



VCE Science Teachers Conference Series 2021

BIOLOGY

15th February 2021

All sessions will be recorded and available to view until late 2021

Focussed on the Future

Welcome to VCE Biology Teachers 2021 Online Conference

This year we have assembled a very exciting, diverse and engaging program with a blend of live and pre-recorded presentations and workshops.

As you can see from the attached synchronous program, we will run seven simultaneous virtual rooms and these will all be accessible on the day via a dedicated Zoom link and we hope that you take advantage of the chat function and ask the presenters many questions to ensure it is interactive.

Highlights include the Keynote Address by Dr Simon Corrie, the VCAA Update by Erin Wilson and Chief Assessors Examination Report by Sarah Quin and Hugh Latimer. We have also added for the first time a new and exciting Discussion Panel which will be chaired by Dr Peta White. This will be conducted as an after school session which hopefully will encourage teachers who cannot join the conference during the day to participate in a conversation concerning some of the big issues in Biology education.

There are also some pre-recorded presentations which you can view at your convenience either before, during or after the conference and offer a great resource.

We would also like to acknowledge and thank our generous exhibitors and sponsors and we encourage you to click on their logos on the interactive wall and learn more about their products and services during the breaks in the program. Some of them will also present a short twenty minute live session or pre-recorded presentation and be available on the day for answering your questions either via the chat function on Zoom or directly via phone or email.

Finally, thank you for participating in this conference, thus ensuring you stay fully informed of the key issues in the VCE sciences. We trust you will enjoy and find the sessions interesting and rewarding.

Alexandra Abela
President, Science Teachers' Association of Victoria Inc. (STAV)

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Synchronous Sessions

live on 15th February 2021

8.45am - 8.50am Welcome & Housekeeping by Alexandra Abela, STAV President and Keynote Speaker Introduction

8.50am - 9.40am Keynote: Dr Simon Corrie, Monash University
De-mystifying the Covid myths



Simon completed his undergraduate degree in chemical engineering and PhD in physical chemistry at the University of Queensland, before undertaking postdoctoral studies at the HPV Research Laboratory at the University of Washington, Seattle, USA. He completed an ARC DECRA Fellowship in Prof. Mark Kendall's group at the Australian Institute for Bioengineering and Nanotechnology at The University of Queensland. Simon is a chief investigator in the ARC Centre of Excellence in Convergent BioNano Science and Technology. His research interests lie in developing nanoparticles and related biomaterials for applications in biosensing, bioassays and medical devices.

Simon joined the Chemical Engineering Department as a Senior Lecturer in February 2016. He worked in a joint team study which resulted in a world-first ability to detect positive COVID-19 cases using blood samples in about 20 minutes, and identify whether someone has contracted the virus.

9.40am - 9.50am Short Break

Session A 9:50am - 10:35am

A1 Lisa Moloney, Reconciliation Victoria

“Introduction to Aboriginal Perspectives in VCE Biology”

This session will explore how you can introduce Aboriginal perspectives into VCE Biology. Aboriginal seasons can be used to explore Unit 1 biodiversity, ecosystems and interactions and Unit 2 growth and reproduction. Kinship systems and the significance of Mungo Man and Mungo Lady can be introduced in Unit 4. Victorian place-based resources will be shared.

A2 Bianca Warnock & Dr Deborah Devis, Sciren Pty Ltd

“SHE teaches SHE”

How do teachers engage students in Science as a Human Endeavour (SHE) tasks in a biology class? What exactly does it mean and how do you keep it relevant? Dr Bianca and Dr Deborah of Sciren will be your link to real scientists, research and concepts that seem mysterious to those not from a research lab. Coming from Plant Biotechnology labs in Adelaide, Sciren will provide teachers a chance to engage with the face of science research and help build your understanding of SHE based knowledge.

A3 Sacha O'Connor-Price, ST Francis Xavier College

“Hands on Activities for Year 12 Biology”

Modelling processes such as photosynthesis and the lac operon can provide students with a visual representation of chemical processes. In this session, I will show you how I use hands of activities to model chemical processes to allow students to 'see' what happens within key processes, and then apply this understanding to examination style questions.

