

WORKSHOP DESCRIPTIONS

THURSDAY ALL DAY 'Hands on sTEm' WORKSHOPS

TITLE	WORKSHOP DESCRIPTION	PRESENTER/S
<p>Blade Sharpening</p>	<p>Learn how to sharpen and hone your blades and tools to keep them in top condition and allow your students produce higher quality work.</p> <p>Please bring blunt chisels and plane blades, drills, metal and wood lathe tools with you, that you will need sharpening, to work with.</p> <p>You will need to bring your own safety glasses, appropriate clothing and foot wear.</p>	<p>Gerald Harding & Jennifer Harding</p> <p>Limited to 15 participants</p>
<p>Adobe – Online Publication options with</p> <p>Basic video production with Premiere (Workshop) Adobe</p> <p>Animating in Photoshop, Animate and After Effects.</p>	<p>Adobe has a wide range of online publication solutions that are used by teachers and students across to globe to enhance 21st century communication skills. This workshop will start with the simple free tools such as the Adobe Spark products (web based & iOS) and other Adobe mobile apps then move to Adobe Muse and Photoshop.</p> <p>Video is becoming a literacy. The ability to produce a quality video is becoming as important as the ability to write an essay, a report or a creative story. Students who develop skills in video production have a clear communication advantage over other students. Premiere Pro and Premiere Elements are the ultimate multimodal tools as they manipulate images, footage, audio, voice and print. Adobe Premiere Pro is now considered the standard video editing tool in the TV and video production industry. The aim of this workshop is to help teachers develop skills and confidence with simple video capture, editing, publication and promotion with Adobe Clip and Adobe Premiere Pro.</p> <p>The animation workshop will explore ways of practically applying animation theory by producing animations in Photoshop, Animate and After Effects. It will include both basic principles in creating effective animations as well as advanced techniques such as Rotoscoping, Cinemagraphs, and behavioural animations in After Effects.</p> <p>Participants will require a BYOD with After Effects, Photoshop and Adobe Animate installed</p>	<p>Held off site at Adobe</p> <p>Dr Tim Kitchen (Adobe's Senior Education Specialist for APAC)</p> <p>Dr Tim Kitchen (Adobe's Senior Education Specialist for APAC)</p> <p>Jason Carthew</p>
<p>Focus on Engineering Studies –</p>	<p>Once again, an amazing collection of university lecturers and professors will present the different sessions of this course to guide you through the various sections of the</p>	<p>Anne Gardener et.al.</p>

Preliminary	stage 6 course. The three sessions covered include <ul style="list-style-type: none"> • Basic materials – actual topics still TBD • Motors and motor control • Semi conductors and Electronic components. 	
Costume and Prop Design using EVA Foam	See examples of Design and Technology projects that are made at Taree Christian College and find out what was involved in the creation of each item and how each item was made. Pictures can be seen at my website: http://christiancollege.wixsite.com/tcctechnology/extra-curricular-activities In this workshop you will also have the opportunity to look at incorporating costume design into your classroom by designing and making a Steampunk top hat and glasses from EVA Foam.	Ronald Craig Limited to 15 participants.
Introducing digital technologies to your workshop / classroom using Scratch and MBlockly. From VERY basic to robotics.	This course will introduce LilyTiny an Arduino based chip for under \$10, used in eTextiles but can also add a sensor and an LED to a timber project. Learn how to write simple code with Scratch and then take it a step further using MBlockly to develop programs for Arduino / PicAxe and other robot control. It IS easy and can be integrated into existing projects as well as a standalone unit.	Ruth Thompson
Fusion360 the future of CAD	An introduction to the basics of using Fusion 360 by Autodesk. Installation, classroom management, how it can fit some of the digital technologies outcomes of the new syllabus and how you can export to laser and 3D print. The course covers the basics through to generating 2D drawings with annotation, sections and details.	Peter Thompson
CASTING Polyurethanes - Advanced Workshop	A follow on to the Beginner's Workshop is an advanced Polyurethane's workshop. It covers; <ul style="list-style-type: none"> • Manufacturing Techniques & uses of polyurethanes for year 11 & HSC Major Projects along with applications for small production lines and reverse engineering. • Polyurethane ingredients, safe handling & storage techniques. • Properties of polyurethane as a production material and its advantages & disadvantages. • Vacuum chambers and their use in polyurethane casting. • Compound mould design techniques. • Fabricate a compound mould using silicon. • Cast an object from a mould. Additional Cost for materials – \$100.00 per teacher	Ian Phillips of BoatCraft Pacific. Max 10 participants

