



SCIENCE TALENT SEARCH

62

# Bursary Book 2013

## A Century of Australian Science

**WiFi**

**Cochlear Implant**

Parkes Telescope Plastic Bank Notes

**Super Soppers** **Latex Gloves**

Disposable Syringes Ultrasound Machine

**Hills Hoist**

**Elast-Eon**

**Relenza**

**IVF**



Science Victoria

Science Teachers' Association of Victoria Inc.



# About the Science Talent Search

The first Science Talent Search was conducted and sponsored by the Science Teachers' Association of Victoria, in 1952. The then Secretary, Mr Hugh McKnight, invited students from all secondary schools to submit a 1000 word report titled 'My Science Project'.

A special judging panel of prominent Scientists interviewed the entrants and awarded 17 bursaries, totalling £380.00 (\$760.00). There were two major bursaries of £100.00 (\$200.00) and £60.00 (\$120.00) respectively. Five intermediate bursaries of £25.00 (\$50.00) each with ten other awards, seven worth £10.00 (\$20.00) and three worth £5.00 (\$10.00).

Over the past 62 years, the Science Talent Search has undergone much change. Currently, there are ten Sections in which students can enter: Computer Programs, Games, Science Photography, Posters and Scientific Wall Charts, Working Models, Inventions, Experimental Research, Creative Writing, Video Productions and Class Research Project for primary students.

The Search is open to all students enrolled in Prep through to Year 12 in both Government and non-Government Schools.

## The Science Talent Search has three broad aims:

1. To stimulate an ongoing interest in the serious study of Sciences by:
  - a) encouraging independent self-motivated project work amongst students of science;
  - b) giving students the opportunity to communicate their achievements to a wider audience;
  - c) according recognition of effort and achievement for their scientific enterprise.
2. To promote the direct involvement of the students in the process of science and its communication.
3. To give the public at large an opportunity to see the quality of work being achieved in Science, by both primary and post primary students.

## Some interesting statistics about Science Talent Search

	2008	2009	2010	2011	2012	2013
Total number of entries	2,052	2185	2114	1892	1925	1990
Total number of students entered	2,875	3197	2929	2644	2667	2874
Total number of class entries	11	16	14	11	11	15
Total number of bursaries awarded	629	573	592	554	649	584
Total sponsorship for bursary awards	\$43,280	\$43,166	\$29,184	\$30,672	\$32,512	\$32,519
Number of schools entered	156	150	142	143	144	149

## Distribution of Student Awards by Division

	2008	2009	2010	2011	2012	2013
Lower Primary (P-3)	185	213	204	186	215	182
Primary (4-6)	417	456	423	392	362	407
Junior (7-8)	469	448	476	461	500	525
Intermediate (9-10)	139	133	186	162	152	136
Open (11-12)	7	8	6	10	11	17
<b>Totals</b>	<b>1,217</b>	<b>1,258</b>	<b>1,295</b>	<b>1,211</b>	<b>1240</b>	<b>1267</b>

*Awards included in this summary are Major, Minor and Merit. Merit Awards are not a Financial Bursary.*

A more comprehensive report of this year's Science Talent Search will be published in *Lab Talk* and *Let's Find Out* - the journals of the Science Teachers' Association of Victoria Inc. If you are interested in entering next year's Science Talent Search, ask your Science Teacher for a copy of the 2014 STS Handbook (available Term 1, 2014) or go to our website: [www.sciencevictoria.com.au/sts/](http://www.sciencevictoria.com.au/sts/)

# STS Exhibition & Presentation Day Program



- The Agora Theatre and Agora Cinema are located in the Agora Complex
- The Odeon is in Union Hall
- Signs will indicate directions to Ceremony Venues and information will also be given at the opening ceremony.

## Wednesday 6 November 2013

8.30am to 10.00am ONLY Registration in the foyer of Union Hall

9.30am Exhibition open to invited guests, press and public in the Union Hall

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### 10.00am – 10.30am Official opening of the Exhibition and Presentation of School Awards

#### Union Hall

Dr Elizabeth Johnson,  
Faculty of Science, Technology and Engineering, La Trobe University  
Special Guest: Mr Kelvin Thomson MP

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### 11.15am – 12.15pm Presentation of Lower Primary and Primary Awards (Prep to Year 6)

#### Agora Cinema

**Sections:** Creative Writing, Class Projects  
**Presenter:** Associate Professor Christopher Fluke, Swinburne University

#### Agora Theatre

**Sections:** Experimental Research, Inventions, Models, Science Photography, Video Productions (DVD),  
**Presenter:** Sarah McArthur, The University of Melbourne

#### The Odeon

**Sections:** Games, Computer Programs, Posters and Scientific Wall Charts  
**Presenter:** Ms Joanne Ernest, La Trobe University

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### 12.30pm – 1.30pm Presentation of Junior, Intermediate and Open Awards (Years 7 to 12)

#### Agora Cinema

**Sections:** Working Models, Games, Science Photography, Video Productions (DVD)  
**Presenter:** Dr Christine Redman, The University of Melbourne

#### Agora Theatre

**Sections:** Experimental Research, Computer Programs  
**Presenter:** Professor Doug Hilton, Walter and Eliza Hall Institute of Medical Research

#### The Odeon

**Sections:** Inventions, Creative Writing, Posters and Scientific Wall Charts  
**Presenter:** Mr David Trotter, CSIRO Education

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*The Presentation of Awards will be completed by 1.30pm.*

The above Presenters have volunteered to be part of the Science Talent Search Exhibition and Presentation Day and contribute to the success of this day. The students, teachers and the Science Talent Search Committee would like to acknowledge their commitment and involvement in science education.

*Please note: The presenters listed were correct at the time of publication. Changes may be necessary due to unforeseen circumstances.*

## Bursary book sponsored by

The BHP Billiton Science and Engineering Awards are a partnership between BHP Billiton, the world's largest diversified resources company, CSIRO, Australia's premier scientific research organisation and the Australian Science Teachers Association (ASTA).

The Awards are also supported by Intel Corporation, the world's largest semiconductor manufacturer.







# **DISCOVER** AN EXCITING WORLD OF SCIENCE AT LA TROBE

**Let your passion for science help create a better tomorrow.**

The Faculty of Science, Technology and Engineering at La Trobe University congratulates all young scientists who are participating in the 2013 Science Talent Search.

To find out about our courses call:  
T 1300 135 045

[latrobe.edu.au/scitecheng](http://latrobe.edu.au/scitecheng)



**LA TROBE**  
UNIVERSITY

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# In Appreciation

The Science Teachers' Association of Victoria Inc. and the Co-Directors of the 62nd Science Talent Search are grateful to the organisations who have given generous support to this year's competition; to the STS Committee for their enthusiastic and positive approach and to Kevin Coates, together with the staff of La Trobe University, for their co-operation and organisation of the Science Talent Search Exhibition and Presentation Day at La Trobe University.

We would also like to extend our appreciation to Methodist Ladies' College, Wesley College and Parade College for the use of their facilities and assistance during the judging of Posters, Photography, Videos, Games, Computers, Models, Inventions and Class Projects.

In particular we also thank Anne-Marie Williams (Methodist Ladies' College), Grant Eyles (Wesley College) and Edison Shamoail (Parade College) for their work and support co-ordinating operations at the judging venues.

Finally a special thanks to all the teachers who volunteered to judge the many projects received. The judges are listed at the back of this Bursary Book.

## The STS Committee

The STS Co-directors extend their thanks and appreciation to the STS committee members who worked diligently throughout the year to ensure the competition ran smoothly. Committee members are listed on page 45.

## STAV Business Centre

The STS Committee would like to express its appreciation to the STAV Business Centre for their cooperation, understanding and assistance with the organisation of STS throughout the year. They have all given time willingly and have maintained their support for STS.

## A very special thank you

David Trotter has once again worked tirelessly on the STS databases. David's expertise, persistence and unwavering support for STS is greatly appreciated.

# STS Awards

## STS School Awards

### Solway Primary School

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### Hume Anglican Grammar School Primary

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### Princes Hill Secondary College

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### Presbyterian Ladies College – Senior

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

## The Hugh McKnight Encouragement Awards

### Flemington Primary School

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### Scotch College – Junior

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### Cheltenham Secondary College

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*

### St Kevins College – Secondary

*Sponsored by BHP Billiton in partnership with CSIRO and ASTA with support from Intel Corporation*



## Creative Writing - Lower Primary

### Major Bursary - \$35

Name	School	Project Title	Sponsor
Molly Conquest & Molly Lassen	Solway Primary School	Blibba and Blobba's Adventure	Australian Skeptics Science and Education Foundation
Emily Leamont	Doncaster Gardens Primary School	My work as an Australian Geologist	In Memory of Dr Noel Schleiger
Elina Jayamanna	Serpell Primary School	Astronomy, Australian Style: Stunning Supernova of the Southern Skies	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Katrina Wong & Rhiana Wormington	Sacre Coeur Primary School	One small Australian invention	Dr Joy Bear
Stephanie Kondopoulos	Shelford Girls Grammar School (Primary)	Thomas' Tail	Independent Primary School Heads of Australia

## Creative Writing - Lower Primary

### Minor Bursary - \$25

Name	School	Project Title	Sponsor
Oliver Holland	Tucker Road Primary	Astronomy, Australian Style	Yakult Australia Pty Ltd
Tara Boyce	Solway Primary School	The Mystery of the Poison Bush	Victoria Teachers Mutual Bank
Brendon Allan	Firbank Grammar School - Sandringham House	"It means we've made an important discovery," said the Australian Scientist	Independent Primary School Heads of Australia
Bliss Puryer	Eltham East Primary School	"It means we've made an important discovery" said the Australian Scientist	Vaisala Pty Ltd
Lucie Puryer	Eltham East Primary School	Astronomy Australian Style	Quantum Victoria
Yolanda Devlin	Eltham East Primary School	"It means we've made an important discovery" said the Australian Scientist	Powercor Australia
Charlotte Brown & Kayla Geertsema	Deepdene Primary School	My work as an Australian Geologist	In Memory of Dr Noel Schleiger
Elizabeth Gordon-Saker	Firbank Grammar School - Turner House	"It means we've made an important discovery," said the Australian Scientist. All Bugged Out!	Independent Primary School Heads of Australia
Billy Allan & Brodie Mc Credden	Beulah Primary School	Air seeder - "It means we've made an important discovery for farmers", said the Australian Scientist.	The Royal Society of Victoria Inc.
Aurora Carli	Macedon Grammar School	"It means we've made an important discovery", said the Australian Scientist	Field Naturalists Club Of Victoria

## Class Project - Lower Primary

### Minor Bursary - \$150

Name	School	Project Title	Sponsor
<b>Brighton Primary School</b>		Imagine a World Without	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Ashton Barron	Kaitlin Collins	Heidi Cornish	Edward Crundell
Ophir Diamant	Leo Dickinson	Grace Edwards	Oscar Ettershank
Lucas Exell	Emma Goudie	Archer Grant	Sam Higgins
Charlotte Johnson	Bella Lopreiato	Molly McGillan	Hudson Pearce
Lucinda Poole	Alisa Sambor	Samuel Shedden	Oscar Williams
Vassili Zervas			



# Agora Cinema: 11.15am – 12.15pm

## Creative Writing - Primary

### Major Bursary - \$45

Name	School	Project Title	Sponsor
Caleb Dickson	Clifton Hill Primary School	"It means we've made an important discovery!" said the Australian scientist	AGCO Australia Ltd.
Chloe Leaumont	Doncaster Gardens Primary School	"It means we've made an important discovery!" said the Australian scientist.	Australian Skeptics Science and Education Foundation
Elisha Cox	Serpell Primary School	Money Money Money	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Chloe Bridgeman & Georgia Georgarakis	Fintona Girls School - Primary	Spike	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Sarah Golding & Giselle Luznik	Fintona Girls School - Primary	Beware Bacteria	Australian Society for Biochemistry & Molecular Biology
William Browning	Trinity Grammar School - Junior	The Earth's Tilt & Seasons	In Memory of Dr Noel Schleiger
Maigan Hounslow	Eltham East Primary School	My Life as an Australian Geologist	In Memory of Dr Noel Schleiger
Esha Bhatia	Heathdale Christian College - Primary	One small Australian Invention. One HUGE worldwide technological advance.	Australian Skeptics Science and Education Foundation
Natalie Coman	Firbank Grammar School - Sandringham House	Astronomy, Australian style. New Horizons at the Square Kilometer Array	Victoria Teachers Mutual Bank
Luke Sdralis	Carey Baptist Grammar School Donvale	The Discovery of Penicillin - Pete and Pat's Story	Australian Society for Biochemistry & Molecular Biology
Keirath Singh	Firbank Grammar School - Sandringham House	"It means we've made an important discovery," said the Australian Scientist. Looking at the past, present and future	Powercor Australia
Rimini Fitzgerald & Annabelle Roberts	Wesley College - St Kilda Road Primary	My work as an Australian Geologist	In Memory of Dr Noel Schleiger

## Creative Writing - Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Matthew Henry	Clifton Hill Primary School	My work as an Australian Geologist	In Memory of Dr Noel Schleiger
Marcus Cecconato & Mason Hosmer	St Thomas The Apostle Primary School	One small Australian invention. One huge worldwide technological advance. - The Bionic Ear.	Catholic Education Office (Melbourne)
Lakeisha Brazier & Mia Stovell	St Thomas The Apostle Primary School	"It means we've made an important discovery" said the Australian scientist. - The Man, The Pump, and the Namib Desert Bug!	Quantum Victoria
Stacey Flaounas	Caulfield South Primary School	One Small Australian Invention, One Huge Worldwide Technological Advance.	Yakult Australia Pty Ltd
Hayley Dodkins	Lyndale Greens Primary school	My Work as an Australian Geologist	Minerals Council of Australia (Victorian Division)
Hui Jenn Thoo	Serpell Primary School	Cloud Seeding	Powercor Australia
Siena O'Neil	Fintona Girls School - Primary	My Mini Adventure	Vaisala Pty Ltd
Steven Wenas	Camberwell Grammar School - Primary	The Great Discovery	Swinburne University of Technology
Kate Forwood	Strathcona Baptist G. G. S - Primary	My work as an Australian Geologist	Minerals Council of Australia (Victorian Division)
Tamsyn Lovass & Sara Stebbins	Strathcona Baptist G. G. S - Primary	Astronomy Australian Style	The Royal Society of Victoria Inc.
Jack Lytras	Chairo Christian School Cardinia - Primary	The Cochlear Implant	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Arati Nair	Heathdale Christian College - Primary	Astronomy, Australian Style	Victoria University