A4 Michael Kasumovic, UNSW Sydney/Arludo

“Improving critical and analytical thinking using gamified science experiments”

In this talk, we will use the difference gamified experiments from Arludo to collect and explore data in real time - so make sure you bring your phone so that you can join in the data collection! I will also show you how you can use these games in your class to help get your students thinking scientifically and get them excited about science. This will be a really interactive talk, so come and have fun like your students would!

DelegateNote: This presentation is very interactive. Teachers will be using games and collecting data during the workshop. They will also get the opportunity to enroll their students in a research study that will explore the efficacy of the games being used in the workshop. The research study is free.

A5 Michael O’Brien, Newbyte Educational Software

“VCE Unit 4, Evolution and DNA Manipulation resources”

Involve your students in the processes on Evolution and DNA manipulation.

This workshop will give you some great practical ideas on how to integrate modern online technologies into your teaching.

You’ll have the chance to use stimulating software developed in Australia for the VCE syllabus. Explore evolution from founder effect to speciation.

Try DNA manipulation with such techniques as PCR and recombinant plasmids as vectors.

You and your students will receive a FREE access to our online content for 4 weeks! No ongoing commitment.

Look for our other workshops at this conference.

DelegateNote: Contact Michael at michaelo@newbyte.com to request early FREE access to our online resources.

A6 Richard Allan, Biozone Learning Media Australia

“BIOZONE’s NEW 2020 Editions for VCE Biology”

Now in FULL COLOUR, learn how to make the most of the pedagogical innovations that underpin the BIOZONE books. Hear about the 3 new digital versions of our eBooks (LITE, PLUS and Teachers Editions) as well as access to Online Model Answers. New editions for 2021 will also be discussed. Workshop attendees will each be sent FREE print copies and 30-day eBook trials of BIOZONE’s NEW Interim (colour) editions of Biology for VCE Biology - Units 1-4.

Lightning Session A

9.50am - 10:10am

A7.1 Studyclix

5 minute break

10.15am - 10:35am

A7.2 Bankfirst

10.35am - 10.50am Morning Tea Break

Session B

10:50am - 11.35am

B1 Annette Williams, Academy of Mary Immaculate and Susan Ryan

“Teaching DNA with smarties”

Teaching the abstract concept of gene expression can be challenging. Teaching this concept modelled in an interactive way by using lolly smarties and jubes to explore the processes of transcription and translation. This session will be completely interactive with you participating in the activity. The requirements for this session are smarties, jubes, plain paper, masking tape and a marking pen.

B2 Stefano Freguia, The University of Melbourne

“ A circular economy of nutrients through direct urine bioconversion to fertilisers”

Establishing the circular economies of the future requires the development of innovative concepts and solutions that will allow for the continuous removal and recovery of valuable resources including nutrients from wastewater so that they can be reused continuously rather than linearly. Urine separation and collection at the source has shown enormous potential to increase the resilience of urban wastewater management, while also providing a route for nutrient recovery for reuse in fertilisers. In this talk, we will explore emerging biotechnologies for the on-site processing of urine to produce fertilisers that are safe, effective and competitive in the existing markets

B3 Caroline Cotton, Biobrain Learning

“Problem Based Learning in the Biology classroom”

Problem-based learning (PBL) develops higher order thinking skills. Higher order thinking skills are seldom taught, but should be included as part of any curriculum. PBL learning teaches students to develop thinking skills such as the ability to hypothesise, synthesise, analyse, evaluate, and generalise information rather than simply recall it. By solving problems students also have the opportunity to develop critical thinking skills. Come along to this session to learn how to incorporate PBL into your Biology classroom.

