Conferences and Events

The STAV event calendar which includes all PD/conferences and science activities for the year is available on the STAV website: www.stav.org.au

STAVCON 2018 - Register Now
Friday 30 November 2018 at La Trobe University
This year's theme is ‘Game Changers and Change Makers’

VCE Conferences 2019
VCE Biology - Tuesday 12 February
VCE Chemistry - Wednesday 13 February
VCE Physics - Friday 15 February

National Science Week 2019
10 to 18 August 2019
Theme: Destination Moon: more missions, more science
The grant round for National Science Week 2019 is now open. See page 5 for full details.

Semester 2 2018 Trial Exams
You can order now for delivery into schools NOW

Science Talent Search
2019 theme is: Destination Moon: more missions, more science
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Science Victoria

Science Victoria hosts professional development activities on behalf of the Science Teachers’ Association of Victoria Inc. (STAV)

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Rod Fawns  Mark Learmonth
Dick Gunstone  David Trotter

Contact enquiries

For enquiries about Contact newsletter including advertising opportunities please contact the STAV Publications Officer phone: (03) 9385 3903 or email: publications@stav.vic.edu.au

Contact newsletter is available online as a PDF. Please ensure a current email address is on file at STAV so you will receive your link to the newsletter.
President’s Report

Schools are busily preparing their students for final assessments, VCE Exams and Valedictory Presentations. We wish all STAV members well during this period.

Trial Exams

Orders are still being processed for the STAV Publishing Trial Exams. To place your order or to receive extra copies please visit:


Upcoming events:

STAVCON Friday 30th November, La Trobe University

STAVCON 2018 – ‘Game Changers and Change Makers’ is a conference for Primary and Secondary STEM Educators, Lab Techs and educational researchers. We are fortunate to have the internationally renowned Australian, Prof Julian Savulescu as the Keynote, who has held the Uehiro Chair in Practical Ethics at the University of Oxford since 2002. He has degrees in medicine, neuroscience and bioethics. He directs the Oxford Uehiro Centre for Practical Ethics within the Faculty of Philosophy, and leads a Wellcome Trust Senior Investigator award on Responsibility and Health Care. He directs the Oxford Martin Programme for Collective Responsibility for Infectious Disease at the Oxford Martin School at the University of Oxford. He co-directs the interdisciplinary Wellcome Centre for Ethics and Humanities in collaboration with Public Health, Psychiatry and History. Julian has also joined the Murdoch Children’s Research Institute, spending four months per year as Visiting Professorial Fellow in Biomedical Ethics where he is working to establish a programme in biomedical ethics, and Melbourne University.

Please visit the following link for the program and registration:


2019 VCE Conferences

The program for the VCE Conferences will be available early November. The dates for the conferences are:

Biology – Tuesday 12th February, La Trobe University

Chemistry – Wednesday 13th February, La Trobe University

Physics – Friday 15th February, La Trobe University

Updates on all of the above will be posted via our social media and on our website.

Soula Bennett
STAV President
Science Talent Search Report

Exhibition and Presentation Day was held on Monday 29th October at La Trobe University. Hundreds of proud students, teachers and parents attended, exhibited entries and participated in presentation ceremonies. We extend our thanks to sponsors, presenters and announcers, and of course to all STS committee members and other volunteers for their tireless efforts in running a very successful day.

This year we had 3429 students enter STS from 173 schools. We awarded a total number of 651 bursaries from a sponsorship pool of $36,425.

Science Talent Search is a particularly rewarding experience for both students and teachers. It requires commitment and hard work from all parties, but almost inevitably it leads to great rewards at the end.

This year, again, all Major Bursary winning entries from Experimental Research, and Major and Minor Bursary winning entries from Inventions are eligible to enter the National BHP Billiton Foundation Science and Engineering Awards. This provides an additional opportunity for our Science Talent Search students to develop their science skills and win significant cash awards. Selected finalist entrants get a trip to the USA.

Cheques for students unable to attend the Presentations are mailed to schools during November. Only major and minor bursary students who attend can be presented with a medallion.

Uncollected country projects will only be returned to your school if you request it. Otherwise, all uncollected entries are disposed of.

As always, the STS committee requires new members for 2019 to replace those who are retiring. If you are interested in contributing to the running of STS please contact STAV by phone or email (9385 3999; sts@stav.vic.edu.au). The competition relies almost solely on volunteers to operate.

The theme for 2019 is: Destination Moon: more missions, more science.

