**Friday Morning Workshops**

1. **Utilising Virtual reality with fusion 360**

Ron Craig

Target audience: stage 4 – 6 Limit 10

Description

* This presentation will demonstrate how Virtual reality can be integrated into your classroom. Utilising the HTC Vive unit and Fusion 360 (high end technology not google cardboard or PlayStation VR)
* Participants will be able to not only learn about but experience VR first hand and the benefits it has for student learning and engagement.
* Participants will not need to bring anything to the workshop.
* This course will cater for beginners to advanced learners

1. **Adobe InDesign for Portfolio creation**

Phil Walker

Target audience: Stage 4 - 6

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, lay out documents as well as the skills required to produce Major project portfolios for the HSC (and all years below). This will allow students to improve their range if ICT skills demonstrated in the major project. Participants are required to bring a laptop with Adobe InDesign installed (latest creative cloud preferred).

1. **Taking your Industrial Technology students up a band in the HSC**

Glenn Hinson

Target audience: stage 6

In this session, I will share some ideas on how to increase Industrial Technology HSC student performance and engagement in the;

Industry Study,

Design, Management and Communication (portfolio),

Production (Major Project) and

Industry Related Manufacturing Technology.

1. **Stage 6 Engineering Studies Telecommunication**

Fernando Pinget

Target audience: stage 6

An outline of what I’ll be presenting will include:

1.    Digital Technology (AND, NOT, NAND, INVERTER, OR, Gates).

2.    Exercises using Logic Gates, including HSC Qs.

3.    Analogue to Digital Conversion Process

4.    Modulation and Demodulation

5.    Radio Transmission: AM, FM and Digital (Phase Shift Key, FSK and QAM)

1. **Coding for students using Python**

Emma Lord

Target audience: stage 3 - 4

No description yet

1. **Coding with Minecraft Education Edition**

Peter Mahony – MAAS

Target audience: stage 4 - 5

Want to customise your own Minecraft game? Learn how with our code and Minecraft Edu! Learn the creative possibilities of programming by writing code to control the characters and blocks inside Minecraft. The workshop will start with the basics, allowing learners to gain an understanding of coding language syntax and how to set it up in their classroom. Then it’s time to learn how to control flow structures by using loops and conditional statement to construct more complex buildings with Minecraft blocks. This workshop will also call on learners’ maths skills by asking them to use mathematical expressions to create geometric structures such as spheres.

1. **Primary Digital Technologies with Sphero**

**Utilising Sphero robots and Scratch in a STEM approach to teach coding fundamentals to Stage 3 or 4 students.**

Jason Carthew

Target audience: Stage 3 - 4

Helping teachers meet the requirements of Digital Technologies, by utilising Sphero robots and Scratch in a STEM approach to teach coding fundamentals to Stage 3 and stage 4 students.

Sphero robots offer a fun way for Primary students and Stage 4 students to learn about digital technology, working scientifically and testing engineering principles with a robust and accessible robot. This practical session explores activities that provide students the opportunity to achieve the following outcomes;

ST3-1WS-S plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions

ST3-9PW-ST investigates the effects of increasing or decreasing the strength of a specific contact or non-contact force

ST3-3DP-T defines problems, and designs, modifies and follows algorithms to develop solutions

ST3-11DI-T explains how digital systems represent data, connect together to form networks and transmit data

You will need a mobile device (phone or tablet) that has the Sphero Edu App installed.

This App is free and links to it can be found at

<https://edu.sphero.com/d>

1. **Useful engineering projects for Technology Mandatory - Engineered Systems**

**Paul Copeland**

Target audience: stage 4

This workshop is designed for teachers who've not done engineering style projects in Stage 4 previously. The workshop will look at two projects, the truss bridge and rubber band racer, and see how they can be implemented in Stage 4 as a way to both introduce students to the engineered world and also satisfy the syllabus requirements for the Engineered Systems context.

1. **Retirement Planning for all State Super members**

Tom Dimovitch and Joe Silva

Target audience: all educators (with a main target of state super members)

Understanding your super and making the right financial decisions will help you to achieve a successful retirement.

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.

The information sessions include:

• 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

1. **Spend more time at the Industry Show.**