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

VCE Conferences 2019 - Register Now
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
See page 5 for more details.

Science Talent Search
2019 theme is: Destination Moon: more missions, more science
2019 topics are available on page 5.

Website Links

For the latest events and conference information go to STAV’s website: www.sciencevictoria.com.au
For information about the Association or science activities go to: www.stav.org.au

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The staff at STAV wish you a happy and safe Christmas and a prosperous New Year
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**STAV Contacts**

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

The 2018 school year is coming to an end and with it another year of supporting the teaching and learning of Science through STAV’s many events including the celebration of our 75th Anniversary at STAVCON 2018; ‘Game Changers and Change Makers’. Over 480 delegates, exhibitors, presenters and guests attended the conference, which was officially opened by Prof John Dewar, Vice Chancellor and President of La Trobe University. The keynote was delivered by the world renowned bioethicist; Prof Julian Savulescu. Julian’s engaging and thought provoking presentation was well received by all with questions continuing on through to morning tea! It was also wonderful to meet with the STAV members in attendance throughout the day and to listen to the excellent initiatives they are undertaking in their schools. The conference concluded with the 75th Anniversary celebrations at the Eagle Bar and with the recognition of the contribution of STAV members to science education through the STAV Life Membership Award, presented to Robert Roe and the STAV Distinguished Service Award presented to; Leonie Lang, Janice Teng, Judith Sise and Diana Veremciukas. Congratulations to all recipients!

I am delighted to announce that STAV has secured a 3 year partnership with the Department of Education and Training to address the challenges associated with STEM stereotypes. STAV will provide professional learning opportunities through its existing activities and through targeted professional learning throughout Victoria.

The year in a snapshot!

STAV Study Tour (December 29th 2017 – January 15th 2018)
- Inaugural Study tour to the London (Royal Society, Faraday’s Lighthouse, Science Gallery, Greenwich, Museums) Cambridge University, Bletchley Park, Paris (Pasteur Institute), Geneva (CERN) and Prague (Mendel University)

- VCE Conferences: Chemistry 13th Feb, Biology 14th Feb and Physics 16th Feb
- Psychology Workshop 7th June
- Lab Tech Conference 8th June
- Science Leaders’ Conference 27th July
- STEM Conference 31st August
- STAVCON 30th November

Science Talent Search
- 3,429 students entering from 173 schools
- 3rd Prize in the Engineering section of the BHP Billiton National Student Awards to Jack Chapman from St Leonard’s College
- National Teacher Winner; Adele Hudson Aitken College

Upcoming events:

2019 VCE Conferences
The program for the VCE Conferences will be available early November. The dates for the conferences are:
- Biology – Tuesday 13th February, La Trobe University
- Chemistry – Wednesday 14th February, La Trobe University
- Physics – Friday 16th February, La Trobe University

Updates on all of the above will be posted via our social networks and on our website, so please make sure you follow us on Twitter and like us on Facebook!

On behalf of STAV Council and the STAV Secretariat, I wish you and your families a wonderful festive break and happy start to the New Year.

See you all in 2018!

Soula Bennett
STAV President

National Science Week
- Theme ‘Game Changers and Change Makers’ events across the state

VCE Trial Exams
- Units 1 – 4

A special thank you to all STAV members. Your financial support ensures that we are able to continue to offer the above services along with providing a collective voice for science teaching to government at both the state and federal levels.

2019 STAV Council
Soula Bennett – President
Alexandra Abela – President Elect
Joanna Alexander – Vice President, Treasurer
Fiona Trapani – Lab Talk Editor
Yuvadee Patchon – Lab Tech Representative
Michael Rosenbrock – Regional Representative
Georgia Lumb – Secretary
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.

Cheques for students unable to attend the Presentations are mailed to schools during December. Only 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.

Dates for the Science Talent Search 2019 are in this newsletter. All entry is by online registration and the registration site opens 25th February 2019.

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

The set topics for the Posters and Creative Writing essays are in this issue. (See page 5)

The 2019 handbook will be available on the STAV website from late January (www.sciencevictoria.com.au/sts/index.html). If you want to start STS early in the term this is the best place to get information. The hard copy will be sent to individual members and subscriber schools with the February edition of Contact.