Leonie Lang,
STS Management

Science Talent Search 2018

2019 Theme: Destination Moon: more missions, more science

Dates for 2018:

Online entry registration opened - Monday 26 February
Entry registration closed - Monday 28 May
Schools Pack 1 - 12 June
Judging Day - Saturday 4 August
Schools Pack 2 - 20 August (email correspondence)
Schools Pack 3 - 8 October

Exhibition and Presentation Day - 29 October

Check the Science Talent Search website for information about the competition www.sciencevictoria.com.au/sts

Diamond Sponsors of Science Talent Search

BHP Billiton Foundation
Science & Engineering Awards
National Science Week 2019

10 to 18 August 2019

Theme: Destination Moon: more missions, more science

2019 Grants Now Open
The grant round for National Science Week 2019 is now open.

The total amount available is $500 000 and grant applications can be for $2000 to $20 000.

Projects need to be largely for general public audiences and be held in National Science Week (10 – 18 August 2019), or in the week immediately before or after.

Applications are open until 5.00pm AEDT (Canberra daylight saving time), Tuesday 20 November. We strongly encourage you to submit well before the cutoff time.


New Members

Welcome to the following new individual members of STAV:
Stephanie Mateer
Kate Molloy
Jett Prout
Matthew Story
Zoran Vasic

STAV Membership

STAV Individual Membership fees:
Individual Primary $125
Individual Secondary $140
Individual both Primary/Secondary $175
Laboratory Technicians $105

The subscription of a member ceases to be effective if payment is not received prior to or on the date of renewal, as a result, membership and all rights pertaining thereto will lapse. Upon payment of all arrears, membership will resume from the date of payment.

How to join STAV

Download a form from our website www.stav.org.au/html/membership.html
You can also join online from this site.
Alternatively, contact the STAV office for more information: 03 9385 3999

Labtech list

The Labtech list has been set up by STAV as a discussion forum where Laboratory Technicians can exchange information, share ideas and seek advice.

We ask science coordinators to encourage their Laboratory Technicians to become a member of Labtech and participate in the discussion group.

It is free to join. Go to the Science Victoria website for more information: www.sciencevictoria.com.au/labtech.html
Upcoming Conferences – dates & rates

For all conference/PD information including programs and online registration check the Science Victoria website approximately 6 – 8 weeks prior to each conference: www.sciencevictoria.com.au/conferences.html

STAVCON 2018

Friday 30 November 2018 at La Trobe University
Theme is: Game Changers and Change Makers.

Conference rates

- STAV Individual Member.......................... $265
- STAV Subscriber .................................. $340
- STAV Non Member ................................. $375
- Full time Student Consession .................. $78
- Retired Teacher .................................... $78


VCE Conference Series 2019

- VCE Biology – Tuesday 12 February 2019
- VCE Chemistry – Wednesday 13 February 2019
- VCE Physics – Friday 15 February 2019

Conference rates

- CEA member (Chemistry) ....................... $188
- STAV Individual member ...................... $188
- STAV School Subscriber ........................ $305
- Non STAV member .............................. $330
- Full time Student Consession ................. $78
- Retired Teacher .................................. $78

Programs will be available very soon.

Contact the STAV business centre: Phone: 9385 3999 or email: stav@stav.vic.edu.au
Start your journey with a lower rate

We’ve discounted our New, Used and Green Car Loan rates by 3%¹ so you can enjoy the freedom a new car brings.

Green Car Loan

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Promotional Variable Interest Rate

To find out more call 1300 654 822 or visit bankfirst.com.au

Interest Rate effective 30 June 2018 and subject to change. Check website for current rates. 1. Promotional interest rates available for car loan applications received between 30 June 2018 and 30 June 2019 and funded by 31 July 2019. The 3% discount is off the standard car loan rate. We reserve the right to amend or withdraw these offers at any time. 2. Comparison rate calculated on a secured loan amount of $30,000 for a term of 5 years. WARNING: This comparison rate is true only for the example given and may not include all fees and charges. Different terms, fees and other loan amounts might result in a different comparison rate. Fees and charges apply. Terms and Conditions are available on request. Victoria Teachers Limited ABN 44 087 651 769, AFSL/Australian Credit Licence Number 240 960.

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**Essential science skills**

A toolbox for the middle years

*Essential science skills* is a 126-page black line masters book for use with years 5 – 7. Developing science skills and knowing how to apply them is an essential part of learning about science. Science skills such as communicate, investigate, use ICT, use scientific knowledge and many more are presented as student handout sheets. These are complemented with classroom strategies for use by the teacher and student skill builder worksheets – ready for photocopying and instant use. Student skill builders provide usable examples of how the classroom strategies can be implemented; they demonstrate how to explicitly teach the strategies and provide students with many opportunities to use them. A series of matrices show links with VELS and how the skills and classroom strategies are linked. This book was produced by the Maroondah/Nunawading cluster.

**Price**

- $44.90 Members/subscribers
- $46.90 Non-members
- Plus Postage & Handling $15.00

**For further information about this product contact:**

STAV Publishing • Telephone (03) 9385 3999 • Email: admin@stav.vic.edu.au

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**Science Talent Search Professional Development Kit**

Free

Order your copy now!