FRIDAY MORNING WORKSHOPS

TITLE	WORKSHOP DESCRIPTION	PRESENTER/S
<p>Every student thinking, exploring and making. Integrated Stage 4 STEM at The Canobolas Rural Technology High School.</p>	<p>There are many different interpretations of what STEM should look like in schools. The Canobolas Rural Technology High School has implemented a STEM curriculum for all Stage 4 in addition to Science. Mathematics and Technology learning, that supports it rather than substitutes it. This curriculum follows a 10 week units of work that follow a Technology design process, uses scientific investigation for research and analyses and evaluates using mathematic skills. This program was recognised in 2016 at the Public Education Foundation Awards with the Secretary's Commendation for an Outstanding School Initiative. This presentation will cover the development and implementation of this curriculum at Canobolas, with a focus on how your faculty would be able to take the lead in STEM in you school by implementing a similar model within your Technology lessons.</p>	<p>Matt Scott</p>
<p>Industrial Technology Stage 6 The Major Project and Portfolio.</p>	<p>Aimed at the newer or less experienced teacher of Industrial Technology, this workshop will discuss how the Major Project is marked and the importance of the Design, Management and Communication portfolio. Samples of students work will be analysed in relationship to the 'Industrial Technology Major Project Marking Guidelines'.</p>	<p>Glenn Hinson</p>
<p>Engineering Studies HSC exam tips.</p>	<p>Participants should be familiar with the 2016 Engineering Studies HSC Examination and bring a copy of the HSC syllabus with them. Exam technique (specific to an Engineering Studies examination but ,could be applied to other similar style subjects, eg, Physics) – a student approach to how best undertake an Engineering Studies HSC paper. Look at the depth of study required in various dot points in the syllabus. Marking processes/procedures from a Marker's perspective that might help assist a student to better understand and maximize their marks when undertaking an Engineering Studies HSC Paper. General advice to motivate and improve your students marks.</p>	<p>Peter Wakeling</p>
<p>Stage 5 Multimedia course at Killara High School</p>	<p>In this course, Owen will demonstrate how Killara High School successfully run their Stage 5 Industrial Technology - Multimedia course. You will be provided with assessment</p>	<p>Owen Telfer</p>

	tasks, student examples, and course structures.	
Retirement Planning for all State Super members	<p>Understanding your super and making the right financial decisions will help you to achieve a successful retirement.</p> <p>StatePlus (formerly known as State Super Financial Services was created by the STC Trustee (NSW Public Sector Super), now owned by First State Super Scheme.</p> <p>The information sessions include:</p> <ul style="list-style-type: none"> • Your retirement roadmap • Building your nest egg • Accessing your super and tax treatment • Understanding your options- benefits and pension • Transition to retirement and Income streams • Help with an action plan 	Tom Dimovitch, Joe Silva StatePlus
<p>Feel future ready - Take a step towards a better tomorrow.</p> <p>For all First State Super Members</p>	<p>Do you think that retirement is too far off into your future?</p> <p>Super will be one of the largest assets you will ever own and we want to help you make the most of it. Our specialists will guide you through some of the super basics to equip you with the information you need to feel future ready.</p> <p>We'll cover how you can save on fees; balance debt whilst contributing to super; reduce your tax bill and help you find the best investment options available for your risk profile. Our specialist presenters will guide you through these topics to help you understand your options and make informed decisions about your future.</p>	Julie Colls First State Super
A hands-on introduction to physical computing and coding with Arduino and the ThinkerShield.	<p>Physical computing is about building physical interactive systems using Arduino software and hardware to achieve practical tasks, and provide insight into the design and functioning of everyday electronic systems. ThinkerShield is an engaging and proven classroom-ready platform perfect for schools wanting to get started with practical digital technologies learning programs.</p> <p>This workshop covers setting up an Arduino system, and how to write code to capture input data from digital and analogue sensors, and outputs including lights and sound, moving into projects, and where to find quality classroom resources. Suitable for teachers with limited experience with computer coding languages and those looking into equipment options for</p>	<p>Peter Mahony and James Oliver from MAAS (formerly known as the Powerhouse Museum)</p> <p>MAX 12 participants</p>