## Creative Writing - Primary (continued)

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Rayna Salian	Heathdale Christian College - Primary	"It means we've made an important discovery", said the Australian Scientist.	Yakult Australia Pty Ltd
Abhinav Gupta	Heathdale Christian College - Primary	One small Australian invention, one HUGE worldwide technological advance.	Dr Joy Bear
Jonti George & Imogen Holland	Beulah Primary School	The Round Baler- "It means we've made an important discovery for farmers" said the Australian Scientist	Field Naturalists Club Of Victoria
Izabelle Colville & Jessica Phelan	Beulah Primary School	"It means we've made an important discovery for farmers" said the Australian Scientist.	Vaisala Pty Ltd
Neharika Baswa	Essex Heights Primary School	One small Australian invention. One HUGE worldwide technological advance.	Swinburne University of Technology
Toby Lau	Glendal Primary School	One small Australian invention. One huge worldwide technological advance	The Royal Society of Victoria Inc.
Lasya Kondur	Glendal Primary School	One small Australian invention. One huge worldwide technological advance.	Victoria Teachers Mutual Bank
Rachel Droegge	Flemington Primary School	One small Australian invention. One huge worldwide technological advantage.	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Jordan Nguyen	Heathdale Christian College - Primary	Astronomy, Australian Style	Victoria University
Johan Parackal Alex	Essendon North Primary School	My work as an Australian Geologist	The Royal Society of Victoria Inc.
Andie Montag	Wesley College - St Kilda Road Primary	'It means we've made an important discovery', said the Australian Scientist.	The Royal Society of Victoria Inc.
Joshua Jinu	Heathdale Christian College - Primary	Jonathan In Space	Australian Skeptics Science and Education Foundation

## Class Project - Primary

### Major Bursary - \$300

Name	School	Project Title	Sponsor
<b>Hume Anglican Grammar School - Primary</b>		The absence of fresh water in plant growth	Victoria University
Aman Banfal	Cade Brockman	Jacob Cletus	Isabelle Cook
Teagan Finn	Chelsea Garraway	Dale Keily	Grace Lozanovski
Christine Mathew	Joanna Newton	Anakha Panicker	Tyson Papanicolaou
Gregory Parsons	Ben Polemicos	Shrishaeka Premathasa	Akita Reji
Emmanuel Riscica	Hanish Sareen	Jiss Thomas	Jessica Van Heurck

## Class Project - Primary

### Minor Bursary - \$200

Name	School	Project Title	Sponsor
<b>Hume Anglican Grammar School - Primary</b>		Investigating Friction	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Mitchell Angelino	Erwin Batayola	Blake Brockman	Samantha Dankha
Ruwanari Dassanayaka	Catherine Dean	Zwananai Dhalakama	Thomas Gagula
Reis Guclu	Rashmi Iddamalgoda	Kiara Jarvis	Bradley Keable
Cooper Laffey	Gian Martino	Brodie Melia	Hamish Nair
Angel Ravenhill	Neesa Reji	Gabrielle Riscica	Dinel Samaratinga
Tommy Simpson	Anna Rose Thomas	Bikramjeet Uppal	Matthew Webling
Martin Zaya			

# Agora Cinema: 11.15am – 12.15pm

## Class Project - Primary *(continued)*

### Minor Bursary - \$200

Name	School	Project Title	Sponsor
<b>Hume Anglican Grammar School - Primary</b>		Plant Life	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Kriti Bhoomla	Knaneta Dankha	Benjamin De Luca	Isabella Gatt
Bridie Johnston	Gurleen Kaur	Bailey Lackas	Khanh Kim Le
Marcus Mandozzi	Liam Mazzoli	Claire Mountney	Japleen Pannu
Amber Paton	Lachlan Prillwitz	Ciara Salama	John Shanahan
Ann-Maria Sibi	Simeran Singh	Iori Tsubakidani	Aron Udhaykumar
Reuben Villegas	Katherine Woodcock	Chloe Wright	

## Class Project - Primary

### Minor Bursary - \$200

Name	School	Project Title	Sponsor
<b>Girton Grammar School - Junior</b>		Truss Bridges- Does design matter?	Victoria University
Nicholas Ashman	Ella Berry	Piper Burge	Millie Carroll
Ellyna Collins	Jack Cripps	Matilda Dimsey	Hayley Douglas
Imogen Douglass	Kate Douglass	Jack Edwards	William Everist
Ella Fisher	Grace Flaherty	Alexi Ginis	Taylah Gurd
Matthew Johnston	Charlie Lourie	Anelise McKenzie	Angela Mekel
Charles Parkes	William Russell	Hannah Thomas	Grace Whyte
Sebastian Wood			

## Class Project - Primary

### Minor Bursary - \$200

Name	School	Project Title	Sponsor
<b>Girton Grammar School - Junior</b>		Gender recognition from photographs	Independent Primary School Heads of Australia
Kelsey Alexander	Eloise Arthur	Harry Chester	Matthew Foxwell
Justin Gamble	Zachary Harith Brewer	Liam Hassard	Emily Heislars
Callum Hercus	Eartha Hewett	James Humphry	Satya Jhaveri
Blaire Johnston	Thomas Kay	Madalyn Lourie	D'Arcy Lowther
Lachlan McKinley	Lucy Mills	Tanisha Mohapatra	Izabella Nassar
Bronte Noble	Abbey Saxon	Toby Scott	Gracie Sladden
Oliver Vine			



## Experimental Research - Lower Primary

### Major Bursary - \$40

Name	School	Project Title	Sponsor
Louisa Lazar	Tucker Road Primary - Bentleigh	Why Do Some Fruit Become Black When They Have Been Cut?	Chemistry Education Association
Jerry Jin	Wesley College- Junior Campus	Soaring Science: Paper Airplanes	The University of Melbourne (Science Education)

## Experimental Research - Lower Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Kosta Lalogiannis	Serpell Primary School	What Burns Faster?	Australian Skeptics Science and Education Foundation
Isabelle Strang	St Leonard's College - Junior School	Isabelle's Fading Bathers Experiment	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Ned Karunaratne	Scotch College - Junior	Which Flower Lasts the Longest?	Vaisala Pty Ltd
Lauren Mayhood	Wesley College- Junior Campus	Why do trees lose their leaves in Autumn?	In Memory of Dr Noel Schleiger
Ethan Loh	Heathdale Christian College - Primary	Experimental Research	Victoria University
Jamie Pennisi	Solway Primary School	Yarrawonga Tornado	Quantum Victoria

## Inventions - Lower Primary

### Major Bursary - \$40

Name	School	Project Title	Sponsor
Olivia Wiemels	Flemington Primary School	High Grabber	Australian Skeptics Science and Education Foundation

## Inventions - Lower Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Justin Ooi	Scotch College - Junior	Pedal Powered Washing Machine	Independent Primary School Heads of Australia

## Working Models - Lower Primary

### Major Bursary - \$40

Name	School	Project Title	Sponsor
Charlie Dowling	Caulfield Grammar School - Malvern Campus	Isaac Newton - An Amazing Story of Creativity	Independent Primary School Heads of Australia
Quinn Coetzee	Serpell Primary School	Buoyancy - a floating object displaces a volume of water that is as heavy as the object	Australian Skeptics Science and Education Foundation
James Butler	Camelot Rise Primary School	How Pedestrian Crossings Work	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Marcus Dingle & Mitchell MacLaren	Flemington Primary School	The Chemical Bike	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Randil Fernando	Glendal Primary School	Electricity	Powercor Australia

# Agora Theatre: 11.15am – 12.15pm

## Working Models - Lower Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Perry Giannopoulos	Caulfield South Primary School	Invention of the Pacemaker	STELR Project
Joshua Hui	Roberts McCubbin Primary School	Rubber band powered car	Vaisala Pty Ltd
Jessica Allen & Mia Kakoufas	Caulfield Grammar School - Malvern Campus	Light Bulb	Independent Primary School Heads of Australia
Gabriel Loh	Serpell Primary School	Model of a Hills Hoist	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Nichola Muser	Wesley College- Junior Campus	Solar Energy	Australian Institute of Energy
Jimmy O'Mara	Essex Heights Primary School	Breaking the Sound Barrier	Australian Skeptics Science and Education Foundation
Quentin Marchiori	Wesley College - St Kilda Road Primary	Parallel and Series Circuit	Powercor Australia

## Science Photography - Lower Primary

### Major Bursary - \$35

Name	School	Project Title	Sponsor
Nina Boyce	Solway Primary School	Help Save the Woylie from Extinction	The Royal Society of Victoria Inc.
Wei Jie Soo	Glendal Primary School	Fungi	In Memory of Dr Noel Schleiger

## Science Photography - Lower Primary

### Minor Bursary - \$25

Name	School	Project Title	Sponsor
Marco Alvaro & Luca Gaglioni	St Thomas The Apostle Primary School	Seed Germination	Catholic Education Office (Melbourne)
Benjamin Christie	Solway Primary School	The Growth of a Gum Tree	Vaisala Pty Ltd

## Video Productions - Lower Primary

### Major Bursary - \$40

Name	School	Project Title	Sponsor
Francis Butler & Jack Shears	Flemington Primary School	Gravity	AGCO Australia Ltd.

## Video Productions - Lower Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Oliver Radford	Fitzroy North Primary School	Mawson's Discoveries	Australian Skeptics Science and Education Foundation
Ashley Newnham	Great Ryrie Primary School	War Inventions and How They Work	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Experimental Research - Primary

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Janelle Eng & Kiara Jarvis	Hume Anglican Grammar School - Primary	Plastic Money versus Paper Money	Victoria University
Zoe Minh Guymmer	Essex Heights Primary School	"Soft drink is not good for your health." Is Mum right?	Australian Skeptics Science and Education Foundation
Dylan Fraser	Scotch College - Junior	How Does Ethanol as another fuel source measure up to today's regular fuels?	Chemistry Education Association





## Experimental Research - Primary *(continued)*

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Hayden Lee	Carey Baptist Grammar School Donvale	Boomerang	Independent Primary School Heads of Australia
Sean Ford	Glendal Primary School	Which liquid affects a tennis balls' bounce the most?	Swinburne University of Technology
Hamish Galloway	St Leonard's College - Junior School	Does the density of gas affect how fast a ball falls?	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Experimental Research - Primary

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Ann Maria Sibi	Hume Anglican Grammar School - Primary	Oscillations	Victoria University
Luke Bennett	Clifton Hill Primary School	Plants are Us	Australian Skeptics Science and Education Foundation
Olivia Adrian & Elena Stefanos	Caulfield Grammar School - Malvern Campus	Insect Repellent Report	Australian Society for Biochemistry & Molecular Biology
Cody Le Blanc	Solway Primary School	Plants and Lights	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Danielle Roode	Firbank Grammar School - Sandringham House	Different liquids and their effect on adult and milk teeth	Independent Primary School Heads of Australia
Sophie McPhee & Georgia Sibly	Strathcona Baptist G. G. S - Primary	Does sight affect taste?	Victoria Teachers Mutual Bank
Katelyn Scamp & Samantha Kennedy	Chairo Christian School Cardinia - Primary	Balloon Inflating	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Oscar Abe & Lewis Mason	Flemington Primary School	How do different fabrics react to water	Vaisala Pty Ltd
William Mayhood	Wesley College- Junior Campus	Helmets and Head Injuries	Independent Primary School Heads of Australia
Sasha Girski	Camelot Rise Primary School	Does regular exercise affect your lung capacity?	Powercor Australia
Lisette Buckle & Jasmine Hogg	Ruyton Girls' School (Primary)	Dirty Drummondii Dwarf	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Emily Gove & Lily Tarry - Smith	Ruyton Girls' School (Primary)	Pitch Perfect	Independent Primary School Heads of Australia
Anastasia Raftis & Jasmine See	Lowther Hall Anglican Grammar School	Moving molecules	Chemistry Education Association
Madisson Hamilton	Shelford Girls Grammar School - Primary	Investigating bacteria and mould in the Shelford Junior School bathroom	Australian Society for Biochemistry & Molecular Biology
Sia Horrobin	Shelford Girls Grammar School - Primary	Do any aspects of fire, such as heat or smoke, help speed up the germination of native seeds?	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Isabel Greenslade	Shelford Girls Grammar School - Primary	Which materials preserve food best?	Powercor Australia
Olivia Amor	Flemington Primary School	What factors influence the distance a scooter will travel downhill?	The BHP Billiton Science and Engineering Awards, managed by CSIRO

# Agora Theatre: 11.15am – 12.15pm

## Inventions - Primary

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Christopher Rozakeas	Home School Rozakeas	A water vortex impeller.	Australian Skeptics Science and Education Foundation
Dante Kuti & Nichaud Kuti	Preshil: The Margaret Lyttle Memorial School	The Sun Cleaners	Independent Primary School Heads of Australia

## Inventions - Primary

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Tara Skelton	Strathcona Baptist G. G. S - Primary	Butterstick	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Milo Marchiori	Wesley College - St Kilda Road Primary	Harvesting Excess Energy	Vaisala Pty Ltd

## Working Models - Primary

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Alexander Jones	Lab Rats Science Club Primary	Tower Type Solar Power Station	In Memory of Eileen Goodfield & Dorothy Dalton
Harrison Pena	Huntingtower School - Primary	Solar Car	Independent Primary School Heads of Australia
Catherine Gordon	The Knox School - Primary	Hydraulic Arm	Swinburne University of Technology
Hugo Begg	Girton Grammar School - Junior	Refracting Telescope	Victoria University
Toan Nguyen	Creekside K-9 College	Wind Turbine	Victoria University
Eve Hill	Methodist Ladies College Junior School	The Particle that Roared	Australian Skeptics Science and Education Foundation
Asan Liyanaratne	Creekside K-9 College	How a turbo jet engine works (hot section)	Australian Institute of Energy
Shin En Tan	Glendal Primary School	Water Clock	Powercor Australia

