

# THE HEIGHTS S C H O O L Preschool - Year 12

# Curriculum Handbook 2023 Year 10



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### COMPULSORY SUBJECTS

English or EAL	Full Year – 2 Semesters
Health and Physical Education	1 Semester
History	1 Semester
Mathematics	Full Year – 2 Semesters
Personal Learning Plan – Compulsory SACE Unit	1 Semester
Science	Full Year – 2 Semesters
CHOICE SUBJECTS	
Arts	
Creative Arts Digital Media	1 Semester
Creative Arts Photography	1 Semester
Drama	1 or 2 Semesters
Music	Full Year – 2 Semesters
Visual Arts : Art	1 or 2 Semesters
Health & Physical Education	
Child Studies	1 Semester
Physical Education	1 Semester
Humanities & Social Sciences	
History Elective	1 Semester
Mathematics	
Mathematics Elective	1 Semester
Science	
Cutting Edge Science	1 Semester
Subs In Schools Challenge	Full Year – 2 Semesters
Technologies	
CAD / CAM	1 Semester
Digital Technology A	1 Semester
Digital Technology B	1 Semester
Electro Technology	1 Semester
Fashion and Fibres	1 Semester
Food and Hospitality	1 Semester
Metal Technology	1 Semester
Wood Technology	1 or 2 Semesters

All Year 10 Students will study the equivalent of 14 semesters

# English

### **Contact: Bridget Roberts**

# English

Length: Full Year

### **Recommended Background**

Satisfactory completion of Year 9 English.

#### **Course Description**

Year 10 English will be delivered using the Australian Curriculum and build on skills, knowledge and understandings in listening, reading, viewing, speaking, writing and creating. Learning in English is cumulative and builds on concepts, skills and processes developed in earlier years, and teachers will continue to revisit and strengthen these as needed.

Year 10 students create a range of texts for a variety of imagined and real-world contexts. Students study and respond to a variety of classic and contemporary texts, including novel, film, drama, poetry and media texts. Students build on their understandings of texts in context, and use critical theory to analyse texts. Students strengthen skills in creating texts for a wide range of audiences and purposes, and for a range of contexts.

Note: Students may incur additional costs for excursions and/or performances.

#### Assessment

Year 10 Students are assessed according to the English Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting. This includes assessment of achievement in listening, reading, viewing, speaking, writing and creating.

#### Leads To

Stage 1 English, Stage 1 Literary Studies, Stage 1 EAL or Stage 1 Essential English

#### OR

## English as an Additional Language (EAL)

#### Length: Full Year

#### **Recommended Background**

This subject is only available to eligible students. Students will receive an eligibility letter, which must be shown at course confirmation.

#### **Course Description**

Year 10 EAL will be delivered using the Australian Curriculum and build on skills, knowledge and understandings in listening, reading, viewing, speaking, writing and creating. Year 10 EAL is designed to equip students with strategies to communicate using increasingly sophisticated and precise academic language. Students develop competence in both written and oral communication, with a focus on interaction and spoken English.

Year 10 EAL students also create a range of texts for a variety of imagined and real-world contexts. Students study and respond to a variety of classic and contemporary texts, including novel, film, drama, poetry and media texts. Students build on their understandings of texts in context, and use critical theory to analyse texts. Students strengthen skills in creating texts for a wide range of audiences and purposes, and for a range of contexts. Students develop their oral language and listening skills, as well as refining written expression for accuracy and fluency.

#### Assessment

Year 10 Students are assessed according to the subject's Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting. This includes assessment of achievement in listening, reading, viewing, speaking, writing and creating.

#### Leads To

Stage 1 English or Stage 1 EAL

# Mathematics

### **Contact: Val Westwell**

Length: Full Year

#### Recommended Background

Satisfactory completion of Year 9 Mathematics.

#### **Course Description**

Year 10 Mathematics will be delivered using the Australian Curriculum. Students develop mathematical understandings in the areas of Number and Algebra, Measurement and Geometry, Statistics and Probability. Focus is placed on the mathematical proficiencies of *Understanding, Fluency, Problem Solving* and *Reasoning*. Learning in Mathematics is cumulative and builds on concepts, skills and understanding developed in earlier years. Teachers will continue to revisit and strengthen these as needed and will extend the curriculum focus to include Australian Curriculum 10A\* content where appropriate.