	<p>establishing a lab.</p> <p>Perfect for Stage 3 STEM, Stage 4 Technology (mandatory), Stage 5 Technology (elective), Cross-curricula STEM/STEAM.</p>	
Spend more time at the Industry Show.	Have more time to chat with the different vendors, who are not running a workshop at that time, to see their range of products and get more information about them.	
Industry Show Workshops.	Join in on one of the 'Hands On Experiences' workshops, with our selected Industry Show Exhibitors.	
Max of 10 participants per workshop.	See the descriptions below so that you can make your choice of workshop	

1. CASTING Polyurethanes for Beginners - Ian Phillips of BoatCraft Pacific.

This workshop is to introduce teachers to Elastomer (rubber) casting techniques that enables students to produce accurate repeatable items. Typical use for elastomers in industry is for TV & stage props, prototyping and accurately reproducing low volume production runs such as engine mounts, bushes & rubber boots. The elastomers are available from gel shoe insole soft to billiard ball hardness.

The workshop will include:

- A brief overview of the range of hardness' available in polyurethanes.
- Polyurethane ingredients, safe handling & storage techniques.
- How to make moulds.
- Casting techniques.
- Mould release agents and their importance.
- Participants casting an item from a 3D printed pattern in an open silicone mould.

Note: Using a 3D printed item to make a mould to cast repeatable items provides participants the insight for taking 3D patterns into a production run.

2. Discover the many ways that you can integrate 3D print and replicator technology in the classroom. - Torstar

This workshop will include a full run through of the Makerbot 3D printer capabilities. Come along to see how easily you can use the printer to unleash creativity with an educational, entertaining and useful 3D printer in a safe environment with no odour emissions, bringing next-generation productivity to your classroom.

The session will provide a full demonstration of the new Replicator +3D Printer, and the new desktop, Makerbot Print, highlighting its functionality and features to show what the software and printer are capable of and how they can be applied within the STEM curriculum.

The applications include downloading readymade projects, scan and design with a particular focus in this session on the ease and simplicity with which 3D print technology can be and is being used throughout classrooms across Australia, downloading projects from the Thingiverse project library via the internet, uploading the project from a USB to your desktop and then how to print the model during the course of workshop.

We can also answer any questions that you may have on 3D print and replicator technology.

BYOD with internet access is optional but not required.

3. 3D Printing and Coding - Coder Factory Academy

Participants will go through two sample projects linked to the NSW syllabus combining 3D printing, electronics and coding - this would be the basis for some ideation with participants on how these projects could be extended.

4. Router Jig Workshop - Steven Somerfield

The workshop will consist of a run through on how to set up and use the guide. A demo on routing a groove, a look at all my models for the scope of the guide. I also have a video of the guide in action with year 10 and 12 students. Each person will receive a 35 page booklet showing all my project ideas that relate to the guide.

5. 3D Printer Demonstration - Gilking School Supplies

Here is a demo sequence that can be performed in an hour to a group of people taking questions during the presentation and or at the end.

- Scenario
- Introduction to the printer and its features
- Printer Operation
- Printer control.
- Print demonstration
- Slicer
- Questions and discussion

6. Laser demonstration - Gilking School Supplies

The Laser session will be:

- Overview of the Laser and how it works – cutting vs engraving
- Overview of software
- Overview of the range of different materials
- Demonstration and interactive session cutting and engraving of various materials and the different application / projects.

7. Micronair

WHS issues associated with dust in workshops and how they can be eliminated or reduced.

8. Rocket to Mars - INTRODUCTION TO PYTHON AND STARLAB - Obelisk Systems

Welcome to the StarLAB workshop! Rover wants to compete in The Challenge but before that can happen it needs to get there. Rover has a rocket and a StarLAB and wants to test how high it can get, and if it will be high enough to reach Mars. Once on Mars, Rover is going to want to see how comfortable it will be and take some pictures for its human friends.

