

# 2024 Deep Dive

**Ed**TechSA

Choose one of the following learning programs to be a part of for the day.

# Primary School Program #1 - Systems Thinking

#### Karen Butler

Systems thinking supports students to identify the interacting parts within a unified whole. Zooming in and out of the bigger picture can support students to empathise with the impacts of designed solutions and consider how they might contribute to preferred futures. This whole day series focusses on how we get students thinking about systems. We get hands on with digital systems Micro:bits and MaKey MaKey and learn about designing for real world purposes.

# **Senior School Program - SACE Digital Technologies**

#### **Fiona Clayton**

Deep dive into the SACE Digital Technologies. With a focus on Stage 2, we will look in depth at AT1, AT2 and AT3, and the performance standards. We will look at sample student work and have the opportunity to network together to do informal moderation.

Bring along your questions and student samples.

# Senior School Program - Teachers Who Code

#### Jak Baddams

This deep dive aims to give you (the teacher!) a practical understanding of coding concepts and skills which can be applied to any programming language, to give YOU confidence in delivering whatever you have in mind for your students! We will be taking a practical deep dive into algorithm design using a notation than is transferrable to any programming language, through which you will use the concepts of variables, expressions, functions, and objects. We will then explore how these are implemented as code, though hands-on exploration of two common programming languages, Python and C++. We hope that this deep dive will leave you with confidence and a sense of enjoyment for your coding journey ahead!



# **LEARNING PROGRAMS**

# Primary / Middle School Program - Bits and Bytes of Everything: Designing Dynamic Tech Lessons

#### **Catherine Newington**

Starting off Catherine will focus on the junior primary. She will take you through a range of resources to help teach Digital Technologies, this will include ideas to integrate into other learning areas. She will show you planners that have ideas for plugged and unplugged and even show you how to kick start coding and developing coding skills in with the popular app Scratch Junior. The next session will be tinkering with Tech! Catherine will provide you with a selection of resources from different programs and show you how Digital Technologies can be integrated and compliment learning you may already be doing. Catherine will take you through Scratch, Makecode Arcade, Micro:bit, just to name a few. Resources used throughout the session will be provided so you can continue tinkering long after the conference! This session is suitable for primary and lower secondary (Years 7-8) teachers. To finish the day and consolidate all the valuable ideas you've collected through day, the final session will focus on planning. Catherine will lead you through factors to consider when planning, templates that help you organise your year. There will be dedicated time to chat with Catherine.

# Mixed Program #1 - Generative AI and Chatbots

#### Dr Nick Jackson and Georgie Facci

Generative AI offers both creative assistance and potential to change practice. In this session Nick will dive into ways to enhance teaching, learning and assessment for middle and high school classes.

Georgie is eager to share her journey and illustrate how AI generative chat bots can be harnessed to ignite the classroom experience in an educational setting. Research consistently shows that AI can significantly enhance student engagement, provide personalised learning experiences, and automate routine tasks, allowing teachers to dedicate more time to complex and creative aspects of education.

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