



# Mobile Tech School Program Offerings 2024

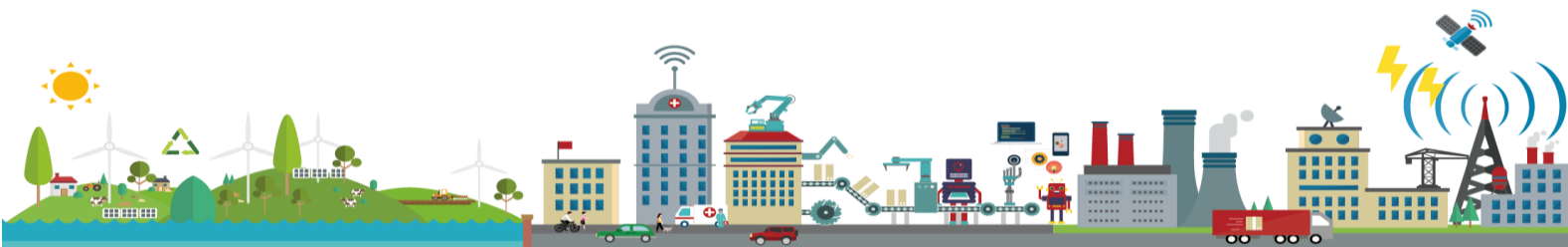


As we move into 2024, and the Gippsland Tech School continues to work with partner schools in Wellington and East Gippsland shires, we are excited to release our program offerings for the year. These programs reflect the curriculum, as co-designed with our partner schools, as well as new programs we believe will be important for students' futures. A huge amount of thanks goes to all the teachers who have helped us with this development. Our experiences to date, have helped to shape our curriculum design and we will continue to increase our focus on providing the best learning experience possible for students in the programs we offer. If you are needing customisation within any of our offered programs, or have a suggestion for future program development, please contact our Mobile Tech School Administration Officer, Michelle Colwell: [mcolwell@gippslandtechschool.vic.edu.au](mailto:mcolwell@gippslandtechschool.vic.edu.au)



## Current Program

Year 7 – 8	<p><b><u>Digital Art – Making Movies (A,B,C,D)</u></b> Using a range of film and sound technologies, students will be challenged to harness their creativity to create their own short film and soundtrack.</p>
	<p><b><u>Everyday Maths (A,B)</u></b> Students will investigate everyday mathematical principles in a range of practical activities and participate in experiments to collect and analyse data from everyday tasks.</p>
	<p><b><u>Hands on Science(A,B)</u></b> Students explore how technology is influencing Space Science and Exploration, learn about the solar system and complete experiments with light, using a variety of lenses and prisms.</p>
	<p><b><u>Industry Tech Taster (A,B)</u></b> Students will learn about how technology is changing the world of work and why this matters to them. They will undertake activities that will expose them to industry changing technologies and new ways of problem solving.</p>
	<p><b><u>Sustainable Futures(A,B)</u></b> Students will be introduced to different types of renewable energy and investigate the advantages and disadvantages of each. They will conduct experiments using solar, wind, and hydrogen energy, expanding their knowledge of energy types and energy conversions.</p>
Year 9 - 10	<p><b><u>Digital Art – Making Movies (A,B,C,D)</u></b> Using a range of film and sound technologies, students will be challenged to harness their creativity to create their own short film and soundtrack.</p>
	<p><b><u>Everyday Maths (C,D)</u></b> Students will further develop and investigate everyday mathematical principles in a range of practical activities and participate in experiments to collect and analyse data from everyday tasks.</p>
	<p><b><u>Sports Science (A,B,C,D)</u></b> The impact of advancing technology and innovation is changing how we train and play sport. In this program, students will explore how science and technology are impacting the sports and fitness industries. Through hands on activities, students will experience new ways to exercise and assess performance and understand the impact of new and developing technology on sport and exercise.</p>
	<p><b><u>Sustainable Futures(C,D)</u></b> Students will investigate the design features of energy efficient building materials and conduct experiments to determine the most appropriate materials to use that embrace energy saving practices.</p>
VCE	<p><b><u>Physics(A,B)</u></b> This program explores topics in Physics for year 10 – VCE students.  <b>Part A - The wave nature of light:</b> Students will conduct experiments, collect, and analyse data by recreating Thomas Young's famous double slit experiment.  <b>Part B - Kinematics:</b> Students will investigate the motion of a cart along an inclined track to gain an understanding of Newtons Laws and the relationship between parameters such as displacement, velocity, and acceleration.</p>





