Thursday 20 September

Cultivating Design Talent

Visual communication designers are in great demand in both creative and non-creative fields, playing an important role in our highly visual culture. This session will explore how to nurture and expand the potential of students with a talent for design, in alignment with higher education and industry expectations. Participants will leave with a renewed understanding of what is involved in being a professional designer, and be inspired to invigorate and/or create new teaching resources and learning activities that give their students an edge. Participants will:

- Deepen their understanding of visual communication design
- Explore the core terminology used in design studio practice
- See how design teaching is delivered at university
- Identify the skills and qualities sought after by industry
- Develop strategies for enhancing student learning outcomes

Thursday 18 October

I am not a maths major but I am teaching stage 4 mathematics

Often non-mathematics specialist teachers are given stage 4 mathematics classes. The ability to 'do' mathematics does not necessarily translate into being able to teach mathematics. This course is designed to assist teachers with aspects of the stage 4 course by addressing common misconceptions and providing teaching strategies that promote student learning. Examples are used in class to develop mathematical knowledge and participants will be shown how to present examples in the most effective manner. The promotion of conceptual knowledge through a constructivist teaching approach will be demonstrated along with different teaching strategies. Participants will return to school with a collection of strategies that can be applied immediately

Wednesday 24 October

Digital Media Apps that Get Primary School Students Writing

Primary school students’ literacy practices are becoming more digital and multimodal. The changing literacy practices suggest that fostering print literacy in the digital age is no longer sufficient to develop 21st century literate students. Pedagogical connections can be more accessible when practitioners understand the affordances of digital media and how primary school students interact with multimodal and multimedia texts. In this workshop, you will be ‘playing’ with a range of iPad apps that are suitable for teaching primary school students how to compose multimodal texts in different stages of the teaching and learning cycle.
Thursday 25 October

Guided Reading in K-1

Guided reading allows teachers to offer scaffolding and support to small groups of students of similar reading ability, as they begin to use particular reading strategies for themselves.

Participants will:

- Share successes and concerns around conducting guided reading lessons in Kindergarten and Year 1
- Identify how guided reading supports students within a balanced literacy program by linking it with their modelled, shared and individual reading lessons
- Identify the importance of having a clear purpose for each guided reading session
- Design classroom routines for guided reading, including issues around grouping students and text choice.
- View and discuss guided reading lessons.

Thursday 8 November

‘Escape the Room’ and learn computational thinking

The MARCS Institute for Brain, Behaviour and Development has been running successful children’s ‘escape room’ style events around Sydney over the past two years. An escape room is a themed space that contains a series of puzzles that must be solved, each solution providing a clue for the next puzzle, and the final puzzle giving the ‘key’ to escape the room. Individual puzzles and activities can be used in the classroom without the creation of a full escape room set-up, or a full escape room could be developed for a special event.

During this workshop we will introduce teachers to the principles of developing escape room style physical puzzles that promote students’ computational and logical thinking, as well as teamwork skills. The lessons we have learned through the many iterations of the ‘Rosita Stone’ language-themed escape room will be shared – how to pitch puzzles at the right level to challenge without frustrating, how to create and source the necessary physical items on a budget, how to decorate and set up an appropriate space, and ways in which an escape room can finish with a satisfying conclusion when (unlike adult escape rooms) you can’t require children to break out of an actual locked room.

We will demonstrate how the key components of computational thinking are embedded in these kinds of puzzles and will suggest ways in which they can support curricula. We will work through some examples that will inspire you to try converting written puzzles or worksheets into fun physical activities in escape room style.
Tuesday 13 November

Computational thinking unplugged

Computational thinking is a framework for systematically solving problems with applications beyond information and communication technologies (ICT) to other curriculum areas and non-technical problems. The key steps are decomposition, pattern recognition, abstraction, and algorithms. Perhaps counterintuitively, unplugging from technology can be a highly engaging and effective way to start thinking computationally with your students. In this session, you learn about computational thinking skills and participate in unplugged activities which will help you teach these skills to primary and lower secondary students.

Thursday 15 November

Computational thinking across the curriculum

Computational thinking isn’t just about maths and science. With the right approach, any kind of subject matter can be used to build skills in abstraction, logic, analysis, and pattern recognition.

Imagine your students are given the hieroglyphics for ‘Cleopatra’ and ‘Ptolemy’ but not told which is which. Could they use logical thinking to figure it out? What if they were asked to design a logical and efficient spelling system for a previously unwritten Australian Aboriginal language? What principles might they have to consider?

This workshop is an opportunity for some hands-on engagement with these kinds of ‘Olympiad’-style puzzles. We will demonstrate how the key components of computational thinking are embedded in such puzzles and how they can be adapted for a range of ages, abilities and subject matter, to promote computational thinking skills even for students who might be more interested in humanities and the social sciences than in the hard sciences or mathematics.

We will also share some secrets to improving student performance in Olympiad competitions, and will provide a packet of resources that can be used in the classroom.

At the end of the workshop teachers will have an opportunity to register their schools for the Australian Computational Linguistics Olympiad.

Monday 19 November

STEM and 21st Century Learning Design

Problem-based learning (PBL) and integrated science, technology, engineering and mathematics (STEM) programs are increasingly popular as schools respond to the ‘digital’ and ‘innovation age’ agendas. Research demonstrates both the power of these approaches but also the common pitfalls in implementation. The 21st Century Learning Design (21CLD) framework enables teachers to critically reflect upon and improve PBL/STEM programs. In this session, you will learn to use the 21CLD framework to ensure high quality learning experiences in PBL and integrated STEM programs.