<p>9. OnGuard Safety Training How to setup your Machine Inspections and Maintenance Registers in OnGuard. Q and A – Tricks and shortcuts.</p>
--

FRIDAY AFTERNOON WORKSHOPS

TITLE	WORKSHOP DESCRIPTION	PRESENTER/S
Sharpening of blades and tools.	Missed Thursday's Hands On Course? Here is a brief recap of what happened. Learn how to sharpen and hone your blades and tools to keep them in top condition and allow your students to produce higher quality projects.	Gerald Harding
Travelling STEM Roadshow and other activities from University of Wollongong	Find out about the 12 NSW & ACT Year 7 - 10 STEM and Years 9 & 10 iSTEM prize winning Competitions, the 3 Annual Engineering Studies Days and UOW's Travelling STEM Roadshow. Details will be given on how you can take part and how you can get your students involved in these 3 STEM initiatives.	Bob Wheway
Embedded Technology (eg Raspberry Pi, Arduino) projects for stages 4,5,and 6.	This workshop will focus on the strategic introduction of new technologies while retaining traditional skills and accommodating mixed ability students. The workshop will include: <ul style="list-style-type: none"> • introducing embedded technologies; • evaluation of the offerings of Grok Learning and other relevant classroom resources; • harnessing ebay, Jaycar, Sparkfun, AdaFruit, the local TV repair shop, fellow teachers and parents; • teaching trends and strategies that complement the introduction of new technologies, including Remixing, PBL, flipped classroom, interdisciplinary study and STEAM. 	Tim Scott
Year 12 Industrial Technology - 6 minute video to support the MDP	For the HSC Industrial Technology course students must submit the Major Work and Folio, accompanying the folio and Major work students are also allowed to submit a multimedia video - which does not exceed six minutes of viewing time in total. In this course, you will be shown how to put together a 6 minute video and what information	Owen Telfer

	to include.	
Faculty Finances & Funding	'A guide to getting the best bang for your buck and making the most out of your money.' During this workshop you will be engaged and enthused with ideas and strategies to improve the financial viability of your faculty and subjects. Concepts presented will include- * unit planning & consumable resource management * elective fee policies * equity and communications with colleagues * seeking funding and partnerships And of course, how to 'play the game'.	Steve Delaney
How to teach a basic Integrated STEM Lesson on a budget	In this workshop participants will learn how to structure a basic integrated STEM lesson for the STEM Fundamentals Unit. It will involve a stepped through STEM activity in which the participants will work in teams to solve a problem. Scott will discuss the does and don'ts of utilising a project based learning approach.	Scott Sleep
Spend more time at the Industry Show.	Have more time to chat with the different vendors, who are not running a workshop at that time, to see their range of products and get more information about them.	
Industry Show Workshops.	Join in on one of the 'Hands On Experiences' workshops, with our selected Industry Show Exhibitors.	
Max of 10 participants per workshop.	See the descriptions below so that you can make your choice of workshop.	
<p>1. Clear Coatings using Modern Technology Oils, AQUACOTE & POUR-On-Gloss Dave Giddings of DRIVE Marine Services.</p> <p>During this workshop Teachers will be shown different techniques for finishing timber projects for interior and exterior use. The workshop will include;</p> <ul style="list-style-type: none"> • Pour On Gloss for providing a water Clear high gloss finish that is self levelling. Participants will be shown; <ul style="list-style-type: none"> ○ How to set up work pieces correctly to ensure an even coat over the surface. ○ Preparation, mixing & pouring technique. ○ End up with the perfect finish free of air bubbles. ○ Participants will carry out their own pour on a piece of plywood. • Interior coatings using the water based Aquacote Two Pack Water Based Polyurethane for clear finishing and colours which is much safer to use than solvent based varnishes and Paints. <ul style="list-style-type: none"> ○ Participants will be shown its unique characteristics by coating a piece of timber. ○ Examples of different timbers coated showing the extremely tough finish. ○ Wash the brush & container out in water and how water is its thinners. ○ You will be shown how there is no waste. ○ Come, try and see why. • The long lasting Clear System for Exterior coatings based on sealing the timber with Bote Cote and then applying an extremely tough UV stabilised coating over it. <ul style="list-style-type: none"> ○ How this system densifies soft timber. 		

