

November 2015 **SASTA**

Newsletter of the **South Australian Science Teachers Association Inc.**



Conferences/Events

STEM Middle School (6-10) Conference

Friday 27 November 2015

Nazareth Catholic College, Flinders Park

See page 4 for details and visit the SASTA website to register
www.sasta.asn.au

Psychology Summer Conference

Friday 22 January 2016

Education Development Centre, Hindmarsh

See page 7 for details and visit the SASTA website to register
www.sasta.asn.au

Teachers New to SACE Stage 1 & 2 Workshops

Biology and Chemistry, Monday 22 February 2016

Physics and Psychology, Friday 26 February

Nutrition, Friday 4 March

Education Development Centre, Hindmarsh

See page 8 for details and visit the SASTA website to register
www.sasta.asn.au

Oliphant Science Awards

The Oliphant Science Awards presentation ceremony was held on Friday 18 September at the Brighton Concert Hall.

See page 12 for details or visit our website at
www.oliphantscienceawards.com.au

Annual Conference – Call for Workshop Presenters

SASTA's next Annual Conference & Expo will be held on Monday 18 & Tuesday 19 April 2016 at Brighton Secondary School. See page 6 for further details.



SASTA is on Facebook go to www.sasta.asn.au



SASTA is on Twitter go to www.sasta.asn.au

Latest Events

For the latest events and Conference information go to SASTA's website:

www.sasta.asn.au

For information about science competitions go to:

www.oliphantscienceawards.com.au

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South Australian Science Teachers Association Inc.

Patron: Dr Leanna Read ABN 22 938 317 192

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Member of Australian Science Teachers Association (ASTA)

Supporting teachers of science • Advancing science education





2015 SASTA Committee

Patron of the South Australian Science Teachers Association

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Newsletter copy deadlines 2016

(Advertising deadlines one week earlier)

Edition	Deadline
February	11 January
May	11 April
August	11 July
November	10 October

Advertising

Advertising rates & booking form online at www.sasta.asn.au

Views expressed in this newsletter are not necessarily those of SASTA or the editors. Whilst every effort is made to be factual, no liability is accepted for the accuracy of information presented.

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Adhering to the following guidelines would be appreciated:

Save as a Microsoft Word document

Tables to be set up as text with one tab between columns and a return at the end of each row.

For spelling please use the Macquarie Dictionary and where several alternative spellings are listed, use the first. The exception to this is when you are citing, referencing or quoting directly from a source which uses alternative spelling. Photographs should be high quality untouched digital photographs.

From the Vice-President



It was my pleasure last term to have once again been involved in the selection of students to attend the National Youth Science Forum. This is a two week live-in summer school held at The Australian National University in Canberra during January. Successful students are sponsored by Rotary to attend the event.

Applications for the Forum open in March each year and close at the end of May. Applicants need to be year 11 students who are Australian citizens or permanent residents. If you will be teaching year 11 students next year and have any who are interested in pursuing a university degree in science, engineering or technology, I would highly recommend you point them to the NYSF website and encourage them to submit an expression of interest.

The 2015 SASTA Oliphant Science Awards continue to be a highlight of the year for us and were once again a resoundingly successful event. This year we had 2110 projects entered by 2917 students and approximately 1500 people attended our Open Day where the prize winning entries and all the models and inventions were on display. The presentation night this year was held in the brand new Concert Hall at Brighton Secondary School. The students (and parents (and grandparents)) clearly loved the awards and prizes. Make sure your students don't miss out on the fun next year! Congratulations to the convenors of the event, Peter Turnbull and David LeCornu for managing such an outstanding event, as well as our dedicated office staff, volunteers and judges who put in such a huge amount of time behind the scenes.

As a member organisation SASTA is continually looking to improve its range and quality of services to members. Following member feedback, SASTA is currently investigating how we can improve services to country members, particularly those in isolated schools/areas.

We are fortunate in having an office with a fulltime secretariat. So, please feel free to ring and have a chat with our executive officer, Greg Cole at the office or email me at mark.divito347@schools.sa.edu.au if you have any ideas or thoughts about how SASTA might be able to better help you as a science teacher or lab technician.