## Working Models - Primary

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Zun De Kai Sim	Clifton Hill Primary School	Robot Helper	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Aedan Gordon & Jesse Marlow	Caulfield South Primary School	A True Blue Backyard Icon	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Georgia Christ	Caulfield Grammar School - Malvern Campus	Hills Hoist Clothesline	Powercor Australia
Jacob Hart & Matthew Johnson	Middle Kinglake Primary School	Corrugated Iron Tank	Australian Skeptics Science And Education Foundation
Elmarie Kock	Serpell Primary School	Working Scale Model Solar Water Heating	The Royal Society of Victoria Inc.
Emily Doyle	Solway Primary School	Rising Sea Levels	Quantum Victoria
Alyssa Chau & Satomi Goh - Maejima	Huntingtower School - Primary	Merry-go-round	Independent Primary School Heads of Australia
Noah Ashby & Dominic Tune	Girton Grammar School - Junior	Human Digestive System	Australian Society for Biochemistry & Molecular Biology
Christopher Rozakeas	Home School Rozakeas	The amazing water vortex power generator.	Powercor Australia



## Working Models - Primary (continued)

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Joseph Davies	Wesley College- Junior Campus	Four Place Binary Calculator	Australian Skeptics Science and Education Foundation
Brianna Donato	Lowther Hall Anglican Grammar School	Spaghettification	Victoria University
Mitchell Webster	Essendon North Primary School	Coolgardie safe	Australian Skeptics Science and Education Foundation

## Science Photography - Primary

### Major Bursary - \$45

Name	School	Project Title	Sponsor
Isabelle Vincenzino	Heathdale Christian College - Primary	Scientific Photography	Victoria University
Dinuli Molagoda	Home School Molagoda	The Amazing Fungi	Australian Skeptics Science and Education Foundation
Natalia Kelly - Gerreyn	Glendal Primary School	Rocks	In Memory of Dr Noel Schleiger
Xingtong Huang	Glendal Primary School	The wooden weather mark	Victoria Teachers Mutual Bank

## Science Photography - Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Joanna Newton	Hume Anglican Grammar School - Primary	Fungus & Mould versus Fruits	Australian Society for Biochemistry & Molecular Biology
Laura Arnel & Lucy Nolan	St Thomas The Apostle Primary School	The Importance of Bark on Trees	Dr Joy Bear
Kianna Bartolo	St Thomas The Apostle Primary School	Anatomy of a Flower	Catholic Education Office (Melbourne)
Keira Sherri	St Thomas The Apostle Primary School	Variation in Rate of Species Aging	Field Naturalists Club Of Victoria
Andrew Smith	Flemington Primary School	Phases of the Moon	Swinburne University of Technology
Natasha Stonehouse - Melke	Wesley College- Junior Campus	Rate of decomposition in an apple	Australian Skeptics Science and Education Foundation

## Video Productions - Primary

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Ashley Osborne	Solway Primary School	The Smallest Thing	Dr Joy Bear
Nicholas Dugdale	Caulfield Grammar School - Malvern Campus	Frozen In Time	Independent Primary School Heads of Australia
Finn Keighley	Solway Primary School	Venom and Antivenom	In Memory of Dr Noel Schleiger

## Video Productions - Primary

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Aneirin Galloway McLean	Firbank Grammar School - Sandringham House	Can You Unscramble an Egg?	Australian Skeptics Science and Education Foundation
Inga Griffiths - Hunt	Essex Heights Primary School	Power Generation in Victoria	STELR Project
Rupert Balfe & William Cussell	Scotch College - Junior	Security of the Australian Banknote	Victoria Teachers Mutual Bank
Ella Ashburner & Annalise King	Methodist Ladies College Junior School	Liquids Effects	Powercor Australia

# The Odeon: 11.15am – 12.15pm

## Games - Lower Primary

### Major Bursary - \$35

Name	School	Project Title	Sponsor
Rebecca McAuley	Solway Primary School	Protect The Pond	AGCO Australia Ltd.
Eva Sutton & Sophie Van Bronswijk	Caulfield Grammar School - Malvern Campus	Mad Aussie Scientists	Independent Primary School Heads of Australia
Ruby Price	Our Holy Redeemer School	My Game	Catholic Education Office (Melbourne)

## Games - Lower Primary

### Minor Bursary - \$25

Name	School	Project Title	Sponsor
Amelia Hyde	Caulfield South Primary School	Amazing Australian Inventions	Australian Skeptics Science and Education Foundation
Ethan Chong	Caulfield South Primary School	The Amazing Quest of Australian Inventions	Powercor Australia
Dylan Hua	Camelot Rise Primary School	Space Galaxy: The Whole Universe	The University of Melbourne (Science Education)

## Computer Programs - Lower Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Jamie Holmes	Carey Baptist Grammar School Donvale	What do you know about the Bionic Ear?	Australian Skeptics Science and Education Foundation

## Posters Scientific Wall Charts - Lower Primary

### Major Bursary - \$35

Name	School	Project Title	Sponsor
Deanna Hollis	Eltham East Primary School	A Eureka Moment for Australian Science	AGCO Australia Ltd.
Kaitlin Roode	Firbank Grammar School - Sandringham House	Indigenous Science in the last 100 years.. The Changes made in the uses of Tea Tree Oil	Independent Primary School Heads of Australia
Jeremy Le	Scotch College - Junior	A Eureka moment for Australian Science...	Australian Skeptics Science and Education Foundation
Alexandra Cameron & Lucy Vanden Boom	Our Holy Redeemer School	A Eureka Moment for Australian Science	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Anjali D' Souza	Macedon Grammar School	How Australian Science has improved our lives	Dr Joy Bear
Kai Nielsen	Glendal Primary School	How Australian Science has improved our lives	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Audrey Liuk	Glendal Primary School	How Australian Science has improved our lives	The Royal Society of Victoria Inc.

## Posters Scientific Wall Charts - Lower Primary

### Minor Bursary - \$25

Name	School	Project Title	Sponsor
Rohan Wein	St Thomas The Apostle Primary School	How Australian Science has improved our lives - Gardening with a Difference	Catholic Education Office (Melbourne)
Kveta Squire	Caulfield South Primary School	Bugs Beware	Entomological Society of Victoria Inc.
Tiana Kocolis	Caulfield Grammar School - Malvern Campus	Penicillin - An Amazing Mould	Australian Society for Biochemistry & Molecular Biology
Jessica Soo	Serpell Primary School	How Australian Science Has Improved Our Lives	Australian Skeptics Science and Education Foundation





## Posters Scientific Wall Charts - Lower Primary (continued)

### Minor Bursary - \$25

Name	School	Project Title	Sponsor
Joshua Kuzmis	Caulfield South Primary School	How Australian Inventions have Improved our Lives - The Black Box - Recording the Mystery of Air Disasters	Vaisala Pty Ltd
Thomas Smith	Eltham East Primary School	Bugs Beware of Australian Scientists	Victoria Teachers Mutual Bank
Isabel Guszlovan	Eltham East Primary School	A Eureka Moment For Australian Science	Yakult Australia Pty Ltd
Tom Farrer	Scotch College - Junior	How Australian Science has improved our lives	Independent Primary School Heads of Australia
Flynn Atkinson	Scotch College - Junior	A Eureka moment for Australian Science...	Australian Skeptics Science and Education Foundation
Sebastian Robson	Scotch College - Junior	How Australian Science has improved our lives	The Royal Society of Victoria Inc.
Justin Wildemast	Macedon Grammar School	Bugs' Beware Of Australian Scientists	Entomological Society of Victoria Inc.
Danil Yahnov	Glendal Primary School	How Australian science has improved our lives.	The Royal Society of Victoria Inc.
Kylie Cheah	Glendal Primary School	How Australian Science has improved our lives	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Anika Rahulan	Glendal Primary School	A Eureka moment for Australian Science	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Games - Primary

### Major Bursary - \$45

Name	School	Project Title	Sponsor
Maiysha Moin	Fintona Girls School - Primary	Mission 99 Droughts	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Aahana Dudani	Fintona Girls School - Primary	Tsunami Setback	Australian Skeptics Science and Education Foundation
Lily Stevens	Fintona Girls School - Primary	Earthshattering Earthquakes	In Memory of Dr Noel Schleiger
Cleo Allsop & Lucy Meagher	Our Holy Redeemer School	Our Game	Catholic Education Office (Melbourne)
Dylan Phoon	Glendal Primary School	Electricity	Powercor Australia

## Games - Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Piper Besley & Mia Burg	Fintona Girls School - Primary	Trouble in Eyari	Independent Primary School Heads of Australia
Erin Kontaxis & Madeline Pynta	Fintona Girls School - Primary	Ground Breaker	Powercor Australia
Seiin Kim & Yerin Park	Fintona Girls School - Primary	Chasey with a Hurricane	Vaisala Pty Ltd
Celeste Gotsis	Serpell Primary School	Australian Science Invention	Quantum Victoria
Sophie Palmer	Solway Primary School	Pegged	Australian Skeptics Science and Education Foundation
Myles Kelemen	Caulfield South Primary School	Invention of the Dimension	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Danielle Cook & Miquette van Dam	Heathdale Christian College - Primary	Australian Factamania	Victoria University
Emily Holland & Chloe Lai	Our Holy Redeemer School	Our Game	Catholic Education Office (Melbourne)

# The Odeon: 11.15am – 12.15pm

## Games - Primary *(continued)*

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Peter Woods	Our Holy Redeemer School	My Game	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Marina Chuen - mei Baroudi	Glendal Primary School	A Century of Australian Science	Swinburne University of Technology

## Computer Programs - Primary

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Lucas Valente	Clifton Hill Primary School	Computers!	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Lachie Hayes	Camberwell Grammar School - Primary	Solar Water Heating	In Memory of Eileen Goodfield & Dorothy Dalton
Vinicius Fagundes	Flemington Primary School	Electron Configuration	Chemistry Education Association

## Computer Programs - Primary

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Raphael Hennessy	Clifton Hill Primary School	Graphme Science	AGCO Australia Ltd.
Will Hartley - Keane	Flemington Primary School	My Periodic Table	Australian Institute of Energy
Blake Allan	Firbank Grammar School - Sandringham House	T - time	Australian Skeptics Science and Education Foundation

## Posters Scientific Wall Charts - Primary

### Major Bursary - \$45

Name	School	Project Title	Sponsor
Hayley Meydan	Caulfield South Primary School	How Australian Science has Improved our Lives -The Invention of Solar Hot Water	Australian Institute of Energy
Hayden McElholum & Josh Salmon	Solway Primary School	Super Sopper	Australian Skeptics Science and Education Foundation
Nadya De Silva & Grace McElholum	Solway Primary School	How Has the Bionic Ear improved our lives?	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Vanessa Gogos	Serpell Primary School	Bionic Ear	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Konrad Reich	Serpell Primary School	How Australian Science has improved our lives?	Powercor Australia
Andrew Lim	Trinity Grammar School - Junior	A painless vaccine	Australian Society for Biochemistry & Molecular Biology
Josh Harper	Trinity Grammar School - Junior	A Eureka Moment	Independent Primary School Heads of Australia
Lachlan Karunaratne & Anthony Tran	Camberwell Grammar School - Primary	Florey Develops Penicillin	The Royal Society of Victoria Inc.
Jonathan Coman	Firbank Grammar School - Sandringham House	A Eureka moment for Australian Science .... First Hormone Cloned in Australia	Chemistry Education Association
William Davies	Wesley College- Junior Campus	How Australian science has improved our lives - Biological Control of Pest Animal and Plants in Australia	Quantum Victoria
Mia Spencer	Shelford Girls Grammar School - Primary	Aussies Working Towards a Vaccination Against Malaria	Swinburne University of Technology



## Posters Scientific Wall Charts - Primary (continued)

### Major Bursary - \$45

Name	School	Project Title	Sponsor
Imogene Perlen	Shelford Girls Grammar School - Primary	A Eureka Moment in Australian Science – Spray-on Skin	Vaisala Pty Ltd
Brielle Brne	Macedon Grammar School	How Australian Science has improved our lives	Victoria Teachers Mutual Bank
Mia Tamplin	Firbank Grammar School - Turner House	How Australian Science has improved our lives	Independent Primary School Heads of Australia
Jimmy Psaltis	Glendal Primary School	Bugs' beware of Australian Scientists	AGCO Australia Ltd

## Posters Scientific Wall Charts - Primary

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Emily Klein & Sophie Swiatlo	Caulfield South Primary School	How Australian Science has Improved our Lives - The Australian Invention of Solar Water Heating	Australian Skeptics Science and Education Foundation
Sasha Jones	Caulfield Grammar School - Malvern Campus	Black Box Recorder	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Carl Dingfelder	Lab Rats Science Club Primary	Perfect Penicillin	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Alexander Ciccone	Overnewton Anglican Community College - Primary	How Australian Science has improved our lives	Powercor Australia
Jonathan Ciccone	Overnewton Anglican Community College - Primary	Bugs-beware of Australian Science	Victoria University
Heather Maltby	Serpell Primary School	A Eureka moment for Australian Science	Powercor Australia
Claire McManus	Serpell Primary School	A Eureka moment for Australian Science	The Royal Society of Victoria Inc.
Riley Bedford	Serpell Primary School	The Bionic Ear	Quantum Victoria
Humdaan Hafeez	Serpell Primary School	The Bionic Ear	Australian Skeptics Science and Education Foundation
Joey Hunting & Liam Ly	Camberwell Grammar School - Primary	100 Years of Science	Independent Primary School Heads of Australia
Lachlan Doehmann	Camberwell Grammar School - Primary	Aboriginal Technology	In Memory of Dr Noel Schleiger
Isabel Baldwin	Eltham East Primary School	How Australian Science has improved our lives	Vaisala Pty Ltd
Edwin Nguyen	Essex Heights Primary School	How Australian Science has improved our lives	Australian Institute of Energy
Sonny Moran	Eltham East Primary School	A Eureka Moment for Australian Science	Australian Skeptics Science and Education Foundation
Abbey Turner	Carey Baptist Grammar School Donvale	Red Back Spider Bite + Antivenom = Survival	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Elise McLeod	Shelford Girls Grammar School - Primary	Black Box Flight Recorder	The Royal Society of Victoria Inc.
Tia Giamadakis	Shelford Girls Grammar School - Primary	Penicillin	Independent Primary School Heads of Australia
Ella Bamby & Emma Veal	Our Holy Redeemer School	A Eureka Moment for Australian Science...	Catholic Education Office (Melbourne)
Lachlan Hedger	Macedon Grammar School	A Eureka Moment For Australian Science...	Vaisala Pty Ltd
Maxwell Bren - Clarke	Macedon Grammar School	A Eureka Moment for Australian Science...	Victoria University

