



## Latest events >>

For the latest events and conference information go to STAV's website:  
[www.stav.org.au](http://www.stav.org.au)

For information about science activities & competitions go to:  
[www.stav.org.au](http://www.stav.org.au)

## Contents

- 2 STAV contacts
- 3 President's report
- 3 Project Officer's report
- 4 STS report
- 4 Science Drama report
- 5 STS dates
- 5 New members
- 6 Conference information
- 12 STAV important dates

## Conferences/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](http://www.stav.org.au)

### Physics Workshops 2011

These popular small-group workshops will be conducted again in October and November 2011 at STAV House. Opportunities are also available for schools, including regional areas, to conduct the workshops in-house. Refer to our website for more information <http://www.sciencevictoria.com.au/otherPD.html>

### Science Talent Search

Schools Pack 1 is due in schools on June 20. More information on pages 4 and 5, and on the STS website [www.sciencevictoria.com.au/sts](http://www.sciencevictoria.com.au/sts)

### LabTech Conference

Friday 10 June. Visit the LabTech website for more information. [www.sciencevictoria.com.au/labtech/index.html](http://www.sciencevictoria.com.au/labtech/index.html)

### National Science Week Grants

Applications close 17 June. More information on page 5.



### Adapting to Climate Change activities

Written by STAV Publishing. More information on page 4.



**STAV is on Facebook**  
go to [www.stav.org.au](http://www.stav.org.au)



## STAV Contacts

### STAV Council

#### **Soula Bennett**

*President*  
Quantum Victoria  
president@stav.vic.edu.au

#### **Joanna Alexander**

*Vice President and Treasurer*  
Vermont Secondary College  
alexander.joanna.j@edumail.vic.gov.au

#### **Joanne Hawker**

*Honorary Secretary*  
Templeton Primary School  
hawker.joanne.s@edumail.vic.gov.au

#### **Catherine Zerbe**

*Honorary Secretary*  
Alexandra Secondary College  
zerbe.catherine.e@edumail.vic.gov.au

#### **Suzanne O'Shannessy**

*Public Officer*  
execdirector@stav.vic.edu.au

#### **John McDonald**

La Trobe University  
j.mcdonald@latrobe.edu.au

#### **Catriona Tweedie**

Balwyn High School  
Catriona.Tweedie@balwynhs.vic.edu.au

#### **Jodie Tilley**

Mooroolbark College  
tilley.jodie.n@edumail.vic.gov.au

### Life Members

David Cohen	Gretta Wilkinson
Rod Fawns	Don Lugg
Dick Gunstone	Mark Learmonth
Jim Stevenson	