B4 Anna-Leisa Vietz & Gabriela Martinez Ortiz, Agriculture Victoria Research Division

“Biology and Digital Technologies in Agricultural Research”

Careers at AgriBio, the Centre for AgriBioscience are founded on strong interdisciplinary backgrounds in biology, computational biology and molecular sciences such as genomics. The centre is a hub for state-of-the-art capabilities in nucleic acid sequencing, robotics for plant phenomics and ‘super-computin’. These facilities underpin the innovations of the Agriculture Victoria Research Division, which are increasingly relying on both biological understanding and digitally enabled technologies coupled with the ability to manage, analyse and model ‘big data’. This session will comprise a virtual tour of AgriBio Centre for AgriBioscience in relation to the types of cross-disciplinary 21st century careers that have biosciences at their core. The session will also provide an overview of the free workshops (both remote and in-laboratory) that are available to VCE biology students under the Get into AgSTEM program (formerly known as the Get into Genes program). Get into AgSTEM embeds key knowledge points as outlined in the Biology Study Design, within the context of real-life research and innovation initiatives as undertaken by the Agriculture Victoria Research Division. By showcasing these initiatives to students, workshops consolidate the link between studying science and technology at school with the types of high-tech, cross-disciplinary skills and jobs that are relevant to contemporary and future bioscience research and innovation.

B5 Georgia Lumb, Canterbury Girls Secondary College

“Teaching Biology as a Graduate”

The first few years teaching VCE Biology can be daunting. I would often ask myself questions such as “How do I get through the content while still making the lessons engaging?”. I hope in this session I can offer you some tips on how to create interactive activities and build culture in your Biology classroom while still getting through the content.

B6 Richard Allan, Biozone Learning Media Australia

“Human Evolution - Trends, Anomalies & New Discoveries”

Recent advances (2018-2020) in scientific thinking and modelling of human adaptive radiation. How do the most recent discoveries and scientific data gathering techniques affect how you teach this exciting but challenging topic? This presentation will explore recent advances in scientific thinking and modelling of human adaptive radiation. See how BIOZONE has developed annotated 3D models that allow students to explore early human anatomy on their own devices. Workshop attendees will each receive a copy of the PowerPoint presentation.

Lightning Session B

10.50am -11:10am

B7.1 Alanna Duffy & Jocie Mills, Jacaranda

“Inspiring students to love and succeed in science using Jacaranda Science Quest”

Science is a dynamic, engaging subject that empowers students to make sense of universal mysteries and make informed decisions about a changing world. The diversity of science gives students incredible opportunity to inquire and to learn in a variety of ways. In this session, you will learn about ways to inspire and encourage students of all abilities using the brand-new edition of Jacaranda Science Quest. Find out ways that you can cater for all of your students using of the most comprehensive and innovative resource on the market, to enable all students to experience success in and a passion for science. Discover ways to customise content for learners through differentiated learning pathways, scaffolded and many additional resources and scientific inquiry.

5 minute break

11.15am -11:35am

B7.2 Frazer Thorpe, Zoos Victoria

“Zoos Victoria: Fighting Extinction through meaningful data collection and animal observation”

Zoos Victoria care for over 300 different species of animals and are committed to saving endangered species endemic to Victoria from extinction.

Animals observations and data collection are extremely valuable tools that Zoos Victoria uses to understand each species' unique behaviour, enabling us to provide the highest level of enrichment and welfare to animals in our zoos, while also giving our scientists and conservationists vital insight into ways we can support wild populations.

In this presentation you will become familiar with the various ways in which Zoos Victoria can support VCE Biology teachers, including both classroom resources and outdoor, hands-on and practical excursions that enhance and enrich student understanding and experience. We will describe the opportunities for students to explore topics such as adaptations, interconnections, ecosystems, and how to collect data and carry out meaningful practical investigations. Zoo Victoria's programs, resources and investigations provide an authentic context to support student understanding, scientific thinking, and practical investigation skills.

These inquiries contribute to community science, and together with Zoos Victoria, helps to create a future rich in wildlife.