- Why woodworkers need to seal the timber all over with a High Solids Epoxy for exterior use and bench tops.
- Then overcoat with Clear Aquacote to provide a long lasting finish.

Note: You will be given the opportunity to play with these products and understand their idiosyncrasies and techniques for a perfect finish. Plus why they are modern technology and the advantages in using them. We will also cover some HSC projects students have completed in the past using these products.

2. Discover the many ways that you can integrate 3D print and replicator technology in the classroom. - Torstar

This workshop will include a full run through of the Makerbot 3D printer capabilities. Come along to see how easily you can use the printer to unleash creativity with an educational, entertaining and useful 3D printer in a safe environment with no odour emissions, bringing next-generation productivity to your classroom.

The session will provide a full demonstration of the new Replicator +3D Printer, and the new desktop, Makerbot Print, highlighting its functionality and features to show what the software and printer are capable of and how they can be applied within the STEM curriculum.

The applications include downloading readymade projects, scan and design with a particular focus in this session on the ease and simplicity with which 3D print technology can be and is being used throughout classrooms across Australia, downloading projects from the Thingiverse project library via the internet, uploading the project from a USB to your desktop and then how to print the model during the course of workshop.

We can also answer any questions that you may have on 3D print and replicator technology.

BYOD with internet access is optional but not required.

3. 3D Printing and Coding - Coder Factory Academy

Participants will go through two sample projects linked to the NSW syllabus combining 3D printing, electronics and coding - this would be the basis for some ideation with participants on how these projects could be extended.

4. Router Jig Workshop - Steven Somerfield

The workshop will consist of a run through on how to set up and use the guide. A demo on routing a groove, a look at all my models for the scope of the guide. I also have a video of the guide in action with year 10 and 12 students. Each person will receive a 35 page booklet showing all my project ideas that relate to the guide.

5. 3D Printer Demonstration - Gilking School Supplies

Here is a demo sequence that can be performed in an hour to a group of people taking questions during the presentation and or at the end.

- Scenario
- Introduction to the printer and its features
- Printer Operation

- Printer control.
- Print demonstration
- Slicer
- Questions and discussion

6. Laser demonstration - Gilking School Supplies

The Laser session will be:

- Overview of the Laser and how it works – cutting vs engraving
- Overview of software
- Overview of the range of different materials
- Demonstration and interactive session cutting and engraving of various materials and the different application / projects.

7. Micronair

WHS issues associated with dust in workshops and how they can be eliminated or reduced.

8. Rocket to Mars - INTRODUCTION TO PYTHON AND STARLAB - Obelisk Systems

Welcome to the StarLAB workshop! Rover wants to compete in The Challenge but before that can happen it needs to get there. Rover has a rocket and a StarLAB and wants to test how high it can get, and if it will be high enough to reach Mars. Once on Mars, Rover is going to want to see how comfortable it will be and take some pictures for its human friends.

9. OnGuard Safety Training

How to setup your Machine Inspections and Maintenance Registers in OnGuard.
Q and A – Tricks and shortcuts.

SATURDAY MORNING WORKSHOPS

TITLE	WORKSHOP DESCRIPTION	PRESENTER/S
Getting metalwork started and ongoing in your school.	Do you need inspiration to get metalwork running in your school and to keep it running? Get some very useful tips and ideas and find out how you can get this happening. Learn how the development of jigs can help create successful projects	Gerald Harding
TryEngineering STEM activity 1	Having difficulty staffing your stage 4 Technology Mandatory classes? Need inspiration for exciting 'fill in the gap' lessons? Need inspiration for exciting stage 3 and 4 STEM lessons? Don't know how to get your students involved in engineering? Participate in a small group problem solving activity from the tryengineering.org website. Engineers from the IEEE will guide and help you. All of the activities on the website are suitable to	IEEE