## New Programs (available from Term 2 in addition to existing)

Year 7 – 8	<p><b><u>3D Modelling and Design</u></b>          Students will use the design thinking process to create a piece of digital art using virtual sculpting or virtual painting mediums that meet the requirements of their "client"</p>
	<p><b><u>Cybersafety</u></b>          Students will investigate the importance of secure passwords/passphrases, how to create them, and why they should be changed regularly. They will also understand their online 'brand' and the importance of protecting this with regards to future employment with the knowledge that once something is online, it is online forever. Understanding the importance of managing personal data online and tools and techniques to stay protected online will also be covered through the program.</p>
	<p><b><u>Digital Skills in Agriculture (A)</u></b>          Students will be introduced to the use of sensor technologies in Agriculture and will create and test simple sensors in an on-line platform.</p>
Year 9 - 10	<p><b><u>AI Art Program</u></b>          Students will discuss the ethics of AI in art and be introduced to how AI works. Students will be given the opportunity to safely experiment whilst creating their own piece of AI art.</p>
	<p><b><u>3D Modelling and Design</u></b>          Students will use the design thinking process to create a piece of digital art using virtual sculpting or virtual painting mediums that meet the requirements of their "client"</p>
	<p><b><u>Cybersafety</u></b>          Students will investigate the importance of secure passwords/passphrases, how to create them, and why they should be changed regularly. They will also understand their online 'brand' and the importance of protecting this with regards to future employment with the knowledge that once something is online, it is online forever. Understanding the importance of managing personal data online and tools and techniques to stay protected online will also be covered through the program.</p>
	<p><b><u>Digital Skills in Agriculture (B)</u></b>          Students will be introduced to the use of sensor technologies in Agriculture and will create and test complex sensors in an on-line platform.</p>





# Digital Art – Making Movies

<b>INDUSTRY FOCUS AREA:</b>	Advanced Manufacturing
<b>VICTORIAN CURRICULUM LINKS:</b>	Digital Technologies, Drama, English, Media Arts, Music, and Visual Arts
<b>TECHNOLOGY USED:</b>	Stop Motion and iMovie software, iPads, Garageband software, Lego and design materials
<b>YEAR LEVEL:</b>	7 – 10
<b>DURATION:</b>	2 – 5 hours
<b>CLASS SIZE</b>	24

## Introduction

The link between art and technology is not always clear. There are many varied career paths available for creatives in technology centric fields and a diverse range of creative industries that use advanced technologies to achieve outcomes. Students are often unaware these careers exist, and what skill sets and education are required to excel in the fields. This program hopes to start addressing that.

## Program Summary

Students will be challenged to harness their creativity in this program as they create their own original short film and soundtrack.

Students use media technologies and extend the use of media elements such as sound, movement, and lighting.

Students will use a range of film and sound technologies as they explore planning, composition, and creation of short films.

## Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Digital Art - A	1-2 hours	<ul style="list-style-type: none"> <li>Create a short animation or film clip using Stop Motion software on iPad</li> </ul>
Digital Art - B	Additional 1 hour	<ul style="list-style-type: none"> <li>Edit animation or film clip using iMovie and Stop Motion software on iPad</li> </ul>
Digital Art - C	Additional 1 hour	<ul style="list-style-type: none"> <li>Investigate the use of digital audio techniques – composing, recording, arranging, mixing, and mastering</li> </ul>
Digital Art - D	Additional 1 hour	<ul style="list-style-type: none"> <li>Create a short musical piece as a soundtrack for their animation or film clip</li> <li>Present their piece to an audience</li> </ul>
<p><b>NOTE:</b> C and D sessions can be run on subsequent days / visits to better fit with individual school timetabling if desired.</p>		

