LET YOUR *light* SHINE

TECHNOLOGIES

TENISON WOODS COLLEGE

2020
CURRICULUM
YEAR 10-12

"*Instruct* the wise, and they become still wiser; teach the just and they advance in *Learning*."
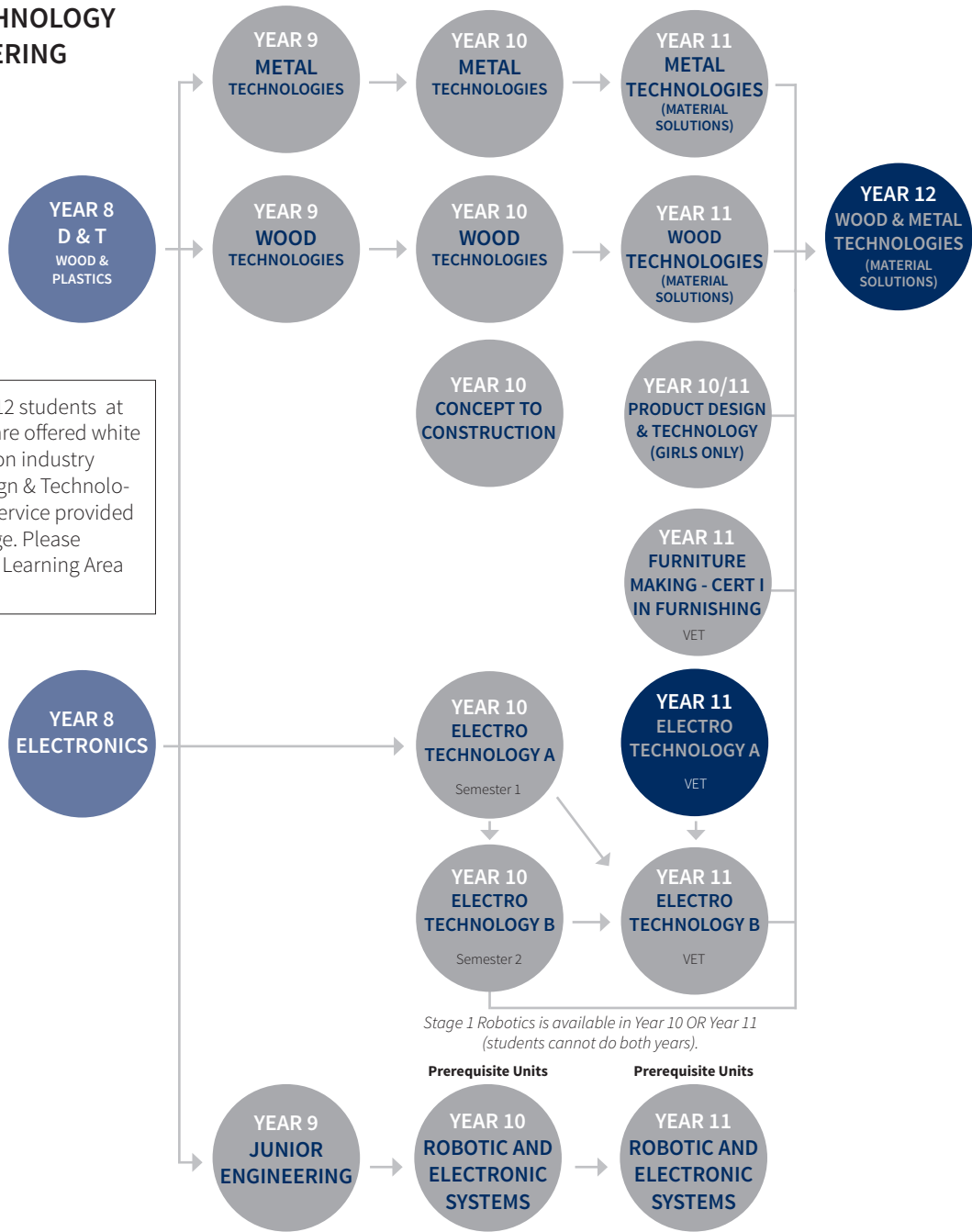
Proverbs 9:9

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CONTENT STRANDS • DIGITAL TECHNOLOGIES • DESIGN AND TECHNOLOGY • FOOD TECHNOLOGY • WORKPLACE PRACTICES

[TECHNOLOGIES]

DESIGN, TECHNOLOGY AND ENGINEERING

YEAR 8 D & T WOOD & PLASTICS

YEAR 9 METAL TECHNOLOGIES → **YEAR 10 METAL TECHNOLOGIES** → **YEAR 11 METAL TECHNOLOGIES** (MATERIAL SOLUTIONS)

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YEAR 10 CONCEPT TO CONSTRUCTION