# The Odeon: 11.15am – 12.15pm

## Posters Scientific Wall Charts - Primary *(continued)*

### Minor Bursary - \$30

Name	School	Project Title	Sponsor
Teya D'Souza	Macedon Grammar School	Indigenous Science In The Last 100 Years	Victoria Teachers Mutual Bank
Zara D'Souza	Macedon Grammar School	How Australian Science has improved our lives	Australian Skeptics Science and Education Foundation
Olivia Cleaver	Overnewton Anglican Community College - Primary	100 Years of Australian Science	Victoria University
Adriana Otis	Firbank Grammar School - Turner House	Indigenous Science in the last 100 years	Quantum Victoria
Sarah Ingilizian	Glendal Primary School	Indigenous science in the last 100 years	The Royal Society of Victoria Inc.
Chanith Wijeratne	Essendon North Primary School	A History of Indigenous Inventions	Australian Skeptics Science and Education Foundation
Laura Gatt	St Thomas The Apostle Primary School	How Australian Science Has Improved Our Lives - The Lotus Flower	Catholic Education Office (Melbourne)





## Working Models - Junior

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Isabelle Ostrowski	Methodist Ladies' College Senior School	Binary Geothermal Powerplant	Australian Institute of Energy
Ezri Chow & Ally Dunne	Methodist Ladies' College Senior School	Respiratory System of a Great White Shark	Australian Skeptics Science and Education Foundation
Angelina Bassovitch & Elina Chi	Firbank Grammar School	Wind Turbine	Vaisala Pty Ltd
Jared Fernando	Yarra Valley Grammar School	Electromagnetic Linear Accelerator	Swinburne University of Technology
Natalie Wenhrynowycz	East Doncaster Secondary College	Effects of fertilizer on natural water ways.	AGCO Australia Ltd.
Gavin Platt	Lilydale High School	Plasma Cutter	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Alexandras Bartaska	St Kevins College - Secondary	The Black Box Flight Recorder	Catholic Education Office (Melbourne)
Jemarod Brown	Lilydale High School	Hydroelectric Power Plant	Powercor Australia

## Working Models - Junior

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Lexi Reisch	Methodist Ladies' College Senior School	The Powers and Force of Leverage	Australian Skeptics Science and Education Foundation
Laura Tetaz & Eliza Ward	Methodist Ladies' College Senior School	Raising and Lowering the Arm	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Anjali Chunalal	Methodist Ladies' College Senior School	T Handle Water Pump	Powercor Australia
Vidhi Jain	Methodist Ladies' College Senior School	Building Crane powered by Haudraulic Pressure	The Royal Society of Victoria Inc.
Alexandra Johnstone	Firbank Grammar School	Solar Panels	Australian Institute of Energy
Luke Osbon	Overnewton Anglican Community - Secondary	Fibre Optics cable model	Victoria University
Josh Woodbridge	St Kevins College - Secondary	The Froth Floatation Process	Minerals Council of Australia (Victorian Division)
James Lyons	St Kevins College - Secondary	How Planes Fly	Catholic Education Office (Melbourne)
Timothy Ellul	St Kevins College - Secondary	Cochlear Implant	Quantum Victoria
Maxwell Tarraran	St Kevins College - Secondary	Surf Life Saving Reel	Swinburne University of Technology
Sebastian Capomolla	Kolbe Catholic College	Wind Turbines	Victoria University
Elise Kervin & Jessica Zaviacic	St Leonard's College Brighton - Secondary	Cochlea Implant	STELR Project
Kathryn Demtschyna & Asmitha Prabakaran	Fintona Girls School - Senior Secondary	The Alzheimers Brain	Vaisala Pty Ltd
Grace Martyn	Sacred Heart Girls College	The power of wind	Catholic Education Office (Melbourne)
Elizabeth Graves	Balcombe Grammar School - Secondary	Water Cycle Model	The Royal Society of Victoria Inc.
Corbin McCullough	Mentone Grammar School - Middle	Super soaker	Australian Skeptics Science and Education Foundation

# Agora Cinema: 12.30pm – 1.30pm

## Games - Junior

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Caitlin Donaghue-Evans	Methodist Ladies' College Senior School	We have the Power	Powercor Australia
Lucy Monk	Flinders Christian Community College - Carrum Downs	Engage in Climate Change	The Royal Society of Victoria Inc.
Paris Lovett	Fintona Girls School - Senior Secondary	Braaiinnss	Australian Skeptics Science and Education Foundation
Isabelle Chen & Molly Horan	Fintona Girls School - Senior Secondary	Endangered Animals	The Royal Society of Victoria Inc.
Imanoula Dichak & Genevieve Murphy	Santa Maria College	Save the animals	Catholic Education Office (Melbourne)
Arabella Scanlon	Mentone Grammar School - Middle	IVF game	Australian Society for Biochemistry & Molecular Biology
Amber Hanley	Shelford Girls Grammar - Secondary	Element Head - The Periodic Table	Chemistry Education Association
Lina Le & Thy Truong	Dandenong High School	Back to 1913 - Time Travelling	Australian Skeptics Science and Education Foundation

## Games - Junior

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Betty Zhang	Methodist Ladies' College Senior School	Can you make it to the top of the double helix?	Yakult Australia Pty Ltd
Cassandra Collier & Francesca Marchesani	Mentone Girls' Grammar Secondary School	Pollution	Dr Joy Bear
Yvonne Lim & Fiana Ly	Box Hill High School	Science in the sky	AGCO Australia Ltd.
Nicholas Reynolds	St Kevins College - Secondary	Evolutionary - The Board Game	Victoria Teachers Mutual Bank
Emma Taylor & Jayne Tyack	The Grange Secondary College	King Of The Jungle.	Victoria University
Rumaiya Haque & Sioape Vaitohi	The Grange Secondary College	Mystery Scientist	Vaisala Pty Ltd
Gayatri Chaturvedi	Fintona Girls School - Senior Secondary	Are you thinking what I'm thinking?	Swinburne University of Technology
Isabella Northwood & Emily Royals	Santa Maria College	Tsunami Frenzy	Quantum Victoria
Roseanna MacDonald	Santa Maria College	Beat the Bunnies	Catholic Education Office (Melbourne)
Mary Botros	Santa Maria College	Construct your own greenhouse	The Royal Society of Victoria Inc.
Victoria Newman Jamie Wagner	Santa Maria College	Endangered species	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Zoe McQueen & Annie Zhang	Dandenong High School	Little Einstein	Powercor Australia
Jasmine Coco - Viti & Bianca Synott	Sunbury Downs Secondary College	Game of experiments	Victoria University
Karli Wildemast	Macedon Grammar School	IndigenousInventOZ	Australian Skeptics Science and Education Foundation



## Science Photography - Junior

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Ned Purnell	Kingswood College - Secondary	Patterns in Nature	Field Naturalists Club Of Victoria
Claire O'Brien	Methodist Ladies' College Senior School	Formation and Colouring of Soap Bubbles	Chemistry Education Association
Sydney Miller	Firbank Grammar School	The Characteristics of different Igneous Rocks	In Memory of Dr Noel Schleiger
Anna Rabinov	Lab Rats Science Club Secondary	Empires of the Sky	Australian Skeptics Science and Education Foundation
Gabriel Gubko	Flinders Christian Community College - Carrum Downs	Diffusion Captured	The University of Melbourne (Science Education)
Isha Patel	Santa Maria College	Water Pollution	Catholic Education Office (Melbourne)
Charlotte Lynch	Princes Hill Secondary College	Polarization	Australian Institute of Energy
Sara Draca & Eleanor Wilson	University High School - GTAC	Stages of cell mitosis	Gene Technology Access Centre

## Science Photography - Junior

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Courtney Turner & Taylor Wilson	Kingswood College - Secondary	A Leafy Time	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Sarah Hillman	Methodist Ladies' College Senior School	Magnetism and magnetic fields	Australian Skeptics Science and Education Foundation
Kate Dunwoody & Callie Staurou	Methodist Ladies' College Senior School	Properties of Light	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Georgina Ryan	Methodist Ladies' College Senior School	Refraction	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Althea Huf	Box Hill High School	The Science of Swimming	Powercor Australia
Lauren Cork & Natalie Frank	Mentone Girls' Grammar Secondary School	Food Dye and Science	The Royal Society of Victoria Inc.
Mari De Kock	Box Hill High School	The process of fire	Swinburne University of Technology
Anastazyia Clark & Natasha Papadimitriou	East Doncaster Secondary College	Weather	Quantum Victoria
Matthew Presutto	St Kevins College - Secondary	Density, Colouring and Slime	Catholic Education Office (Melbourne)
Emma Scealy	Tintern Girls Grammar School - Secondary	Harmonograms (Light tracings)	Vaisala Pty Ltd
Natalie Jaman - Hogan & Ruby Keeble	Fintona Girls School - Senior Secondary	Shades of Autumn	Victoria Teachers Mutual Bank
Delaney Ryan	Santa Maria College	Water Pollution	Chemistry Education Association
Zoe Usher	Princes Hill Secondary College	Victorian Tall Timber Forest	Australian Skeptics Science and Education Foundation
Oban Symons	Princes Hill Secondary College	Tension Wheels	Quantum Victoria
Maddy Dwyer	Princes Hill Secondary College	Merri Creek Ecology	Field Naturalists Club Of Victoria
Hamish Jones	Princes Hill Secondary College	Pedestrian Level Crossing	Powercor Australia
Louie Rogers	Princes Hill Secondary College	Kangaroo Island	The Royal Society of Victoria Inc.
Christopher Daley	East Doncaster Secondary College	Engines, Engines Everywhere!	The BHP Billiton Science and Engineering Awards, managed by CSIRO

# Agora Cinema: 12.30pm – 1.30pm

## Video Productions - Junior

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Joshua Bek	Chairo Christian School Cardinia - Secondary	Weird Science - Phronima	Australian Skeptics Science and Education Foundation
Freya Solnordal	Fintona Girls School - Senior Secondary	What would happen if our sun dies	Powercor Australia
Emily Dare & Isobelle Ross	St Leonard's College Brighton - Secondary	History of Australian Inventions in our Daily Lives	Victoria Teachers Mutual Bank
Sean Boettger	Home School Hauer	Teleportation and its problems	Australian Skeptics Science and Education Foundation

## Video Productions - Junior

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Katherine Wang	Methodist Ladies' College Senior School	Weight = Mass?	The Royal Society of Victoria Inc.
Shiraz Mowbray & Lola Philp	Firbank Grammar School	Plant Germination and Pollination	Field Naturalists Club Of Victoria
Nathan Shannan	St Kevins College - Secondary	Surfaces and Friction	Catholic Education Office (Melbourne)
Susilo Vincentius	St Kevins College - Secondary	Synroc	Minerals Council of Australia (Victorian Division)
Magnus Rodgers	St Leonard's College Brighton - Secondary	A Century of Australian Science	The Royal Society of Victoria Inc.
Samuel Kent & Nikolas Papadakis	Yarra Valley Grammar School	Tesla Coil (Project Thunderstruck)	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Ryan Buckler & Tim Silvester	Mentone Grammar School - Middle	Sublimation	Powercor Australia
Tom Siedle & Harry Spencer	Mentone Grammar School - Middle	Ricketts point marine sanctuary	In Memory of Dr Noel Schleiger
Emily Bresnehan & Alex Siedle	Mentone Grammar School - Middle	AAESS: elephant toothpaste	Victoria Teachers Mutual Bank

## Working Models - Intermediate

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Teleah Belkin	Our Lady Of Sion College (Melbourne)	The Heart	Catholic Education Office
Luke Silva	Gleneagles Secondary College	Generating video from a microcontroller	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Paul Tomoiaga	Gleneagles Secondary College	Simple Electronics - Big Idea	Minerals Council of Australia (Victorian Division)
Aron Lockhart	Mary Mac Killop Catholic Regional College	Lockhart's Model	Catholic Education Office (Melbourne)
Tate Bosmans	McClelland College	The Tower Crane	Victoria Teachers Mutual Bank

## Working Models - Intermediate

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
Jaime Pope	Lilydale High School	Desalination Plant	Australian Skeptics Science and Education Foundation
Joseph Gauci	Kolbe Catholic College	Four-Stroke Engine	Australian Institute of Energy





## Games - Intermediate

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Victoria Azizagdam	Maribyrnong Secondary College	OZ-Vention	Victoria University

## Games - Intermediate

### Minor Bursary - \$40

Name	School	Project Title	Sponsor
James Gover	Gippsland Grammar - Senior	It's elemental!	Chemistry Education Association
Charindya Janakantha	Presbyterian Ladies College - Senior	Elemental Genius	Australian Skeptics Science and Education Foundation

## Science Photography - Intermediate

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Olivia Sioukas	Kilvington Grammar School - Senior	Astronomy	The Royal Society of Victoria Inc.
Nidhi Wadhwa	Presbyterian Ladies College - Senior	Capturing Reflections	Australian Skeptics Science and Education Foundation
Stephanie Rowlands	Presbyterian Ladies College - Senior	Solar Eclipse	Australian Skeptics Science and Education Foundation

## Science Photography - Intermediate

### Minor Bursary - \$40

Name	School	Project Title	Sponsor
Elizabeth Hu	Kilvington Grammar School - Senior	Native Australian Birds	In Memory of Dr Noel Schleiger
Daphne Ang	Kilvington Grammar School - Senior	Types of Energy	Australian Institute of Energy
Ngaronoa Nicholls & Alana Zafra	Western Heights Secondary College - Vines Rd	Solid, Liquid And Gas Phases Of The Unique Water Molecule	Victoria University
Jasmine Manly	McClelland College	The perception of vision	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Video Productions - Intermediate