Mark Divito

SASTA Vice-President

2016 SASTA Awards

There are many great teachers out there that SASTA would like to acknowledge, but often they don't get nominated for Awards because teaching is a very busy job and people don't get the time to fill in nomination forms.

Start thinking now. Alert your Principal.

There are a number of Awards for SASTA members:

SASTA Medal

SASTA offers its members an award for excellent contribution to science education or teaching or both. The SASTA Medal is awarded to an individual who has made a significant contribution to SASTA and has been active in science education.

Credit Union SA/SASTA Outstanding Teacher Award for junior primary, primary, middle years and senior years' teachers

The Outstanding Teacher Awards recognise teachers' contributions to the education of students in science.

Helen Castle Memorial Scholarship

This Scholarship is in memory of Helen Castle, a dedicated and enthusiastic science teacher who tragically died during the Eyre Peninsula bush fires in 2005. The Scholarship is designed to assist country science teachers attend the SASTA Annual Conference and gain professional development to assist themselves and other country teachers to maintain a high standard of science teaching within country areas. Two (2) scholarships of \$500 will be awarded to enable country based science teachers to attend the SASTA Annual Conference.

Nomination forms are available at www.sasta.asn.au. Nominations close Tuesday March 1 2016 at 4:00pm.

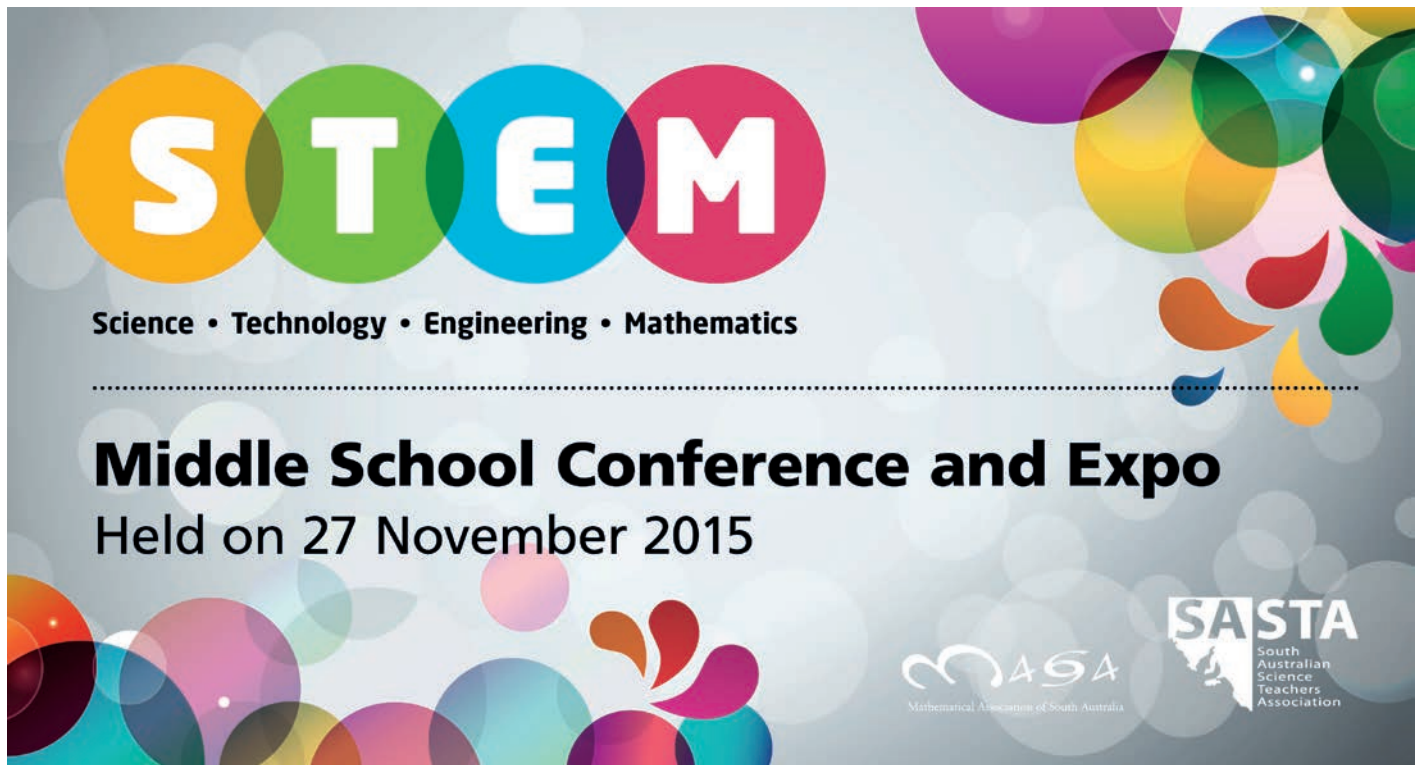
Moving from chemistry, and physics to biology

