

# Setting up for Success

27 September 2021  
Nazareth Catholic College



## Early Career Teachers Conference Program

8.00am	Registration
8.30am	Opening and Welcome
9.00am - 10.10am	Session 1
10.10am	Morning Tea
10.30am - 11.40am	Session 2
11.45am - 12.55pm	Session 3
1.00pm	Lunch
1.30pm - 2.40pm	Session 4
2.45pm - 3.55pm	Session 5
4.00pm	Close and Happy Hour

Sponsored by:



**Key:**

Primary Years

All Years

Primary & Middle

Middle Years

Middle & Secondary

Session 1

**S1.1 Adaptations: Fun Investigations & Activities**

*Karina Darling, Airdale Primary School*

**S1.2 Strategies to support professional and personal wellbeing**

*Lizzy Mann, Nick Macgregor, James Anfiteatro, Sacred Heart College*

**S1.3 Who knew?**

*Henry Johnson and Anthea Ponte, Department for Education*

**S1.4 SHE: The Task and Writing Questions**

*Jason Greenslade, Westminster School*

Session 2

**S2.1 Purposeful planning (Primary)**

*Anthea Ponte, Department for Education*

**S2.2 Embedding SHE into STEM teaching**

*Deborah Devis, The Royal Institution of Australia*

**S2.3 Purposeful planning (Secondary)**

*Henry Johnson, Department for Education*

**S2.4 How to empower students to direct their own revision using gamification, kinesthetic activities, revision grids and feedback forms**

*Sylvia Saad, Adelaide Botanic High School*

Session 3

**S3.1 Bringing Nature To the Classroom**

*Jo Clements & David LeCornu, Nature Education Centre*

**S3.2 Transition from Provisional to Full Registration**

*Belinda Radcliffe & Tania Crawford, TRB SA*

**S3.3 How do you get students to design their own experiments?**

*Lara Lang, Reynella East College*

**S3.4 Escape Rooms**

*Ross Riach, Henley Beach High School*

Session 4

**S4.1 The Science of Tiling Puzzles: Amazing Learning Connections**

*Thomas Man, Neuplex*

**S4.2 Moving from provisional to full registration**

*Swati Salvi & Nitika Chauhan*

**S4.3 Fighting the Forgetting Curve - a practical guide for new teachers**

*Ashleigh Schofield, Prince Alfred College*

**S4.4 Another 25 tips and tools to teach science**

*Lara Lang, Reynella East College*

Session 5

**S5.1 You're the New Science Person, So Now What?**

*James Mignone*

**S5.2 SHE teaches SHE**

*Bianca Warnock, Sciren Pty Ltd*

**S5.3 Integrating AFL and STEM in the classroom**

*Katie Gloede, Adelaide Crows Foundation*

**S5.4 Use of Analogies as Powerful Teaching Tools**

*Zahra Pirvali, University Senior College*

**S5.5 Achieving the best outcome from your Practical Classes**

*Jane Hosking, St Francis de Sales College, LMASA*

# Workshop Abstracts

## Session 1

### S1.1 Adaptations: Fun Investigations & Activities

*Karina Darling, Airdale Primary School*

Session attendees will participate in 3 different and fun activities that help learners develop their understanding of adaptations and natural selection. Attendees will be provided with a Unit Overview and materials to run these activities themselves.



### S1.2 Strategies to support professional and personal wellbeing

*Lizzy Mann, Nick Macgregor, James Anfiteatro, Sacred Heart College*

Navigating a successful transition into the teaching profession is essential, especially for improving wellbeing and reducing stress (Reino & Byrom, 2017). However, a significant number of early career teachers experience burnout in their first 8 months (Goddard & O'Brien, 2003) and many resign within 5 years of teaching (Ewing & Manuel, 2005). These beginning years in the profession are critical, therefore it is essential to support early career teachers to flourish and thrive, and not languish or barely cope.

This workshop will present both evidence-based strategies to support the professional and personal wellbeing of early career teachers, as well as the teaching experiences of two early career Science teachers, sharing the factors that have helped and hindered their wellbeing.

### S1.3 Who knew?

*Henry Johnson and Anthea Ponte, Department for Education*

Ever wondered why we teach forces and motion at one year level and energy the next? Earth in Space one year and Earth's surface the following?

There are six key ideas that bridge knowledge and understanding across the disciplines of science. These are embedded at each year level and guide the teaching and learning.

The key ideas frame the development of concepts across science understanding, science inquiry and contribute to developing students' appreciation of the nature of science.

Together with the key ideas, the nine core concepts are the understandings that are central to the science curriculum. These core concepts are embedded within the 4 sub-strands of science understanding.

Are you confused yet!!! Join us while we dissect the anatomy of the curriculum and put it under the microscope to better understand it's form and function.

### S1.4 SHE: The Task and Writing Questions

*Jason Greenslade, Westminster School*

This workshop will look at the SHE links and break them down in a way that might be easier for the students in your class to understand; we will then look at the task itself and the ways that it can be structured for students.

We will finish with a look at exam/test SHE questions - how to write them from articles and how to instruct students on how to answer them and some strategies for teaching this.