	use with stage 3 and 4 Technology students, STEM and GATs classes.	
Using STEM for Stage 3 into 4 Transition.	It can be difficult to run true Technology transition workshops in partner Primary schools without dedicated high school workshops in their schools. It can also be difficult to squeeze primary school classes into our practical workshops within the usual timetabled lessons. Why not try using STEM challenges to introduce yourself and your school to your future students. In this workshop you will participate in some small STEM design and make challenge that you can take back to your school, ready for Term 4 transition. You will also see how coding has been used to develop STEM skills in partner Primary school students of The Canobolas Rural Technology High School.	Matt Scott
Adobe Indesign – beginners	Adobe Indesign is an industry standard document editing /creation software. In this session you will learn to use adobe Indesign to create print media projects and lay out documents as well as the skills required to produce Major project portfolios for the HSC (and all years below). Participants are required to bring a laptop with Adobe Indesign installed (latest creative cloud preferred).	Phil Walker
Importing 3D models and bringing them to life in Unity.	Many CAD and 3d modeling apps allow creating static and virtual walkthroughs. However this hands-on workshop will demonstrate how to bring 3d models to life within Unity with a realistic environment and using textures, materials and lighting to create a professional and interactive experience.	Jeff Ayling
Questacon: an exploration of inquiry learning	Learn how hands-on activities and inquiry-based learning can create fun, engaging and challenging opportunities for your students to build their creative and critical thinking skills. This workshop allows you to try several hands-on activities using low-cost materials such as paper clips, drinking straws and old CDs. You will experience and appreciate how students develop conceptual understanding through inquiry-based activities and explore potential opportunities of presenting similar activities in the classroom. The activities will also build confidence in your skills of observation, prediction, testing, reasoning and discussion, so you feel more comfortable in sharing these techniques with your students.	Dylan Barker Questacon
Spend more time at the Industry Show.	Have more time to chat with the different vendors, who are not running a workshop at that time, to see their range of products and get more information about them.	

Industry Show Workshops.	Join in on one of the 'Hands On Experiences' workshops, with our selected Industry Show Exhibitors.
Max of 10 participants per workshop.	See the descriptions below so that you can make your choice of workshop.

1. Gluing using Modern Technology Adhesives - Dave Giddings of DRIVE Marine Services.

This workshop is to introduce teachers to Gluing all sorts of materials using modern technology adhesives without screwing & gluing. The workshop will cover the use of EPOX-E-Glue, Bote Cote Epoxy with Fillers and Purbond Polyurethane Glues based on a "Safer Way to Work". The workshop will include;

- Why these modern technology adhesives should be used in the classroom over other Epoxies, polyurethanes and PVA glues.
- Where and when to use the Purbond and / or EPOX-E-Glue / Bote Cote for projects. The use of these adhesives is mainly aimed at Year 11 & 12 Students projects where creative designs and workmanship is required.
- Purbond for use in Vacuum Bagging and fast gluing to keep jobs flowing with Purbond FX & F20 such as Cutting boards.
- We will also show and let teachers use the glues, how to mix fillers with the Bote Cote to use as an adhesive and for filleting joints.
- A bit on Boat Building Techniques for creative woodwork projects.
- Other applications where these glues are superior to PVA's such as Cutting Boards or other applications where the joint may be subjected to water.
- There will also be a discussion on basic joint failure and adhesion testing.

2. Discover the many ways that you can integrate 3D print and replicator technology in the classroom. - Torstar

This workshop will include a full run through of the Makerbot 3D printer capabilities. Come along to see how easily you can use the printer to unleash creativity with an educational, entertaining and useful 3D printer in a safe environment with no odour emissions, bringing next-generation productivity to your classroom.

The session will provide a full demonstration of the new Replicator +3D Printer, and the new desktop, Makerbot Print, highlighting its functionality and features to show what the software and printer are capable of and how they can be applied within the STEM curriculum.

The applications include downloading readymade projects, scan and design with a particular focus in this session on the ease and simplicity with which 3D print technology can be and is being used throughout classrooms across Australia, downloading projects from the Thingiverse project library via the internet, uploading the project from a USB to your desktop and then how to print the model during the course of workshop.

We can also answer any questions that you may have on 3D print and replicator technology.