Beauty, as well as clarity, can be found in the writing of scientists. I offer *Life: A Natural History of the First Four Billion Years of Life on Earth*, Vintage Books, New York, 1999, by Richard Fortey, a Fellow of the Royal Society and recipient of the International Lewis Thomas Award.

No separation of the 'two cultures' in his picture of life, beginning in 'the everlasting sea' and moving from 'dust to life' in all its changing forms.

For Richard Fortey, the mind is as extraordinary as the ocean with its capacity to create the new. You will find this metaphor in "Landwards", Chapter 6. p. 158.

Erica Jolly, Author of Challenging the Divide: Approaches to Science and Poetry.



STEM Middle School Conference

Friday 27 November 2015

Nazareth College, 1 Hartley Road, Flinders Park

The South Australian Science Teachers Association in conjunction with the Mathematical Association of SA have organised a STEM conference for middle school teachers. This one-day conference will provide high quality professional learning opportunities for middle school teachers and educators, in the fields of mathematics, science, ICT and design & technology.

Workshop focus on STEM Education

With program inputs from members of *four teacher professional associations*, SASTA, MASA, EdTechSA and DATTA – SA, the event is designed to bring together teachers, educators and exhibitors who are interested in sharing and exploring tools, resources and related activities that will ensure successful implementation of STEM education into our schools and communities.

Some workshops will address the critical importance of connecting different areas of STEM by considering ways of interrelating science and/or mathematics topics using the tools of technology with engineering emerging through hands-on and real-life applications. Other workshops will address activities to support teaching and learning in more specific topics in the disciplines of mathematics, science, design & technology and IT.

Networking opportunities

The Conference will also provide an excellent opportunity for educators and teachers to exchange ideas about STEM teaching and learning and to maintain and develop valuable networks.

BOOK NOW:

The program and registration is available online at www.sasta.asn.au.



Nazareth College, Flinders Park.

Keynote Presentation by:

Associate Professor Paul Newhouse, Director of CSaLT, Edith Cowan University



I have always considered myself to be both an educator and learner. For nine years this was largely realised in an innovative state secondary school in Western Australia where I had the opportunity to put into practice a range of philosophically based programmes and strategies in teaching across the curriculum.

Since then I have had the privilege

of conducting research in schools and sharing my experiences with pre-service and practicing teachers for over 25 years in two universities. Currently I am an associate professor with the School of Education at Edith Cowan University and director of the Centre for Schooling and Learning Technologies (CSaLT). My focus is on implementation strategies for using computers to support learning in schools, particularly as applied to portable computing across the curriculum, assessment and curriculum development in technology education.

Keynote Presentation: *STEM is boring? Using ICT to engage students with STEM*

STEM knowledge and skills are critical for the wellbeing of our society and economy but overwhelmingly by the end of schooling the majority of our students are not interested, and have no plans to continue study or work, in these areas. We need to build their interest and engage their minds, particularly during the middle years of schooling. There is no doubt that ICT can be used to achieve this but it needs to support appropriate pedagogy and particularly approaches to assessment. I will draw on research from my research centre to illustrate how this can be realised in typical school contexts.