11.35am - 11.45am Short Break

Session C

11.45am-12.30pm

C1 Erin Wilson, VCAA

“Planning and developing SAC tasks for teachers new to VCE Biology”

Are you new to teaching VCE Biology? Using other school's SAC tasks, or those from commercial companies, or VCAA past examination questions, to develop your own SAC tasks can often compromise the VCE assessment principles of fairness, balance, equity and efficiency. This workshop will outline common pitfalls in designing SAC tasks as well as providing suggestions and stimulus materials as starting points for the development of tasks that will be unique to each school, thereby avoiding authentication issues. The use of VCAA performance descriptors will also be discussed. Participants will be provided with a SAC task development checklist.

C2 Jennifer Mansfield, Monash University, Emma Stevenson, University of Melbourne & Peta White, Deakin University

“Re-imagining biology education after the remote schooling experience”

Teachers across Victoria have recently shared the surreal experience of moving teaching and learning into the online space. As we return to face-to-face teaching, teachers of VCE Biology may be wondering how their teaching practices have adapted. What have these online experiences taught us about our biology teaching practices? How might we re-imagine our biology teaching? In this session we will draw on the collaborative wisdom and expertise of participating teachers to reflect on their recent remote learning experiences. Through engagement in collaborative dialogue, we hope to make sense of, and draw conclusions from, these experiences, offering collegial support and insights into the future of student learning in VCE biology.

C3 Caroline Cotton, Biobrain Learning

“Biobrain - a Biology learning tool”

Do you want to discover a new tool to help your students learn and understand Biology? Come to this session to find out about Biobrain, a Biology learning app that helps VCE Biology students master key concepts and test their knowledge with real time feedback on their progress. Students are now be able to learn and revise Biology anytime and anywhere, on their mobile devices. Key Areas of Study are separated into topics and graded over three levels of difficulty. Biobrain uses diagrams and text to illustrate key concepts, and has a variety of question types for students to test their knowledge. Students can also keep track of their scores, review answers, and retake quizzes to ensure full understanding and learning over time. Biobrain's learning materials include links to an illustrated glossary to assist learning without leaving the screen. All participants will receive a free trial of Biobrain.

C4 Monica Ferrie, Genetic Support Network Victoria

“Genomics in Schools- preparing the next generation”

The genomics era is ushering in new health technologies that are making the diagnosis of a genetic condition quicker and more accurate than ever before. It is clear that personalised medicine is the way of the future. Through diverse experiential learning, Genomics in Schools (GIS), provides students with an understanding of genomics and the implications for one's own health and/or as a future healthcare professionals through teacher workshops and classroom case-studies. This initiative will explore the functional elements of genomics and its utility in healthcare, with exploration of the ethical, social challenges. GIS aims to prepare the next generation for genomics medicine era.

C5 Eleanor Wood, Camberwell Girls Grammar School & Anna Kissane, East Doncaster Secondary College

“Decoding VCE Biology Exams – What's a command term?”

Outline... Analyse... Suggest...

Come along to this interactive session with fellow VCE Biology teachers as we explore the language used in VCE Biology exams. A greater understanding of the command words in a question gives students the confidence to answer questions with more certainty and show off how amazing their understanding of the content is. We will collaborate and come up with some practical tips and examples of what each one of these words mean.

C6 Eleanor Gregory, Cengage Learning, Taylah Bennett, Monash University, Matt Kopp, Southern Biological, Matt Brinson, Kilvington Grammar & Kim Lowe, Cengage Learning

“Keep your knowledge CRISPR”

The beginning of 2022 sees the implementation of the new VCAA VCE Biology Study Design at all four units. The new Study Design has had content deleted, new content added and content reordered to remove repetition across areas of study and across Study Designs. A key focus has been placed on scientific investigation as a means of developing, using and demonstrating key science skills. This is reflected in the change in assessment weightings to 50% external exam and 50% coursework. New content that you will be teaching in 2022 includes the function of the biotechnology tool CRISPR-Cas9 as a genome editing tool. Come along to this session and find out what this is all about. Also have a taster of what is on offer through the Nelson VICscience VCE Biology resource suite and how it can meet all your and your students' needs in 2022 and beyond. All participants will receive a complete set of sample material for VICscience Biology VCE Units 1-4.