### Beginning Science Teachers' Network

**Peter Morgan**

### Psychology Sub-Committee

**Position Vacant**

### STS Co-Directors

#### **Josie Crisara**

Aitken College  
jcrisara@ozemail.com.au

#### **Peter Craig**

Mt Waverley Secondary College  
pjcraig@netspace.net.au

#### **Leonie Lang**

leonielang@optusnet.com.au

#### **Viv Eckersley**

Aitken College  
veckersley@aitkencollege.edu.au

#### **Miranda McKellar**

Hoppers Crossing Secondary College  
mckellar.miranda.m@edumail.vic.gov.au

#### **Ellen Finlay**

STS Project Officer

### Science Drama Director

#### **Jan Campione**

Pascoe Vale Girls College  
cam@pvgc.vic.edu.au

### STAV Journal Editors

#### **Ellen Finlay**

*Managing Editor*  
projects@stav.vic.edu.au

#### **Barb Brook**

*Let's Find Out*  
brookbl@optusnet.com.au

## STAV Business Centre

#### **Suzanne O'Shannessy**

*Executive Director*  
Ph: 9385 3999  
execdirector@stav.vic.edu.au

#### **Anne Heard**

*Receptionist*  
Ph: 9385 3999  
stav@stav.vic.edu.au

#### **Kerry Gledhill**

*Accounts Officer*  
Ph: 9385 3908  
payments@stav.vic.edu.au

#### **Ellen Finlay**

*STAV Publishing*  
Ph: 9385 3999  
projects@stav.vic.edu.au

#### **Kellie Jackson**

*Desktop Publisher*  
Ph: 9385 3903  
publications@stav.vic.edu.au

#### **Annette McKenna**

*Office Assistant*  
Ph: 9385 3904  
admin@stav.vic.edu.au

## Science Victoria

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

## STAV is now an Inc.

STAV has successfully migrated from a company regulated by ASIC to an incorporated association regulated by Victoria's Department of Justice. This change was approved at the 2006 AGM. The change simplifies the laws governing STAV and reduces regulatory costs. It has no other substantial impact.

**The Science Teachers' Association of Victoria Inc. (STAV) has a new ABN 59 004 145 329**

## 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 also accessible in an electronic version via email as a PDF. The electronic version is available up to 1 week earlier than the distribution of the printed copies of Contact.

If you prefer to receive Contact newsletter by email rather than the printed version please email STAV: stav@stav.vic.edu.au

## President's Report



When the United Nations declared that 2011 would be the International Year of Chemistry, it did so not only to celebrate the wonderful contributions to humanity that Chemistry has provided, but also because the year 2011

coincided with the 100th anniversary of the Nobel Prize in Chemistry awarded to Marie Curie. With this in mind, the International Union of Pure and Applied Chemistry (IUPAC) published a special issue of 'Chemistry International' celebrating the life of Marie Sklodowska Curie. I am in awe of Madame Curie's many achievements and amazed that she was a dual Nobel Laureate in both Chemistry and Physics! There is an opportunity for us to celebrate her life as well as recognise the many contributions of women to science through the Australian Curriculum's 'Science as a Human Endeavour' strand. The following link takes you to the January – February 2011 issue.

<http://www.iupac.org/publications/ci/2011/3301/index.html>

The Australian Academy of Science held its annual 'Science at the Shine Dome 2011' event during the 4th – 6th May in Canberra. One of the many events celebrated at the Shine Dome was the induction of the 'New Fellows and Medallists' into the Academy. I'm pleased to announce that the newly elected Victorian Fellows of the Australian Academy of Science together with this year's medal winners will give brief presentations of their work at the upcoming Australian Academy of Science; New Fellows' and Medallists' Symposium. This symposium is a free public event and will occur on Thursday 16th June between 6pm -7.30 pm at the University of Melbourne.

Some of the recipients include: Professor Marilyn Anderson FAA (Biochemistry, La Trobe University) – Safe sex in plants; Professor Michael Goddard FAA (Land Food Resources, University of Melbourne) – Genetics of complex traits; Professor Joseph Monaghan FAA (Mathematical Sciences, Monash University) – The myriad uses of particles in simulation; Dr Alicia Oshlack (Walter and Eliza Hall Institute), Winner of the Ruth Stephens Gani Medal for research in human genetics – The evolution of gene expression in humans. Enquiries: Kerry Grieser 8344 9866 or email: [kerryh@unimelb.edu.au](mailto:kerryh@unimelb.edu.au)

**Soula Bennett**

**STAV President**

## Project Officer's Report



It's already time to start thinking about semester 2 VCE trial exam orders. An order form is available on the STAV Publishing website. Please try to order by the due date (to assist us to ensure there is enough stock). Student numbers don't vary much, if any, as the exam dates get closer, so there seems little reason to wait until the last minute to order. If you are ordering Physics Unit 2 please remember to tell us which detailed study you require so that we can insert the appropriate one for your school.

STAV Publishing also has a range of other primary and secondary resources available for purchase. Visit our website for more information, including sample preview pages.

(<http://www.sciencevictoria.com.au/stavpublishing/>)

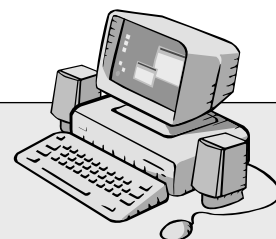
**Ellen Finlay**

**Project Officer, STAV Publishing**

**Phone: 9385 3999**

**Fax: 9386 6722**

**Email: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)**



### Do you know?

You can download back issues of *Contact* from the STAV website?