In addition to his keynote presentation, Paul will present the following workshops.

Workshop 1: *Planning and evaluating ICT support for learning*

In this workshop participants will use a tool to evaluate the use of ICT in their teaching, and then be guided through a problem-based approach to planning to build on this use.

Workshop 2: *STEM learning activities supported by ICT?*

In this workshop participants will be guided through some examples of using ICT tools to support STEM learning activities.

Term 4 Teacher Professional Learning: Science

The workshops provided through SASTA will **provide practical strategies and resources to support teachers** in the development of teaching and learning programs that embed Science Inquiry Skills and provide clear opportunities for reflection and recording of student achievement.

For Secondary/Middle school teachers:

Investigating Biological Sciences: Years 8-10

How do I teach Biological Sciences? What activities can I do? Where can I find relevant and engaging activities and resources? This program will allow you to answer these questions and more.

This is the third in a series of workshops for secondary science teachers that aims to give teachers the opportunity to expand their subject knowledge and gather new ideas about how to teach some of the more difficult concepts in this Sub Strand of the Australian Curriculum: Science.

The workshop aims to give teachers the opportunity to:

- Gain in-depth knowledge of the Biological Sciences sub strand
- Learn instructional tips and techniques
- Perform some investigations and classroom activities
- Build resources
- Share best practice with colleagues

Date: Friday 20th November 2015, 9.00 am-3.00 pm

Venue: Education Development Centre, Hindmarsh

Registration Fees: Personal Members \$120, Corporate Members \$155, Non-members \$180

Program details and registration available online at – http://www.sasta.asn.au/professional_learning

Call For Workshop Presenters



SASTA Annual Conference & Expo

Monday 18 & Tuesday 19 April 2016 at Brighton Secondary School

SHARE your good ideas... submit a workshop proposal for the conference!

Presenting workshops for your colleagues is an excellent way to share best practice and develop a community of educators across the State.

TAKE PART in a broad program of professional learning workshops for primary and secondary teachers, including laboratory and computer workshops, hands-on activities, seminars and discussions.

GAIN valuable experience in leading learning that will enrich your own professional standards.

Conference Themes

The Conference will address a range of content and pedagogies of the Australian Curriculum: Science and incorporate the theme 'Raising Standards'. Participants should be actively involved in the learning through a practical and investigative approach. Sessions that link to real world examples of contemporary science are encouraged.

Possible Workshop Ideas:

- Hands-on activities for primary, middle and senior school science
- Use of technologies in teaching and learning
- Integrated units of work of Science and Literacy etc
- Ways of motivating students to consider science in their future careers
- Improving students confidence and experiences in Science

Share your good ideas... submit a workshop abstract for the **SASTA Annual Conference & Expo at www.sasta.asn.au**

SASTA Psychology Summer Conference

Psychology in SACE

Date: Friday 22nd January 2016

Venue: Education Development Centre, Milner Street, Hindmarsh, SA

Program

9.00 am	Conference Opening Housekeeping and welcome	Lois Ey
9.15 am	Keynote Speaker: Professor Drew Dawson Director, Appleton Institute Central Queensland University – Adelaide Campus Applying the scientific method of Psychology to Stage 1 & 2	
10.30 am	Morning tea	A word from our sponsors
10.45 am	SACE Examination and Moderation Review	
12.00 noon	Concurrent Workshops 1 1.1 Children and sleep 1.2 Memory activities for Stage 1 Cognition 1.3 Psychobiology of Altered States of Awareness	Dr Sarah Blunden Robyn Giles Dr Raymond Matthews
1.15 pm	Lunch	
1.45 pm	Concurrent Workshops 2 2.1 Qualitative reports for the Research Program 2.2 Houston, we have asleep problem! (An activity for Stage 2 RP Sleep.) 2.3 Indigenous perspectives in psychology	Margaret-Ann Copeland Danun Mason Dr Danielle Every and Ms Tessa Benveniste
2.30 pm	Concurrent Workshops 3 3.1 Qualitative reports for the Research Program 3.2 Memory activities for Stage 1 Cognition 3.3 Psychobiology of Altered States of Awareness	Margaret-Ann Copeland Robyn Giles Dr Raymond Matthews
3.30 pm	Conference Plenary	



Professor Drew Dawson

Director, Appleton Institute, Central Queensland University – Adelaide Campus

Professor Drew Dawson is nationally and internationally recognised for his contributions to the scientific community and to industry in the areas of sleep and fatigue research, organisational psychology and human behaviour, industrial relations negotiations, and the human implications of hours of work.