Note: A scientific calculator is required by all students.

\*The 10A content descriptions are optional and are intended for students who require additional content to extend their mathematical study whilst completing the Year 10 curriculum. It is not anticipated that all students will attempt the 10A content.

#### Assessment

Year 10 Students are assessed according to the Mathematics Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types include a range of tests, investigations and assignments.

#### Leads To

Stage 1 Mathematics

# Science

### **Contact: David Eglinton**

Length: Full Year

**Recommend Background** Satisfactory completion of Year 9 Science.

#### **Course Description**

Year 10 Science will be delivered using the Australian Curriculum. Students continue to explore systems at different scales and connect microscopic and macroscopic properties to explain phenomena. They also develop their science inquiry skills and the notion of science as a human endeavour. Students explore DNA and genes and investigate the theory of evolution by natural selection. They explore the Big Bang theory and Global systems, including the carbon cycle. Students will investigate energy conservation in terms of energy transfers and transformations and that the motion of objects can be described and predicted using the laws of physics. Students investigate the atomic structure and properties of elements and how chemical reactions are used to produce a range of products.

#### Assessment

Year 10 Students are assessed according to the Science Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types include tests, practicals and reports, assignments, projects and oral presentations. Assessment modes will include both individual and collaborative approaches.

#### Leads To

Stage 1 Biology, Physics, Chemistry, or Psychology

# Personal Learning Plan

### **Contact: David Osborne**

Length: Single Semester

#### **Recommended Background**

No prerequisites. This is a compulsory Stage 1 subject.

#### **Course Description**

Stage 1 of the SACE usually begins in Year 10, with students studying the Personal Learning Plan (PLP), and continues through Year 11. The PLP is a compulsory Stage 1 SACE subject worth 10 credits. Students must achieve a C grade or better.

The PLP is designed to help students make informed decisions about their personal development, learning, education and future study and/or career pathways. Students develop knowledge and skills so that they can plan their SACE learning program.

The Personal Learning Plan identifies seven relevant and useful capabilities that students will develop:

- Literacy
- Numeracy
- Information & Communication
- Technology Capability
- Creative Thinking
- Personal & Social Capability
- Intercultural Capability.

Students will also take part in a Work Experience placement for one week during Term 2.

#### Assessment

Components of PLP assessment include:

- 1. Work Experience Evaluation
- 2. Career Research Investigation
- 3. My Capabilities
- 4. Learning and Thinking Skills
- 5. Final Overview.

# History

### Contact: David Osborn

Length: Single Semester

#### Recommended Background

Satisfactory completion of Year 9 Humanities and Social Sciences.

#### **Course Description**

The Year 10 History Curriculum provides a study of the history of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context.

Topics include:

- Overview of 20th Century History
- World War 2
- Rights and Freedoms.

#### Assessment

Student performance will be determined according to the subject's Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types include research assignments, essays, multi-modal presentations, oral presentations, articles, audio and/or video presentations, websites and excursion reports. Assessment modes will include both individual and collaborative approaches.

A variety of assessment tasks, including report writing, research assignments, excursion reports, oral presentations, power point presentations, posters, group work examination and tests.

#### Leads To

Stage 1 History, Stage 1 Society and Culture or Stage 1 Legal Studies

# Health and Physical Education

### **Contact: Georgina Sulley-Beales**

Length: Single Semester

#### **Recommended Background**

Satisfactory completion of Year 9 Health and Physical Education.

#### **Course Description**

Student learning is focused in two main areas:

- Personal, Social and Community Health
- Movement and Physical Activity.

Topics covered in Year 10 include, but are not limited to:

- Target and Accuracy Games
- Lifelong Nutrition
- Lifelong Physical Activity
- Mental Health and Wellbeing
- Sexual Health and Relationship Education.

#### Assessment

Year 10 Students are assessed according to the HPE Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting. Assessment is based on a variety of tasks completed during class time and for homework.

#### Leads To

Stage 1 Health and Wellbeing, Stage 1 Physical Education and Stage 1 Outdoor Education

# Arts

### Contact: Beth Sztekel

## **Creative Arts - Digital Media**

Length: Single Semester

#### **Recommended Background**

No prerequisite. Advantage: Year 9 Media.