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Isaac Leeson	Kingswood College - Secondary	The Supercooling Phenomenon	The Royal Society of Victoria Inc.
Megan Lee	Gleneagles Secondary College	Boats and Newton's Laws of Motion.	Yakult Australia Pty Ltd
Liz Chiem & Angeline Chin	Mount Waverley Secondary College - Senior	Hot Ice - An Exothermic Reaction	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Carey Tsiaves & Hashira Weerawardana	Mount Waverley Secondary College - Senior	How Different Sounds Affect Use Differently	The BHP Billiton Science and Engineering Awards, managed by CSIRO

# Agora Cinema: 12.30pm – 1.30pm

## Video Productions - Intermediate *(continued)*

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
James Chin & Callum Shemmell	Kingswood College - Secondary	Cut Off	Powercor Australia
Tashara Brown	Lilydale High School	The discovery of penicillin	Australian Society for Biochemistry & Molecular Biology
Sophie Favilla & Ella Horska	Presbyterian Ladies College - Senior	Edison's Light Bulb	Powercor Australia
Fei Fei Lu & Lilian Wong	Presbyterian Ladies College - Senior	Our Star: The Sun	Quantum Victoria
Katy Newell	Western Heights Secondary College - Vines Rd	Chemical Compounds	AGCO Australia Ltd.
Lachlan Clark	St Kevins College - Secondary	Helicopter Physics	Catholic Education Office (Melbourne)

## Science Photography - Open

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Shirley Wong	Sacred Heart Girls College	Eyes vs Lens	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Science Photography - Open

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
Samuel Telford	Geelong Grammar School - Secondary	Painless Penicillin	Vaisala Pty Ltd

## Video Productions - Open

### Major Bursary - \$85

Name	School	Project Title	Sponsor
Alex Miglietti & Callum Simpson	Woodleigh School	Temporal Discord: The Arrow of Time	Australian Skeptics Science and Education Foundation
Harry Sexton	Geelong Grammar School - Secondary	The Science of Home Brewing	Yakult Australia Pty Ltd



## Experimental Research - Junior

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Samuel Eng & Dylan Jarvis	Hume Anglican Grammar School - Secondary	Super Bounce Balls	Victoria University
Tyrone Packiaraja	Hume Anglican Grammar School - Secondary	My house needs insulation, but which type?	Swinburne University of Technology
Holly Ashburner & Lauren Wallace	Methodist Ladies' College Senior School	Investigation of the degradation of Wi-Fi signal strength over distance	Australian Skeptics Science and Education Foundation
Adelaide Wood	Methodist Ladies' College Senior School	Errosive Effects of Different Beverages on Teeth	The Walter and Eliza Hall Institute of Medical Research
Regina Yang	Strathcona Baptist G G S - Secondary	Testing the Limits of Bernoullis Principle	Australian Skeptics Science and Education Foundation
Payton Seeto	Strathcona Baptist G G S - Secondary	Testing Dance floors	Powercor Australia
Jessie Walsh	Strathcona Baptist G G S - Secondary	Does eating breakfast negatively contribute to a persons concentration?	The Walter and Eliza Hall Institute of Medical Research
Tegan Cavallari	Genazzano F C J College	Capturing Carbon Dioxide produced by burning oxygen	Chemistry Education Association
Nikki Bedworth	The Hamilton And Alexandra College - Senior	Sugar Content in Cans of Coca-Cola	The Walter and Eliza Hall Institute of Medical Research
Victoria Annett	The Hamilton And Alexandra College - Senior	Colouring Carnations	In Memory of Dr Noel Schleiger
Samantha O'Connell	Genazzano F C J College	The best bubble mixture	Catholic Education Office (Melbourne)
Harvey Daffern	St Kevins College - Secondary	Memory Test - The effect of different demographics on Memory	The University of Melbourne (Science Education)
Dante Conte	St Kevins College - Secondary	Increasing the 'life' of cut flowers	The Walter and Eliza Hall Institute of Medical Research
Annabelle Bassett	East Doncaster Secondary College	Investigating the efficiency of solar hot water heating systems	Australian Institute of Energy
Roisin Selvarajoo	Avila College	Cupcakes Cooked With Different Cooking Flours	Catholic Education Office (Melbourne)
Sinead Coulter	Avila College	The Effects of Background Music on Memory	The Walter and Eliza Hall Institute of Medical Research
Ayla Edwards & Chloe Lovett	Fintona Girls School - Senior Secondary	Sun Smart, No Starch	The Walter and Eliza Hall Institute of Medical Research
Joanna Bleakley & Sanduni Jinadasa	Fintona Girls School - Senior Secondary	Going Bananas	Australian Skeptics Science and Education Foundation
Sophie Schwerkolt & Pardis Sorati	Fintona Girls School - Senior Secondary	The Good Oil!	The Walter and Eliza Hall Institute of Medical Research
Owen Brooks & Gehan Premaratne	Scotch College - Senior	Countering free-radical injury in seed germination	The Walter and Eliza Hall Institute of Medical Research
Nathan Sponder	Mount Waverley S C - Junior School	Corrosion Experiment	The Royal Society of Victoria Inc.
Ashleigh Birch	Mount Waverley S C - Junior School	Fruit Batteries	Vaisala Pty Ltd

## Experimental Research - Junior

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Bella Corsello	Methodist Ladies' College Senior School	Plant Growth	AGCO Australia Ltd.
Tess Plowman	Strathcona Baptist G G S - Secondary	The Importance of Water during Exercise	The Walter and Eliza Hall Institute of Medical Research
Rebecca Phillips	Strathcona Baptist G G S - Secondary	The Effect of Inflation Pressure on Basketball Bounce Height	Powercor Australia
Caitlin Lynch & Sarah Van der Hock	Strathcona Baptist G G S	Does Practice Make Perfect?	Australian Skeptics Science and Education Foundation

# Agora Theatre: 12.30pm – 1.30pm

## Experimental Research - Junior *(continued)*

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Annabelle Planincic	Firbank Grammar School	Solar Energy	Powercor Australia
Sophie Barnard	Strathcona Baptist G G S - Secondary	Does ankle flexibility change with age?	The Royal Society of Victoria Inc.
Sylvie Bischof	Genazzano F C J College	The effects of light exposure on glow stick performance	The Walter and Eliza Hall Institute of Medical Research
Lucy Livingstone	Genazzano F C J College	Vinegar concentrate on the chicken bone	The Walter and Eliza Hall Institute of Medical Research
Sheree Leung	Genazzano F C J College	Can Light Colour Affect the Condition of Plants?	Catholic Education Office (Melbourne)
Eliza Freeman	Genazzano F C J College	The Stretchability of Cheese	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Paola Bombordieri	Genazzano F C J College	Rate of rusting of steel wool in different solutions	The Walter and Eliza Hall Institute of Medical Research
Brittany Mills	Genazzano F C J College	The influence of different types of water on seed growth	The University of Melbourne (Science Education)
Mia Terzo	Genazzano F C J College	Sports Science Experiment	The Walter and Eliza Hall Institute of Medical Research
Tharidi Walimunige	Genazzano F C J College	Home Lighting Devices	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Elly McLean	The Hamilton And Alexandra College - Senior	Effect of Chocolate on Heart rate	The Walter and Eliza Hall Institute of Medical Research
Daniel Cleggett	The Hamilton And Alexandra College - Senior	Fastest Pasta	The Royal Society of Victoria Inc.
Celeste Sum	Genazzano F C J College	Investigating how caffeinated drinks affect a person's heart rate	The Walter and Eliza Hall Institute of Medical Research
Katia Dodds	Genazzano F C J College	Mouldy Cheese	Australian Society for Biochemistry & Molecular Biology
Thierry Fong	St Kevins College - Secondary	Moisture retention in sports clothing	Powercor Australia
Deborah Alley & Claire Corbel	Flinders Christian Community College - Carrum Downs	Willpower for Sour?	Australian Skeptics Science and Education Foundation
Benjamin Toohey	St Kevins College - Secondary	The effect of temperature and salinity on surface tension	The Walter and Eliza Hall Institute of Medical Research
Thomas Slupecki	St Kevins College - Secondary	Effects of Different Solutions on Grass Growth.	Catholic Education Office (Melbourne)
Miles Piner	St Kevins College - Secondary	The effect of exercise on the memory/cognitive functioning of a person	The Walter and Eliza Hall Institute of Medical Research
Henry Wallace	St Kevins College - Secondary	Are Pea Plants Sonotrophic?	Powercor Australia
Duncan Eaton	St Kevins College - Secondary	Measuring Gravity	Vaisala Pty Ltd
Alan Wu	Southwood Boys Grammar School	The Distance A Skateboard Can Travel When Launched Onto Different Surfaces	Powercor Australia
Amani Adnan	The Grange Secondary College	Making glue from milk.	Victoria University
Luqman Sherifdeen	The Grange Secondary College	Viscosity In Reality	Swinburne University of Technology
Joshua Cherubino & Matthew Krstic	St Leonard's College Brighton - Secondary	Investigating the water content of apples	The Walter and Eliza Hall Institute of Medical Research
Emils Drulle	Braemar College - Secondary	Toilet Paper Absorbancy	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Sophie Butcher	Braemar College - Secondary	Telecommunications-Tin Cans: An Environmentally Friendly Alternative	In Memory of Dr Noel Schleiger
Jean Knoetzen	Doncaster Secondary College	Are fingerprints inherited?	Gene Technology Access Centre
Alexandre Allban - Wellm	Braemar College - Secondary	Coloured Lights Effect on Plant Growth	Australian Society for Biochemistry & Molecular Biology
Daniel Italia - Prasad	Doncaster Secondary College	Does Thrive fertiliser improve growth of seedlings?	Powercor Australia



## Experimental Research - Junior (continued)

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Charlotte Crawford - Shires & Noor Tal	Fintona Girls School - Senior Secondary	Teenage Forget-Me-Not	Victoria Teachers Mutual Bank
Sarah Jacob & Alison Wells	Fintona Girls School - Senior Secondary	How sweet is that?	AGCO Australia Ltd.
Isabella Li & Natalia Rettich	Fintona Girls School - Senior Secondary	Music Moves	Australian Skeptics Science and Education Foundation
Meredyth Lee Joan Zwar	Fintona Girls School - Senior Secondary	Cannister Chaos	Australian Society for Biochemistry & Molecular Biology
Imogen Allchin & Inez Trambas	Fintona Girls School - Senior Secondary	What do you see?	The Royal Society of Victoria Inc.
Pramitii Ranganathan	Fintona Girls School - Senior Secondary	The Stroop effect	Yakult Australia Pty Ltd
Angshu Madge	St Josephs College Mildura	The effect of pitch on the movement of Newtonian and Non - Newtonian liquids	Quantum Victoria
Kunind Oberoi	St Josephs College Mildura	An investigation of antibacterial properties of natural herbs	The Walter and Eliza Hall Institute of Medical Research
William Sutherland	Scotch College - Senior	Maximising Language Learning	Swinburne University of Technology
Lochlann Owen - Tucker	Mentone Grammar School - Middle	Archery	The Royal Society of Victoria Inc.
Zoe Figgis	Princes Hill Secondary College	How to keep store bought flowers	Powercor Australia
Zoe Evans	Avila College	Shielding Metals From Magnets	Quantum Victoria
Emma Spencer	Avila College	The Effects of Permeates on the Everyday Uses of Milk	Australian Society for Biochemistry & Molecular Biology
Katie Lee	Mount Waverley S C - Junior School	The Best Way to Lower Heart Rate	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Shafid Islam & Angus McNamara	Mount Waverley S C - Junior School	Does chewing gum enhance your concentration?	Powercor Australia
Neha Salahuddin	Mount Waverley S C - Junior School	Effect of Caffeine on Plant Growth	The Royal Society of Victoria Inc.
Agnes Nindyalaras	Mount Waverley S C - Junior School	How weather conditions affect running performance	Quantum Victoria

## Computer Programs - Junior

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Toby Law & Somesh Mehra	Balwyn High School	Rocket Science Game	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Jennifer Andraos & Emily Cvetanoski	Santa Maria College	Meltdown	Catholic Education Office (Melbourne)
Sean Boettger	Home School Hauer	REM - The Cavern of Lost Dreams	Australian Skeptics Science and Education Foundation

## Computer Programs - Junior

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Ravindu Weerasinghe	Parade College	History of Australian Medical Science Knowledgebase	Catholic Education Office (Melbourne)
Sean Boettger	Home School Hauer	Time Thief - The Failed Inventions	Australian Skeptics Science and Education Foundation



# Agora Theatre: 12.30pm – 1.30pm

## Experimental Research - Intermediate

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Harriet Walker	Mentone Girls' Grammar Secondary School	The Efficiency of Different Substrates (glucose, fructose, sucrose, maltose, lactose) on yeast respiration.	The Walter and Eliza Hall Institute of Medical Research
Tara Jadwani - Bungar	Methodist Ladies' College Senior School	The Changing Memory	The Walter and Eliza Hall Institute of Medical Research
Declan Clark	Lab Rats Science Club Secondary	The Effect of Ionising Radiation on Mould and Fungal Growth	The Walter and Eliza Hall Institute of Medical Research
Robert Liu	Scotch College - Senior	Just how safe is ice?	Quantum Victoria
Corey Robinson	Southwood Boys Grammar School	Solar Still Investigation	Powercor Australia
Conroy Cheers	Caulfield Grammar School - Wheelers Hill Campus	The effects of Hands-free and Hands-on Texting on Driving Ability	Australian Skeptics Science and Education Foundation

## Experimental Research - Intermediate

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
Caitlin Cole	Mentone Girls' Grammar Secondary School	What is the most effective way to purify household grey water?	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Alessandra Louey & Narbir Minhas	East Doncaster Secondary College	Does lemon or bleach stop fruit going brown?	Powercor Australia
Caroline Quach	Presbyterian Ladies College - Senior	Which Antibacterial Disinfectant is Most Effective	The Walter and Eliza Hall Institute of Medical Research
Natalie Liu	Presbyterian Ladies College - Senior	Measuring The Speed of Light	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Kate French & Crystal Hua	Ruyton Girls' School	How does caffeine affect blood pressure, heart rate and anxiety levels?	The Walter and Eliza Hall Institute of Medical Research
Kathleen Hanson & Amelia Wood	Ruyton Girls' School	Which material has the most elasticity and strength?	In Memory of Dr Noel Schleiger
Imogen Feder & Jessica Lamb	Ruyton Girls' School	The Soap Mystery	Powercor Australia
Sesharna Bala & Liliana Testen	Ruyton Girls' School	Rise Above the Rest	The Royal Society of Victoria Inc.
Astrid Melton & Isabelle Scopelleti	Ruyton Girls' School	Active Kernels	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Corrine Wooden	Doncaster Secondary College	Extending the life of cut flowers using household additives	Australian Society for Biochemistry & Molecular Biology
James Lockwood	St Paul's Grammar School Warragul	Bandicoot Corner Study	In Memory of Dr Noel Schleiger
Yusuf Hassan	Minaret College - Secondary	Super-spice in regulating blood glucose level	The Walter and Eliza Hall Institute of Medical Research



## Computer Programs - Intermediate

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Devin O' Dowd	Kingswood College - Secondary	The Impact of Crumple Zones	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Theo Chrisant	Camberwell Grammar School - Senior School	Theo's Project	The Royal Society of Victoria Inc.