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YEAR 11 FURNITURE MAKING - CERT I IN FURNISHING VET

Please note: All Year 10- 12 students at Tenison Woods College are offered white card training (construction industry certification) by our Design & Technology Teachers onsite as a service provided by Tenison Woods College. Please speak with Brad Colliver, Learning Area Coordinator.
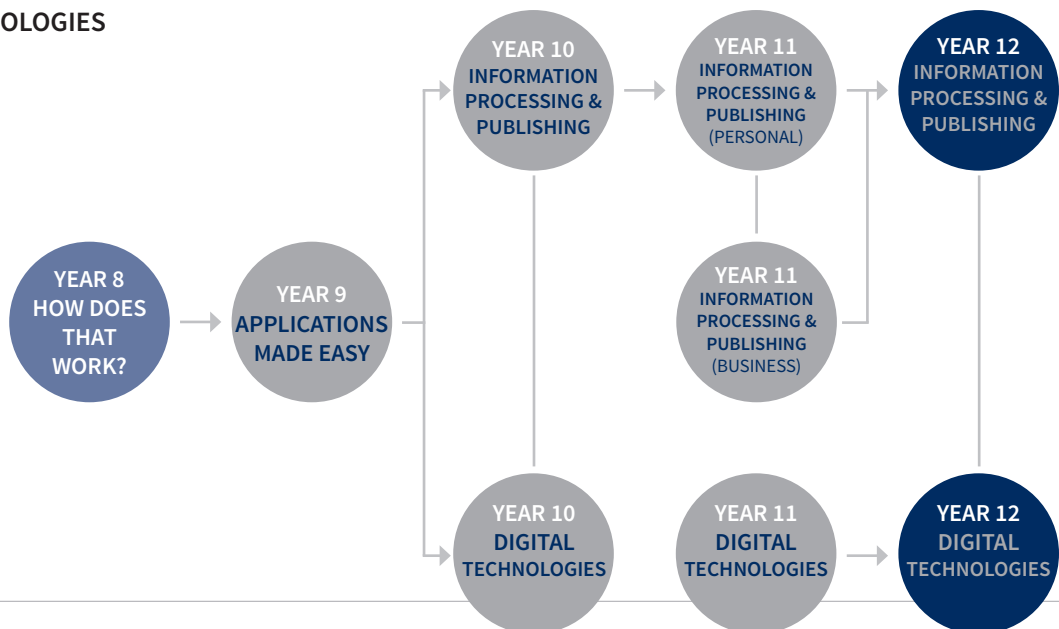
YEAR 8 ELECTRONICS

YEAR 10 ELECTRO TECHNOLOGY A Semester 1

YEAR 11 ELECTRO TECHNOLOGY A VET

YEAR 10 ELECTRO TECHNOLOGY B Semester 2 → **YEAR 11 ELECTRO TECHNOLOGY B** VET

Stage 1 Robotics is available in Year 10 OR Year 11 (students cannot do both years).

Prerequisite Units **Prerequisite Units**

YEAR 9 JUNIOR ENGINEERING → **YEAR 10 ROBOTIC AND ELECTRONIC SYSTEMS** → **YEAR 11 ROBOTIC AND ELECTRONIC SYSTEMS**

DIGITAL TECHNOLOGIES

YEAR 10 INFORMATION PROCESSING & PUBLISHING → **YEAR 11 INFORMATION PROCESSING & PUBLISHING** (PERSONAL) → **YEAR 12 INFORMATION PROCESSING & PUBLISHING**

YEAR 8 HOW DOES THAT WORK? → **YEAR 9 APPLICATIONS MADE EASY**

YEAR 11 INFORMATION PROCESSING & PUBLISHING (BUSINESS)

YEAR 10 DIGITAL TECHNOLOGIES → **YEAR 11 DIGITAL TECHNOLOGIES** → **YEAR 12 DIGITAL TECHNOLOGIES**

[TECHNOLOGIES]

DESIGN, TECHNOLOGY AND ENGINEERING

YEAR 10 METAL TECHNOLOGIES

Year Level: 10 **SACE Credits:** N/A

Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.

Prerequisites: Recommended prior Year 9 study in Design & Technology at Tenison Woods College, but not essential

Length: 1 semester

Course Description: Students studying Metal Technology will be given a concept, project, client, need or challenge, in which they are individually design, produce and evaluate a metal fabricated piece of work. During the production, students are taught and then given the opportunity to apply the skillsets of ARC and MIG welding, plasma cutting, bending, assembling and finishing processes. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing and prototyping. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment: Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Cost: Approximately $60 to cover steel used for minor and major product.

Major Product: Student designed metal sculpture.

YEAR 10 WOOD TECHNOLOGIES

Year Level: 10

Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.

Prerequisites: Recommended prior Year 9 study in Design & Technology at Tenison Woods College, but not essential

Length: 1 semester

Course Description: Students studying Wood Technology will be given a concept, project, client, need or challenge, in which they are individually design, produce and evaluate a handmade piece of work. During the production, students are taught and then given the opportunity to apply the skillsets of traditional woodworking, machining timber with advanced workshop machinery and the finishing process in the making of their minor and major product. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment: Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Cost: Approximately $60 to cover the timber used for minor and major project.

Major Product: Pinball machine (with 3d printed/ laser cut components)

CONCEPT TO CONSTRUCTION

Year Level: 10

SACE Credits: N/A

Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.

Prerequisites: Recommended prior Year 9 study in Design & Technology at Tenison Woods College, but not essential

Length: 1 semester

Course Description: Students studying Concept to Construction will develop a range of skills inside and outside of the workshop. This purpose of this course is to not only give students the opportunity to learn workshop skills, incorporating technologies such as CAD, 3d printing, prototyping & laser, but also to learn skills outside of the workshop. The course begins with the students designing and producing a small individual project which could be made from recycled materials. The design will be CAD drawn so that a scale 3d printed model must also be completed. The final design can also incorporate laser. Once complete the class works as a team and is presented with a concept, project, client, need or challenge to complete on school grounds. This is where the students will engage in real world working conditions and skillsets. The project can include landscaping, carpentry, building, metal fabrication & electrical.

Assessment:
Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Materials Required: Work boots

Cost: Approximately $40 to cover the cost of materials for a small individual project completed by each student.
$55 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on TWC grounds (only if the student hasn't obtained certification prior to commencing the course).

Major Product: Outdoor construction project such as a chicken pen, large pizza oven, landscaped seated area for students etc. Students decide and design possible projects needed within school grounds to be approved by the Principal.