Professor Dawson has worked extensively with the aviation, manufacturing, retail, entertainment, transportation and mining sectors in Australia, and is a world-renowned expert on fatigue in the workplace. He has instigated fatigue management programs, developed shift work and fatigue policy, undertaken pre-employment assessments, and facilitated shift work education sessions. Prof Dawson also regularly presents at national and international conferences and has provided expert witness testimony in many fatigue-related court cases.

As director of the internationally recognised Appleton Institute, he oversees basic and applied research into the effects of shift work and sleep loss on the health and well-being of employees. Basic research programs are focused on the interactions of the sleep and circadian systems, the effects of sleep loss and the ways people protect themselves against fatigue-related errors.

Teachers New to SACE Stage 2 Biology

Monday 22 February 2016

Provisional program - to be confirmed

- 9:00 am **Registration**
- 9:15 am **Introduction**
- Stage 2 curriculum development
 - The current SACE course
 - SACE Board documents
 - Designing a Teaching Program
 - Alternative Programs
- 10:00 am **Morning Tea**
- 10:20 am **Theory Lessons**
- Teaching biology
 - Analysing worksheets, class assignments, homework assignments using assessment design criteria and performance standards
 - AV and multimedia materials in Senior Biology
- Practical Lessons**
- Types of Practical
 - Assessing practical work
 - Test questions relating to practicals
- 11:45 am **Assessment Plans**
- Designing an assessment plan
 - Sample assessment plans
- 12:15 pm **Lunch**
- 1:00 pm **Moderation**
- SACE moderation
- 1:30 pm **Preparing tests and issues investigations**
- Analysing test questions
 - Preparing answers
- 2:00 pm **Afternoon Tea**
- 2:15 pm **Marking**
- Marking tests and issues investigations
 - Marking extended response questions
- 3:15 pm **Questions & Resources**
- Where do you get help?
 - SACE Board and SASTA – how can they help science teachers?
- 3:30 pm **Close**

Teachers New to SACE Stage 2 Chemistry

Monday 22 February 2016

Provisional program - to be confirmed

- 9:00 am **Registration**
- 9:15 am **General Introduction**
- Subject outline walk through**
- Investigation skills
 - Content
 - Assessment
 - Performance Standards
- 9:30 am **Assessment Operations**
- Quality assurance cycle
 - Key dates
 - Assessment Groups
- 9:45 am **Assessment and SACE Board Policies**
- Moderation and external assessment
 - Supervision and verification of students' work
 - Assessment deadlines and submission dates
 - Special provisions
- 10:45 am **Morning Tea**
- 11:00 am **Learning and Assessment Program (LAP)**
- Structural elements
 - Exemplars
 - Addendum
 - Variations
- 11:30 am **Teaching Programs**
- Organization
 - Connections
- 12:15 pm **Lunch**
- 12:45 pm **Group Work**
- Practical program Formative/Summative
 - Example of a Skills & Applications Task (i.e. Test)
 - Example of an Investigation (i.e. Summative Prac.)
- 2.00pm **Afternoon Tea**
- 2.15 pm **The Moderation Process**
- 3.00 pm **Resources available to support you (i.e. Texts, Study Guide)**
- Further Questions and Discussion
- 3:30 pm **Close**

All workshops will be held at the Education Development Centre, Milner Street Hindmarsh.