For past editions, go to

<http://www.stav.org.au/html/journalsNewsletter.html>

### Do you also know?

STAV has a science education links page on our website.

There are links to various sites for biology, chemistry, physics, psychology, general science, government departments, other subject associations and more... Go to <http://www.stav.org.au/html/scienceLinks.html>

### Have a browse

Browse our website to see what information is available to you – you'll find information about conferences and workshops, trial exams, science education resources, membership, our journals and newsletters, Science Talent Search, science events run by other organisations, Science Drama Awards and other student activities, National Science Week, Laboratory Technicians group (LabTech) and much more. Go to <http://www.stav.org.au>

## Science Talent Search Report



Online registration and the checking process are complete. Please ensure that you keep a close eye on your email as we will be corresponding with you by email where possible.

You will receive confirmation of your entries along with face sheets and entry labels for judging on Monday June 20. These need to be filled in, signed and attached to each project prior to submission. You will be invoiced on the data in the system on the final closing date May 27. You cannot withdraw entries after this date – if you choose not to submit, you still need to pay the entry fee.

However, there are still several weeks before entries need to be finished, so students still have time to complete their projects. For those who have based their research on this year's theme, the resource book 'React to Chemistry', which will shortly arrive in schools in preparation for National Science Week, could provide needed references and ideas.

The Science Talent Search committee urgently needs new members. In particular, we need someone to assist with collating the Junior Creative Writing entries in August and helpers at the Games Judging Day at Wesley on August 13. If you, or anyone you know, is interested in STS and would like to help the competition to operate, please contact Ellen Finlay at the STAV office, who is happy to discuss what is involved. It is an extraordinary professional development activity and can be used to support VIT professional learning requirements.

Science Talent Search is run almost entirely by volunteers, with some support from the STAV office. It is crucial for the longevity of the competition that we have enough members on our committee each year to handle the requirements.

Please pass this message on to colleagues.

**Leonie Lang**

**STS Co-Director**

## Science Drama Awards Report



Please make sure that you go through your Entry Information Kits very carefully, that all required sections are fully completed and that you provide the stated number of copies with your DVD entry.

### Competition dates are as follows:

- |           |  |
|-----------|--|
| May 3     | Entry Information Kits sent upon receipt of Entry Form |
| August 8  | DVD entry and kit due.                                 |
| August 14 | Preliminary judging of DVD entries.                    |
| August 17 | Finalist kits sent to entrants.                        |
| Sept 9    | Performance Night: Canterbury Girls' Secondary College |

Competition details and forms are available on the STAV website.

### Jan Campione

#### Director

#### Science Drama Awards



## Adapting to Climate Change

### Activities – free on STAV's website

STAV Publishing has recently completed a suite of activities about adapting to climate change. The activities, suitable for VELS levels 5 & 6, are available online as pdf files. Yvonne Sanders, co-author of STAV Publishing's very popular *Better Links* book (now out of print), is the author. The files have live links embedded and will work well with an electronic whiteboard, or they can be printed in hardcopy and used in conjunction with the accompanying teacher notes to source the urls. The full package includes fifteen activities (seven for level 5 and eight for level 6), suggested answers, links to VELS and comprehensive teacher notes.

[www.stav.org.au](http://www.stav.org.au)

## Science Talent Search 2011



**2011 Theme: React to Chemistry**

**Schools Pack 1 sent to schools by June 20.**

**Creative Writing, Experimental Research and Country entries due to STAV by July 29.**

**Judging Day:** Saturday 13 August.

**Exhibition and Presentation Day:** Wednesday 2 November 2011.

Check the Science Talent Search website for information about the competition  
[www.sciencevictoria.com.au/sts](http://www.sciencevictoria.com.au/sts)



The Department of Education and Early Childhood Development is proud to be the major sponsor for the Science Talent Search.