This kit aims to encourage teachers who are inexperienced in conducting STS to enter the competition. It contains useful hints on how to successfully implement STS in your school.

**How to order**

Just send through a request for the STS PD Kit, to the below email and an electronic copy will be forwarded to you.

sts@stav.vic.edu.au
The Annual Conference of the Science Teachers’ Association of Victoria Inc.

Keynote Address:
Professor Julian Savulescu

Sessions at STAVCON this year include:

Developing an integrated Primary STEM program - Nathan Moore & Rachel Pacuzzo

Beyond the STEM buzzword - Helen Silvester & Brian Murphy

Immersive Science: Virtual Reality in the Scientific Process - Jacqueline Bondell & Mark Myers

Designing and Using Effective Formative Science Rubrics - Adrian Bertolini

Science by Doing: Engaging students with science - Jef Byrne

Game Changer: Science Pedagogy in a virtual classroom - Jade Bohni

Are we leaving our science students out in the cold? - Cressida Byrne

Safe handling of Microorganisms - Dr Radhika Iyer

Plus celebrate at the STAV 75th Birthday Event

The conference offers Primary and Secondary delegates over 70 workshops across VCE Sciences, AusVELS/Victorian Curriculum and the Australian Curriculum and access to over 60 Exhibitors of science related products and publications. The Conference utilises La Trobe’s upgraded facilities including the new Union Building and new catering provider.

How to register or further information


There you will find the Registration Book with all sessions listed along with their abstracts and booking information. Register quick to ensure selected sessions are available.

To register online go to: http://sciencevictoria.com.au/gateway/stavcon.php

Registration includes, Keynote Speaker, Sessions, Morning Tea and Lunch, access to more than 60 displayers stalls and STAV 75th Birthday Celebrations Event.

Contact STAV by email: stav@stav.vic.edu.au or phone: 03 9385 3999
Past Trial Exam CDs
Create your own mix of past exams from any combination of the following:

2010 – 2017
- Biology Units 1 – 4
- Chemistry Units 1 – 4
- Physics Units 1 – 4
- Psychology Units 1 – 4

Questions and solutions are in Adobe Acrobat pdf format. Files can be delivered via your school intranet, saved to hard drive or printed. Copy and paste prohibited.

**Price:** $20 per exam.

Choose as many exams as you want, in any combination you want.

**Order form available at**

or contact STAV for an order form:
STAV Publishing
Phone: 03 9385 3999
Email: admin@stav.vic.edu.au

VCE Trial exam papers
STAV Publishing produces VCE trial exams for:

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**Costs**
- Papers $8.00;
- Solutions $6.00
- Papers $10.00;
- Solutions $7.00

Plus postage and handling.

**How to order**
Download an order form at:

or
STAV Publishing
Phone: 03 9385 3999
Fax: 03 9386 6722
Email: admin@stav.vic.edu.au

Past Trial Exams are also available.

Forceful Experiences
Colouring Newton’s Laws of Motion
By Christina Hart

This resource, for teachers and students of general science at the junior high school level, introduces Newton’s Laws of motion at a qualitative level. ‘Forceful Experiences’ takes students’ experiences of motion as a starting point, and guides them to construct a more powerful framework for understanding their everyday world. The approach also provides a secure foundation for those students who will go on to study physics at a more advanced, mathematical level. Features include: Short summaries of the main conceptual points are provided at the end of each chapter. There are frequent opportunities for students to ‘Pause for thought’ and engage with the ideas they have encountered. These can be set as homework activities and used for small group discussions. At strategic points students are challenged to demonstrate what they have learned. Teachers can use these tasks as a basis for formative and/or summative assessment. An accompanying web page provides supporting materials for teachers and students.

**Price:** $15.00 plus $15.00 postage & handling

**To order:** email admin@stav.vic.edu.au
STAV is seeking article submissions for LabTalk and Let’s Find Out

The Science Teachers’ Association of Victoria Inc. produces two professional journals (LabTalk and Let’s Find Out) for members and subscribers. The journals are produced quarterly. They aim to promote and enhance the teaching of science in all Victorian schools and to contribute to professional learning. The journals contain feature articles, accounts of significant science events held in schools and in the wider community, activities and demonstrations for use in the classroom, along with an assortment of other articles and information about teaching techniques, hints, safety, ICT and anything else that helps to share information and ideas amongst colleagues.

Who contributes?
Any person with an interest in science education – primary, secondary, tertiary and pre-service – can contribute. You don’t need to be a member of STAV, although you are most welcome to become one. Contributors share classroom ideas and experiences, research outcomes, stories about their involvement in science and science education, career information and any other issues that contribute to improving the quality of science teaching and learning and to teacher and student interest in science-related issues.