Register online at www.sasta.asn.au

Cost: Personal Members/Student Members \$120
Corporate Members \$155
Non-Members \$180

Teachers New to SACE Stage 2 Physics

Friday 26 February 2016

Provisional program - to be confirmed

9:00 am **Registration and Welcome**

9:15 am **General Introduction to SACE Physics requirements**

Subject outline walk through

- Investigation skills
- Content
- Assessment
- Performance Standards

Assessment Operations

- Quality assurance cycle
- Key dates
- Assessment Groups

Assessment and SACE Board Policies

- Supervision and verification of students' work
- Assessment deadlines and submission dates
- Special Provisions

Getting help

10:45 am **Morning Tea**

11:00 am **Approaches to Learning** – Class Activities – “Here’s How I Do It” – Brian and Peter.

11:45 am **Assessment task design** – Mostly Brian (current work) with a few thoughts from Peter and attendees.

12:15 pm **Lunch**

1:00 pm **Use of ICT Resources** (in class, practical sessions and for private study) – Brian and Peter:

- Software, video, simulations, PD materials
- Texts with ICT support
- Tablet opportunities
- Data loggers

2:00 pm **Administration** at the school level – grading, reporting, watching for plagiarism – Brian and Peter + ideas from attendees

2:15 pm **Afternoon Tea**

2:30 pm *Here’s How I Do it (attendees – come prepared), Q & A (please send us some) – joint approach

External exam and Chief Assessor’s report

Physics in Years 7/8 to 11

Final discussion generated by attendees (plus feedback sheet)

3:30 pm **Close**

Teachers New to SACE Stage 1 & 2 Psychology

Friday 26 February 2016

Provisional program - to be confirmed

9:00 am **Registration**

9:15 am **Subject Outline – the big picture**

9:30 am **Assessment Type 2: Skills & Applications Tasks – relevant to Stage 1 & 2**

Task design, examples and performance standards

10:45 am **Morning Tea**

11:00 am **Central Moderation of School – based assessment at Stage 2, which includes**

- Assessment Type 1: Investigations Folio (30%)
- Assessment Type 2: Skills & Applications Tasks (40%)

Stage 2 SACE Board Exam

- How the exam is constructed
- Marks scheme for the exam

12:00 noon **Lunch**

12:45 pm **Group Investigations – relevant to both Stage 1 & 2**

- How to conduct a research program
- Guiding students in writing research proposals, drafts & final reports

Stage 1 Issues Investigation

2:00 pm **Afternoon Tea**

2:15 pm **Mock moderation – recognizing grade brands in sample investigations**

3:00 pm **Question time**

3:30 pm **Close**

Teachers New to **SACE Stage 1 & 2 Nutrition**

Friday 4 March 2016

Provisional program - to be confirmed

9:00 am **Registration and Welcome**

9:15 am **General Introduction to SACE
Nutrition requirements**

Subject outline walk through

- Investigation skills
- Content
- Assessment
- Performance Standards

Assessment Operations

- Quality assurance cycle
- Key dates
- Assessment Groups

Assessment and SACE Board Policies

- Supervision and verification of students' work
- Assessment deadlines and submission dates
- Special Provisions

Getting help

10:45 am **Morning Tea**

11:00 am **Central Moderation of School – based
assessment at Stage 2, which includes**

- Assessment Type 1: Investigations Folio (30%)
- Assessment Type 2: Skills & Applications Tasks (40%)

Assessment Type 3: Stage 2 SACE Board Exam

- How the exam is constructed
- 2014 Exam feedback: the Chief Assessor's report

Assessment Panels

- Applying for marking and moderation panels

12:00 pm **Lunch**

12:45 pm **Approaches to Learning & Assessment
Task Design**

- Teaching nutrition: It doesn't have to be just Classroom based!
- Designing an Assessment Plan, and filling in Addendums
- Designing a Practical program: Types of practicals & Assessing practical work

2:00 pm **Administration** at the school level – grading, reporting, watching for plagiarism

2:15 pm **Afternoon Tea**

2:30 pm **Here's How I Do it:** Attendees – come prepared with at least ONE good idea to share and discuss, and any Q & A. A Feedback Sheet to finish the day off (Thank You).