BYOD with internet access is optional but not required.

3. 3D Printing and Coding - Coder Factory Academy

Participants will go through two sample projects linked to the NSW syllabus combining 3D printing, electronics and coding - this would be the basis for some ideation with participants on how these projects could be extended.

4. Router Jig Workshop - Steven Somerfield

The workshop will consist of a run through on how to set up and use the guide. A demo on routing a groove, a look at all my models for the scope of the guide. I also have a video of the guide in action with year 10 and 12 students. Each person will receive a 35 page booklet showing all my project ideas that relate to the guide.

5. 3D Printer Demonstration - Gilking School Supplies

Here is a demo sequence that can be performed in an hour to a group of people taking questions during the presentation and or at the end.

- Scenario
- Introduction to the printer and its features
- Printer Operation
- Printer control.
- Print demonstration
- Slicer
- Questions and discussion

6. Laser demonstration - Gilking School Supplies

The Laser session will be:

- Overview of the Laser and how it works – cutting vs engraving
- Overview of software
- Overview of the range of different materials
- Demonstration and interactive session cutting and engraving of various materials and the different application / projects.

7. Micronair

WHS issues associated with dust in workshops and how they can be eliminated or reduced.

8. Rocket to Mars - INTRODUCTION TO PYTHON AND STARLAB - Obelisk Systems

Welcome to the StarLAB workshop! Rover wants to compete in The Challenge but before that can happen it needs to get there. Rover has a rocket and a StarLAB and wants to test how high it can get, and if it will be high enough to reach Mars. Once on Mars, Rover is going to want to see how comfortable it will be and take some pictures for its human friends.

9. OnGuard Safety Training

How to setup your Machine Inspections and Maintenance Registers in OnGuard.
Q and A – Tricks and shortcuts.

SATURDAY AFTERNOON WORKSHOPS

TITLE	WORKSHOP DESCRIPTION	PRESENTER/S
Industrial Technology Stage 6 Industry Study	This session will: <ul style="list-style-type: none"> • outline the syllabus points for the Industry Study component of Stage 6 Industrial Technology, common to all focus areas • analyse the HSC exam question structure and how to give full answers to both extended response and short answer questions • explain marking guidelines and how to apply these to answers • use an example industry case study and supply assignment questions for classroom use • supply a set of industry study notes for classroom use 	Marisa Johnston
TryEngineering STEM activity 2	Having difficulty staffing your stage 4 Technology Mandatory classes? Need inspiration for exciting 'fill in the gap' lessons? Need inspiration for exciting stage 3 and 4 STEM lessons? Don't know how to get your students involved in engineering? Participate in a small group problem solving activity from the tryengineering.org website. Engineers from the IEEE will guide and help you. All of the activities on the website are suitable to use with stage 3 and 4 Technology students, STEM and GATs classes.	IEEE
Moving Stage 6 Design & Technology students up a mark band - Project & Written	Tips, hints and excellent advice for moving your students' marks into the next mark range in the Major Design Project and Examination.	Dale Wellham
Adobe Premiere – Beginners	Adobe Premiere Pro is an industry standard video editing program. In this session you will learn the basics of how to import, edit and export video content in Premiere Pro that can then be used for a variety of projects. Participants will need to bring a laptop with Adobe Premiere Pro and some sample video files to edit. The latest version of Premiere Pro CC is preferred but older versions should still work.	Phil Walker
Competitions to Curriculum	'A best practice guide to integrating a wide range of curriculum based competitions to your	Steve Delaney

	<p>faculty curriculum & subsequently improving the popularity & relevance of your faculty within your learning community.'</p> <p>During this workshop you will be -</p> <ul style="list-style-type: none"> * briefed on a range of current curriculum competitions * provided with a range of assessment schedules, tasks, programs and resources to help guide you on your way * briefed through how to lead students and your team through establishing effective community partnerships and growing your profile and community engagement 	
<p>Creating Commercial Quality Virtual Worlds</p>	<p>Attendees will create a commercial quality 3D world with hills, ocean, clouds, underwater atmosphere, trees and grass blowing in the wind with characters, cars and planes to explore your world.</p>	<p>Jeff Ayling</p>