheerleading and Badminton. In groups they will create and perform a cheerleading routine. This unit also includes Health curriculum which explores behaviours and contextual factors that influence the health and wellbeing of themselves and their communities. Areas covered include Risk Taking, Drug Education, Sexual Health and Relationships.

### Key Questions

- Why do young people take risks?
- Relationships and sexuality
- Ready? OK! Can you create a cheerleading routine?

### Learning Outcomes

It is intended that students will:

- Combine motor skills, strategic thinking and tactical knowledge to improve individual and team performance in a variety of team sports
- Describe the physical, emotional and social changes that occur as a result of the adolescent stage of the lifespan and the factors that influence their own development
- Identify the health concerns of young people and the strategies that are designed to improve their health.

### Assessment Tasks

- Risk taking task
- Relationships and sexuality task
- Team cheer performance
- Badminton – physical skills and teamwork

# Health and Physical Education

## Body Talk

### Learning Program

This unit promotes physical activity and the development of movement competence. Students learn to apply more specialised movement skills, complex movement strategies and concepts in different movement environments. Students will enhance fundamental motor skills and control through participation in activities related to childhood play, adolescent sports/activities and an introduction to activities common in adulthood such as Zumba, Body pump, Pilates classes and more. They will engage in fitness testing and will design their own fitness training program from individually selected fitness components that are relevant and impactful in their own life. They will gain an insight into how the body moves and the systems that are in place to initiate and maintain movement. The body systems investigated include the muscular and skeletal systems.

### Key Questions

- How do the systems of the body work together to produce movement?
- What is fitness? How can I be physically active in a variety of ways?

### Learning Outcomes

It is intended that students will:

- Demonstrate proficiency in the execution of manipulative and movement skills during fundamental movement skills and complex activities
- Demonstrate advanced skills in selected physical activities
- Measure their own fitness and physical activity levels and identify factors that influence motivation to be physically active
- Maintain regular participation in moderate to vigorous physical activity and analyse and evaluate their level of involvement in physical activity.

### Assessment Tasks

- Fitness components and training program theory test
- Designing and implementing a training program assessment
- Musculoskeletal system test
- Fit for life practical participation assessment

# Health and Physical Education

## Play the Game!

### Learning Program

Students will learn about the classification of games and play a selection from each classification. They will examine the strategies and tactics common to different games and participate in a series of modified games and activities which develop strategic thinking and tactical knowledge. Strategic questioning and feedback will be used to encourage students to consider ways to improve team performance. Students will learn the characteristics, roles and responsibilities of a coach, player, board member, umpire, team manager and media manager in sport. They will create their own minor games, teach it to their peers and primary school students. Students may participate in a range of sports from the following classifications: invasion, court divided, striking and fielding, and target.

### Key Questions

- What is an invasion/net wall/striking fielding game?
- How can we categorise sports into themes?
- Does discrimination exist in sport?
- How can we address gender disparities in sport?
- Can you create a game and take on feedback to enhance the design process?
- How can we adapt games to get the desired outcomes?

### Learning Outcomes

It is intended that students will:

- Participate in peer teaching or coaching situations with a focus on skill development and improvement
- Discuss sporting conduct and implement fair play and good sporting behaviours
- Analyse a variety of roles in team games (e.g. player, coach, umpire and spectator) and assume responsibility of the organisation of a sport competition (movement and physical)
- Understand new activities that will require them to learn new skills or adapt previously learned skills in a new context
- Apply tactics and strategies to a variety of challenges.

### Assessment Tasks

- Physical game sense skills
- Research task – Women in Sport
- Presentation of minor game and evaluation
- SEPEP (Sports Education in Physical Education Program)

# Humanities

## Geography: Connecting People and Places

### Learning Program

This course focuses on investigating how people are connected to places globally in a wide variety of ways, and how these connections help to make and change places and environments. This unit examines the interconnections between people and places through the impact of globalisation and the way diplomacy and trade is negotiated. Tourism and its global impact on people and places is explored, with a highlight of this course being the field trip to Phillip Island. Maintaining a stable supply of food has interconnections between production, access, and delivery of the foods at a price that meets the needs of consumers and farmers. Melbourne's food security needs in the past, present and into the future demonstrates change over time and the interconnections between a growing population and sustainable use of land, water and energy.