#### **Course Description**

The focus of this course is on digital and emerging media and is divided into two areas of study: Making and Responding.

#### Area of Study 1: Skills Development

Students have the opportunity to experiment with a variety of media, techniques and processes to make digital media works that explore their own world as a source of ideas. They learn to use a folio to document the practices while refining and annotating their own ideas and intentions.

#### Area of Study 2: Careers in Media Arts

Students research the impact and contribution of digital media practitioners from Australia and globally. They will respond to digital media works by considering how they are made, what they are about and how they are understood in different ways.

#### Area of Study 3: Student Choice and Folio

Students have the opportunity to choose an area within the Creative Arts to refine skills and work towards an outcome based .on a guiding topic. A folio of preparation work will backup design decisions and be a platform for looking for inspiration, research, building ideas and problem solving.

Finished digital media works could include:

- film/video: documentary, narrative (storytelling), music
- graphic novels, comic strips (Print or Digital)
- advertising campaigns (Video, Print, Web)
- gaming production (3D, 2D, PC, Android, iOS)
- animation (Digital, Stop motion, Claymation)
- websites (Business, Personal, Virtual Art Galleries, Virtual Museums etc.).

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types comprise:

- Product and Folio 50%: Students complete one finished product, including support materials
- Theory 20% Folio 1 based on an investigation
- Skills Development 30%: A record of skills development.

#### Leads To

Leads To Stage 1 Creative Arts

# Creative Arts - Photography

Length: Single Semester

#### **Recommend Background**

No prerequisites.

#### **Course Description**

This unit is designed to introduce students to the fundamentals of photographic imaging and associated topics.

During this course students will have the opportunity to:

- acquire knowledge and skills in Digital SLR (Single Lens Reflex)
- learn about photographic processes and contemporary technology, including industry standard software
- investigate aspects of photographic techniques such as compositional techniques
- develop photographic skills in capturing images through excursions and photographic projects
- use photographic equipment in a safe and practical manner
- explore alternative image making methods and experimental photographic processes
- use Adobe Photoshop and Lightroom software to modify graphics
- learn about specifications pertaining to publishing on different media, to include knowing about and understanding the role/impact of resolution, screen sizes, file sizes, file management and file types
- develop skills in engaging with industry and/or community
- practice effectively recording and communicating design ideas.

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types comprise:

- Investigation of Basic skills (Practical) and Analysis of Photographer's work and techniques (Theory) 20%
- Product and Folio 50%: Students complete one finished product, including support materials
- Skills Development 30%: A record of skills development.

#### Leads To

Leads To Stage 1 Creative Arts

## YEAR 10 CHOICE SUBJECTS

### Drama

Length: Single Semester or Full Year

#### Recommended Background

No prerequisites.

#### **Course Description**

This course links the study of the elements of Drama and the style of a particular exponent or theorist in drama to a text which will be performed by the students in the style they have been studying.

Semester 1: An example is Animal Farm by Ian Woolridge performed in an Epic Theatre Style.

**Semester 2: Contemporary Australian Drama,** such as Stolen by Jane Harrison. This play introduces students to a range of styles. In this course we concentrate particularly on the non-linear and non-chronological documentary and storytelling aspects.

#### Assessment

#### This information applies to each semester.

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types comprise:

- Drama Performance and Logbook/Journal of the student's learning journey: Performance assessment includes improvisation, workshopping and final performance
- Response/ Review: In response to watching a live or televised performance of a play, students create a written response/review relating to the style and performance of the play
- Portfolio: Research and creative ideas for a creative or technical role concerned with the play being studied. This may involve students studying a practitioner such as Enoch Wesley or Brecht or a style of performance such as Epic Theatre, Storytelling, and Boal Street Theatre.

#### Leads To

Leads To Stage 1 Drama

## Music

Length: Full Year

#### Recommended Background

Successful completion of Year 9 Music or evidence of instrumental skills. It is essential that students study either an instrument or voice at this level. (Please note that piano tuition is not available through Instrumental Music Service in-school, lessons will need to be accessed externally).