Lightning Session C

11.45am -12:05pm

C7.1 Michael O'Brien, Newbyte Educational Software

“VCE Unit 1” Ecology, Hands on Simulations”

This, hands on workshop, will give you some great practical ideas for covering relationships between organisms within an ecosystem as well as methodologies and techniques of primary qualitative and quantitative data collection. During the workshop we will examine several software packages including Food Webs” Australian Woodlands and Rocky Shore Ecology.

5 minute break

12.10pm -12:30pm

C7.2 Michael O'Brien, Newbyte Educational Software

“VCE Unit 2, Genetics First-Hand Data the Easy Way”

First-hand data collection in genetics labs will hammer home the understanding required of your students at VCE level and our auto-marking labs, will save you hours of marking.

Using the new Drosophila and Pea Plant Genetics Labs is an effective tool for teaching VCE Biology.

12.30pm - 1.10pm Lunch Break and Networking

Lightning Session L

12.30pm - 12.50pm

L1 Pearson

L2 Oxford

VCAA Update 1.10pm - 1.55pm

Erin Wilson, VCAA

“VCAA Biology Update”

What a year 2020 was for Victorian students and teachers! Bushfires, a global pandemic plus the usual curriculum and assessment challenges that students and teachers face. The revised VCE Biology Study Design is now accredited for 2022-2026. This update will focus on some of the main issues and themes from 2020 and how they relate to the delivery of VCE Biology in 2021 and beyond.

1.55pm - 2.05pm Short Break

Chief Assessors 2.05pm - 3.05pm

“Sarah Quin, Independent Education Consultant & Hugh Latimer, Independent Consultant

The Biology Chief Assessors for the 2020 Examination will present key points arising from the VCE 2020 Biology Examination.

3.05pm - 3.30pm Afternoon Tea Break and Networking

Discussion Panel 3.30pm - 5.00pm

The Role of VCE Biology for Preparing Citizens of the Future

Teachers are invited to join in conversations to consider opportunities afforded by the new VCE Biology Study Design 2022 – 2026. Teachers will be drawing on their expertise in small groups to co-create understandings about challenges and opportunities for developing citizens of the future.

Facilitators

Professor Amanda Berry, Monash University

Dr Peter White, Deakin University

Dr Jennifer Mansfield, Monash University

Emma Stevenson, University of Melbourne

5.00pm Conference Close

by Alexandra Abela, President, Science Teachers Association of Victoria

Asynchronous Sessions

available to view from 8th February 2021

Rachel Rutkowski, Methodist Ladies College **“Targeted Development of Students’ Science Inquiry Skills”**

The development of science inquiry skills is essential for students to understand and appreciate scientific knowledge. Students are required to pose scientific questions, design experiments to test hypotheses, collect and analyse data, and evaluate their findings, skills that require repeated practise and refinement. In this session I will present an overview of our backward design approach for teaching science inquiry skills through investigations across Years 7-12, with a focus on Years 7 and 8. I will also discuss how to collect, collate, and analyse student learning data to target learning and teaching to further develop student inquiry skills.

Cambridge University Press **Simon Maaser, Brighton Grammar School & Tori Shaw** **“Unpacking the NEW VCE Biology Study Design”**

This session explores the interconnectedness between different topics within the NEW Biology curriculum. It will provide strategies for how the curriculum can best be delivered, introducing new concepts in relation to those previously taught and the importance of retrieval practice in consolidating and building on student’s prior knowledge. As part of this session, features of the new Cambridge textbook and digital resources will be unveiled showcasing how they have been specifically designed to guide students (and teachers) through the connected pathway that is VCE Biology. All with an eye on preparing and building the skills required for successful assessment performance.

Presenters



Alexandra Abela

Alex is the President of the Science Teachers' Association of Victoria. She has been a continuous member of STAV since joining as a pre-service teacher in 1993. Since first joining STAV Council in 2001, Alex has held a number of Executive roles, and she is currently STAV's representative on the board of the Australian Science Teachers Association. Alex has held a variety of leadership positions in science education throughout her career. She is passionate about curriculum design, committed to innovation in teacher professional learning, and loves teaching students of Chemistry at Penleigh and Essendon Grammar School.