## Career Links:

Web Designer, Film and Video Editor, Industrial Designer, Multimedia Artist, Animator, Medical Illustrator



# Everyday Maths

<b>INDUSTRY FOCUS AREA:</b>	All
<b>VICTORIAN CURRICULUM LINKS:</b>	Mathematics, Personal & Social Capability, Critical & Creating Thinking, Design and Technologies, Music
<b>TECHNOLOGY USED:</b>	Jump mats, Speed Gates, iPads, Numbers, Garage Band software (tone generating) and Physics Toolbox software (tone detecting)
<b>YEAR LEVEL:</b>	7 – 8 (A,B), 9-10 (C,D)
<b>DURATION:</b>	1 hour
<b>CLASS SIZE</b>	28

## Introduction

Mathematics is not just an abstract activity but is present in everyday activities and is a useful tool to understand the world around us. Mathematics is everywhere – it can be used to analyse data, identify, and predict patterns, and is a vital tool in developing problem-solving skills. It is an indispensable tool in many professions – engineers and scientists could not operate without it. It is important for chefs, chemists, builders, accountants, and nearly every profession one could imagine.

## Program Summary

Students will investigate mathematical principles in a range of practical activities. They will partake in experiments of collecting and analysing data. Some activities will involve sports equipment.

## Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Everyday Maths - A	1 hour	<ul style="list-style-type: none"> <li>Use a jump mat to determine the relationship between time of flight and height jumped</li> <li>Use a spreadsheet on an iPad to perform multiple repetitive calculations on flight time data collected during the class</li> <li>Participate in short practical activities / brain teasers that explore the concept of gravity and problem solving from different perspectives.</li> </ul>
Everyday Maths - B	1 hour	<ul style="list-style-type: none"> <li>Use speed gates to investigate the relationships between distance and speed</li> <li>Use a spreadsheet on an iPad to perform multiple repetitive calculations on run through data collected during the class</li> <li>Participate in short practical activities / brain teasers that explore the concept of infinity</li> </ul>
Everyday Maths - C	1 hour	<ul style="list-style-type: none"> <li>Pythagorus' Theorem will be demonstrated by manipulating 2D shapes created by a Laser Cutter.</li> <li>Students will work as a team to solve a puzzle that requires matching mathematical results of different equations to complete.</li> </ul>
Everyday Maths - D	1 hour	<ul style="list-style-type: none"> <li>Use Garage Band software on iPad to explore the relationship between notes in a music scale and frequency.</li> <li>Participate in short practical activities that explore the concept of exponential growth.</li> </ul>
<p><b>NOTE:</b> Each session can be run independently of the others if required. A, B and D programs can be extended if required to explore more powerful functions within spreadsheets.</p>		

## Career Links:

Artisans–(Machine operators, electricians, carpenters, chefs etc) Designers–(Architects, draftspersons) Engineers–(Civil, construction, electrical, mechanical) Scientists–(Chemists, physicists, biologists, sports scientists, environmental scientists) Professionals\_(Accountants, sports coaches, health care etc.)



# Hands on Science

- INDUSTRY FOCUS AREA:** Space Science, Engineering,
- VICTORIAN CURRICULUM LINKS:** Science, Digital Technologies, Personal and Social Capability, Critical and Creative Thinking
- TECHNOLOGY USED:** Virtual reality, iPads, Optics Equipment
- YEAR LEVEL:** 7 - 8
- DURATION:** 1 – 2 hours
- CLASS SIZE** 20\*

## Introduction

Science allows us to answer interesting and important questions about the biological, physical, and technological world. Science allows us to make sense of our world by exploring the unknown. Science challenges us to investigate universal mysteries, make predictions and solve problems. Scientific knowledge is contestable and is revised, refined, and extended as new evidence arises. Hands on Science provides opportunities for students to understand important concepts and processes. Hands on Science introduces students to the practices used to develop scientific knowledge, the contribution of science to our culture and society, and its applications in our lives. Possessing such skills allows students to make informed decisions about local, national, and global issues and to pursue science-related careers if they elect to.