Look out for ideas on resources and excursions on the website and in the February Contact STS report to stimulate your students’ interest in next year’s theme.

As always, the STS committee needs new members for 2019 to replace those who are retiring. We are sad to be farewelling an unusually high number of retirees this year so our need for volunteers to fill the vacancies is particularly urgent for next year. We would hate to have to curtail the competition. There are 5 committee meetings each year, plus Judging day in August and Presentation day in November. If you would like to join us and contribute to the running of STS please contact STAV: Phone 9385 3999; email: sts@stav.vic.edu.au

Leonie Lang,
STS Management

Science Talent Search 2019

2019 Theme: Destination Moon: more missions, more science

Dates for 2019:

Online entry registration opened - Monday 25 February
Entry registration closed - Monday 27 May
Schools Pack 1-11 June

Judging Day - Saturday 3 August
Schools Pack 2 - 19 August (email correspondence)
Schools Pack 3 - 7 October

Exhibition and Presentation Day - 28 October (TBC)

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

La Trobe University
Science Talent Search 2019

2019 STS Topics

THEME: DESTINATION MOON: More missions, more science

Primary divisions: Creative Writing
1. Walking on the moon
2. I am a lunar astronaut
3. Destination moon
4. The dark side of the moon

Junior/Intermediate divisions: Creative Writing
1. The dark side of the moon
2. Moonbots! They’re here...
3. Living on the moon, one surprise after another
4. Dear moon: we’re staying...

Primary divisions: Posters
1. Destination moon
2. Exploring the moon
3. How to build a lunar home
4. A new colony on the moon

Junior/Intermediate divisions: Posters
1. Lunar farming
2. Destination moon – technological leaps
3. Colonising the moon
4. The moon, a jumping off platform to...

National Science Week 2019

10 to 18 August 2019
Theme: Destination Moon: more missions, more science

More information at www.scienceweek.net.au/

New Members

Welcome to the following new individual members of STAV:
Luca Bertolaccis
Kristina Ford
Amatul Hateeza Sayyada

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
Utcoming 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:

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

Register now at

Exhibitors register now at

Contact the STAV business centre: Phone: 9385 3999 or email: stav@stav.vic.edu.au
Reward yourself with our highest variable interest rate

- No account keeping fees.
- Access your funds anytime.
- No minimum opening balance.

**Bonus Saver Account**

2.85% p.a. Promotional interest rate1

Amounts $80-$149,999

Call 1300 654 822 | Visit bankfirst.com.au

Interest rate is per annum, effective 2 November 2018 and subject to change without notice. This information does not consider your objectives, financial situation or needs - consider the suitability of this information and refer to Terms and Conditions or Product Disclosure Statement before acquiring a product, available at our branches or call 1300 654 822. Offer available from 2 November 2018 to 30 June 2019 for new customers aged 18 and over. We reserve the right to amend or withdraw this offer at any time. Interest additional to the base rate applies when you make at least one deposit of a minimum of $1.00 and no withdrawals in the calendar month. Account balances $150,000+ will receive 2.05% p.a. On 1 August 2019 the Promotional Bonus Saver Account will revert to the standard Bonus Saver Account with the relevant interest rate at the time currently 2.25% p.a. for balances $1,000-$49,999. Limit of one Prime Bonus Saver Account per customer. Victoria Teachers Limited, ABN 64 067 651 169, AFSL 260 999.

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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
Beginning Science Teachers’ Handbook

The handbook contains ideas, information and advice on how to cope whilst at the same time improving your teaching and professional performance.

What does it cost?
$25 incl. GST  Members
$35 incl. GST  Non members
plus Postage & handling $13.00

The content includes:
• Learning the Science Faculty Ropes
• Classroom Management
• Teaching Classes of Mixed Abilities/Individual Differences
• Engaging and Extending Students in your Science Class
• Professional Conduct and Standards of Practice
• Science Safety
• Getting Involved with your Professional Association
• Getting the Best out of Extension Education
• Developing a Science Assessment Toolbox
• eLearning and Science
• Resources and Websites List.