[TECHNOLOGIES]

DESIGN, TECHNOLOGY AND ENGINEERING

PRODUCT DESIGN & TECHNOLOGY -
GIRLS ONLY

Year Level: Year 10 or 11
Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.
Prerequisites: Recommended prior Year 9/10 study in Design & Technology at Tenison Woods College, but not essential
Length: Semester 1

Course Description:
Students studying Workshop Girls will be given a concept, project, client, need or challenge, in which they are individually design, produce and evaluate a handmade piece of work. During the production, students are given the opportunity to apply the skillsets of traditional woodworking/ metalworking, working with advanced workshop machinery and the finishing process in the making of their minor and major product. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and

problem solving abilities.

Assessment:
Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.
The Year 11 students will complete the course as a Stage 1 subject, option is given to the Year 10 students to also complete the course as a Stage 1 subject.

Cost:
Approximately $80 to cover the materials used for minor and major project.

Major Product:
Student designed/ chosen project

METAL TECHNOLOGIES -
MATERIAL SOLUTIONS

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Material Products, Trade-Engineering, Building and Construction, University-Engineering Studies
Prerequisites: Recommended prior Year 10 study in Design & Technology at Tenison Woods College, but not essential.
Length: 1 semester

Special Considerations:
This course may be taken as a Stage 2 (full year) subject in Year 11.

Course Description:
Students studying Material Products 2- Metalwork will individually design, produce and evaluate a metal fabricated piece of work. Students apply their knowledge and skills to the design and production of their chosen piece. The course gives students the opportunity to Individually submit a piece of work that can be completed within the single Semester time frame. During the production, students are given the opportunity to apply the skillsets of ARC and MIG welding, cutting, bending, assembling

and finishing processes. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment:
Assessment is completed as per SACE requirements at Stage 1 level. Students demonstrate evidence of their learning against performance standards in the following assessment types:
• Skills and Application Tasks
• Folio (Including an investigation, design and evaluation)
• Product (including a product record)

Cost:
$100 Materials for major product and minor product (mild steel)
- Approximately $100 for an optional excursion to a Forge workshop to work with a Blacksmith

Major Product:
Outdoor cooking appliance

[TECHNOLOGIES]

DESIGN, TECHNOLOGY AND ENGINEERING

VET ELECTRO TECHNOLOGY A & B

Year Level: Year 10 or 11
SACE Credits: 10
VET Qualifications: Certificate 1 in Electro Technology
Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.
Industry pathways- Electrical, renewable/ sustainable energy, communications, computer systems, refrigeration and air conditioning, building and construction.
University- Electrical/ Engineering Studies

Length: Year 10- one or two Semesters. Students can complete Electro Technology A and/or B.
Year 11- One or two Semesters. Students can complete Electro Technology A and/or B.
Please note: If students wish to complete only A in Year 10, then they must enrol to complete B in Year 11 to obtain VET qualifications. Both A & B must be completed to obtain a Certificate 1- Electro Technology.

Prerequisites: Recommended prior Year 9 / 10 study in Design & Technology at Tenison Woods College, but not essential.

Course Description: Students studying Electro Technology will be introduced to basic electrical systems, including resistance, conductors, single and multiple path low voltage circuits, and electrical switching. The course also provides a comprehensive overview of OH&S in the electrical industry, with student obtaining a White Card though the program. The program also contains a strong sustainability focus, with students gaining valuable practical experience working alongside skilled tradespersons on the installation of significant solar photovoltaic systems on the College site each term. Work experience is also fostered, with a broad range of connections to local industry members.

Assessment: The Certification 1 qualification includes theoretical understandings and practical tasks, completed through a set amount of competencies (Electro Technology A&B must be completed for Certificate 1 qualification)
White Card Certification (Construction industry Card)
Working at Heights Certification

Materials/ equipment Required: Work boots

Cost:
- $150 Working at heights certification
- $55 White Card Certification (Construction Industry Certification) completed online, in conjunction with a day training course ran on College grounds (only if the student hasn't obtained certification prior to commencing the course)
- Approximately $100- optional excursion, Renewable road trip to visit Tindo Solar panel manufacturer, Vena Energy solar farm and Sonnen battery manufacturer. Please note: this excursion has been funded in the past, so if funded again there will only be a small cost to students if this is possible again.

Major Product: Solar Power installation on school grounds

Please note: Students will miss 5-6 schools days during each Semester.

STAGE 1 ROBOTIC AND ELECTRONIC SYSTEMS

Year Level: 10 and 11 (Stage 1) **SACE Credits:** 10
Pathways: VET Courses, Stage 1 Information Technology
Prerequisites: Not required (Junior Engineering at Year 9 is strongly recommended but not required)
Length: 1 Semester
Special Considerations: This course may be taken as a Stage 1 subject at Year 10 or Year 11 but may not be repeated

Course Description:
This is an opportunity for students to develop their STEM skills. The first unit will be a continuation from the skills developed in Junior Engineering at Year 9 level. This involves using design software (AUTOCad Fusion and Adobe Illustrator) to work with our 3D printers and Laser Cutter/Engraver. Students will also work through a simple robotics project in preparation for their major project work. This project will take up the remainder of the semester, and will involve students designing, developing and prototyping a robot of their own invention. This robot can be, within reason, anything they believe they can achieve in the time available, such as a robotic hand, a radio-controlled drone or the beginnings of their own version of a home automation system.

Assessment:
Assessment in Robotic and Electronic Systems consists of the following components; two Skills and Applications tasks, one Folio Task and one Product.

Additional Information:
The range and quantity of components the school can provide is limited compared to the diversity available. Should a student require specialised components and wish to keep their robot, they will need to purchase them at cost.

[**TECHNOLOGIES**]

DESIGN, TECHNOLOGY AND ENGINEERING

FURNITURE MAKING
CERTIFICATE I IN FURNISHING

Year Level: Stage 1
SACE Credits: Up to 30+ SACE credits
Pathway: Employment, further TAFE study at Certificate II
Prerequisites: Not required
Length: 1 year

Course Description:
Undertaking this course allows the student to pursue an interest in the many trades associated with the Furnishing Industry, as the core modules are generic across each individual area. The other modules focus specifically on the trade of Furniture making (Cabinet making).