## Program Summary

This program will expose students to careers in Science and plant the seed for a future career in STEM. Students will learn about the unique position of Earth in the solar system and consider the use of mixed realities in learning about Space and training astronauts. They will learn about the solar system and do experiments with light.

### Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Hands on Science - A	1 hour	<ul style="list-style-type: none"> <li>Use headsets to explore Space virtual reality (VR) experiences</li> <li><b>*Maximum class size is due to VR headset numbers (20).</b></li> </ul>
Hands on Science - B	1 hour	<ul style="list-style-type: none"> <li>Use an optics kit to understand the principles of light</li> </ul>

### Career Links:

Space Science, Engineering, Robotics, Computing, Space Medicine, Communications.



# Industry Tech Taster

<b>INDUSTRY FOCUS AREA:</b>	Advanced Manufacturing, Food & Fibre, Health
<b>VICTORIAN CURRICULUM LINKS:</b>	Digital Technologies, Personal and Social Capability, Critical and Creative Thinking
<b>TECHNOLOGY USED:</b>	Virtual reality – Oculus Quest, robots, iPads
<b>YEAR LEVEL:</b>	7 - 8
<b>DURATION:</b>	1 – 2 hours
<b>CLASS SIZE</b>	20*

## Introduction

Technology is a disruptive force which has always led to changes in the way that people work and the types of jobs that are in demand. This change is happening more and more rapidly with the increased pace of technological development. We have seen changing technologies and a reduction in traditional industries have a dramatic impact on Gippsland. This means that today's students need to develop skills that will allow them to be adaptable and to meet unforeseen challenges and opportunities in their lives. They also need to be open to new experiences and to understand how the world of work is changing around them.

## Program Summary

The program will begin with students learning about how the world of work is changing and the skills that will be most important for them as they move into the workforce. Students will then rotate through two activities which will expose them to industry changing technologies and new ways of problem solving. Students will collaboratively automate robots in a navigational challenge, and experience how digital realities are being used in workplaces.

## Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Industry Tech Taster - A	0.5 -1 hour	<ul style="list-style-type: none"> <li>Use headsets to explore various virtual reality (VR) experiences</li> </ul>
Industry Tech Taster - B	0.5 - 1 hour	<ul style="list-style-type: none"> <li>Program / code robots to solve real world problems</li> </ul>
<p><b>NOTE:</b> Each session can be run independently of the others if required, or Industry Tech Taster A and B can be combined into one longer session, by splitting the class in two and swapping activities half way through.</p> <p><b>*Maximum class size is due to VR headset numbers (20). Larger class sizes can be accommodated by splitting sessions. .</b></p>		

## Career Links:

Designers: Civil Engineer, Product Tester, Electrical Engineer Technologists: Programmer, Software Engineer, ICT Analyst



## Sustainable Futures

<b>INDUSTRY FOCUS AREA:</b>	New Energy, Advanced Manufacturing
<b>VICTORIAN CURRICULUM LINKS:</b>	Science, Digital Technologies, Personal & Social Capability, Critical & Creating Thinking
<b>TECHNOLOGY USED:</b>	Renewable energy kits – wind turbines and solar panels, Hydrogen electrolysis and fuel cells, infra-red thermal imaging cameras, STELR sustainable housing kits, iPads.
<b>YEAR LEVEL:</b>	7 – 8 (A,B), 9-10 (C,D)
<b>DURATION:</b>	1 – 4 hours
<b>CLASS SIZE</b>	24

## Introduction

Sustainability can be defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. A key part of a sustainable future is building more resource efficient homes. Using good design principles can save energy, water, and money while creating a more enjoyable and comfortable home. There is also worldwide pressure to reduce CO<sub>2</sub> emissions and move towards renewable energy sources. The Victorian government has set a target of 25% renewable energy production by 2020, increasing to 40% by 2025<sup>1</sup>. New industries are proposed for the Gippsland region including OSMI wind farms, solar farms, Star of the South offshore wind turbines, and the Marinus electricity link between Tasmania and Victoria.