### Key Questions

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

### Learning Outcomes

It is intended that students will:

- Develop an understanding of the perceptions people have of place and how this influences their connections to different places
- Develop an understanding of the way transportation and information and communication technologies are used to connect people to services, information and people in other places
- Develop an understanding of the ways that places and people are interconnected with other places through trade in goods and services, at all scales
- Develop an understanding of the effects of people's travel, recreational, cultural or leisure choices on places, and the implications for the future of these places.

### Assessment Tasks

- Food Security task
- Globalisation research task
- Tourism investigation

# Humanities

## History

### Learning Program

Students will examine the causes and consequences of the Industrial Revolution (1760–1830). Students will examine the development of democracy in Australia, including our Federation. By examining the Gold Rush and Eureka Rebellion (1851), students will identify the different events and indivduals that led to more freedom and rights for Australian citizens. Students will consider the causes and consequences of World War I through analysing significant events, individuals and ideas.

### Key Questions

- What caused the Industrial Revolution?
- How are people's lives changed as a result of the Industrial Revolution?
- How were Indigenous Australians treated by European settlers and during the Gold Rush?
- What caused World War I?
- What was the Australian experience of WWI?

### Learning Outcomes

It is intended that students will:

- Develop an understanding of the significant individuals, events, ideas and changes that took place in the Industrial Revolution
- Develop knowledge of concepts such as continuity and change, cause and consequence, significance and contestability (historical knowledge and understanding)
- Develop an understanding of the foundational events that formed modern Australia
- Develop an understanding of the causes and consequences of WWI for Australia and the modern world.

### Assessment Tasks

- Eureka Rebellion source analysis
- World War I research task
- WWI essay

# Languages

## Chinese: Semester 1

### Learning Program

Students will learn key vocabulary related to the topics of dates, month and time, my daily routines and traditional Chinese cultural festivals. They will communicate their own personal meanings through the language and acknowledge the need to extend and reinforce their own learning in a sequential and systematic way. Learning activities will require students to consider the audience, purpose and appropriate language for a range of communication tasks. Students will interact to exchange information and opinions, and use a variety of strategies for varying and extending language applications, expressing opinion and organising information. They will recognise the extent and limitation of their language abilities and develop strategies for maximising and extending their language skills. Students will connect existing knowledge and new knowledge they encounter and develop skills in working both independently and as part of a team.

### Key Questions

- How can I ask about the date, the day of the week and whose birthday it is in Chinese?
- What is daily life like in China?
- What are the festivals about and how are they celebrated?
- How can I use strategies for checking and dealing with unfamiliar information?

### Learning Outcomes

It is intended that students will:

- Categorise the characters they have learnt into groups based on meaning and appearances
- Identify relevant information and ideas from spoken and written texts
- Demonstrate understanding of cultural influences on the ways people behave and use language
- Work collaboratively, negotiate roles and delegate tasks (building social relationships)
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate action to address them.

### Assessment Tasks

- Oral task
- Comprehension tasks
- Writing task
- Cultural research task

# Languages

## Chinese: Semester 2

### Learning Program

Students will learn key vocabulary related to the topics of housing, clothing and cultural understanding of clothing items and colours. They will communicate their own personal meanings through the language and acknowledge the need to extend and reinforce their learning in a sequential and systematic way. Learning activities will require students to consider the audience, purpose and appropriate language for a range of communication tasks. Students will interact to exchange information and opinions and use a variety of strategies for varying and extending language applications, expressing opinion and organising information. They will recognise the extent and limitation of their language abilities and develop strategies for maximising and extending their language. Students will connect existing knowledge with new knowledge they encounter and develop skills in working both independently and as part of a team.

### Key Questions

- How can I talk about my house and clothing?
- What are the terms for colours and why are they important?
- How can I use strategies for checking and dealing with unfamiliar information?

### Learning Outcomes

It is intended that students will:

- Categorise the characters they have learnt into groups based on meaning and appearances
- Identify relevant information and ideas from spoken and written texts
- Demonstrate understanding of cultural influences on the ways people behave and use language
- Work collaboratively, negotiate roles and delegate tasks (building social relationships)
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate action to address them.

### Assessment Tasks

- Oral task
- Comprehension tasks
- Writing task
- Cultural research task

# Languages

## French: Semester 1

### Learning Program

Students will learn key vocabulary related to the topics of household, places of the city and week-end plans. They will learn to describe their home, and compare housing in Australia and France. They will learn to plan an outing in a city and prepare an itinerary in French. They will also talk about what they did on the weekend and mention some of the chores they had to complete. Students will communicate by modelling language and by responding to prompting. They will learn to manage open-ended communications with accurate language in different contexts. Learning activities will include listening, speaking, reading and writing tasks as well as tasks that integrate these macro skills with intercultural understanding and language awareness. Specific tasks to be studied include learning to comment on different types of housing, chores and work. They will learn the use of the past tense.