Students will complete all competencies by doing a range of exercises including group and individual tasks. These will be performed in a variety of locations and modes including a simulated workplace, where the students are able to experience similar situations to those which occur in industry and by working both individually and with the other members of the class. It is also recommended, and expected, that the students undertake work experience in this industry when they have the opportunity (2 weeks).

Students will make a variety of projects with a focus on hand-made solid timber processes and numerous simple machine tasks using both simple and specialised machinery. Students will predominantly work with solid timber but will gain experience with manmade materials as well and the different techniques and hardware that is specific to each.

This course can be undertaken for self-interest and is provided in conjunction with Tafe SA, or as a pathway for the development of skills and understanding in many areas including the Furnishing, Building and Engineering trades, as many of the expectations and skills are transferable.

Assessment:
The Certificate I is skills based and requires students to achieve specific furnishing competencies.

These include:
• Communicate in the Workplace
• Follow OHS Procedures
• Make Measurements
• Work in a Team
• Construct a Basic Timber Furnishing Product
• Assembly of furnishing components
• Join Solid Timber
• Participate in environmentally sustainable practices

WOOD TECHNOLOGIES -
MATERIAL SOLUTIONS

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Material Products, Trade- Engineering, Building and Construction, University- Engineering Studies
Prerequisites: Recommended prior Year 10 study in Design & Technology at TWC, but not essential
Length: 1 semester

Special Considerations: This course may be taken as a Stage 2 (full year) subject in Year 11.

Course Description: Students studying Material Products 1- Furniture Construction will individually design, produce and evaluate a handmade fine furniture stool. Students apply their knowledge and skills to the design and production of their chosen design. The course gives students the opportunity to Individually submit a piece of work that can be completed within the single Semester time frame. During the production, students are given the opportunity to apply the skillsets of traditional fine woodworking, machining timber with advanced workshop machinery and the finishing process in the making of fine furniture.

All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment:
Assessment is completed as per SACE requirements at Stage 1 level.
Students demonstrate evidence of their learning against performance standards in the following assessment types:
• Skills and Application Tasks
• Folio (Including an investigation, design and evaluation)
• Product (including a product record)

Cost:
Approximately $70- $90 depending on the student's final design. All designs will be approved by the teacher and parent/ guardian prior to production to ensure all parties approve.
- Approximately $100- Optional excursion to the Lost Trades Fair & Melbourne Guild of Fine Furniture

Major Product:
Traditional fine furniture piece

[TECHNOLOGIES]

DESIGN, TECHNOLOGY AND ENGINEERING

WOOD AND METAL TECHNOLOGIES
MATERIAL SOLUTIONS

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathways: Trade- Building and Construction, Engineering, University- Engineering Studies
Prerequisites: Strongly recommend a Stage 1 subject completion in Design & Technology at Tenison Woods College.
Length: 1 Year

Course Description: Students studying Stage 2 Furniture, will individually design, produce and evaluate a timber handmade piece of work or a metal fabricated piece of work. Students apply their knowledge and skills to the design and production of their chosen piece. The course gives students the opportunity to Individually submit a piece of work that can be completed within the time frame allowed at Stage 2 level. During the production, students are given the opportunity to apply the skillsets of traditional woodworking, machining timber with advanced workshop machinery and the finishing process in the making of fine furniture or the skillsets of ARC and MIG welding, cutting, bending, assembling and finishing processes. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment:
Assessment is completed as per SACE requirements at Stage 2 level.
Students demonstrate evidence of their learning against performance standards in the following assessment types:
• Skills and Application Tasks
• Folio (Including an investigation, design and evaluation)
• Product (including a product record)

Cost:
Approximately $100+ depending on the student's final design. Students are encouraged to purchase their own materials outside of school.

Major Product: Contemporary designed furniture piece

INFORMATION PROCESSING AND PUBLISHING

Information Processing and Publishing focuses on the use of technology to design and implement information processing solutions. The technologies, now used by individuals, businesses and organisations to process, manage and communicate information, enable meaning to be received and shared through a wide range of increasingly complex and extended modes of communication in formal and informal contexts.

These technologies offer users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information. Information Processing and Publishing emphasises the acquisition and development of practical skills in identifying, choosing and using the appropriate computer hardware and software for communicating in a range of contexts. Students will be challenged by rapid changes in the volumes, accessibility, generation and transfer of information and the opportunities provided by the use of new media in information processing and publishing.

INFORMATION PROCESSING & PUBLISHING

Year Level: 10
Pathways: Stage 1 Information Processing and Publishing
Prerequisites: Not required
Length: 1 semester

Course Description:
The Information Processing and Publishing course consists of business and personal publishing.
Students will investigate the uses of the Microsoft Office package particularly Publisher and Word.

Practical tasks will incorporate the skills required to understand design process for creating informative material and A large component of the practical tasks is for the students to understand and apply critiquing for improved work. This class may be combined with Information Technology.

Assessment:
The assessment component for IPP has been selected to provide a balanced assessment of learning outcomes and consists of practical skills, designing and skills applications as well as issues analysis.

[TECHNOLOGIES]

INFORMATION PROCESSING AND PUBLISHING

INFORMATION PROCESSING & PUBLISHING (PERSONAL)

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Information Processing and Publishing
Prerequisites: Year 10 IPP/IT/Graphics recommended
Length: 1 semester

Course Description:
- Information Processing and Publishing offers users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information
- This course involves the use of software appropriate to paper based publications and other digital publications
- It provides a sound basis for the investigation and use of new personal publishing tools in the future
- The students consider legal, ethical and social issues related to information processing and publishing
- The course has a practical basis and emphasises the development of skills and understanding in designing, making and critiquing
- Students learn about the Principles of Design: i.e. Contrast, Repetition, Alignment and Proximity
- Students learn to follow the designing process to apply principles to produce publications for personal use, produce paper based publications such as letters, resumes and invitations using MS word, Publisher and Adobe Photoshop
- Establish good keyboard and associated manipulative skills
- In the digital presentation section, students incorporate the use of Information processing and processing equipment such as projectors and monitors to display and explain their presentation
- The emphasis is on designing interactive presentations for product displays using MS Power Point or Prezi.