#### **Course Description**

The music program aims to develop awareness in students of the significant part music plays in our lives as individuals and in the wider community. Students will achieve this through:

Making music: This involves tuition on an instrument or voice with an instrumental teacher; as well as students improvising, composing (song writing), arranging, listening, recording, performing and using available technologies and musicianship skills. Individually, and in groups students create and perform music in traditional, contemporary and hybrid forms. Students will improvise using the Blues scale, arranging (melody, bass line, harmony), listening/ ear training, composing (song writing), recording performances, performing, using available technologies and applied musicianship skills. Individually (solo performance) and in groups (class ensemble) students create/ rehearse and perform Music in traditional, contemporary and hybrid forms.

**Responding to music:** This involves students listening, using musicianship skills, analysing and responding to their own and others' works, performances and music practices.

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types comprise:

#### Making

- Solo Performance
- Ensemble Performance
- Arranging Skills
- Composition (song writing)
- Ear Training
- Applied Theory
- Use of ICT to enter arrangement (Sibelius).

#### Responding

- 12 bar Blues Research
- Analysis and response to own performances.

#### Leads To

Stage 1 Music

## Visual Arts - Art

Length: Single Semester or Full Year

#### Recommended Background

No prerequisites.

#### **Course Description**

This course explores practical and theoretical aspects in Art, preparing students for Visual Art in senior year levels. Tasks contain exercises of a preparatory nature that focus on practical media and skill applications, independent Visual Study research and development of a Folio, which leads to the creation of major artworks. It consists of exploring and experimenting with a wide range of media, which may include: drawing, painting, printmaking, mixed media, assemblages, sculpture work and/or digital media.

The Year 10 Visual Arts Course is divided into two areas of study: Making and Responding.

#### Area of Study 1: Making

Students have the opportunity to experiment with a variety of media, techniques and processes to make art works that explore their own world as a source of ideas. They learn to prepare a folio to document the practices of other artists while refining and annotating their own ideas and intentions. Finished art works could take the form of a painting or drawing but could also include more diverse products such as video, installation, assemblage, digital imaging, mixed media, printmaking, photography, sculpture, ceramics, or textiles.

#### Area of Study 2: Responding

Students research the impact and contribution of Visual Arts practitioners from Australia and globally. They will respond to visual arts works by considering how they are made, what they are about and how they are understood in different ways.

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types include evidence of learning in:

- Making: The creation of their own art works and a folio
- Responding to the visual art works of practitioners from Australia and globally.

#### Leads To

Stage 1 Visual Art

# Health and Physical Education

### **Contact: Georgina Sulley-Beales**

## **Child Studies**

Length: Single Semester

# Recommended Background

No prerequisites.

#### **Course Description**

Year 10 Child Studies focuses on the period of childhood from conception to 8 years. Students develop an understanding of issues related to child development, including health and nutrition and investigating how play assists physical, social and emotional development. The course involves practical aspects and will include working with children.

#### Assessment

Year 10 Students are assessed according to the HPE and Technologies Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting. Students will be assessed through assignments based on key theory concepts and their application in practical settings.

Assessment types will include:

- Practical and Group Activity
- Written Assignments.

Note: Students may be required to supply materials for some practical activities.

#### Leads To

This course is designed for students who may be interested in studying SACE Child Studies during their Senior Years at The Heights School.

# **YEAR 10 CHOICE SUBJECTS**

## Physical Education

Length: Single Semester

#### **Recommended Background**

Satisfactory completion of Year 9 Health and Physical Education.

#### **Course Description**

Year 10 Students study the Physical Education elective course for a single semester. Students will participate in a variety of practical sports and activities as a way of developing and applying understanding of theory concepts.

Learning topics covered in Year 10 include, but are not limited to the following:

- Barriers and Enablers to Participation (Through Court-Divided Sports)
- Exercise Physiology/Data Collection and Analysis (Through Invasion Sports).

#### Assessment

Year 10 Students are assessed according to the HPE Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting. Students will be assessed through assignments based on key theory concepts and their application in practical settings.

Task 1: Participation Highlights (Court Divided Games)Task 2: Player Performance Analysis (Invasion Games).

Leads To

Stage 1 Physical Education

# **Humanities and Social Sciences**

### **Contact: David Osborn**

## **History Elective**

Length: Single Semester

#### **Recommended Background**

Satisfactory completion of year 9 History / Humanities and Social Sciences.