Why contribute?
Writing for LabTalk and Let’s Find Out provides avenues to share with, and contribute to, your professional association. It provides an avenue for professional learning for you as a contributor and for your colleagues as a receiver of the information.

Further information or a submission form:
Web: www.stav.org.au/html/journals.html • Phone: (03) 9385 3999 • Email: admin@stav.vic.edu.au

Illuminated pocket microscope

A small, portable microscope that is ideal for young children, adolescents and adults to investigate a multitude of items including clothing fibres, plants, insects or any other scientific specimen. There is no need for small extracted samples – simply remove the slide tray, walk around the room and place the viewfinder above the item you wish to view.

The microscopes are small (14cm x 4.5cm), light (80 grams) and easy to grip, maneuver and adjust. The light source is strong. These small but powerful instruments are ideal for in the classroom, outside in the school yard, or for taking on excursions and fieldwork. They are fully portable and no bench or table is necessary for resting on.

Features
- Zoom switch – adjusts magnification power (60x - 80x - 100x)
- Focus wheel.
- Direct light source to specimen
- Removable slide tray
The light operates from two AA batteries (not included).

Price
- $20 (incl. GST) STAV members/institutional subscribers
- $25 (incl. GST) Non-members
10% Discount for bulk purchases (more than 5 items).
Postage and handling: $15 (incl. GST)

For enquiries contact:
STAV Publishing
PO Box 109 Coburg VIC 3058
Telephone (03) 9385 3999
Email: admin@stav.vic.edu.au

Microscope activities
The microscopes include activity suggestions. If you have already purchased the product you can download the activities from: www.sciencevictoria.com.au/stavpublishing/pocketMicro.html
Brain Box  Electronics kit for Primary and Lower Secondary

This kit includes 188 ideas for constructing different circuits on a base board. These circuit boards can be activated by magnet, water, light, touch or sound and produce different kinds of reactions such as flashing bulbs, motorized fans, flying discs and various sound effects. Examples include a water activated doorbell, sound activated doorbell, magnetically activated motors, and electric fan.

All components have snap fasteners which make assembly very easy and quick. All components are coded so that young children (and adults!) can easily follow construction diagrams.

Members/subscribers $38  (incl GST)
Non-members $40.50 (incl GST)
Postage and handling additional.

Need spare parts?
Have you lost some pieces? Would you like to extend the capability of your current set? Spare parts for all components of the Brainbox are available. For a price list contact STAV Publishing, or check the website.

Flyer and order form available from:

STAV Publishing
PO Box 109, Coburg Vic 3058 • Fax: 03 9386 6722 • Ph: 03 9385 3999
Email: admin@stav.vic.edu.au • Web: www.sciencevictoria.com.au/stavpublishing/index.html

Teaching resource for Unit 3 Biology immunology concepts

Are your students confusing APCs, B-cells and T-cells?
ImmuKNOW is your solution!

ImmuKNOW is an easy to use visual teaching resource with movable immune cell representations for use on whiteboards. Each component has a magnetic strip which allows it to be attached to magnetic whiteboards or any other flat steel surface.

ImmuKNOW is colourful, engaging and clearly visible. It allows easy visualization of receptor/cell interactions such as T-cell receptors and MHCs. It can be used by both teachers and students.

ImmuKNOW consists of 3 separate kits:
Kit 1  Immunity to infection
Kit 2  Allergy and allergic reactions
Kit 3  Humoral immunity

Each kit is accompanied by an instruction booklet.

Price per kit is:
Member $90 (includes GST); postage & handling $15
Non member $95 (includes GST); postage & handling $15

How to order
Email, Fax or post purchase order to: STAV Publishing
Email: admin@stav.vic.edu.au
Fax: 9386 6722 • Post: PO Box 109, Coburg VIC 3058
Enquiries: 03 9385 3999

ImmuKNOW images available on CD

All of the images used for the three ImmuKNOW kits are now available for purchase on CD. Go to www.sciencevictoria.com.au/stavpublishing/immuknow.html

ImmuKNOW kits were developed and previously distributed by SYNERGYA Young Achievement Australia program.
Science Teachers’ Association of Victoria Inc.  
‘Advancing Science Education’

**STAV Goals**

- Establish and maintain both financial and intellectual independence
- Represent the collective voice of science educators in Victoria
- Influence policy formulation in matters relating to Science Education
- Support and maintain regional special interest groups within STAV
- Provide a range of resources and services to support science educators
- Provide for and encourage student participation in a range of challenging science activities
- Promote the importance of Science Education to the community
- Recognise significant contributions by STAV members to Science Education.

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**Contact Advertising Deadlines**

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**Contact STAV**

Phone: (03) 9385 3999 • Fax: (03) 9386 6722
Email: stav@stav.vic.edu.au • Website: www.stav.org.au
Address: PO Box 109, Coburg VIC 3058 • 5 Munro Street Coburg, VIC 3058