How to order:
For Enquiries phone: 9385 3999

Do you want to sell a science related product or promote a science event?

Advertising is available in STAV Publications which are distributed to science teachers and organisations throughout Victoria.

STAV has 3 publications:
• CONTACT - monthly newsletter (email only)
• Let’s Find Out - primary science journal
• LabTalk - secondary science journal

You can book an advert. Adverts can be quarter, half or full page adverts. You can also send PDF documents that can be added to Contact as insert style advertising.

For further information regarding advertising bookings, rates and timelines, please contact the STAV on (03) 9385 3999 or email: publications@stav.vic.edu.au

Science Coordinators’ Handbook

This handbook contains ideas, strategies and information relevant to leading and managing your science faculty. Suitable for inexperienced, experienced and aspiring coordinators. Includes a CD-Rom containing useful templates, samples and other tools.

Cost
$33  Members
$44  Subscribers/non-members
$15  Additional Postage

For further information contact
STAV Publishing
Ph: (03) 9385 3999 or Email: admin@stav.vic.edu.au

Emerging SCIENCES VICTORIA (ESV)

An opportunity for Year 9 and 10 students to engage in specialised STEM-based studies and careers through a virtual classroom.

Emerging Sciences Victoria (ESV) is a virtual interactive classroom, providing a unique opportunity for Year 9 and 10 students to study contemporary STEM subjects, regardless of their geographic location. ESV classes run for 50 minutes, twice a week over 15 weeks and provide access to specialised science subjects through web-based teaching and learning platforms.

WWW.EMSCI.VIC.EDU.AU
ENROL NOW FOR 2019
Science Teachers’ Association of Victoria Inc.

2019 VCE Conference Series

**VCE Biology** - Tuesday 12 February, 2019 at La Trobe University, Bundoora
- **Keynote Address:** Unlocking the antimicrobial action of innate defence peptides: A story of multidisciplinary research collaboration - Mark Hulett and Marc Kvansakul
- Review of the 2018 Biology Examination and Assessment report - Hugh Latimer, Chief Assessor
- Year 12 Biology Revision Techniques - Manolya Mousafa, Lakeview Senior College
- Mobile phones apps that turn primary and secondary students into scientists - Michael Kasumovic, UNSW Sydney/Arludo

**VCE Chemistry** - Wednesday 13 February, 2019 at La Trobe University, Bundoora
- **Keynote Address:** New surfactants from plant sources: next generation detergents - Rico Tabor, Senior Lecturer, ARC Future Fellow, School of Chemistry, Monash University
- Statistics for VCE Science Teachers - Madeline Toner, La Trobe University
- All things AOS3 - Dr Adele Hudson, Aitken College
- Teaching Units 1 and 2 Chemistry - Carolyn Drenen, Early Chemistry Careers Network & Nicole Dobson, Mount Alexander College

**VCE Physics** - Friday 15 and Saturday 16 February, 2019 at La Trobe University, Bundoora
- **Keynote Address:** Precision cosmology with the next generation of telescopes - Dr Laura Wolz, ARC DECRA fellow, University of Melbourne
- Shining Light on Diffraction, Interference and Image Resolution - Dr Barbara McKinnon, Kew High School
- Responding to short answer questions - Chief Assessor, Andrew Hansen, Ringwood Secondary College
- Uncertain Uncertainties - Theo Hughes, Monash University
- Designing SACs and assessments that aren’t tests - Jane Coyle, St Columba’s Essendon

**Further information including Registration**
You will be able to view online or download, all the conference programs and the registration forms.
Check the Science Victoria website for information updates.

Phone: (03) 9385 3999 • Email: stav@stav.vic.edu.au • Website: [www.sciencevictoria.com.au](http://www.sciencevictoria.com.au)
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

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.

Microscope activities

The microscopes include activity suggestions. If you have already purchased the product you can download the activities from:


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
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

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
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.

Contact Advertising Deadlines

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For more advertising details go to