## Computer Programs - Intermediate

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
Adam Kues & Justin Tu	Camberwell Grammar School - Senior School	Adam and Justin	Quantum Victoria

## Experimental Research - Open

### Major Bursary - \$100

Name	School	Project Title	Sponsor
Isabel Chu	Presbyterian Ladies College - Senior	Inhibitory Effects of Citrus Extracts on Bacteria	The Walter and Eliza Hall Institute of Medical Research
Somya Mehra	Balwyn High School	Biosynthesis of Ethanol	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Cynthia Sin Nga Lam	Balwyn High School	Applications of Titanium Dioxide Photocatalysis	The Walter and Eliza Hall Institute of Medical Research
Janny Lee	Methodist Ladies' College Senior School	The effect of the food preservative sodium metabisulphite on the growth of bacteria E. coli	Quantum Victoria
James Widdop	Wesley College - Senior Campus	Does the type of exercise performed, sustained or sprint, differentially affect blood oxygenation?	The Walter and Eliza Hall Institute of Medical Research
Alexander Mackie	Wesley College - Senior Campus	An investigation of the Effects of Oxygen on the Oxidation of Ethanol in Wine.	The Walter and Eliza Hall Institute of Medical Research

## Experimental Research - Open

### Minor Bursary - \$70

Name	School	Project Title	Sponsor
Imasha Weerasinghe	Sacred Heart Girls College	Memory: XX or XY?	The Walter and Eliza Hall Institute of Medical Research
Nicholas Ensor	Wesley College - Senior Campus	An investigation into the effectiveness of adsorption onto clay minerals as a method of removing lead (II) from water, and determining which, of a series of adsorbents, is the most effective (from a mass perspective).	The Walter and Eliza Hall Institute of Medical Research

# The Odeon: 12.30pm – 1.30pm

## Inventions - Junior

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Jacqueline Johnstone & Kellie Worrell	Firbank Grammar School	LIFE: Living Internally Flora Environment	The Royal Society of Victoria Inc.
Benjamin Beagley	St Kevins College - Secondary	Bamboo Bike	Powercor Australia

## Inventions - Junior

### Minor Bursary - \$45

Name	School	Project Title	Sponsor
Jonathon Symons	Cheltenham Secondary College	Holiday Keeper	Australian Skeptics Science and Education Foundation
Benjamin Eastman	Flinders Christian Community College - Carrum Downs	Auto-Ping	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Daniel Owies	St Kevins College - Secondary	Water feeding wiper blade	Swinburne University of Technology
James Long & Andrew Willett	St Kevins College - Secondary	Sunscreen Applicator	The Royal Society of Victoria Inc.

## Creative Writing - Junior

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Grace Feng	Methodist Ladies' College Senior School	Australian Science, Below the surface	Dr Joy Bear
Lachlan Evenden	Woodleigh school	Devils in Danger	The Royal Society of Victoria Inc.
Ann Baby	Cheltenham Secondary College	Necessity was the mother of invention	Vaisala Pty Ltd
Jessica Woolmer	Firbank Grammar School	Australian Science, the sky's the limit	The Royal Society of Victoria Inc.
Victoria Phan	Methodist Ladies' College Senior School	So it began, the start of an Australian science legend	The University of Melbourne (Science Education)
Lee-Ann Leong & Jordan Stacey	Box Hill High School	Necessity is the mother of invention	The Royal Society of Victoria Inc.
Cathy Fei	Methodist Ladies' College Senior School	Australian Science: The Sky's the Limit	Swinburne University of Technology
Lachlan Wakeling	Lilydale High School	Necessity was the mother of invention	Yakult Australia Pty Ltd
Connor Millsom	Lilydale High School	Australian science, below the surface	In Memory of Dr Noel Schleiger
Jerrone Yong	Box Hill High School	Earth prime (Necessity was the mother of invention)	The Royal Society of Victoria Inc.
Jake McCauley	St Leonard's College Brighton - Secondary	Necessity was the mother of invention	Victoria Teachers Mutual Bank
Lachlan Howe	Mentone Grammar School - Middle	Australian Science: below the surface	Australian Society for Biochemistry & Molecular Biology
Cleopatra Kopanidis	Shelford Girls Grammar - Secondary	The Bionic Ear	Swinburne University of Technology

## Creative Writing - Junior

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Margaret Chambers	Kingswood College - Secondary	Necessity was the mother of invention	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Belle Barnett	Methodist Ladies' College Senior School	So it began, the start of an Australian legend.	Yakult Australia Pty Ltd
Kirsten Tsan	Methodist Ladies' College Senior School	Australian Science, the sky's the limit	The Royal Society of Victoria Inc.
Angelina Atanassova	Cheltenham Secondary College	Necessity was the mother of invention	Quantum Victoria
Millie Shannon	Firbank Grammar School	Necessity was the mother of invention	STELR Project



## Creative Writing - Junior *(continued)*

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Trinity Duffield - Pugsley	Firbank Grammar School	Necessity was the mother of invention	Powercor Australia
Sophie Adam	Firbank Grammar School	Necessity was the mother of invention	Australian Society for Biochemistry & Molecular Biology
Jessica Han	Firbank Grammar School	Necessity was the mother of invention: Spray on Life	Australian Society for Biochemistry & Molecular Biology
Angela Yang	Firbank Grammar School	Necessity was the mother of invention	Quantum Victoria
Savannah Joan & Melissa Shaw	Brunswick Secondary College	Wi Fi	Swinburne University of Technology
Benjamin McDonald	St Kevins College - Secondary	So it began, the start of an Australian science legend	Catholic Education Office (Melbourne)
Emma Findlay	Yarra Valley Grammar School	So it began, the start of an Australian science legend	Yakult Australia Pty Ltd
Chloe Anderson	Lilydale High School	So it began, the start of an Australian science legend	Powercor Australia
Ernest Lam	East Doncaster Secondary College	So it began, the start of an Australian science legend	The University of Melbourne (Science Education)
Brooke Hanson	Box Hill High School	An astrophysics dream	The Royal Society of Victoria Inc.
Jessica Anthonipillai	East Doncaster Secondary College	Beneath the surface of our skin	Australian Society for Biochemistry & Molecular Biology
Daniel Peet	East Doncaster Secondary College	The De Mole Tank	Powercor Australia
Madeleine Sloane	Sacred Heart Girls College	Necessity was the mother of invention	Quantum Victoria
Christine Lam	East Doncaster Secondary College	The Underwater Phenomenon	Yakult Australia Pty Ltd
Georgia Visini	Nazareth College	So it began, the start of an Australian science legend.	In Memory of Dr Noel Schleiger
Saffron Metcher	The Grange Secondary College	Necessity was the mother of invention.	Victoria University
Leah Martinez	The Grange Secondary College	Necessity was the mother of invention.	The Walter and Eliza Hall Institute of Medical Research
Matthew Brophy	Princes Hill Secondary College	Adaption	The Royal Society of Victoria Inc.
Nipun Kapadia	Lyndale Secondary College	Necessity was the mother of invention	Quantum Victoria
Parvathy Nair	Lyndale Secondary College	So it began, the start of an Australian science legend	STELR Project
Anne Lin	Lyndale Secondary College	Below the Surface	STELR Project

## Posters Scientific Wall Charts - Junior

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Ekushey Ahmed	Hume Anglican Grammar School - Secondary	Is 'Superfish' Pest Management Possible?	Australian Skeptics Science and Education Foundation
Hani Alasad	Cheltenham Secondary College	Australian Science Creates...	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Lisa Tu	Cheltenham Secondary College	Australian science creates.. The Bionic Ear	Powercor Australia
Nihal Todd	Cheltenham Secondary College	Australian science creates.. Spray on Skin	The Royal Society of Victoria Inc.
Ashley Chong	Firbank Grammar School	A Eureka Moment for Australian Science: The Cochlear Implant	Australian Skeptics Science and Education Foundation
Zoe Tamplin	Firbank Grammar School	Australian Science Creates: The Cochlear Ear	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Mertcan Omer Damoglu	Cheltenham Secondary College	Australian Science Creates..Penicillin	The BHP Billiton Science and Engineering Awards, managed by CSIRO

# The Odeon: 12.30pm – 1.30pm

## Posters Scientific Wall Charts - Junior *(continued)*

### Major Bursary - \$50

Name	School	Project Title	Sponsor
Rhiannon Wilson	Methodist Ladies' College Senior School	Australian Science creates...	The Royal Society of Victoria Inc.
Joshua Daniells	Flinders Christian Community College - Carrum Downs	Radio Astronomy	Swinburne University of Technology
Charlotte Spiteri & Sophie Westmore	Sacre Coeur - Secondary	An Eureka Moment for Australian Science.. The Cochlear Implant	Catholic Education Office (Melbourne)
Taliesin Galloway McLean	St Leonard's College Brighton - Secondary	Peptic Ulcers	Chemistry Education Association
Ruth Hughes	Sacred Heart College - Kyneton	Nano Diamonds	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Rose O'Brien	Fintona Girls School - Senior Secondary	Australian Science Creates the Cochlear Implant	Australian Skeptics Science and Education Foundation
Anand Bharadwaj	Trinity Grammar School - Secondary	Australian Nanotechnology	Vaisala Pty Ltd
Jasmin Grey	Mentone Grammar School - Middle	Australian science creates: Relenza (Zanamirvir)	Australian Society for Biochemistry & Molecular Biology
Ross Ikosidekas & Jason Savell	Kew High School	Spray on Skin	Australian Skeptics Science and Education Foundation

## Posters Scientific Wall Charts - Junior

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Inneke Wagner	Methodist Ladies' College Senior School	Penicillin	AGCO Australia Ltd.
Tom Do	Cheltenham Secondary College	Australian nanotechnology	Australian Skeptics Science and Education Foundation
Kyan Webster	Cheltenham Secondary College	Australian science creates....WiFi	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Stephanie Crouch	Cheltenham Secondary College	Australian science creates.. the Bionic Ear	Dr Joy Bear
Casey Chang	Cheltenham Secondary College	Australian science creates...Penicillin	Gene Technology Access Centre
Ana Nak Pirkmaier	Cheltenham Secondary College	Australian science creates.. the refrigerator	Powercor Australia
Cleo Taliadoros	Firbank Grammar School	Australian Science Creates: Gardasil	Victoria Teachers Mutual Bank
Amelia O'Gorman & Laura Turnbull	Methodist Ladies' College Senior School	The Frozen Embryo	Australian Society for Biochemistry & Molecular Biology
Krystal Salloum & Isabelle Smart	Sacre Coeur - Secondary	Australian Science creates...Sportwool	Vaisala Pty Ltd
Lucienne Bourke Emily Howell	Sacre Coeur - Secondary	Penicillin - A Eureka Moment	Australian Skeptics Science and Education Foundation
Jessica Dempsey & Caroline Gibbs	Sacre Coeur - Secondary	Australian Science creates... The Cochlear Implant	Catholic Education Office (Melbourne)
Ruby De Luca & Alice Kafer	Sacre Coeur - Secondary	Australian Science creates.. The Cochlear Implant	Swinburne University of Technology
Ruby Barnes & Claudia Scollo	Sacre Coeur - Secondary	Australian Science creates.. The Ultrasound	STELR Project
Lydia Kikuchi & Ada Kong	Sacre Coeur - Secondary	The Cochlear Implant	Catholic Education Office (Melbourne)
Grace Ambrosini & Lauren Thomas	Sacre Coeur - Secondary	A Eureka Moment for Australian Science.. Penicillin	Australian Skeptics Science and Education Foundation
Jordan Esh	Box Hill High School	Australian Nanotechnology	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Marcus Castellana	St Kevins College - Secondary	The Influence of Nanotechnology	Powercor Australia





## Posters Scientific Wall Charts - Junior *(continued)*

### Minor Bursary - \$35

Name	School	Project Title	Sponsor
Todd Martin	Parade College	Australian Science creates - cochlear implant	Catholic Education Office (Melbourne)
Noah Jaffrey	St Leonard's College Brighton - Secondary	Surf Lifesaving Reel	Australian Skeptics Science and Education Foundation
Luke D'Elton	The Knox School - Secondary	Australian Science creates... The Black Box Flight Data Recorder	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Susie Lei	The Knox School - Secondary	Australian Science creates... The Electronic Pacemaker	Swinburne University of Technology
Matthew Newman	St Leonard's College Brighton - Secondary	Nanotechnology	Vaisala Pty Ltd
Ella De Graaf	Balcombe Grammar School - Secondary	Cloud Seeding	The Royal Society of Victoria Inc.
Ellie Schooling	Sacred Heart College - Kyneton	Spray on Skin	Catholic Education Office (Melbourne)
Charlotte Sutton & Stephanie Wilson	Mentone Grammar School - Middle	Dung beetle	Field Naturalists Club Of Victoria
Isaac Leatherman	Sacred Heart College - Kyneton	Australian Nanotechnology	Australian Skeptics Science and Education Foundation
Ella Perlen	Shelford Girls Grammar - Secondary	The Cochlear Implant	Powercor Australia
Mardi Denham - Roberts & Holli Hickman	Shelford Girls Grammar - Secondary	Buzz Off	Swinburne University of Technology
Brianna Sleeth	Thornbury High School	The Cochlear Implant	The Royal Society of Victoria Inc.
Kate Moruzi	Doncaster Secondary College	Bovine Tuberculosis Test	Australian Society for Biochemistry & Molecular Biology