They will also undertake a cultural research task on Québec.

### Key Questions

- What is your house like?
- Where should we go?
- What did you do on the weekend?

### Learning Outcomes

It is intended that students will:

- Use a range of strategies to assist in listening comprehension
- Identify relevant information and ideas from written texts
- Participate in interactions related to a specific topic and recycle language
- Discriminate and use appropriate punctuation, tone, intonation and metre
- Demonstrate awareness of the language
- Convey meaning by identifying how messages are communicated and use verbal and non-verbal cues
- Understand cultural influences on the way people behave and use language
- Work collaboratively, negotiate role and delegate tasks
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate action to address them.

### Assessment Tasks

- Writing task
- Comprehension tasks
- Oral task
- Cultural research task

# Languages

## French: Semester 2

### Learning Program

Students will learn key vocabulary related to the topics of  clothes, travel and health. Students will communicate by modelling language and by responding to prompting. They will learn to manage open-ended communications with accurate language in the context of holidays and weather. Learning activities will include listening, speaking, reading and writing tasks as well as tasks that integrate these macro skills with intercultural understanding and language awareness. Students will further their understanding of the past tense. They will also undertake a cultural research task on French food.

### Key Questions

- What clothes and accessories should we buy?
- Where do you want to travel?
- How to eat healthy?

### Learning Outcomes

It is intended that students will:

- Use a range of strategies to assist in listening comprehension
- Identify relevant information and ideas from written texts
- Participate in interactions related to a specific topic and recycle language
- Discriminate and use appropriate punctuation, tone, intonation and metre
- Demonstrate awareness of the language
- Convey meaning by identifying how messages are communicated and use verbal and non-verbal cues
- Understand cultural influences on the way people behave and use language
- Work collaboratively, negotiate role and delegate tasks
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate action to address them.

### Assessment Tasks

- Writing task
- Comprehension tasks
- Oral task
- Cultural research task

# Languages

## Italian: Semester 1

### Learning Program

Students will learn key vocabulary related to the topics of types of schools, subjects, time and the 24 hour clock, shops, professions, food and transport. Students will communicate by modelling language and by responding to prompts.They will learn to manage open-ended communications with accurate language in the context of expressing opinions about likes and dislikes, subjects and schools in Italy, certain foods and means of transport. Learning activities will include listening, speaking, reading and writing tasks as well as tasks that integrate these macro skills with intercultural understanding and language awareness. Specific learning tasks include talking about likes and dislikes, subjects they study, what they are doing and what other people are doing, how to tell the time in Italian and how to order at an Italian cafè. They will also undertake a cultural research task on agriturismo in Italy.

### Key Questions

- How do I greet people based on the time of day?
- How can I order food and drinks at an Italian cafè?
- How do schools differ in Italy compared to Australia?

### Learning Outcomes

It is intended that students will:

- Use a range of strategies to assist in listening comprehension
- Identify relevant information and ideas from written texts
- Participate in interactions related to a specific topic and recycle language
- Discriminate and use appropriate punctuation, tone and intonation
- Demonstrate awareness of the language
- Convey meaning by identifying how messages are communicated and use verbal and non-verbal cues
- Understand cultural influences on the way people behave and use language
- Work collaboratively, negotiating roles and delegating tasks
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate actions to address them.

### Assessment Tasks

- Writing task
- Comprehension tasks
- Oral task
- Cultural research task

# Languages

## Italian: Semester 2

### Learning Program

Students will learn key vocabulary related to the topics of directions, festivals in Italy, daily routine, parts of the body, weather and seasons. They will communicate by modelling language and by responding to prompts. They will learn to manage open-ended communications with accurate language in the context of these topics. Learning activities will include listening, speaking, reading and writing tasks as well as tasks that integrate these macro skills with intercultural understanding and language awareness. Specific learning tasks include talking about, asking and answering questions about where they are going, what they are doing, daily routine, parts of the body, things you want to do, things you are able to do and if something hurts or is sore. They will also undertake cultural research on Carnevale.