# Workshop Abstracts

## Session 2

### S2.1 Purposeful planning (Primary)

*Anthea Ponte, Department for Education*

South Australian teachers are being supported to help bring the national curriculum to the classroom like never before, with one of the biggest curriculum development initiatives ever seen in South Australia. This workshop will unpack the Why? How? & What? of the primary/secondary units of work written by teachers for teachers. This session aims to familiarise participants with the structure and philosophies of the Department for Education science units. These units are purposefully designed to support the implementation of an engaging, high quality curriculum for all learners.

### S2.2 Embedding SHE into STEM teaching

*Deborah Devis, The Royal Institution of Australia*

Science journalist and geneticist, Deborah Devis, will show you how to engage and motivate students in STEM classrooms by using Science as a Human Endeavour outcomes. She will demonstrate how to use current scientific research and discoveries from across Australia to show students the opportunities in STEM available to them, and how to connect with current research.

With a focus on STEM careers, learn why it is so important to raise awareness of local opportunities and relatable role models, and how to embed this into every lesson. Through the use of films, live-streaming, and scientific media, you will find out how to make the curriculum relevant to students today and allow them to discover the importance of STEM now and going forward in Australia.

### S2.3 Purposeful planning (Secondary)

*Henry Johnson, Department for Education*

South Australian teachers are being supported to help bring the national curriculum to the classroom like never before, with one of the biggest curriculum development initiatives ever seen in South Australia. This workshop will unpack the Why? How? & What? of the primary/secondary units of work written by teachers for teachers. This session aims to familiarise participants with the structure and philosophies of the Department for Education science units. These units are purposefully designed to support the implementation of an engaging, high quality curriculum for all learners.

### S2.4 How to empower students to direct their own revision using gamification, kinesthetic activities, revision grids and feedback forms

*Sylvia Saad, Adelaide Botanic High School*

In this session we will be going through how to include revision throughout a unit of work leading up to a test or final exam that will empower students to understand how to direct their own learning.

We will go through a variety of kinesthetic starter activities and ways to gamify content for revision. You will see one way of structuring revision leading up to test or exam that empowers students to direct their own learning in an efficient way. You will see an example of how you can provide specific and tailored feedback using excel spreadsheets to help students direct their future learning - this is essential for students leading up to their final exams. \*\* You are encouraged to bring along a test you are planning to run in an upcoming unit to use in this session.\*\*

# Session 3

## S3.1 Bringing Nature To the Classroom

*Jo Clements & David LeCornu, Nature Education Centre*

An exploration of the varied and unique services that the Nature Education Centre can provide to teachers in the Adelaide region. We will discuss the advantages of hiring our live animals and preserved specimens. Explore the range and scope of our Educational kits and their use across different year levels. You will also get a chance to meet some of our animal ambassadors that we use for our educational talks when we visit your school for an incursion.

## S3.2 Transition from Provisional to Full Registration

*Belinda Radcliffe & Tania Crawford, TRB SA*

Teaching is a dynamic and challenging profession. Teachers have a professional obligation to develop and maintain professional relationships with a diverse range of learners, communicate with parents, act ethically, promote positive values and maintain and raise professional standards. Moving to (full) registration is a continuum of professional growth for a teacher as they transition from the Graduate level of the Australian Professional Standards for Teachers to the Proficient career stage. During this session you will learn about the process to transition to (full) registration, gathering evidence and the role of the evaluator.

At lunch time you will have the opportunity to meet with Project Officers from the TRB SA in the registration area to answer any questions that you may have about the process.

## S3.3 How do you get students to design their own experiments?

*Lara Lang, Reynella East College*

“How do you get students to design their own experiments?” will be covered along with other questions such as:

- How do you manage multiple different experiments at a time?
- How do you organise the equipment when everyone is doing something different?
- How do you check to make sure experiments will work?
- At what year level can students design their own experiments?
- What structures and scaffolds can support students to design their own?
- What levels of inquiry are there?
- How do you transition from teacher-led to student-led experiments?
- How do you get students to complete risk assessments for all their different experiments?

## S3.4 Escape Rooms

*Ross Riach, Henley Beach High School*

You've seen them in movies, maybe even tried one on the weekend, but what about educational escape rooms in school?

Escape rooms can provide students with an authentic learning environment, create realistic outcomes for content, provide unique opportunities to boost Critical & Creative thinking and students' Personal & Social Capacity capabilities.

This workshop breaks down the various approaches and benefits of gamified pedagogy and escape rooms as both a learning, revision and assessment tool.

Attendees will have the opportunity to brainstorm and create their own escape room, interact with a variety of puzzles and hands-on learning aids and walk away with a collection of resources to support their own pedagogy in engaging and problem-based teaching.

## Session 4

### S4.1 The Science of Tiling Puzzles: Amazing Learning Connections

*Thomas Man, Neuplex*

This workshop explains and explores how tiling puzzles can be an holistic and motivational tool for younger students to learn science effectively, and is applicable to gifted students as well as students with special conditions or facing challenges. The presentation is evident based and linked to the concept of an Adelaide University course 'Puzzle Based Learning', as well as De Bono's 'Lateral Thinking'.