## Inventions - Intermediate

### Major Bursary - \$70

Name	School	Project Title	Sponsor
Millie Hookey & Elinor Williams	Presbyterian Ladies College - Senior	Exerslice	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Inventions - Intermediate

### Minor Bursary - \$50

Name	School	Project Title	Sponsor
Alexandra Karamesinis	The Peninsula School	Robotic aid for disabled people	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Prashant Kumar & James Rassool	Kolbe Catholic College	Supervisory and Warning Systems (SAWS)	Victoria University
Ruby O'Dea	Our Lady Of Sion College	Brace Yourself	Catholic Education Office (Melbourne)
Solomon Jones	Gippsland Grammar - Senior	Call to Switch	The BHP Billiton Science and Engineering Awards, managed by CSIRO

## Creative Writing - Intermediate

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Meric Oz	Cheltenham Secondary College	So it began, the start of an Australian science legend	Gene Technology Access Centre
Bridgette Van Diepen	Nossal High School	So it began, the start of an Australian science legend	Victoria Teachers Mutual Bank

# The Odeon: 12.30pm – 1.30pm

## Creative Writing - Intermediate *(continued)*

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Victoria Sadler	Doncaster Secondary College	Australian Science under the surface	Vaisala Pty Ltd
Matthew Sievers	Macedon Grammar School	So it began, the start of an Australian science legend	In Memory of Dr Noel Schleiger
April Hawksworth	Kolbe Catholic College	And so it began, the start of an Australian science legend	Victoria University

## Creative Writing - Intermediate

### Minor Bursary - \$40

Name	School	Project Title	Sponsor
Amelia Keynton	Kingswood College - Secondary	Australian Science, The Sky's the Limit	Australian Society for Biochemistry & Molecular Biology
Eliza Maher	Presbyterian Ladies College - Senior	Australian Science, below the surface. Keeping Up The Pace	Entomological Society of Victoria Inc.
Aedan Kertesi	Nossal High School	A Bicentenary of Australian Science	In Memory of Dr Noel Schleiger
Alexandra de Lacy	Our Lady Of Sion College	Necessity was the mother of invention	Swinburne University of Technology
Rebecca Zhao	Doncaster Secondary College	So it began, the start of an Australian legend	Minerals Council of Australia (Victorian Division)
Miriam Fares	Gleneagles Secondary College	Australian Science, below the surface.	Minerals Council of Australia (Victorian Division)
Sarasvati(Raras) Santosa	Gleneagles Secondary College	Necessity was the mother of invention.	The Royal Society of Victoria Inc.
Emily Kuo	Presbyterian Ladies College - Senior	Australian Science, below the surface. Entering the World of Sound	The Walter and Eliza Hall Institute of Medical Research
Sabrina Bassal	Minaret College - Secondary	The sky is the limit	Powercor Australia
Marmarin Bakhtary	Minaret College - Secondary	Necessity was the mother of invention	The Walter and Eliza Hall Institute of Medical Research

## Posters Scientific Wall Charts - Intermediate

### Major Bursary - \$60

Name	School	Project Title	Sponsor
Nipunie Vithanage	Presbyterian Ladies College - Senior	A Eureka Moment for Australian Science: Discovery of H.pylori	Australian Society for Biochemistry & Molecular Biology
Anthea Wanigaratne	Nossal High School	A Eureka moment for Australian science	Australian Skeptics Science and Education Foundation
Zoe Canestra	Shelford Girls Grammar - Secondary	Insulin	Gene Technology Access Centre

## Posters Scientific Wall Charts - Intermediate

### Minor Bursary - \$40

Name	School	Project Title	Sponsor
Riyaz Shahulhameed	Cheltenham Secondary College	Australian Nanotechnology	The BHP Billiton Science and Engineering Awards, managed by CSIRO
Charlotte McCarthy	Our Lady Of Sion College	Australian Science Creates...	Catholic Education Office (Melbourne)
Lourdes Jayawardena	Sacred Heart Girls College	Australian science creates the bionic ear	Vaisala Pty Ltd
Marie Bomban	Caroline Chisholm Catholic College	A Eureka moment for Australian Science...	Catholic Education Office (Melbourne)
Cecilia Rafanan	Caroline Chisholm Catholic College	A Eureka moment for Australian Science...	Australian Skeptics Science and Education Foundation
Rowina Nathan	Shelford Girls Grammar - Secondary	The Sono Eye - Nanotechnology	The BHP Billiton Science and Engineering Awards, managed by CSIRO



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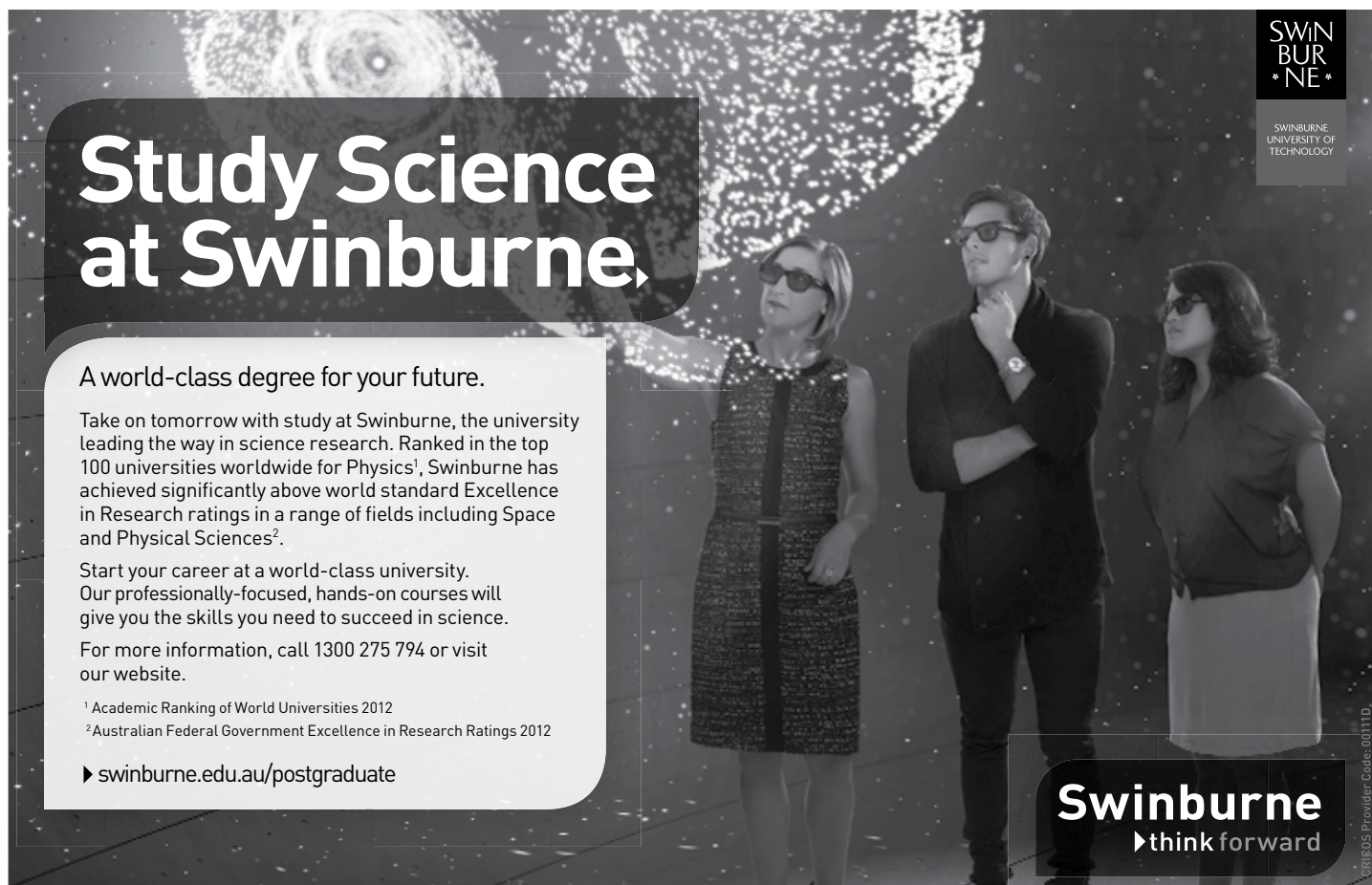
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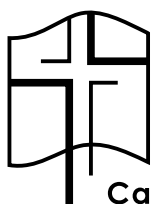
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For further information about the Society, please contact  
Dr Sheena McGowan

ASBMB, c/- Department of Biochemistry and Molecular Biology  
Monash University, Clayton, 3800 Victoria  
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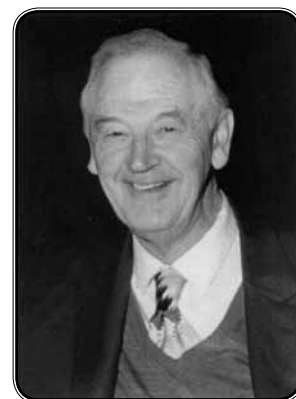
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- Present one or two day symposia on current 'hot topics' in science
- Offer specialist topic orations and lectures, often in partnership with other organizations, on the commercialization of scientific discovery, geological science, the history of science and applied science through technology
- Support Science teaching in Victorian schools through the Victorian Science Teachers Association – **Science Talent Search** and the **Science in My World** program
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- Award an annual competitive 'Phillip Law AC Post-doctoral Prize' for excellence in the Physical Sciences during the first seven years after completion of their doctorate
- Award an Annual 'Royal Society Medal for Excellence in Scientific Research' to leaders in science in their fields
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## In Memory of Dr Noel Schleiger (1926 – 2013)

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Dr Noel Schleiger was a teacher of maths at TAFE level, and a highly active member of the Field Naturalists Club of Victoria (FNCV) between 1984 and 2013. His primary interest in natural history was geology; he actively led many excursions, wrote articles and gave talks on his area of expertise.

Noel was also the author of *Roadside geology* (1995), which was published jointly by FNCV and the Geological Society of Australia (Victorian Division).

Noel was a great support for science education over his career, which included his involvement in the 'Scientists in Schools' program. He leaves a legacy that we hope will inspire a future generation of scientists.



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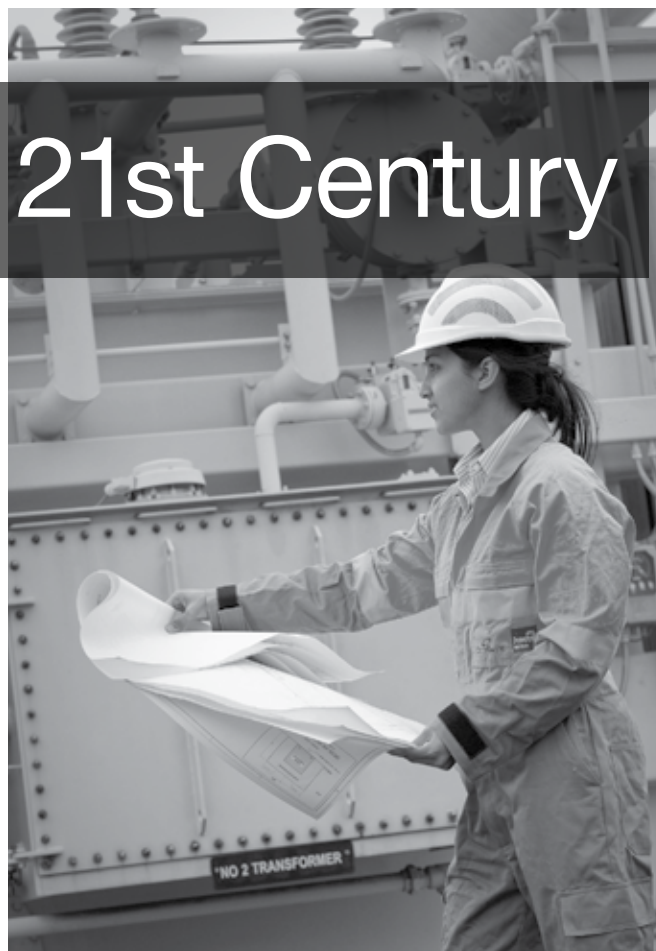
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The STS committee urgently needs new members for 2014. Without this volunteer committee the competition cannot operate. There are many benefits to be gained by joining the committee - you will be helping ensure STS continues to run, you will be making an active contribution to your profession, you will gain insight into how the competition operates and you will gain personal satisfaction from working with a group of dedicated science professionals.