## Science Drama Awards 2011

DVD entries due: 8 August

Preliminary judging: 14 August

Finals performance: 9 September

## National Science Week 2011

**Theme: React to Chemistry**

**Date: 13–21 August**

### Grants

Grants are available from STAV for National Science Week activities. Refer to the website [www.sciencevictoria.com.au/NationalSciWeek.html](http://www.sciencevictoria.com.au/NationalSciWeek.html). Grant applications close 17 June.

## New Members

Welcome to the following new individual members of STAV

James Arness

David Bentley

Linda Jradi

## STAV Membership 2011

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](http://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 co-ordinators 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](http://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](http://www.sciencevictoria.com.au/conferences.html)

These programs can also be found on the VIT Pdi search engine – all listed programs reference the standards of professional practice for renewal of VIT registration [www.vit.pdi.vic.edu.au](http://www.vit.pdi.vic.edu.au)

**Labtech Conference 2011** - Friday 10 June at John Scott Meeting Room at La Trobe University, Bundoora.

Theme: *Vision for the Future*

Cost ..... \$65

## Physics Workshops

These workshops are intended for teachers of years 5-10 science who wish to develop their own conceptual understanding; the concepts are presented at the level of year 9 – 11 students.

**Newton's Laws of Motion** – 14 October 2011

**Electricity** – 11 November 2011

More information and registration details at [www.sciencevictoria.com.au/otherPD.html](http://www.sciencevictoria.com.au/otherPD.html)

## In-House Professional Learning Sessions

- ICT in Science
- Science Talent Search
- Physics (Electricity and Laws of Motion)

Contact STAV for details or visit Science Victoria's website.

**STAVCON 2011** – Monday 28 and Tuesday 29 November 2011 at La Trobe University.

Theme: *Building Knowledge*

## VCE Conference Series 2012

**Physics** – Friday 17 February, 2012 at Monash University

**Biology and Environmental Science** – Monday 20 February, 2012 at La Trobe University

**Chemistry** – Friday 24 February, 2012 at La Trobe University

**Contact the STAV business centre: Phone: 9385 3999 or email: [stav@stav.vic.edu.au](mailto:stav@stav.vic.edu.au)**

## 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.

**\$44.90** Members/subscribers

**\$46.90** Non-members

Plus Postage & Handling \$8.00

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

STAV Publishing PO Box 109 Coburg VIC 3058  
Telephone (03) 9385 3999 • Fax: (03) 9386 6722

Email: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)



## Endangered, Extinct and on the Brink: Young Scientists at Work

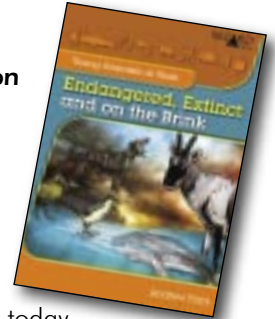
**Author: Andrew Plant**

**Publisher: Curriculum Corporation**

**Description: 72 pp book**

**Members/subscribers \$31.95;**

**Non-members \$34.95**



*Endangered, Extinct and on the Brink* introduces middle and upper primary students to the great problems facing our environment today by examining extinction events through time.

**Fifteen topics are covered, and each topic includes:**

- a reproducible student fact file with background information and illustrations to engage students.
- a teacher information sheet covering key concepts, cross-curricular links and a materials list plus instructions for guiding students through the activity.
- a reproducible student activity sheet with creative and fun investigations.

Students are encouraged to 'become scientists': ask questions, propose and test theories, design experiments and devise their own solutions.

**Available from STAV Publishing [www.stav.org.au](http://www.stav.org.au)**

## Concept cartoons in science education

This is a 200 page blackline masters book consisting of science concept cartoons covering topics such as:

- ecology
- materials
- electricity and magnetism
- forces and motion
- light
- sound
- the Earth and beyond
- energy resources
- energy transfer



The cartoons can be used at primary and secondary levels. They are supported by teacher notes which include concise explanations of each concept as well as suggested strategies on how to use them effectively. The materials can be copied for educational purposes by the purchaser.