Richard Allan

Richard Allan has an MSc in biology and is founder and CEO of BIOZONE International, an educational publishing house specialising in the publication of instructional materials for high school science programmes. Based in Hamilton, New Zealand, he comes from a science teaching background:

"My passion for creating top quality resources for science learning has its origins in my 11 years experience in teaching science at high school. During this period I developed in-house resources for my own students."

Richard and his team have adapted what he has learned in the classroom to develop a suite of unique resources that meet the very real needs of teachers and students worldwide. He has successfully taken the New Zealand business model overseas to set up sales offices in Australia, the United Kingdom, and the USA.



Caroline Cotton

Caroline is the founder of the three Biobrain learning apps. Caroline has extensive experience in Science education.

Sacha O'Connor-Price

She has led and developed Science curriculum in Catholic, Independent and government sectors. She was a member of the VCAA review panel for the new Biology Study design and an experienced VCAA assessor. Sacha is also a contributing author for the new Jacaranda Unit 1 and 2 VCE Biology textbook and regularly present revision lectures for TSSM and is passionate about engaging students in biology and developing life long learners.



Stefano Freguia

Stefano Freguia is a Senior Lecturer at the University of Melbourne. Italian born, he obtained his PhD in 2008 from the University of Queensland, and later received a fellowship from the Japan Society for the Promotion of Science (JSPS) to undertake his post-doctoral studies at Kyoto University (2008-10). From 2010 to 2019 he was an academic at the Advanced Water Management Centre at the University of Queensland. Stefano's research focuses on the development of novel bioprocesses to transform the waste and water industries, to deliver resilience and flexibility to urban water and wastewater services and infrastructure.



Monica Ferrie

She is inspired by potential and possibility, for individuals, teams and community. Her work is targetted to discover, facilitate and achieve them both in a number of capacities. She is the GSNV Chief Executive in a part time capacity which allows her to also be the Director of Bold and Brave Consulting and Toilet Training Educators, Treasurer of the Balibo House Trust, Honorary Fellow of Melbourne University and member of the Central Queensland University Regional Engagement Committee. Experience in senior leadership roles in Government, Education, the private sector, international projects, education including a Masters of Business Administration and a commitment to community provide a foundation for making a difference across a range of sectors.



Anna Kissane

Anna has been teaching VCE Biology for longer than she cares to admit. She started assessing VCAA exams when there were still 2 papers/year and paper cuts were part of the gig. She believes in building students' skills from Yr 7 and loves sneaking history, literacy and random facts along the way.



Michael Kasumovic

Michael Kasumovic is an Associate Professor and evolutionary biologist at UNSW researching how technology affects our behaviours. He has developed a company over the last five years that has a mission to improve equity in education and to improve the understanding of how science works. He is also the co-host of a live science show called #BatteryLow.



Georgia Lumb

Georgia is in her 6th year of teaching VCE Biology at Canterbury Girls' Secondary College. She has a passion for bringing current research into the classroom and engaging girls in Science. Georgia is also a member of STAV Council.

Simon Maaser

Simon has had experience leading and developing Science curriculum within the government and independent school sectors. In addition, he was a member of the VCAA Review Panel for the new Biology Study Design and current Assistant Chief Assessor for the Biology examinations. As current Head of Science at Brighton Grammar School and lead author for the new Cambridge VCE Biology series, to be released in 2021, he has a passion for helping students and teachers to make important cross-content connections within the Biology curriculum.

Jennifer Mansfield

Jennifer is a Biology teacher educator from Monash University.



Lisa Moloney

Lisa has worked as a Science, Maths, Biology, Agricultural and Horticultural Studies teacher for many years. She spent five years as an Environmental Education Officer with the City of Whitehorse and provided bushland excursions and incursions with preschool, primary and secondary schools and ran bush kinder and nature play sessions. She is currently working at Reconciliation Victoria as their Education Project officer.