## Program Summary

Students will be introduced to a variety of different types of renewable energy. They will investigate the advantages and disadvantages of solar, wind, and hydrogen energy, conducting experiments with each energy type. Students will expand on their knowledge of energy types and energy conversions. Students will look at energy efficient building design. They will be introduced to principles of heat flow and energy conversion. They will investigate the insulation properties of various building materials and the use of different glazing treatments. They will design and build a model house.

Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Sustainable Futures - A	1 hour	<ul style="list-style-type: none"> <li>Using a specialised kit, generate hydrogen gas from the hydrolysis of water. Pass hydrogen gas through a fuel cell, to power a small vehicle.</li> </ul>
Sustainable Futures - B	1 hour	<ul style="list-style-type: none"> <li>Experiment with various blade designs / configurations to build a wind turbine that produces the most energy.</li> </ul>
Sustainable Futures - - C	1 hour	<ul style="list-style-type: none"> <li>Experiment with different glazing treatments and insulation materials using a model house to determine the most suitable materials for various applications.</li> </ul>
Sustainable Futures - D	1 hour	<ul style="list-style-type: none"> <li>Use infra red cameras to determine sources of heat loss in buildings</li> <li>Apply design principles to select the most appropriate building materials and site orientation for an energy efficient building.</li> </ul>

## Career Links:

Artisans: Machinery operators, builders, electricians, carpenters  
 Designers: Architects, product testers, interior designers, draftspersons  
 Engineers: Civil, construction, electrical

<sup>1</sup><https://www.energy.vic.gov.au/renewable-energy/victorias-renewable-energy-targets>





# Sports Science

<b>INDUSTRY FOCUS AREA:</b>	Sports Science, Exercise and Health sciences
<b>VICTORIAN CURRICULUM LINKS:</b>	Health and Physical Education, Digital Systems, VCE PE Unit 1, Area of Study 1, Unit 3, Area of Study 1 VCE PE UNIT 1, Area of Study 2 UNIT 3 Area of Study 2
<b>TECHNOLOGY USED:</b>	Jump mats, Speed gates, iPads, Blazepods, Cosmed K5 Portable VO2 Max Testing Equipment, Biomechanical Analysis Software, Heart Rate Monitors, Virtual and Mixed Reality.
<b>YEAR LEVEL:</b>	9 – 10 (A,B,C) and VCE(D)
<b>DURATION:</b>	1 – 4 hours
<b>CLASS SIZE</b>	26

## Introduction

The impact of advancing technology and innovation is changing how we train and play sport. In this program, students will explore how science and technology are impacting the sports and fitness industries. Through hands on activities, students will experience new ways to exercise and assess performance and understand the impact of new and developing technology on sport and exercise.

Understanding how the cardiovascular and respiratory systems work together to meet the demands of the body during exercise is critical to evaluating fitness and performance, particularly at elite levels of sport. The VO2 max test gives accurate information on physiological changes during exercise and is an effective way to test cardiorespiratory fitness.

## Program Summary

Students will explore how science and technology are impacting the sports and fitness industries. Through hands on activities, students will experience new ways to exercise and assess performance and understand the impact of new and developing technology on sport and exercise. This program is designed as an introduction to new technologies relating to sport and exercise, and to increase awareness of careers in Sports Science.

In this program, students will undertake or observe a VO2 max test using industry standard testing equipment. Students will evaluate the data obtained by the test to understand the changes that occur in the body during intense exercise, and how this information can be useful to athletes. Students will observe the cardiovascular and respiratory systems in virtual and mixed realities to see gas exchange in action and view blood flow around the body.