**\$80** (Inc. GST) STAV Individual members

**\$92** (inc GST) School subscribers/Non-members

Postage and handling \$8.00

For enquiries contact: **Ellen Finlay**

(03) 9385 3999 or

email [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)



## VCE Trial exam papers

STAV Publishing produces VCE trial exams for:

### Unit 1

Physics  
Chemistry  
Biology  
Psychology

### Unit 3

Physics  
Chemistry  
Biology  
Psychology

### Costs

Papers \$4.00; Solutions \$2.00

Past Trial Exams are also available.

### How to order

**Download an order form from:**

[www.sciencevictoria.com.au/stavpublishing/index.html](http://www.sciencevictoria.com.au/stavpublishing/index.html)

**or**

Contact Ellen Finlay

STAV Publishing

Ph: 03 9385 3999

Fax: 03 9386 6722

Email: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)



# Explore @ saurus

1 June 2011 until April 2012

Suitable for Years Prep – 8

Explore how palaeontologists find out what they know about dinosaurs.

How do we know:

- the colour of dinosaurs?
- how fast they run?
- what they ate?
- how they cared for their young?

Interactive exhibits also allow your students to become forensic palaeontologists by uncovering fossils and bones, pitting their strength against a T-Rex jaw, comparing fossil plants that dinosaurs ate with modern plants, examining fossil insects under microscopes and investigating how dinosaurs made sounds and digested their food.

This exhibition provides a stimulating context in which to better understand the adaptations of animals, the scientific process and the work done by scientists. It also features six animatronic dinosaurs.

Cost: \$3.30 per student plus a one-off \$11 booking fee per school. Includes general entry to Scienceworks.

Book 8.30am to 4.30pm weekdays  
on 9392 4819

2 Booker Street Spotswood  
[museumvictoria.com.au/education](http://museumvictoria.com.au/education)



## 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)**

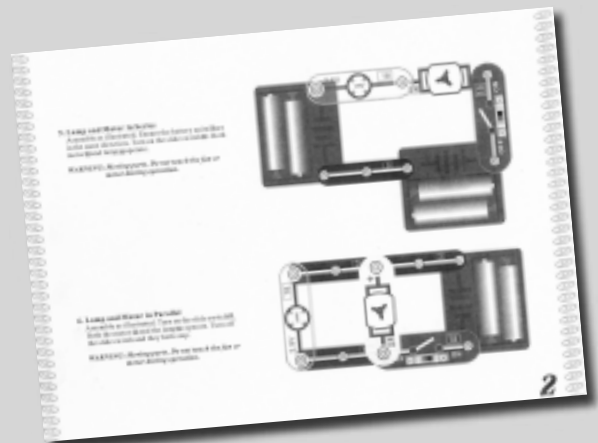
**Non-members \$45 (incl GST)**

**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: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au) • Web: [www.sciencevictoria.com.au/stavpublishing/index.html](http://www.sciencevictoria.com.au/stavpublishing/index.html)



**6.40%\***  
p.a.

## red hot savings

### Heat up your savings with 1.30% p.a. in bonus interest.\*

Earn a scorching 6.40%\* p.a. in interest with our Online Saver - Bonus Rate Account.

- A high interest rate.
- Bonus interest when no withdrawals are made and a minimum of \$200 is deposited in a calendar month.\*
- At call funds.
- Unlimited access via Internet and Phone Banking.
- Deposits up to \$1 million are Government Guaranteed.

Visit [www.victeach.com.au](http://www.victeach.com.au) or call **1300 654 822**.



\*Promotional offer is valid from 20 April 2011 until 30 June 2011. Conditions apply. Bonus interest of an additional 1.30% p.a. above the standard Online Saver Account interest rate is earned when no withdrawals are made and at least \$200 is deposited in the calendar month. Victoria Teachers Credit Union reserves the right to cease offering this product at any time. The Online Saver – Bonus Rate Account will convert to the standard Online Saver Account (S99) on 31 October 2011. Existing Online Saver (S99) holders are not eligible to open the Online Saver - Bonus Rate Account (S89). Interest rate correct as at 20 April 2011. Check website for current rates. This information does not take into account your objectives, financial situation or needs. Therefore you should firstly consider the appropriateness of this information and refer to the Terms and Conditions before acquiring a product. These documents are available at our branches or by contacting us on 1300 654 822.