### Key Questions

- What is the weather like at different times of the year?
- What can one do in the city of Naples?
- What are some famous Italian festivals?

### Learning Outcomes

It is intended that students will:

- Use a range of strategies to assist in listening comprehension
- Identify relevant information and ideas from written texts
- Participate in interactions related to a specific topic and recycle language
- Discriminate and use appropriate punctuation, tone, intonation and metre
- Demonstrate awareness of the language
- Convey meaning by identifying how messages are communicated and use verbal and nonverbal cues
- Understand cultural influences on the way people behave and use language
- Work collaboratively, negotiate role and delegate tasks
- Experiment with ICT for creating and learning
- Identify areas for improvement in their learning and initiate actions to address them.

### Assessment Tasks

- Writing task
- Comprehension tasks
- Oral task
- Cultural research task

# Mathematics

## Semester 1

### Learning Program

Students will apply the distributive law to the expansion of algebraic expressions and solve linear equations. They will find the midpoint and gradient of a line segment. Students will find the distance between two points located on a Cartesian Plane. They will sketch linear graphs and use similarity to investigate the sine, cosine and tangent ratios for given right angled triangles and be able to use Pythagoras' theorem.

### Key Questions

- How do we investigate and sketch linear relationships?
- How do we find the distance, midpoint and gradient between two points?
- How do we best solve linear equations?
- How can ratios in similar triangles be used to solve for missing angles and sides?
- How can we use the theorem of Pythagoras to find the missing side of a right triangle?

### Learning Outcomes

It is intended that students will:

- Solve a variety of linear equations, including equations with algebraic fractions
- Find the distance between two points located on a Cartesian Plane
- Find the midpoint and gradient of a line segment on the Cartesian Plane using a range of strategies, including graphing software
- Sketch linear graphs using the coordinates of two points and solve linear equations
- Know Pythagoras' theorem and when it can be applied
- Identify the three basic trigonometric ratios and be able to use trigonometry to solve problems.

### Assessment Tasks

- Topic tests on key knowledge and skills
- Problem solving and modelling tasks
- Semester test

# Mathematics

## Semester 2

### Learning Program

Students will extend and apply index laws to variables. They will use enlargement transformation to explain similarity and develop the conditions for triangles to be similar. Students will solve problems related to surface area and volume of cylinders and right prisms. They will factorise algebraic expressions and solve simple quadratic equations. Students will graph simple quadratic graphs and explore the different types of graphical representations of data.

### Key Questions

- What is a quadratic equation and how can quadratic equations be solved?
- How can data be collected and presented so that its distribution can be interpreted in a meaningful way?
- What are the key features of a quadratic graph?
- How can we use the index laws?
- How can the surface area and volume of cylinders and prisms be determined both with and without the use of digital technology?

### Learning Outcomes

It is intended that students will:

- Calculate the area of composite shapes, the surface area and volume of cylinders and right prisms
- Factorise and solve quadratic equations
- Graph simple non-linear relations with and without digital technology
- Extend and apply the index laws to variables, using positive integer indices and the zero index
- Represent data in a variety of formats, such as stem and leaf plots, column graphs and box plots.

### Assessment Tasks

- Topic tests on key knowledge and skills
- Problem solving and modelling task
- Semester test

# Science

## Core Unit

### Learning Program

Students will investigate the concepts of electricity and energy, and explore renewable energy sources such as wind and hydro. Students will investigate the methods of electric power generation in Australia. They will build an electric circuit and examine the factors such as voltage and resistance, that affect the transfer of energy through the circuit. Students will conduct experiments to evaluate the efficiency of renewable energy resources such as wind and solar power.

Students will complete practical tasks involving a number of chemical reactions. They will identify the observable evidence that a reaction has taken place and write a worded equation identifying reactants and products. Students will complete experiments to investigate the connection between our use of everyday products and their effect on our environment.

Students will discover the nervous and endocrine systems of the body and explain the ways in which these systems interact to help keep us alive. Students will conduct experiments to test reaction times and discuss this in terms of nervous transmission. Students will undertake research to investigate various disorders of the nervous and endocrine systems and examine possible treatments and prevention.

Students will investigate the causes and impacts of global climate change by examining the interactions between greenhouse gas emissions and energy exchanges within Earth's systems. They will explore how human activities such as power generation, deforestation, manufacturing, transportation, food production and resource consumption contribute to climate change. Students will conduct investigations and analyse data to evaluate strategies that may help reduce the impacts of human-induced climate change.