### S4.2 Moving from provisional to full registration

*Swati Salvi & Nitika Chauhan*

Nitika and I will be bringing in our folios as examples to discuss how we moved from provisional to full registration. My folio is paper based folder and Nitika has an e-folio. We can discuss our examples and annotations and maybe if we have time, we can even discuss how to annotate your work if someone wants to bring a sample.

### S4.3 Fighting the Forgetting Curve - a practical guide for new teachers

*Ashleigh Schofield, Prince Alfred College*

As soon as we learn something new, we begin the process of forgetting it almost immediately. The Ebbinghaus forgetting curve describes how learners forget taught concepts and processes over time, and how retrieving information back into working memory can counteract this process. By embedding evidence-based revision strategies (encoding, retrieval and spacing) into our units, we can train our students to fight the forgetting curve. Tried and tested exemplar units of work (with a year 7-10 science focus) will demonstrate how retrieval can become habitual, embedded within each lesson, and reinforced by homework in a way that is engaging and prioritises student's long-term memory.

### S4.4 Another 25 tips and tools to teach science

*Lara Lang, Reynella East College*

There are many ways to teach the same thing, and sometimes you just need a little inspiration. These 25 tips and tools give you teaching strategies, resources, assessment tips and literacy supports to make your science teaching more varied and effective. Grab a whole toolkit of ideas to use in your classroom for when you want to improve literacy in your class, teach without another worksheet, authentically include student voice, get more student participation, include more inquiry, or make it to the front page of the newspaper!

## Session 5

### S5.1 You're the New Science Person, So Now What?

*James Mignone*

Congratulations! You're the New Science Person(tm) at your school. Now what? The Australian Curriculum is a complex and unwieldy thing, sometimes difficult to interpret, often difficult to implement, and always difficult to satisfy fully! Learn from my time teaching Science, as well as Mathematics and Technologies, to five year levels in composite classes in a regional public school. Starting from almost nothing, I developed a scope and sequence to suit my students and my classrooms, giving students what they needed, working with them where they were, and getting through most of the curriculum in a sensible way. Let's unpack the Content Descriptors and Achievement Standards, discuss best practices for teaching science theory and practice, analyse the hidden curriculum that you'll need to address, review assessment and moderation, and evaluate my favourite activities, methods, resources, and assessments from my teaching career. You'll leave prepared to hit the ground running!

## S5.2 SHE teaches SHE

*Bianca Warnock, Sciren Pty Ltd*

Dr Bianca has left the lab bench to pursue a career in Science Communication. What exactly does that career mean? How do your students benefit from meeting a real scientist who isn't in a traditional science role? How come she's not wearing a lab coat? Well, Bianca can explain everything. An important feature in the 'science as a human endeavour' is speaking directly to the scientists who still have networks in research and development. Hear Bianca's journey.

## S5.3 Integrating AFL and STEM in the classroom

*Katie Gloede, Adelaide Crows Foundation*

STEMfooty translates South Australian kid's, love of AFL into an appreciation, understanding, and passion for the science and mathematics. It is a free 10-week program for schools targeting year 7 students, offering over 30 hours of innovative in class learning which aligns to over 50% of the maths and science Australian Curriculum Standards (ACARA). The program supports teachers with curriculum resources, professional development and reporting. Please come along and hear how this program can support your school and register to be a part of the program in 2022.

## S5.4 Use of Analogies as Powerful Teaching Tools

*Zahra Pirvali, University Senior College*

Analogies are key part of scientific reasoning. Students often find 'fun' in applying analogies in Physics classroom! In this workshop, the role and application of analogies as tools for teaching new Physics concepts will be discussed. The purposeful use of appropriate analogies in pedagogical practice to boost student learning and increase motivation by linking the real world with the new concepts will be considered. Examples will be offered to show how teachers can use analogies in order to deliver more meaningful lessons by providing visualization of abstract concepts and help students build new knowledge through applying existing knowledge and skills in unfamiliar situations. This can support the development of students' higher order thinking and complex reasoning skills.

## S5.5 Achieving the best outcome from your Practical Classes

*Jane Hosking, St Francis de Sales College LMASA*

So now you are a qualified Science Teacher. That means Practical Classes!

Planning and running these can be daunting as you become familiar with WHS requirements, organization, and perhaps unfamiliar equipment and techniques.

Practical classes present a range of challenges not encountered in classroom teaching, but also offer an excellent opportunity to enhance the teaching of theoretical concepts, that cannot be achieved by computer simulations or videos alone. Skills learnt by students are cross curricular and transferable.

This workshop aims to provide you with information to assist you with making the most of your practical teaching and running safe, effective and successful practical classes for your students.

Presented by Laboratory Managers from the DfE, Catholic and Lutheran sectors, with many years' experience in School Laboratory support, one of whom is now also a qualified Teacher.

# Workshop Abstracts

A young girl with long brown hair, wearing a pink shirt and blue shorts, is climbing a large tree trunk. A boy in a blue and white shirt is reaching up to help her. The background is a lush green forest.

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