## Professional learning and support programs

### • ICT in science • Science Talent Search • Physics

Would your school benefit from flexible, in-house instruction or mentoring for ICT, Physics (laws of motion, electricity) or Science Talent Search?

STAV is offering opportunities for schools to participate in small group sessions of customised learning in one or all of these areas. You can form a small group of teachers within your own school or in partnership with a neighbouring school. You can participate in a short one or two hour session, a series of three or four sessions or have a mentor visit your classroom to assist you to apply new skills or ideas.

After expressing your interest, STAV will negotiate your requirement, try to source an appropriate educator to suit your needs and develop an appropriate professional learning program.

A small but affordable fee will apply and will be determined according to your requirement.

Our aim is to assist both metropolitan and regional schools where possible.

If you are interested in participating contact STAV to discuss your ideas:

Phone: 9385 3901

Email: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)



## Science: Hands-on projects

**Author:** Mark Fox and Olga Fox  
**Publisher:** Curriculum Corporation  
**Description:** 64 pp book  
**Members/subscribers \$31.95;**  
**Non-members \$34.95**



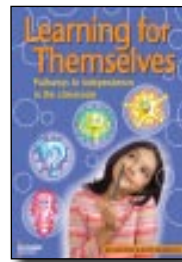
*Science: Hands-on projects* uses model-making and art activities to foster an understanding of underlying scientific theories and concepts among middle and upper primary students. Visual and kinesthetic learners, particularly, benefit from the design-make-appraise learning approach. The activities will complement studies in matter, energy and force, living things, and Earth and space.

**This fully reproducible resource allows students to construct and explore:**

- recycled paper from old newspaper
- tools to analyse air and soil quality
- a kite to demonstrate aerodynamics
- basic tools to make images move
- a diorama to simulate camouflage
- a model showing symbiosis between fish and anemones
- an observatory to investigate a lunar eclipse
- a windmill to experiment with wind power.

*Science: Hands-on projects* is packed with creative and enjoyable tasks which focus learning and allow students to observe scientific principles in action.

## Learning for themselves: Pathways to independence in the classroom



In a world of rapidly changing knowledge requiring new and transferable skills, classrooms are increasingly being viewed as places where students learn how to learn. Central to this objective is developing students' capacity to work independently and manage themselves as learners.

The learning tasks draw from commonly addressed topics in primary school curriculums and are designed to be adapted by students and teachers to suit particular interests and a range of teaching and learning goals.

The accompanying CD-ROM provides all learning task proformas as well as a further 28 proformas to assist teachers and students when planning, managing, monitoring and keeping records associated with independent learning.

**Author:** Jeni Wilson and Kath Murdoch

**Publisher:** Curriculum Corporation

**Description:** 1 x CD-Rom, 128 pp book

**Members/subscribers \$42.00**

**Non-members \$45.00**

**All books available from STAV Publishing [www.stav.org.au](http://www.stav.org.au)**

## Activate Your Students: An inquiry-based learning approach to sustainability

A series of three books: Lower Primary, Middle Primary and Upper Primary

An inquiry-based learning approach to sustainability is a series designed to assist primary students in formulating, researching and responding to important questions about their world. This series offers the following user-friendly model to step teachers through the important stages of problem- and inquiry-based learning:

- Stimulate
- Activate and communicate
- Plan and predict
- Investigate
- Record and report
- Connect
- Evaluate

Unit planning guides and templates help to embed the approach and will assist teachers in lesson planning and assessment.

Activate Your Students engages students with sustainability themes:



**Author:** Sharon Rushton  
**Publisher:** Curriculum Corporation

**Description:** 72 pp book

**Price per book:**

**Members/subscribers \$31.95;**

**Non-members \$34.95**

Lower Primary	Middle Primary	Upper Primary
<ul style="list-style-type: none"> <li>• Creatures in the garden</li> <li>• A close look at plants</li> <li>• Underwater communities</li> </ul>	<ul style="list-style-type: none"> <li>• Communities and food</li> <li>• Communities and transportation</li> <li>• Communities and their buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable energy</li> <li>• A sustainable home environment</li> <li>• Sustainable agriculture for a healthier world</li> </ul>

# BAD SCIENCE SHOW



"To keep over a hundred boys on the edge of their seats for an hour is an amazing achievement. We're so glad he could be a part of our Science Week program."