### Learning Outcomes

It is intended that students will:

- Explore and build simple electric circuits (Science understanding)
- Conduct experiments to investigate energy transformations (Science inquiry)
- Explore the nature of chemical reactions in the environment (Science understanding)
- Identify reactants and products in chemical reactions (Science understanding)
- Describe the composition of atoms as protons, neutrons and electrons (Science understanding)
- Describe observed reactions using worded equations (Science inquiry)
- Test water samples for the presence of chemicals (Science inquiry)
- Consider the role of energy in chemical reactions (Science understanding)
- Compare cellular respiration and photosynthesis and their role in biological processes (Science understanding)
- Describe the roles of the nervous, hormonal and reroductive systems (Science understanding)
- Research a specific disorder of the nervous or endocrine system (Science understanding)
- Investigate medical treatments for diseases (Science as a human endeavour)
- Exploring the electromagnetic spectrum (Science understanding)
- Investigate how interactions of radiation from the Sun with the atmosphere, ocean and land are the foundation for the global climate system (Science understanding)
- Predict changes to the Earth system and identify strategies designed to reduce climate

- change or mitigate its effects (Science understanding)
- Calculate an individual's carbon footprint, examining the impact of human activities on atmospheric carbon dioxide levels and suggesting strategies to reduce carbon dioxide emissions (Science as a human endeavour)

## Key Questions

- Where does electricity come from?
- How does electricity run through our houses?
- What role does chemistry play in your life?
- What causes a reaction?
- How does your body work?
- What happens when things go wrong?
- What are Earth's four systems, and how does carbon cycle through them?
- What is the greenhouse effect?

## Assessment Tasks

- Practical folio
- Topic tests
- Building models
- Presentations

# Science (Elective)

## STEAM: Science by Design

### Learning Program

*STEAM: Science by Design* provides opportunities for students to engage in an interdisciplinary model of learning. This elective is project-based and provides an opportunity for real world connections to be made and explored within the five disciplines of STEAM: Science, Technology, Engineering, Art and Mathematics. With a focus on a team goal or objective, students will work together to plan, design, construct, trial and perfect their creation. Drawing on their investigations and scientific theory they will use technology to design and produce their creation. With a focus on trial and error and learning from failure it is the goal to produce a functioning product for use.

The skills of teamwork are paramount. In effect, the project management and ability to succeed will depend on the students' ability to work together and soundly investigate and trial their creation.

### Learning Outcomes

It is intended that students will:

- Research and plan future developments in sustainable housing and town planning
- Use robots to develop problem solving skills and team work
- Develop skills in producing 3D models that show a solution to a problem
- Identify and describe the relationships that underpin patterns, including cause and effect
- Consider how problems can be segmented into discrete stages, new knowledge synthesised during problem-solving and criteria used to assess emerging ideas and proposals
- Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions for solutions to space explorations problems
- Explain how designed solutions evolve with consideration of preferred futures and the impact of emerging technologies on design decisions
- Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication.

### Key Questions

- What is STEAM?
- How does design govern functionality?
- How can you improve your design using scientific principles?

### Assessment Tasks

- Problem Based Learning: Housing
- 3D modelling portfolio
- Robotics solutions

# Technologies – Design and Technologies

## Food Studies – Delicious and Nutritious

### Learning Program

Students will explore the factors that influence adolescent food choice. Students will have the opportunity to investigate how adolescent food choices are influenced by various factors including the range of available ingredients, allergies and intolerances, dietary requirements, and sociocultural factors. They further develop skills and knowledge to make informed decisions based on the promotion of health and wellbeing using current food selection models such as the Australian Guide to Healthy Eating. Students participate in practical and theoretical tasks in which they apply their knowledge of food choice and selection. Students will complete design tasks using the design process: investigating and generating ideas, planning, managing, producing and evaluating.

### Key Questions

- What are nutrients and why does the body need them?
- How can recipes be modified to improve their nutrition content?
- How do Food Models encourage healthy eating?

### Learning Outcomes

It is intended that students will:

- Investigate and research healthy food choices
- Reflect on a range of influences on personal and family food selection and nutritional needs for growth and activity
- Create design solutions encouraging flexible thinking based on healthy eating
- Work safely with a range of tools and equipment to produce, modify and analyse products.