3:30 pm **Close**

Money Smart Professional Learning Program

SASTA in association with CEASA and the Australian Securities and Investments Commission (ASIC) are offering schools the opportunity to have the Money Smart program introduced to their staff at no cost.

Money Smart Teacher Workshop 1 – Introduction to consumer and financial literacy education in Australia, will provide teachers with an opportunity to investigate a new financial literacy resource developed for R-10 schools through a one hour professional learning workshop led by a Money Smart Facilitator.

The resource package is designed to equip teachers with the tools and resources to effectively teach consumer and financial literacy through real-life contexts and the knowledge and skills to be able to confidently integrate this into and across relevant learning areas of the Australian Curriculum: English, mathematics and science, F-10.

Workshop Purpose:

- to introduce consumer and financial literacy to whole staff — its importance and how it can be taught as a context for implementing the Australian Curriculum
- to provide an overview of the MoneySmart Teaching package and the MoneySmart units of work
- to provide an outline of the professional learning journey for the school to become a MoneySmart School

If you would like to organise a Money Smart workshop for your school, please send suitable dates & times to
Kate Dilger - projectofficer@sasta.asn.au
or telephone 08 8354 0006



“ I very much doubt you can make a more significant impact on student learning for such a small outlay in terms of department budget. ”

*Maurie Wetherall, Science Coordinator,
University Senior College, Adelaide University*

WHAT THE TEACHERS SAY

- ✓ **The great visuals make it so easy to explain difficult concepts**
- ✓ Data-driven approach and activities requiring modeling promote critical thinking
- ✓ **The extensive variety of activities caters for the different learning styles in my classes**
- ✓ I really love the well-thought-out support resources, they save me so much time



WHAT THE STUDENTS SAY

- ✓ **Each activity focuses on one idea, so it's really clear to me**
- ✓ The excellent diagrams make me really interested in the topics
- ✓ **It's easier and faster to learn**
- ✓ Related information is easy to find
- ✓ **Questions throughout provide me with great exam practice**





2015 SASTA Oliphant Science Awards

Congratulations to all students who completed entries and to the major prize winners.

DECD Young Scientist

Primary

- 1st Toby Trenwith – Virginia Primary School
- 1st Wei-En Seet – Magill School
- 2nd Benny Woodrow – Stirling East Primary School
- 2nd Maeve Allen-Horvat – Scotch College
- 3rd Jordan Lee – Magill School
- 3rd Isabelle Lilburn – Loreto College

Secondary

- 1st Kee-An Seet – Glenunga International High School
- 1st Madeleine Lilburn – Loreto College
- 2nd Marcus Falckh – Brighton Secondary School
- 2nd Amber Washington – Pulteney Grammar School
- 3rd Cameron McCormack – Australian Science and Mathematics School
- 3rd Alex Kemplay-Hill – Urrbrae Agricultural High School

SASTA Best Country School

Port Lincoln Primary School

DSTG Secondary School

- 8-10 1st Walford Anglican School for Girls
- 8-10 2nd Glenunga International High School
- 11-12 1st Brighton Secondary School
- 11-12 2nd Loreto College

University of South Australia & Hewlett Packard

- 6-7 Maeve Allen-Horvat – Scotch College
- 9-10 Sarsha Carroll – Mark Oliphant College

Australian Institute of Energy

- R-2 Priyanka Thavarjah – Seymour College
- 3-5 Stephanie Jones & Adam Holland – Scotch College
- 6-7 Jaedh Rameezdeen – Magill School
- 8 Jennifer Richter – Walford Anglican School for Girls
- 9-10 Natasha Knezic – Emmaus Christian College
- 11-12 Cameron McCormack – Australian Science and Mathematics School

Catholic Education SA

- 1st St Andrew's School
- 2nd Walford Anglican School for Girls

Nature Foundation SA

- 6-7 Rhys Laurenson & Nick Vandersteegen – Seacliff Primary School
- 6-7 Josephine Oehler – Seymour College
- 8 Maddy Green, Kate Rosman & Elyse Smith – Concordia College
- 9-10 Yolanda Dalton & Yunmi Park – Glenunga International High School