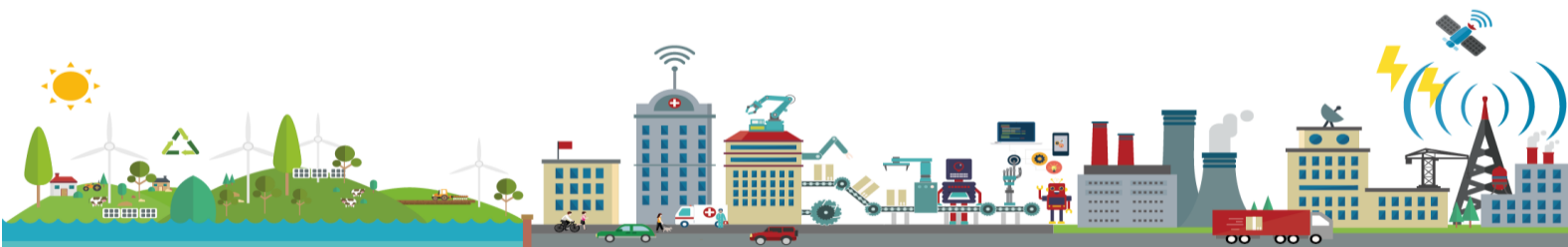


Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Sports Science - A	1 hour	<ul style="list-style-type: none"> <li>• Use sensors to assess speed and jump height</li> <li>• Participate in activities to assess speed, agility, and decision-making under simple and complex scenarios</li> </ul>
Sports Science - B	1 hour	<ul style="list-style-type: none"> <li>• Complete a workout in virtual reality</li> </ul>
Sports Science – C	1 hour	<ul style="list-style-type: none"> <li>• Investigate the biomechanics of human movement using advanced sensors and interpret data using analysis software</li> </ul>
Sports Science – D*	1 hour	<ul style="list-style-type: none"> <li>• Test cardiorespiratory fitness using clinical VO2 max testing equipment*</li> </ul>
<p><b>NOTE:</b> *Sports Science D requires participants to complete a <b>compulsory</b> Parental Consent and Medical Release Form prior to commencement. In a one-hour session, approximately 3-4 students can be processed through the VO2 max equipment. It is recommended that Sports Science A be run in conjunction with Sports Science D.</p>		

### Career Links:

Health Professionals, Sports Scientists, Exercise Professionals, Data Analysts, Sport Technologists, Physiotherapist, Sports Medical Professionals, Exercise Physiologist,



# Physics

<b>INDUSTRY FOCUS AREA:</b>	All
<b>VICTORIAN CURRICULUM LINKS:</b>	VCE Physics, Specialist Maths
<b>TECHNOLOGY USED:</b>	Waves on a wire kit, lasers, optics kits, gravity carts and tracks, iPads and associated software
<b>YEAR LEVEL:</b>	10 - VCE
<b>DURATION:</b>	1 – 2 hours
<b>CLASS SIZE</b>	20

## Introduction

What is light? This question has baffled physicists and scientists for hundreds of years. In the 19<sup>th</sup> century light was described as a wave travelling through a medium. Thomas Young's famous double slit experiment provided strong confirmation of the wave model of light. In 1905 Einstein proposed that light consisted of small quanta of energy, later named photons. These two seemingly incompatible models are still used to describe the various characteristics of light and is often referred to as wave/particle duality.

## Program Summary

In this program, students will investigate one of the following:

### What is Light?

Students will investigate the properties of waves on a string. They will take measurements and create standing waves in a wire, modifying the arrangement to produce various harmonic oscillations. Students will then re-create Young's experiment and determine the width of a single hair by measuring the separation of lines in an interference pattern.

### Kinematics

Students will investigate the motion of a cart along an inclined track to gain an understanding of Newton's Laws and the relationship between parameters such as displacement, velocity, and acceleration.

Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Physics - A	1 hour	<ul style="list-style-type: none"> <li>Investigate properties of waves on a string.</li> <li>Measuring width of human hair by measuring the separation of lines in an interference pattern.</li> </ul>
Physics - B	1 hour	<ul style="list-style-type: none"> <li>Investigate motion of a cart on an inclined track to gain an understanding of Newton's Laws and the relationship between displacement, velocity, and acceleration.</li> </ul>

## Career Links:

Engineers: Civil, construction, electrical, mechanical  
Scientists: Chemists, physicists, biologists, sports scientists, environmental scientists, medical





# 3D Modelling and Design

- INDUSTRY FOCUS AREA:** Advanced Manufacturing
- VICTORIAN CURRICULUM LINKS:** Mathematics, Design and Digital Technologies, Critical & Creative Thinking, and Digital Technologies
- TECHNOLOGY USED:** iPads, Lego, Virtual reality – Oculus Quest (virtual painting and sculpting software)
- YEAR LEVEL:** 7 - 10
- DURATION:** 2 hours
- CLASS SIZE** 20

## Introduction

The world of digital design is opening up to students due to new technologies and user-friendly software. Students interested in design, artists, architects or engineers, will need to understand 3D modelling software to get ahead. The ideas you have won't go far without the right tools. There's nothing more frustrating than having a great idea that you can't turn into a model. 3D models engage your audience and help them see your ideas and designs. Affordable design mediums allow your ideas and designs to be translated into virtual models).

## Program Summary

In this program, students will be presented information from a 'client' who requires a solution to a need. They will use the design thinking process to create a piece that could be used to solve the practical problem that they have identified. They will sketch and model their solution, adjusting as necessary. They will then design and "manufacture" their product using the virtual sculpting or painting software.

Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
3D Modelling and Design-A	2 hours	<ul style="list-style-type: none"> <li>• Introduction of Design Thinking Process</li> <li>• Brainstorming solution to client "problem"</li> <li>• 2D Design of 3D item</li> <li>• Virtual Design software tutorial</li> <li>• Virtual Design of 3D item</li> </ul>

## Career Links:

Designers, Architects, Engineers, Technologists, Artisans.



## Cyber Safety

<b>INDUSTRY FOCUS AREA:</b>	All
<b>VICTORIAN CURRICULUM LINKS:</b>	Ethical Capability, Critical and Creative Thinking, Personal and Social Capability
<b>TECHNOLOGY USED:</b>	PC, iPad
<b>YEAR LEVEL:</b>	7 - 10
<b>DURATION:</b>	1-4 hrs
<b>MAX STUDENT NUMBERS:</b>	28 (A,B, C) and 18 (D)

## Introduction

Digital technologies have become a ubiquitous part of our lives. We live more and more of our lives online for school, work, and in our personal time. Through the world wide web, we can connect with people from across the world to spread information, play games, and share cat memes. We have the opportunity to be more connected than at any other time through history, creating whole new digital communities in which students can interact. However, with this connection also comes some challenges. While we consciously teach students to look both ways before crossing the road and not to talk to strangers, the same kind of safety advice is often overlooked for these online communities. Students need to understand how to be a positive contributor to these communities and how to keep themselves safe while online.

## Program Summary

Who are you online? Why shouldn't you use the same password for everything? Why does that Nigerian Prince need my help? These are all questions that will be explored through this program. Students will investigate the importance of secure passwords/passphrases, how to create them, and why they should be changed regularly. They will also understand their online brand and the importance of protecting this with regards to future employment with the knowledge that once something is online, it is online forever. Understanding the importance of managing personal data online and tools and techniques to stay protected online will also be covered through the program.

## Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Cyber safety - A	1 hour	<ul style="list-style-type: none"> <li>Students will be given the chance to complete a quiz to help us get to know them</li> <li><b>Terms of Service</b> – students will do a Kahoot on the ToS of popular social media platforms</li> <li>At the end of the activity(s), a reflection of the day's learnings will include tools and techniques to stay protected online</li> <li>Students will participate in a discussion regarding the ethics associated with</li> </ul>