Assessment:
Assessment for Stage 1 IPP is school based.
To gain Satisfactory Achievement in this subject student will need to demonstrate evidence of their learning against performance standards in the following assessment types:
- Practical Skills (50%)
- Product and Documentation (30%)
- Issues Analysis (20%)

INFORMATION PROCESSING & PUBLISHING (BUSINESS)

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Information Processing and Publishing
Prerequisites: Year 10 IPP/IT/Graphics recommended
Length: 1 semester

Course Description:
- Business Publishing emphasises the development of practical skills in identifying, choosing and using the appropriate computer hardware and software for communicating in a range of contexts. The subject offers users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information
- This course involves the use of information and processing and publishing tools in a business context along with development of product in digital format
- The students consider legal, ethical and social issues related to information processing and publishing
- Students also develop skills of creation, manipulation, storage and use of digital media to solve problems in a personal, community or business context
- The course has a practical basis and emphasises the development of skills and understanding in designing, making and critiquing
- Students learn about the principles of design: i.e. Contrast, Repetition, Alignment and Proximity
- Students learn to follow the designing process to apply principles to produce publications for personal use, paper based publications such as letters, flyers, menus, reports and invitations using MS Word, Publisher and Adobe Photoshop
- The students apply problem-solving, critical thinking and decision-making skills by using the designing process

Assessment:
Assessment for Stage 1 IPP is school based.
To gain Satisfactory Achievement in this subject students will need to demonstrate evidence of their learning against performance standards in the following assessment types:
- Practical Skills (50%)
- Product and Documentation (30%)
- Issues Analysis (20%)

[TECHNOLOGIES]

INFORMATION PROCESSING AND PUBLISHING

INFORMATION PROCESSING & PUBLISHING

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathways: University: Art, Science, Business and TAFE
Prerequisites: This unit has no pre-requisites but Stage 1 Information Processing and Publishing would be an advantage.
Length: 1 year

Course Description:
Information Processing and Publishing exposes students to a combination of Personal, Business & Desktop Publishing documents. The practical skills section focuses on using the Principles of Design in a variety of applications to complete specified information processing or publishing tasks. Tasks may include flyers, leaflets, stationery, posters, brochures & advertising material. The product and documentation focus on following the design process i.e. Investigation, Devising, Producing & Evaluation. For issues and analysis students consider the social, ethical and/or legal issues associated with the use of computer technology for communication within business (i.e. security, confidentiality, privacy, identity theft, occupational health, safety and intellectual property).

Assessment:
School-Based Assessment: Practical Skills (40%); Issues Analysis (15%); Technical & Operational Understanding (15%). External Assessment: Product & Documentation (30%)

DIGITAL TECHNOLOGIES

In Digital Technologies students create practical, innovative solutions to problems of interest. By extracting, interpreting, and modelling real-world data sets, students identify trends to examine sustainable solutions to problems in, for example, business, industry, the environment, and the community. They investigate how potential solutions are influenced by current and projected social, economic, environmental, and ethical considerations, including relevance, originality, appropriateness, and sustainability.

Students use computational thinking skills and strategies to identify, deconstruct, and solve problems. They analyse and evaluate data, test hypotheses, make decisions based on evidence, and create solutions. Through the study of Digital Technology, students are encouraged to take ownership of problems and design, code, validate, and evaluate their solutions. In doing so, they develop and extend their understanding of designing and programming, including basic constructs involved in coding, array processing, and modularisation.

DIGITAL TECHNOLOGIES

Year Level: 10
Prerequisites: Not required, but any Year 8 or 9 IT subjects would be an advantage.
Pathways: Stage 1 Digital Technologies
Length: 1 semester
Special Considerations: This class may be combined with Information Processing and Publishing.

Course Description:
Computational Thinking, Algorithms, Digital systems, Computer Networks, Programming user interfaces and its evaluation based on real world scenarios. Issues related to privacy and cyber security taking into account social contexts and legal responsibilities. Information Technology applied in daily life and future careers.

Assessment:
Assessment components have been selected to provide a balanced assessment of the learning outcomes which consists of practical skills, design and application skills as well as issues analysis.

[TECHNOLOGIES]

DIGITAL TECHNOLOGIES

DIGITAL TECHNOLOGIES

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathway: Stage 2 Information Technologies
Prerequisites: A basic ICT knowledge and Year 9 ICT and / or Year 10 Digital Technologies are preferable.
Length: 1 semester

Focus Areas:
- Focus Area 1: Programming
- Focus Area 2: Advanced Programming
- Focus Area 3: Data Analytics
- Focus Area 4: Exploring Innovations

For more information on focus areas refer to the SACE website.

For a 10-credit program, students study at least two focus areas.

Computational thinking skills are integral to each focus area, together with applying program design skills and exploring innovation. Students analyse patterns and relationships in data sets and/or algorithms and draw conclusions about their usefulness in defining the problem. In developing and applying their program design skills, students take a structured approach to designing an algorithm or digital solution that is appropriate to the context of the problem, and meets the needs of the intended user. They code, test, and evaluate their solutions.

In creating and/or evaluating their solutions, students take into account ethical considerations. These may include, for example, implications of data use and/or digital solutions for individuals, groups, societies, and/or the environment.

Assessment:
Assessment Type 1: Project Skills
Assessment Type 2: Digital Solution
Students complete:
- at least two project skills tasks
- at least one digital solution.