Michael O'Brien

A senior Biology/Chemistry teacher for 10 years, Michael established Newbyte Educational Software. Personally developing more than 20 highly interactive educational science programs over the last 30 years. He has also been an international consultant on projects for both the Malaysian and Scottish education departments, involving software design for biology courses.



Rachael Rutkowski

Rachael is a Biology and Chemistry teacher with experience in teaching IB and VCE as well as Years 7-10 Science. During her teaching career she has worked as a classroom teacher and as a specialist science education officer. Prior to teaching she was a science researcher with a PhD in genetics and molecular biology, and my research focussed on understanding the contribution of genetic pathways to cancer development. As a science educator she drew on her passion and experience to make learning authentic and engaging so that all students develop skills in science understanding and thinking.

Susan Ryan

Susan Ryan has taught Biology for many years in secondary, foundation year and tertiary education. Susan is an author with long involvement in writing trial biology exams, along with practical activities and contributing to textbooks. Susan's career included zoo education and specialised laboratory courses. She has worked with many international students, which has given her a comprehensive understanding of the needs of students and requirements to achieve their potential in Biology education.



Tori Shaw

Tori is a regular presenter at STAV Biology conferences and is an author of the Cambridge 7-10 Science series. She has extensive experience as VCAA exam assessor and is an author for the new VCE Biology Cambridge textbook and resource material.

Emma Stevenson

Emma is a Biology teacher educator at the University of Melbourne.



Frazer Thorpe

He was the sort of kid asking, what is that? How does that work? Why does it do that? This curiosity with living things inspired him to attain a PhD in biology. These experiences have deepened his understanding and connection with nature and led him to gain +15 years as a science/STEM teacher and communicator. With our world facing many threats, he has helped students and teachers think about the natural world and how we might act positively for wildlife.



Anna-Leisa Vietz

Anna-Leisa Vietz is the Community Education Manager for the Agriculture Victoria Research Division. Anna-Leisa is responsible for the management of the AgSTEM program and the creation of education material that showcase the digitally enabled research innovations within the division. Anna-Leisa has a diverse background, with qualifications in education, science and the arts. She has also worked as an industrial chemist and run a children's musical entertainment business.

Bianca Warnock

Dr Bianca has 5 years experience creating content and delivering interesting and engaging science programs for students- primary, secondary and tertiary. With a PhD in Biotechnology, and a passion for plants and food, Bianca would love to show you how to see the science in your world and make sure you love science as much as she does.



Peta White

Peta White is a science and environmental education senior lecturer at Deakin University. Peta has worked in classrooms, as a curriculum consultant and manager, and as a teacher educator in several jurisdictions across Canada and Australia. Peta gained her PhD in Saskatchewan, Canada where she focussed on learning to live sustainably which became a platform from which to educate future teachers. Her passion for initial teacher educator, environmental education/academic activist work, and action-orientated methodologies drives her current teaching/research scholarship. Peta's current research interests follows three directions including science and biology education, sustainability, climate change, and environmental education, and collaborative/activist research.



Annette Williams

Annette Williams is an experienced biology teacher, having taught in both secondary and tertiary levels. Annette is a member of the Biology Teacher's Network through which she regularly assists fellow teachers. Annette has an interest in curriculum development and making teaching and learning interactive to allow students and teachers to thrive. Annette has presented at STAV biology conferences previously.



Erin Wilson

Erin Wilson is the Curriculum Manager, STEM for the VCAA. With responsibilities for VCE Biology, VCE Psychology and the Victorian Curriculum F-10 Science, she has a keen interest in engaging students in science and education and developing quality science and STEM curriculum for all learners.



Eleanor Wood

Eleanor is a Head of Science and has been teaching Senior level Biology for the past 14 years (QCE, IB, A-Level and VCE) as well as VCAA Biology Exam Assessing since 2018. She is passionate about setting students up to succeed by giving them the best toolkit available