#### **Course Description**

This additional course is highly recommended for students considering study in SACE History subjects. The course enables students to extend their historical knowledge and skills that supplement and complement those developed in the compulsory course.

Possible topics include:

- Migration Experiences
- Modern Social Movements.

#### Assessment

Student performance will be determined according to the subject's Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types include research assignments, essays, multi-modal presentations, oral presentations, articles, audio and/or video presentations, websites and excursion reports. Assessment modes will include both individual and collaborative approaches.

#### Leads To

Stage 1 History, Stage 1 Society and Culture or Stage 1 Legal Studies

# Mathematics

### **Contact: Val Westwell**

## **Mathematics Elective**

Length: Single Semester (Semester 1 or Semester 2)

#### **Recommended Background**

Successful completion of Year 9 Mathematics.

#### **Course Description**

This course is designed for students who plan to study Stage 2 Mathematics. The course will focus on the development of skills in mathematical problem-solving, reasoning and proof, communication and representation. The content through which these valuable, contemporary skills are developed will vary according to both student need and interest. This course will teach students not only to solve problems but also to learn about mathematics through problem-solving\*, supporting them to develop the deeper conceptual understanding necessary to make connections between mathematical ideas.

Students will work independently and collaboratively, learning to explain their ideas and respond to the ideas of others. They will be challenged to develop their tolerance of difficulty as this is an essential in a problem-solving disposition, because being "stuck" is an inevitable stage in resolving just about any problem.

\*A problem in mathematics is any situation that must be resolved using mathematical tools but for which there is no immediately obvious strategy. If the way forward is obvious, it's not a problem—it is a straightforward application.

#### Assessment

Assessment types include assignments, investigations and audio and/or video presentations. Assessment modes will include both individual and collaborative approaches.

**Note:** All students will require a scientific calculator and it could be advantageous for students to have access to a graphics calculator. Teachers will make recommendations as appropriate, considering students future mathematics pathway.

#### Leads To

Stage 1 Mathematics (General, Methods, Specialist)

# Science

### **Contact: David Eglinton**

## **Cutting Edge Science**

Length: Single Semester (Semester 1 or Semester 2)

#### **Recommended Background**

B grade or higher in Year 9 Science and an interest in studying science / STEM.

#### **Course Description**

The course is designed for students who have a passion for Science and have the ability to investigate and problem solve complex problems. Students who study either the Semester 1 or Semester 2 course will focus on a mixture of the following:

- Cutting edge technologies in fields such as biotechnology, nanotechnology, and rocketry
- Project / problem-based learning enabling students to develop valuable skills such as project management, working as a member of a team and decision making.

#### Assessment

Assessment types include practical skills and reports, investigations, projects, oral presentations. Assessment modes will include team challenges, in which students will use specified criteria developed by industry to complete STEM challenges.

#### Leads To

Stage 1 Biology, Physics, Chemistry, or Psychology

## Subs in Schools Challenge

Length: Full Year

#### Recommended Background

B grade or higher in Year 9 Science and an interest in studying science / STEM.

#### **Course Description**

Subs in Schools allows students to explore the complex challenges of maritime engineering and hydrodynamics using coding and electronics as they design and build operational submarines and ROV's (Remotely Operated Vehicles).

The SUBS in Schools Technology Challenge is the result of collaboration between REA, the Department of Defence, and industry stakeholders including the Australian Submarine Corporation and Saab Australia.

Students design either a Remotely Operated Underwater Vehicle (ROV) or a submarine which they must operate. They then compete in the State Final at the Royal Adelaide Show.

Students undertaking Subs in Schools must undertake the subject for a full year.

#### Assessment

Assessment types will include practical skills and reports/folios and will include a focus on collaboration and project management skills.

#### Leads To

Stage 1 Biology, Physics, Chemistry, or Psychology

# Technologies

### **Contact: Anne Ryan**

CAD / CAM

Length: Single Semester

#### **Recommended Background** No prerequisites.

#### **Course Description**

By the end of Year 10, students will be able to create a design solution based on a student design brief /challenge.

This CAD/CAM course provides the opportunity to:

- create a design solution based on a student design brief / challenge
- develop understanding of technical drawing practices used in the construction and manufacturing sectors
- develop understanding of techniques and methods used conform to the Australian Standards
- learn about 2 and 3 dimensional drawing systems and gain experience in the use of CAD software AutoCAD and Inventor.