Students must have the opportunity to work collaboratively in at least one assessment.

DIGITAL TECHNOLOGIES

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathway: Computer Science, Information Technology, Computer Systems/Software Engineering.
Prerequisites: Stage 1 Information Technology is highly recommended
Length: 1 year

Course Description:
In Digital Technologies students create practical, innovative solutions to problems of interest. By extracting, interpreting, and modelling real-world data sets, students identify trends and examine sustainable solutions to problems in, for example, business, industry, the environment, and the community. They investigate how potential solutions are influenced by current and projected social, economic, environmental, scientific, and ethical considerations, including relevance, originality, appropriateness, and sustainability.

Innovation in Digital Technologies involves students creating new ways of doing things, generating their own ideas and creating digital solutions to problems of interest. Solutions may take the form of a product, prototype, and/or proof of concept. Students are encouraged to experiment and learn from what does not work as planned, as well as from what does work. Innovation may also include students designing solutions that improve existing processes or products.

Students use computational thinking skills and strategies to identify, deconstruct, and solve problems that are of interest to them. They analyse and evaluate data, test hypotheses, make decisions based on evidence, and create solutions. Through the study of Digital Technologies, students are encouraged to take ownership of problems and design, code, validate, and evaluate their solutions. In doing so, they develop and extend their understanding of designing and programming, including the basic constructs involved in coding, array processing, and modularisation.

At Stage 2, students develop and apply their skills in computational thinking and in program design, and engage in iterative project development, where a product or prototype is designed and tested and/or implemented in stages.
Digital Technologies promotes learning through initiative, collaboration, creativity, and communication, using project- and inquiry-based approaches.

Stage 2 Digital Technologies is a 20-credit subject that consists of the following focus areas:
- Focus area 1: Computational thinking
- Focus area 2: Design and programming
- Focus area 3: Data analytics
- Focus area 4: Iterative project development.

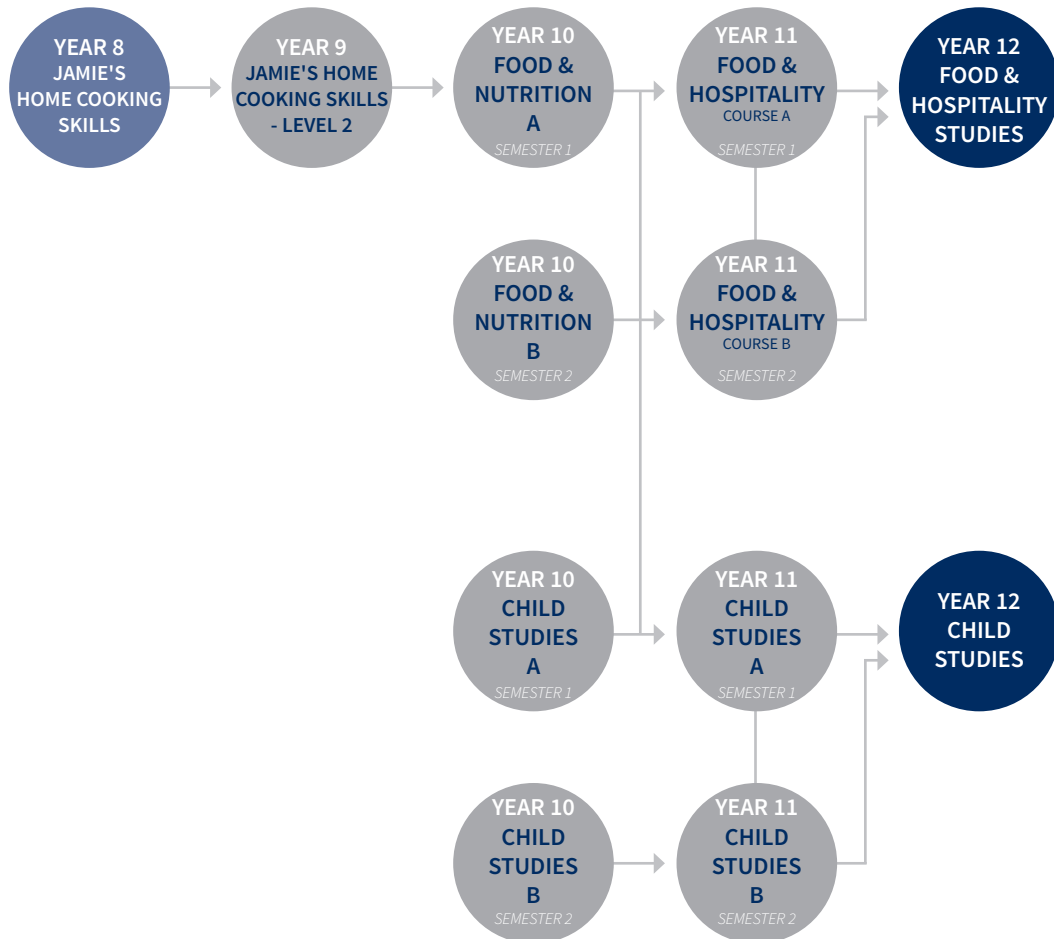The following assessment types enable students to demonstrate their learning in Stage 2 Digital Technologies.

School assessment (70%)
- Assessment Type 1: Project Skills (50%)
- Assessment Type 2: Collaborative Project (20%)
External assessment (30%)
- Assessment Type 3: Individual Digital Solution (30%). Students should provide evidence of their learning through six assessments, including the external assessment component. Students undertake:
- four project skills tasks
- one collaborative project
- one individual digital solution.

Digital Technologies for 2019 is still in draft mode. Updated subject outline is going to be available on SACE Board's website soon.