- Scotch College

"Bad Science was a real treat for staff and students!"

- Dela Salle College

"Bad Science uses humour and magic to demonstrate dubious scientific claims to high school students".

- The Australian



As seen on Channel 9's  
Kid's WB



[www.thebadscienceshow.com](http://www.thebadscienceshow.com)

0409461776

## 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:  
[www.sciencevictoria.com.au/stavpublishing/pocketmicro.html](http://www.sciencevictoria.com.au/stavpublishing/pocketmicro.html)

### 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

**\$25** (incl. GST) STAV members/institutional subscribers

**\$30** (incl. GST) Non-members  
10% Discount for bulk purchases (more than 5 items).

Postage and handling: \$8 (incl. GST)

### For enquiries contact:

STAV Publishing  
PO Box 109 Coburg VIC 3058  
Telephone (03) 9385 3999  
Email: [projects@stav.vic.edu.au](mailto:projects@stav.vic.edu.au)



## Safe work Australia report on carbon nanotubes

On Friday 13 May 2011, Safe Work Australia Chair, Mr Tom Phillips AM, announced the release of a research report: Durability of carbon nanotubes and their potential to cause inflammation.

The structural similarity of some forms of carbon nanotubes with asbestos has raised concerns about possible health effects for humans. This study examined the durability of carbon nanotubes and the tendency to cause lung inflammation, two indicators of potential asbestos-like behaviour, if inhaled.

Commissioned under the Nanotechnology Work Health and Safety Program and funded by the Department of Innovation, Industry, Science and Research, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the University of Edinburgh in the United Kingdom (UK) and the UK Institute of Occupational Medicine undertook this experimental research.

### Key findings in the report include:

- Some types of carbon nanotubes can be durable, but others may also break down in simulated lung fluid.

- carbon nanotubes of certain length and aspect ratio can induce asbestos-like responses in mice, confirming previous findings. However, this response may be reduced if the nanotubes are less durable.
- tightly agglomerated particle-like bundles of carbon nanotubes did not cause an inflammatory response in mice.

Shorter carbon nanotubes or bundles of carbon nanotubes may not be an asbestos-like hazard, but they can still cause an inflammatory response and be hazardous in the lungs. "This project is an excellent example of Australia and the United Kingdom collaborating to undertake world class work health and safety research", said Mr Phillips.

"These results indicate that durability and hazards of all types of carbon nanotubes are not necessarily the same. However carbon nanotubes should be handled with high levels of caution in the workplace to avoid inhalation."

Safe Work Australia supports research on carbon nanotubes to further the knowledge of work health and safety issues, and has commissioned other work which uses the research findings to protect workers.

The research report and further information on the nanotechnology work health and safety program can be found at: [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)

[Source: Media release, Safe Work Australia, 13 May 2011]



## STAV Council meeting dates

Meetings will be held at STAV House  
commencing at 5.00pm

26 July	18 October
9 August	22 November Dinner
13 September	

## 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 Deadlines

July	17 June 2011
August	15 July 2011
September	16 August 2011
October	14 September 2011
November	14 October 2011
December	15 November 2011

## Contact Newsletter

Registered by Australia Post • Print Post publication No. PP 342676/0050

**Printed by:** Allanby Press Printers, 1 Crescent Rd, Camberwell VIC 3124

**Mailhouse:** Mercury Mailing, 13 Antibes Street, Parkdale VIC 3195

## Contact STAV

Phone: (03) 9385 3999 • Fax: (03) 9386 6722

Email: [stav@stav.vic.edu.au](mailto:stav@stav.vic.edu.au) • Website: [www.stav.org.au](http://www.stav.org.au)

Address: PO Box 109, Coburg VIC 3058 • 5 Munro Street Coburg, VIC 3058