CSIRO Education

- CREST Schools:
Scotch Junior College and Glenunga International High School
- Non-CREST Schools:
Walford Anglican School for Girls and Loreto College

Flinders University School of the Environment

- 11-12 Alex Kemplay-Hill – Urrbrae Agricultural College

Flinders University Science Prize

- 11-12 Cameron McCormack – Australian Science and Mathematics School



Ms Monica Oliphant presented the Oliphant Trophy to the 2015 Oliphant Science Awards winner Kee-An Seet from Glenunga International High School for his Scientific Inquiry entry 'Do Different Detergents Affect Compost Worms' at the presentation ceremony held on Friday 18 September at the Brighton Concert Hall.

Australian Society of Biochemistry & Molecular Biology

- 11-12 Maria Sarantou – Glenunga International High School

Collison & Co

- 9-10 Idris Kellermann Williams – Glenunga International High School

PICSE

- 11-12 Alex Kemplay-Hill – Urrbrae Agricultural High School

The University of Adelaide: Faculty of Engineering, Computer & Mathematical Sciences

- 9-10 Idris Kellerman Williams – Glenunga International High School

The University of Adelaide: Faculty of Sciences

- 3-5 Georgina Chadderton – Walford Anglican School for Girls

Topics for 2015?

Have you any good ideas? We need topics for the Scientific Writing, Poster and Photography categories. Contact Rebecca officemanager@sasta.asn.au or phone 8354 0006.

Visit www.oliphantscienceawards.com.au to download the complete winners lists, see past event photos and find out about how to get involved.

Australian Institute of Physics

- 6-7 Alexandra Stephenson – Adelaide Hills Home School Group

Australian Radiation Protection Society

- 6-7 Jenna Pierobon – Emmaus Christian College

SASTA In-School Workshops now available!

SASTAs offer a range of Professional Learning workshops which explore science concepts in detail and provide you with hands on and interactive ideas that you can use in your classroom straight away.

Our workshops cover all Science Understanding areas and incorporate Science Inquiry Skills and Science as a Human Endeavour concepts.

Examples of 2 hour workshops are listed below:

Australian Curriculum Focus

- Science Overview - all Year Level groups

Science Inquiry Skills Focus

- Science for the Early Years (R-2)
- Open Investigations

Planning and Assessment Focus

- Integrating Science and Numeracy (Primary)
- Planning for Inquiry – (Secondary)

Science Understanding Focus

- Biological Sciences
- Chemical Sciences
- Physical Sciences
- Earth and Space Sciences

Science Pedagogy and Resources Focus

- Working with Primary Connections
- The 5Es
- Setting up Primary Connections Resources
- Investigating in Primary Connections

Book your session today!

For enquiries and bookings, please contact SASTA office on (08) 8354 0006 or email SASTA Project Officer; Kate Dilger at projectofficer@sasta.asn.au

NAO



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ALDEBARAN

SoftBank Group

The SASTA Biology Practical e-manual

All of the contents for the popular Biology Practical Manual now available as .docx and .pdf files on CD.



STAGE 2 BIOLOGY
Practical e-manual



KEY FEATURES

- The Print edition of the 2016 Manual will still be available as usual
- Contains 4 practicals for each of the 4 major Topics (Macromolecules, Cells, Organisms and Ecosystems); 2 Practical for each Topic are 'Completion' type and 2 are 'Design' type
- Detailed 'Teaching Notes' containing vital information for Teachers and Laboratory technicians
- Useful Checklists for the skills required for the particular Practicals
- Assessment tables which will enable allocation of the Performance Standards
- An annotated exemplar Practical report
- A sample exam-type Practical Question with a suggested answer

The e-manual consists of

- A full-colour presentation folder
- A CD with the .docx and .pdf files in a soft adhesive case
- A paper copy of the Manual for Teacher Reference
- An annual School Licence Certificate

Pricing

(based on Year 8-12 enrolments in 2016)

- For small schools (<500) \$110pa (incl. GST)
- For medium schools (500-1000) \$330pa (incl. GST)
- For large schools (>1000) \$550pa (incl. GST)
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