[TECHNOLOGIES]

FOOD TECHNOLOGIES

YEAR 8
JAMIE'S HOME COOKING SKILLS

YEAR 9
JAMIE'S HOME COOKING SKILLS - LEVEL 2

YEAR 10
FOOD & NUTRITION A
SEMESTER 1

YEAR 11
FOOD & HOSPITALITY
COURSE A
SEMESTER 1

YEAR 12
FOOD & HOSPITALITY STUDIES

YEAR 10
FOOD & NUTRITION B
SEMESTER 2

YEAR 11
FOOD & HOSPITALITY
COURSE B
SEMESTER 2

YEAR 10
CHILD STUDIES A
SEMESTER 1

YEAR 11
CHILD STUDIES A
SEMESTER 1

YEAR 12
CHILD STUDIES

YEAR 10
CHILD STUDIES B
SEMESTER 2

YEAR 11
CHILD STUDIES B
SEMESTER 2

WORKPLACE PRACTICES

YEAR 12
WORKPLACE PRACTICES
FULL YEAR

Available at Year 11 with recommendation

[FOOD TECHNOLOGY]

FOOD TECHNOLOGY

FOOD & NUTRITION A

Year Level: 10
Pathways: This subject provides an excellent grounding for students wishing to undertake Food and Hospitality subjects at Stage 1 and 2 levels.
Prerequisites: It is beneficial for students to previously have satisfactorily completed a unit of Year 8 and/or Year 9 Home Economics.
Length: 1 semester (Semester 1)

Course Description: In this topic students take an introduction into all areas of food production. Units covered consist of (but not limited to); hygiene & safety procedures in the kitchen, healthy eating models & Australian Dietary Guidelines, cooking terminology, planning basic meals (food for special occasions), labelling & food additives, basic cooking skills, food preparation & packaging.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments, and is weighted as: Practical skills (70%) and a theory component (30%).

Additional Information: Cost: Students will need to supply certain ingredients for practical lessons and students must bring a container to practical lessons.

FOOD & NUTRITION B

Year Level: 10
Pathways: This subject provides an excellent grounding for students wishing to undertake Food and Hospitality subjects at Stage 1 and 2 levels.
Prerequisites: It is beneficial for students to previously have satisfactorily completed a unit of Year 8 and/or Year 9 Home Economics.
Length: 1 semester (Semester 2)

Course Description: In this subject students explore the requirements for planning a family meal. The course explores food safety, hygiene and spoilage, the nutritional needs across all age groups, dietary requirements, and food for special occasions, cultural influences and time management skills. Practicals will consist of cooking a range of different foods and embeds investigative theory work in healthy eating patterns, nutrients, and dietary guidelines, multicultural food techniques, raising agents, baked foods and pastries.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments, and is weighted as: Practical skills and investigations (60%) and a theory component (40%).

Additional Information: Closed in shoes must be worn, hair must be tied back and students must bring a container to practical lessons. Cost: Students will be required to bring food for practical lessons. Students may also undertake an excursion.

FOOD & HOSPITALITY A & B

Year Level: 11 (Stage 1)
SACE Credits: 10 per semester
Prerequisites: Satisfactory achievement in Year 10
Length: 1 semester or 1 year (A-Sem 1; B-Sem 2)

Course Description: Students focus on the dynamic nature of the food and hospitality industry. They develop an understanding of contemporary approaches & issues related to food and hospitality. Students work independently and collaboratively. They develop skills and safe work practices in the preparation, storage and handling of food, complying with current health and safety legislation. Students investigate and debate contemporary food and hospitality issues and current management practices. Students will complete five summative practicals: Food, the Individual & the Family; Local & Global Issues in Food & Hospitality; Trends in Food & Culture; Food & Safety; Food and Hospitality Careers. Students examine the factors that influence people's food choices and the health implications.

Assessment: Students demonstrate evidence of their learning through practical tasks, group activities and investigations.

Additional Information: This course is offered as either a single semester or full year subject. Closed in shoes must be worn, hair must be tied back and students must bring a container to all practical lessons. Students will need to supply certain ingredients for practical lessons. Students may also undertake an excursion.

FOOD & HOSPITALITY STUDIES

Year Level: 12 (Stage 2)   **SACE Credits:** 20
Prerequisites: Satisfactory Achievement in Stage 1 Food and Hospitality is recommended.
Length: 1 year
Course Description: Students focus on the impact of the food and hospitality industry on Australian society and examine the contemporary and changing nature of the industry. Students develop relevant knowledge and skills as consumers and/ or industry workers. Students will complete six summative practicals: Engineered Food; Summer Picnic Hamper; Exotic and Creative Ingredients; Pasta Product; Baking and Decorating; Catering Enterprise.

Assessment: Students demonstrate evidence of their learning through: School-Based Assessment, Practical Activity - 50% (two written components and one practical assessment), Group Activity - 20%. External Assessment, Investigation - 30%.

Additional Information: Students will need to supply certain ingredients for the practical lessons. Students will be invoiced for specific resources relating to assessment tasks. Information regarding cost will be communicated throughout the year. Students may also undertake an excursion.

[FOOD TECHNOLOGY]

FOOD TECHNOLOGY

ACADEMY OF HOSPITALITY (CERTIFICATE II)

Year Level: Stage 1 (available to Year 9, 10 & 11 Students)
SACE Credits: Minimum 20
Pathways: Employment, further TAFE study at Certificate III
Prerequisites: No prerequisites.
Length: Year 9: 1 semester or 1 year
Year 10: 1 semester or 1 year
Year 11: 1 Semester or 1 Year

Course Description:
The full Certificate II will take two years to complete. Sudents are able to achieve some units of compentency if a semester only is completed. Undertaking this course allows students to experience a range of
routine hospitality work activities. The Certificate II qualification provides individuals with introductory knowledge and skills for initial work, community involvement and further learning. These skills are extended in Certificate II where students will complete all competencies by participating in a range of activities including group and individual tasks relevant to industry standard learning. All learning tasks will be performed in a variety of locations and modes including the Sugarloaf Café at Tenison Woods College where the students are able experience industry standard learning.
Participation in a minimum number of industry reflective hours and volunteering at recognised functions is mandatory for competencies to be achieved in this course.