Students will learn to use the design process to develop a solution to a given problem, producing a work plan and sketch prior to modelling. They will develop skills in evaluating final products against the given design brief identification of possible modifications.

Where possible students will be given the opportunity to design and produce a small item using one or more of the following CAD/CAM computer-controlled machines: milling machine, laser cutting machine and/or 3D printer.

#### Assessment

Student performance will be determined according to the Technologies Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types will include:

- Process and Production Skills
  - Major Design Project
  - o Design Folio: Investigating, Planning, Producing, Evaluating
  - Skills exercises.
- Knowledge and Understanding
  - Written Assignments (Research and analysis): Technology and its impacts on society, environment
  - Theory Tests.

**Note:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

#### Leads To

Stage 1 CAD/CAM (Digital Communication Solutions)

## **Digital Technology A**

Length: Single Semester

#### **Recommend Background**

Strong interest in Digital Technology.

#### **Course Description**

In this course students will learn to develop digital solutions to issues that are important them. They will take a project from a concept, through to documentation and construction of the application. This includes coding of scripts and animation.

The course focuses on using a computational thinking, problem identification and modular solutions when creating game levels. Students who study Digital Technologies A will:

- focus on the coding and digital design based around the gaming industry. Using industry leading software, Unreal Engine, to design, create, test and refine a game level
- create animations and models in Autodesk Maya for import into Unreal Engine
- Engage in project /problem-based learning enabling students to develop valuable skills such as project management, student inquiry and systems thinking
- examine the social/cultural impact of gaming.

#### Assessment

Student performance will be determined according to the Technologies Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types will include:

- Process and Production Skills (70%)
  - o Game level development project (Unity-3D & Maya)
  - o Design Document: Investigating, Planning, Producing and Evaluating (Python and Maya)
  - Skills exercises: Unity-3D, Maya, C#.
- Knowledge and Understanding (30%)
  - Written Assignments (Research and analysis): The components, impact and development of Digital Systems.

#### Leads To

Stage 1 Digital Technology

## **Digital Technology B**

Length: Single Semester

#### **Recommend Background**

Strong interest in Digital Technology.

#### **Course Description**

The Digital Technologies B course focuses on using a computational thinking, problem identification and modular solutions when programming VEX Robots, coding algorithms in Python and analysing data. Students who study Digital Technologies B will:

- work in teams to develop algorithms to identify and solve challenges with VEX Robots
- developing fundamental coding skills of Python and SQL (the language of Google)
- Engage in project /problem-based learning enabling students to develop valuable skills such as project management, student inquiry, collaboration and systems thinking.

#### Assessment

Student performance will be determined according to the Technologies Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types will include:

- Process and Production Skills (70%)
  - Application development and robotic solution project (Python and Vex Robots)
  - Design Document: Investigating, Planning, Producing and Evaluating (Python HTML and Vex Robots)
  - Skills Exercises: Python and HTML and coding for robots.
- Knowledge and Understanding (30 %)
  - Written Assignments (Research and analysis): The components, impact and development of Digital Systems.

#### Leads To

Stage 1 Digital Technology

## Electro Technology

Length: Single Semester

#### Recommended Background

No prerequisites. Experience and knowledge of electronics and soldering is an advantage.

#### **Course Description**

This course will focus on Electrical theory, including:

- common electronic components
- schematic symbols and diagrams
- electronic soldering
- proto-typing and modifying circuits
- CAD schematics are drawn and used
- Circuit boards are designed and manufactured using CAD / CAM milling technology
- Circuit testing and evaluation.

Where possible students may be given the opportunity to integrate the use of one or more of the following CAD / CAM, computer controlled machines into their design: laser cutting machine and / or 3D printer.

By the end of Year 10, students will be able to create a design solution based on a student design brief / challenge.

#### Assessment

Student performance will be determined according to the Technologies Achievement Standards as outlined in the framework of the Australian Curriculum. Grades from A to E will be used for reporting purposes.

Assessment types will include:

- Process and Production Skills (70%)
  - Major design project
  - Design Document: Investigating, Planning, Producing and Evaluating (Python HTML and Vex Robots)
  - Skills Exercises.
- Knowledge and Understanding (30 %)
  - Written Assignments (Research and analysis): Technology Impacts on society and environment
  - Theory tests.