### Assessment Tasks

- Design folio
- Production work
- Nutrition test

# Technologies: Design and Technologies

## Food Studies: Tastes of the World

### Learning Program

Australian cuisine is constantly evolving. This unique combination of influences results in a cuisine that is balanced, intriguing and distinctively Australian. In this course, students will undertake a voyage that examines many of the influences that have shaped Australian cuisine, from the original inhabitants of the land, to modern day immigration. This course comprises both practical and theoretical tasks that educate students about ingredients and dishes from other countries and their influences on Australian food and culture.

### Key Questions

- Would you like to eat food fit for a queen?
- Have you ever wondered how to make dumplings?
- Do you know the difference between spanakopita and kourabiethes?

### Learning Outcomes

It is intended that students will:

- Work as a team member to contribute to and reflect on individual and team performance in developing design briefs and plans and implementing and evaluating the plans, and support others in doing so
- Complete the task of designing an international dish
- Work both independently and as a team, including the use of a range of planning and organisational skills
- Think flexibly to investigate a design brief
- Work safely with a range of tools and equipment to produce, modify and analyse products
- Select the most appropriate form of technology and make judgments about the credibility of the material
- Build skills in the kitchen through reasoning, processing and inquiry.

### Assessment Tasks

- Design folio
- Production work
- Safety and hygiene test

# Technologies: Digital Technologies

## Textiles

### Learning Program

Students will have the opportunity to explore the role of Textiles in historical and cultural contexts. They will complete design and research tasks and create practical artworks. Students will explore fabrics, print and patterns and use a range of fabric decorating techniques and processes such as appliqué, printing and dyeing.

### Key Questions

- What role do textiles play in society
- What is fashion?
- Fashion culture? Where? What? Why?
- What is Sustainability in Textiles?

### Learning Outcomes

It is intended that students will:

- Investigate, design and produce textile works
- Use the design process to develop skills in making decisions about creative ways of generating and implementing ideas
- Select, vary, experiment with and manipulate materials, techniques and aesthetic qualities to effectively realise their ideas
- Experiment with imaginative and innovative ways of using traditional and contemporary skills, techniques and processes with a variety of media, materials, equipment and technologies
- Evaluate and reflect on their experiences and observations and consider what they have learned about styles and forms through annotations in their visual journal.

### Assessment Tasks

- Design and investigation journal
- Textile garment production
- Creating Designed Solutions - Creative Textile Artwork
- Analysis task

# Technologies: Digital Technologies

## Imagine, Create and Animate in 3D

### Learning Program

Students will engage with one of the largest and fastest growing sectors of the IT world: 3D design. They will participate in learning activities involving the area of 3D printing, imaging and animation.

This course introduces students to a world where they create their own three-dimensional models and learn how to animate them. The activities will involve students learning the skills and knowledge involved in creating, texturing and animating 3D models.

Students have the opportunity to design and make a life changing assisted augmented reality app (AR) that improves the life of someone. This is a practical course using programs such as Blender and AR web platforms such as ZapWorks.

### Key Questions

- Would you like to learn how to create and animate 3D objects?
- Have you ever wondered how 3D films like Shrek and Toy Story are created?
- Could you make an AR prototype or app to assist a person with a disability or particular need?

### Learning Outcomes

It is intended that students will:

- Create a number of 3D models and objects
- Colour and texture and 3D print these models and objects
- Combine these objects and models into an animated scene
- Use an AR platform to create a prototype or app.

### Assessment Tasks

- Construct a model using colours and texture
- Animating objects in 3D
- Construct a prototype or app using AR

# Technologies: Digital Technologies
## Learn to Code

### Learning Program

Students have the opportunity to develop their coding skills using a problem-based, practical learning approach. Students will code in Python and learn as they go to create digital solutions such as games and mobile apps. They are not expected to already know everything. Students will work on challenges and develop new skills whilst developing their computational thinking. This will allow them to take a complex program, understand what the problem is and develop possible solutions.

Students will learn to program the Fable robots, during this topic students will make the robots play RoboSoccer, dance to music and design a concept using the robots and 3D printing to solve a problem.

### Key Questions

- Are you curious about how you can create an automated system?
- Can you design a robotic solution to a problem ?
- Do you like to solve problems with code?
- Do you dream of creating your own games or mobile apps?

### Learning Outcomes

It is intended that students will:

- Solve problems through coding
- Learn about design theory to create a solution
- Learn to code the robots for a purpose

### Assessment Tasks

- Python Command Worksheet Task
- Python Program
- Robot Solution


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