		cybersecurity and on-line presence
Cyber safety - B	1 hour	<b>Secure Your Information</b> Students will undertake a password checking / cracking activity to investigate the importance of secure passwords / passphrases, how to create them and why they should be changed regularly.
Cyber safety - C	1 hour	<b>Digital Reputation</b> Students will participate in an activity where they search on-line for information related to their classmates. This will help them understand their online brand and the importance of protecting this with regards to future employment with the knowledge that once something is online, it is online forever
Cyber safety - D	1 hour	<b>Cyber Safety Escape Room*</b> Students will participate in an activity where their digital information has been compromised. The only way to redeem their digital identity is to utilise the skills learned during the program to "break into" a secure "box" to retrieve the "key" to their success / future.
<p><b>NOTE:</b> The Cyber safety Program is designed to be run in its entirety (A,B,C,D) in one day. However, to fit into the school timetable, it could be modified by breaking into segments.</p> <p>* Cyber safety Escape Room activity is limited to 18 students.</p>		

### Career Links:

These skills apply to all online interactions, in students' school, work, and private lives.



# Digital Skills in Agriculture

**INDUSTRY FOCUS AREA:** Electronics in Agriculture

**VICTORIAN CURRICULUM LINKS:** Critical and Creative Thinking, Digital Technologies, Science

<https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCCCTM040>

<https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD040>

<https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCDTCD041>

<https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCSIS113>

**TECHNOLOGY USED:** iPads, Tinkercad software

**YEAR LEVEL:** 7/8 (A)- 19/10(B)

**DURATION:** 1-2 hours

**CLASS SIZE** 28

## Introduction

Careers in agriculture are not restricted to traditional farmers. With decreased availability of arable land, due to urban sprawl and population growth, there is increasing pressure to grow, feed, and clothe people on a smaller footprint. This program introduces students to technology-based careers in the agricultural and horticultural sectors and encourages them to think of innovative ways to solve problems currently faced by farmers.

## Program Summary

In this program, students will be introduced to the use of sensor technologies in Agriculture and will create and test simple sensors (Years 7-8) or complex sensors (Years 9-10) in an on-line platform.

Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
Digital Skills in Agriculture - A	1-2 hours	<ul style="list-style-type: none"> <li>Students will use Tinkercad software on iPads to create and test simple Agricultural sensors in an on-line platform</li> </ul>
Digital Skills in Agriculture - B	1-2 hours	<ul style="list-style-type: none"> <li>Students will use Tinkercad software on iPads to create and test complex Agricultural sensors in an on-line platform</li> </ul>

## Career Links:

Electronic Engineering Technicians

<https://labourmarketinsights.gov.au/occupation-profile/electronic-engineering-technicians?occupationCode=312412>

Electronics training, jobs, vocation in Australia

<https://www.learn.org.au/about/electronics-training-jobs-vocation-in-australia/>

Engineering and Technical

<https://www.asd.gov.au/careers/im-changing-my-career/engineering-and-technical>



# TECH SCHOOL AI Art Program

<b>INDUSTRY FOCUS AREA:</b>	Advanced Manufacturing
<b>VICTORIAN CURRICULUM LINKS:</b>	Digital Technologies, Visual Arts, Critical and Creative Thinking
<b>TECHNOLOGY USED:</b>	AI, iPad
<b>YEAR LEVEL:</b>	9 - 10
<b>DURATION:</b>	1 hour
<b>CLASS SIZE</b>	28

## Introduction

AI art generation is a dynamic and evolving field that offers students the opportunity to explore the intersection of technology and creativity, grapple with ethical questions, and prepare for future job opportunities in an increasingly AI-driven world. It also fosters critical thinking and interdisciplinary learning, making it a valuable topic of study for students.

## Program Summary

Students will discuss the ethics of AI in art and be introduced to how AI works. Students will be given the opportunity to safely experiment whilst creating their own piece of AI art.

Taking part in this program, students will collaboratively:

Program	Duration of session	Activity completed
AI Art	1 hour	Art and AI Ethics Discussion AI Art Generation
<b>NOTE:</b>		

## Career Links:

Animator, Creative Director, Industrial Designer, Multimedia Artist, Professional Artist, Painter