**Note:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

#### Leads To

Stage 1 Electronics (Robotic and Electronic Systems)

# **YEAR 10 CHOICE SUBJECTS**

## **Fashion and Fibres**

Length: Single Semester

#### Recommended Background

No prerequisites. An interest in creating designs and some experience on a sewing machine would be beneficial.

#### **Course Description**

The Year 10 Fashion and Fibres course focuses on fibre technology with a fashion and design focus.

Practical work is a strong feature of this course. Students are presented with challenges and opportunities to express their design solutions in a range of fashion contexts. Pattern making, designing, advanced construction techniques, fashion culture and trends will also be explored.

#### Assessment

Assessment types will include:

- o individual practical assessments
- o written assignments
- $\circ$  the development of a folio.

**Additional Information:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

Leads To

# **YEAR 10 CHOICE SUBJECTS**

## Food and Hospitality

Length: Single Semester

#### Recommended Background

No prerequisites. A strong interest in the food and hospitality industry is beneficial.

#### **Course Description**

The Year 10 Food and Hospitality focusses on developing and expanding students' culinary skills.

Students will work individually and collaboratively, developing skills in working effectively with others to plan, prepare and present and serve a wide variety of foods.

Through a range of practical and theoretical activities students learn skills and gain knowledge in:

- preparation techniques
- cooking techniques
- the creative presentation of dishes.

Topics used as the basis for learning include:

- Multicultural Cooking
- Recipe Development
- Foundations of Baking
- Café Operations.

#### Assessment

Assessment types will include both practical assessments and written assignments and include a focus on collaboration skills as well as individual culinary skills.

**Additional Information:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

#### Leads To

Stage 1 Food and Hospitality

# Metal Technology

Length Single Semester

**Recommended Background** 

No prerequisites.

#### **Course Description**

In this course students will learn skills and gain knowledge in the area of Metal Fabrication and Machining.

Through a series of set projects students will learn:

- o to use metal lathes for processes such as drilling, parallel turning, taper turning and facing
- o to use Oxy Acetylene welding equipment for Braze and Fusion welding
- o the basics of electric welding using the GMA (MIG) process
- to use a variety of hand tools to fit and assemble components of the projects.

Students will learn to follow the design process to develop a solution to a given problem. A work plan and drawings are produced prior to manufacture. The final product is evaluated against the given design brief and possible modifications discussed.

By the end of Year 10, students will be able to create a design solution based on a student design brief / challenge.

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types will include:

- Process and Production Skills:
  - Skills Exercises
  - Major Design Project
  - Design Folio: Investigating, Planning, Producing, Evaluating.
- Knowledge and Understanding:
  - Written Assignments: Research and analysis: The impact of technology on individuals, society and environment
  - $\circ$  Theory Tests.

**Note:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

#### Leads To

Stage 1 Metal Technology

## **YEAR 10 CHOICE SUBJECTS**

## Wood Technology

Length: Single Semester or Full Year

#### Recommended Background

No prerequisites.

#### **Course Description**

In this course students will research the use of framing and carcass joints and develop practical skills in creating both framing and carcass joints prior to designing their own table and cabinet. They will follow the design process, including:

- writing a Design Brief
- investigating and sketching possible designs
- producing a working drawing (orthographic)
- evaluating the final design
- costing the final design
- creating a procedure for the steps involved in the construction of their design.

Where possible, students will be given the opportunity to integrate the use of laser etching into their designs.

By the end of Year 10, students will be able to create a design solution based on a student design brief / challenge.

#### Assessment

Year 10 Students are assessed according to The Arts Achievement Standards outlined in the Australian Curriculum, with A-E Grades used for reporting.

Assessment types will include:

- Process and Production Skills:
  - Skills Exercises
  - o Major Design Project
  - Design Folio: Investigating, Planning, Producing, Evaluating.
- Knowledge and Understanding:
  - Written Assignments: Research and analysis: The impact of technology on individuals, society and environment
  - Theory Tests.

**Note:** Basic project materials are supplied, however students may be required to pay additional costs if their projects exceed the allocated amount.

#### Leads To

Stage 1 Furniture Construction