Assessment:
Certificate II Hospitality is skills based and requires students to achieve specific Hospitality competencies. Training provided through an auspicing agreement with AIET.

Year 1:
- Work effectively with others
- Source and use information on the hospitality industry
- Interact with customers
- Show Social and Cultural sensitivity
- Use Hospitality skills effectively
- Use hygenic practices for food safety
- Participate in safe work practices
- Maintain the quality of perishable items
- Prepare and present sandwiches
- Prepare and present simple dishes

Year 2:
- Prepare and serve espresso coffee
- Prepare and serve non-alcoholic beverages
- Serve food and beverages
- Provide advice on food
- Process financial transaction

Cost:
$225 per year for course and training materials.
$65 Uniform Cost fee which becomes the property of the student (this is an approximate cost and will be adjusted accordingly). Some second hand uniforms may be available to purchase. Covered leather school shoes or safety boots are also manditory. Excursion costs as required.

CHILD STUDIES

CHILD STUDIES A

Year Level: 10   **SACE Credits:** N/A
Pathways: Stage 1 & 2 Child Studies
Prerequisites: Not required
Length: 1 semester (Semester 1)

Course Description: In this subject students will complete the following topics: Action Plans & Evaluations; Pregnancy & Childbirth; Childhood Health, Nutrition and Safety; Toddler Nutrition & Food Practical; Construct a Cot Quilt; and Construct a Busy Book.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments.

Additional Information: Cost: Students will need to supply their own materials for the quilt and busy book.

CHILD STUDIES B

Year Level: 10
SACE Credits: N/A
Pathways: Stage 1 & 2 Child Studies
Prerequisites: Preferably completed Child Studies A
Length: 1 semester (Semester 2)

Course Description: Students will complete the following topics: Action Plans & Evaluations; Growth & Development (social, physical, emotional, cognitive, language); Play & Its Importance; ELCC Observation; Construct a Child's Outfit.

Assessment: Assessment will include practical tasks & theory assignments.

Additional Information: Cost: Students will need to supply their own materials for the child's outfit.

[WORKPLACE PRACTICES]

CHILD STUDIES A

Year Level: 11 (Stage 1) **SACE Credits:** 10 credits
Pathways: Stage 2 Child Studies
Prerequisites: Satisfactory Achievement in Year 10 Child Studies and Year 10 Food and Nutrition
Length: 1 semester (Semester 1)

Course Description: Students examine the period of childhood from conception to eight years. This subject is also beneficial for students wishing to continue Child Studies in Stage 2. Students will complete the following topics: Contemporary Childhood Issues; Diet & Pregnancy; Healthy Canteens; Child Safety.

Assessment: Students demonstrate evidence of their learning through action plans/practical/evaluations, research/practical/evaluations, investigation and group activity.

Additional Information: Students will be required to bring food and fabrics for practical lessons.

CHILD STUDIES B

Year Level: 11 (Stage 1) **SACE Credits:** 10 credits
Pathways: Stage 2 Child Studies
Prerequisites: Preferably completed Child Studies A
Length: 1 semester (Semester 2)

Course Description: In this subject students will examine the period of childhood from conception to eight years. This subject will be beneficial if wishing to complete Stage 2 Child Studies. Students will complete the following topics: Children's Services; Child Development; Childhood Obesity; and, Planning a Children's Party.

Assessment: Students will demonstrate evidence of their learning through action plans/practical/evaluations, research/practical/evaluations, investigation and group activity.

Additional Information: Students will be required to bring food and fabrics for practical lessons.

CHILD STUDIES

Year Level: 12 (Stage 2)
SACE Credits: 20
Prerequisites: Satisfactory Achievement in Stage 1 Child Studies
Length: 1 year

Course Description:
The Stage 2 subject focuses on children's growth and development from conception to eight years. Students study the following topics: Pregnancy and Diet; Children's Literature; Children's Toys; Media Impact on Eating Habits; Inclusive Education (Learning Difficulties); Foods From Around The World.

Assessment:
Students demonstrate evidence of their learning through the following assessment types: School-Based Assessment - Practical Activities (research/practical/evaluation & action plan/practical/evaluation - 50%). Group Activity - 20%. External Assessment - Investigation 30%.

Additional Information:
Students will be required to bring food or fabrics for practicals.

WORKPLACE PRACTICES

Year Level: 11 or 12 (Stage 2)
SACE Credits: 20
Pathways: TAFE, apprenticeship or traineeship, employment.
Prerequisites: Not required
Length: 1 year

Course Description:
Students develop knowledge, skills, and understanding of the nature, type and structure of the workplace. They undertake negotiated topics designed for their needs, interests, and aspirations to gain knowledge of issues particularly relevant to their working environment or aspirations. Students can undertake vocational education and/or training (VET) and develop and reflect on their capabilities, interests, and aspirations.
Students undertake three or more topics such as The Changing Nature of Work, Industrial Relations and Finding Employment and Vocational Learning and/ or VET.

Assessment:
The following assessment types enable students to demonstrate their learning through the following assessment types:

School-based Assessment (70%)
• Folio
• Performance (VET or workplace performance)
• Reflection

External Assessment (30%)
• Investigation

ENGLISH

"*The* words of one's mouth are deep waters, the spring of wisdom, a running *Brook.*"

Proverbs 18:4

TENISON WOODS COLLEGE

2020

CURRICULUM
YEAR 10-12

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CONTENT STRANDS: LITERATURE • LITERACY • LANGUAGE