For more information about the STS committee go to [www.sciencevictoria.com.au/sts/stscommittee](http://www.sciencevictoria.com.au/sts/stscommittee) or contact STAV:  
[stav@stav.vic.edu.au](mailto:stav@stav.vic.edu.au); phone 9385 3999



## STS Co-Directors

Josie Crisara  
Miranda McKellar

Anne-Marie Williams  
Peter Craig  
Leonie Lang

Aitken College  
La Trobe University - School of  
Life Science  
Methodist Ladies' College  
Mt Waverley Secondary College  
University of Melbourne

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Mary Donaghy  
Lynette Lew  
Manju Mohandoss  
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Diana Veremciukas  
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Christine Redman  
John Rainbow  
Joanna Alexander  
Vanessa Phillips

Annette Atkinson  
Gregory Boyles  
Maria Mylonas  
Saima Wasim  
Greg Wilson

## STS assistants

David Trotter  
Janice Teng  
Annette McKenna  
Sofie Krcmar  
Kellie Jackson

CSIRO Education  
STS Officer  
STAV Administration Manager  
STS Assistant  
STAV Desktop Publishing

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Graziella Carta  
Kim Forward  
Kate Hatty  
Adele Hudson  
Sally Snowden

Heather Murtagh Aquinas College

Madelaine Scott-Jones Avila College  
Theo van Eyk

Alana Balloch Balcombe Grammar School -  
Secondary

Yvonne Wiebell Balwyn High School

Debbie Mason Beacons Hills College -  
Valley (secondary)

Michael Fincher Beacons Hills College Village -  
Senior

Senem Shamsili Bellarine Secondary College,  
Drysdale Campus

Carrie Bloomfield Bentleigh Secondary College  
Yvonne Sirianos

Jeanie Clark Beulah Primary School

Martin Jellinek Box Hill High School  
Erica Sporri

James Heazlewood Braemar College -  
Secondary

Michael Pituch  
Coralie Taranto

Robin Gamble Brentwood Secondary College

Julie Murray Brighton Primary School

Julie Gould Brunswick Secondary College  
Caroline Gatley Camberwell Grammar School -  
Primary

Susan Rankin  
Mark Williams Camberwell Grammar School -  
Senior School

Megan Kerr Camberwell High School

Jacqui Brooks Camelot Rise Primary School

Simone Griffith Carey Baptist Grammar  
School Donvale

Yvonne Ngiam Caroline Chisholm  
Alice Szeto Catholic College

Nichole Fraser Creekside K-9 College

Rebecca McMahon  
Katherine Ryan

Andrea Johnson Caulfield Grammar School -  
Malvern Campus

Christopher Bowen Caulfield Grammar School -  
Whealers Hill Campus

Kate Harman Caulfield South Primary School

Marianne Sichlau

Chris Rogerson Chair of Christian School  
Cardinia (Primary)

Spiros Liacos Cheltenham Secondary College  
Jessica Ohara  
Tom Sharpley

Di Nevile Clifton Hill Primary School

# STS Judges 2013

Ben Johnson	Coburg Primary School
Amanda Powell	Dandenong High School
Sue Evangelakos	Deepdene Primary School
Michael Cincotta	Doncaster Gardens Primary School
Tom Wragg	Doncaster Secondary College
Bernie Kennedy Sally Polidano	East Doncaster Secondary College
Noreen Akhtar Lisa Polson	Eltham East Primary School
Kate Dillon	Essendon North Primary School
Jessica Chan Marita Steward	Essex Heights Primary School
Lisa Broben Vanessa Stockley	Fintona Girls School - Primary
Christa Ackermann Julie Goldsworthy Suzie Hannebery	Fintona Girls School - Senior Secondary
Paula Hicks Kerry Slater	Firbank Grammar School
Laura Sheffield Beth Watson	Firbank Grammar School - Sandringham House
Brooke Clayton Beth Watson	Firbank Grammar School - Turner House
Evey Chen Kathleen Lindsay-Field	Fitzroy North Primary School
Nicola Dziadkiewicz Lesley McCarthy David Meyer	Flemington Primary School
Carolyn McLean Duncan Neil	Flinders Christian Community College - Carrum Downs
Siwan Rees	Geelong Grammar School - Secondary
Tracy Clark Marita O'Shea	Genazzano F C J College
Julie Ripon	Gippsland Grammar - Senior
Kristie Woodward	Girton Grammar School - Junior
Jae Chang Christina Gaffy Christine Gilligan Lisa Tutt	Glendal Primary School
Julie Mullins	Gleneagles Secondary College
Maureen Frith	Great Ryrie Primary School
Rohan Craig Julie Venning Ann Walker	Heathdale Christian College - Primary
Warren Pedersen	Holy Spirit School
Petros Rozakeas	Home School Rozakeas
Fiona Ellis Emma Geyer Pamela Gomes Pina Pikos Sarah Shatford	Hume Anglican Grammar School - Primary

Daniela Campanale Jordan Ignatiadis Marisa Jarvis Brigitte Riscica Pam Robertson	Hume Anglican Grammar School - Secondary
Leesa Gallard	Huntingtower School - Primary
Paul Cuthbert Lorna McKellar	Kew High School
Rajnish Ram	Kilvington Grammar School - Senior
Sue Egan	Kinglake Primary School
Saji Anil Iain Murphy	Kingswood College - Secondary
Phillip Chan Michelle Vella	Kolbe Catholic College
Lydia Low	Lab Rats Science Club Primary
Imelda Mason	Lauriston Girls School - Primary
Laura Kaspar Nural Seker Jodie Street Kasie Van Hennik	Lilydale High School
Jacqueline Berkeley	Lowther Hall Anglican Grammar School
Judith Sise	Lyndale Greens Primary school
Susan Petousis	Lyndale Secondary College
Mark Smith Jenny White	Macedon Grammar School
Clinton Hale Connie Kyris Komal Lata	Maribyrnong Secondary College
Alice Jung George Stoforidis	Mazenod College
Kerry Archer	McClelland College
Ellie Beni Maria Mavridis	Mentone Girls' Grammar Secondary School
Leigh Chislett Michael Wilton	Mentone Grammar School (Middle)
Miriam Beasy Anne-Marie Williams	Methodist Ladies College Junior School
Cassie Blainey Drew Chan Tom Curtis Mark Danaro Jill Detez Connie Handrinos Chris Heath Dickson Ho Vera Hudson Kylie Warner Vicky Zhou	Methodist Ladies' College Senior School
Karen Faulwetter Steven Hallam Karen Somers	Middle Kinglake Primary School
Sarah Bywater	Mill Park Heights Primary School





Mehar Saeed	Minaret College - Secondary
Lauren Kelly	Mount Waverley S C - Junior School
Adam Laan	
Scott Smith	
Peter Craig	Mount Waverley Secondary College - Senior
Luisa Masocco	Nazareth College
Christopher Ryan	
Stephen Alderton	Nossal High School
Annemiek Waters	Our Holy Redeemer School
Paul Whitely	Our Lady Of Sion College
Nicole Kountouri	Overnewton Anglican Community - Secondary
Ruth Arnold	Overnewton Anglican Community College- Primary
Jonathon Broughton	Parade College
Igor Lysenko	Parade College - Preston
Edison Shamoail	
Misja Carbo	Presbyterian Ladies College - Senior
Russell Downie	
Natalie Jensen	Preshil: The Margaret Lyttle Memorial School
Shantelle Brown	Princes Hill Secondary College
Andrew Kelly	
Melinda Browne	Roberts McCubbin Primary School
Susan Fryer	Ruyton Girls' School
Christine Mckillop	Sacre Coeur - Secondary
Catherine Vastbinder	
John Denmead	Sacre Coeur Primary School
Marika Payne	Sacred Heart College - Kyneton
Anne Noonan	Sacred Heart Girls College
Kerrilee Pywell	
Sarah Rapson	Salesian College - Chadstone
Michelle Nedosyko	Santa Maria College
Brian O'Reilly	
Gillian Comport	Scotch College - Junior
Anthony Tasca	
Dinah Waldie	
John Jackowski	Scotch College - Senior
Trent Asquith	Serpell Primary School
Jeremy Tottenham	
Erin Zervos	
Alison Reid	Shelford Girls Grammar - Secondary
Annette Williams	
Jacqueline Sidaway	Shelford Girls Grammar School - Primary
Tania Whitehead	
Carly Briant	Solway Primary School
Lucy Fyffe	
Rhiannon Quill	
Anthea Watkins	Southwood Boys Grammar School

Ewa Biviano	St Bedes College
Rebecca Seel	
John McGlashan	St Josephs College Mildura
Robert Bell	St Kevins College - Secondary
Chris Dunn	
James Ross	
Emma Harkin	St Leonard's College Brighton - Secondary
Jane Cuttler	St Leonard's College - Junior School
Julia Behr	St Paul's Grammar School Warragul
Miranda Armstrong	St Thomas The Apostle Primary School
Michelle Bates	
Ian McDonald	Strathcona Baptist G G S - Secondary
Erin - Rose Pandita	
Charlotte Forwood	Strathcona Baptist G. G. S - Primary
Andrew Mudgway	
Andrew Blackburn	Sunbury Downs Secondary College
Michael Sperling	
Ajshe Thaqi	The Grange Secondary College
Sophie Zwolanski-Morovic	
Rebekah Bonnett	The Hamilton And Alexandra College - Senior
Kim Hepworth	The Knox School - Secondary
Rachel Johnson	The Knox School - Primary
Glenn Bason	Thornbury High School
Christine Farmakis	
Lanna Derry	Tintern Girls Grammar School - Secondary
Ray Drake	Trinity Grammar School - Junior
Heather Evans	Trinity Grammar School - Secondary
Lina Tashlik	Tucker Road Primary - Bentleigh
Subu Chockalingam	University High School - Gtac
Nicole Webster	
Fiona Trapani	University of Melbourne
Melissa Tyers	Wallan Primary School
Sheona Carter	Wesley College - St Kilda Road Primary
Magita Conrad	
Hamish Leahy	
James Skehan	
Karen Dover	Wesley College- Junior Campus
Russell Welsh	
June George	Western Heights Secondary College - Vines Rd
Suzanne Lampe	Woodleigh School
Anthony Lyon	Wooranna Park Primary School
Kate Catania	Yarra Valley Grammar School
John Retchford	



## Pre-service teacher judges

Rikara Ahmat	Arjan Singh
Ajit Singh	Desmond Ang
Lauren Anglely	Ross Avery
Kartini Beghin	Tyla Bracken
Jackson Brooke	Eliza Brown
Sivan Burton	William Buttigieg
Alex Carnie	Sarah Chiappa
Amanda Choo	Julia Cirillo
Haydn Clancy	Russell Clark
Jessica Cobley	Anastasia Courtney
Gabriel Csaszar	Sana Derbas
Melanie Erwin	Cassandra Flanagan
Jessica Gennery	Michael Goldberg
Samuel Hannah	Stephanie Hogan
Bei Jiang	Emily Jordan
Samantha Keenan	Rebecca Kerr
Linda La	Rebecca Lawrence
Aidi Liu	Bethany Mason
Emma McIntyre	Erin Miller
Katie Miller	Raquella Neiger
Emily Nicholls	Michael O'Neill
Timothy Paoli	Melissa Pert
Katherine Roan	Rachael Rutkowski
Danae Salipas	Christopher Sgro
Rebekah Smith	Sarah Sturgeon
Anna Tran	Alexander Tsai
James Van Pelt	Jared Vassallo
Caitlin Vine	Rachel Wilson
Debbie Wong	Grace Wong
Sezer Yazar	

## Posters Scientific Wall Charts – Junior and Intermediate divisions

### Section Coordinator: Diana Veremciukas

The Judging Day on Saturday the 10th of August ran efficiently thanks to the tireless efforts of the 30+ volunteer judges, who were mostly primary and secondary teachers, and some trainee teachers from La Trobe and Melbourne Universities.

A big thank you to Methodist Ladies' College for the use of their facilities and to the staff who helped set up the rooms on the preceding Friday evening, and those who provided morning tea for parents and entrants on the Saturday morning. Also thank you to the MLC students who acted as ushers.

Judges found that the standard of posters was very high this year, as was the oral presentation provided by students.

The number of Junior entries received were one hundred and five, up on last year's total. Of the entries submitted 15 won Major bursaries, 30 won Minor bursaries and 30 received Merit certificates.

Twenty-four Intermediate entries were received, up on last year's total. Of the entries submitted 3 won Major bursaries, 6 won Minor bursaries and 8 received a Merit certificate. STAV encourages more year 9 and 10+ students entering next year.

The favourite topic for entrants was "Australian Science creates...." at 59%.

Next at equal popularity was "A Eureka moment for Australian Science....." and "Australian Nanotechnology", at 19%.

Least favourite was "Indigenous Science in the last 100 years" at 3%.

Posters based on "Australian Science creates...." and "A Eureka moment for Australian Science....." covered the Bionic Eye, Cochlear Ear implant, Spray on Skin, The Heart pacemaker, Cloud seeding, Anthrax vaccine, Anti-malaria drug, Vegemite, Sport's wool, Solar Hot Water, the Black box recorder, Ultrasound technology, Penicillin, the Bovine TB test, the Brennan Torpedo, Polymer banknotes, Wi Fi, Movie clapper boards, Aero guard, Refrigeration devices, Relenza-Flu vaccine, Super fish pest management, Gardasil-Cervical Cancer drug, introduction of the Dung Beetle, Frozen Egg cells/embryos, the Surf Ski, Magic bandages, Surf Life-saving reel, Music bubbles, DNA and Telomerase, Myxamatoxis disease, Tasmanian Devil tumour disease, Atomic Absorption devices, Radio astronomy devices, Helicobacter and Peptic ulcers, and Brain stimulators.

Posters based on "Australian Nanotechnology" covered nanobots in medicine, space elevators, Nano radar, Nano bugs, probes, Bucky balls, sensors, nano-diamonds, Insulin release nanotubes, Oilrig Nano protectors, Nano chips in Bionic eyes, Sono eye, Zinc cream and Suntan lotions.

Posters based on "Indigenous Science in the last 100 years" covered Boomerangs, Didgeridoos, and Spear throwers, Stone tools, use of native plants and natural minerals.



Just a reminder to entrants, if a poster has attachments it must be laminated, and if the internet has been accessed, the site, the date and time it was accessed must be noted in the bibliography. Also students need to show clearly what poster topic they have selected on their poster.

Congratulations, to all who entered the Poster section this year. We are already looking forward to 2014 and discovering what students with commitment, enthusiasm and with support from teachers and parents can do with next year's theme.

## Posters Scientific Wall Charts – Lower Primary and Primary divisions

### Section Coordinator: Ann Pisarevsky

Congratulations to all those students who made the effort to compete in the poster section of the Science Talent Search.

This year 208 posters were entered with 136 from upper primary and 72 from the lower primary. Of those students who entered in the lower primary section seven received a mayor bursary and fourteen received a minor bursary. In upper primary fourteen received a mayor bursary and twenty-eight received minors.

Students were asked to address one of the topics given - How Australian Science has Improved our Lives, A Eureka Moment for Australian Science, Bugs beware of Australian Scientists and Indigenous Science in the Last 100 Years. The judges felt that most posters were well set out and presented a good understanding of the scientific content relating to the topic. There were however a number of posters that did not comply to the guidelines. In some cases fabric or material or photographs were added to the poster. It specifically states in the guidelines that only original diagrams are to be used. With regard to references, if using references from the internet time and date must be added to the reference.

On judging day the judges were impressed by the enthusiasm of the students and their understanding of the concepts presented on their posters.

Many thanks, to the judges, who gave up their Saturday morning to be involved in the judging.

## Computer Programs – All divisions

### Section Coordinators: Mee-Ing Ong & Lynette Lew

It was another very satisfying and successful Special Judging Day, on Saturday, 10th August at Methodist Ladies' College. As in previous years, all the committed and dedicated judges arrived punctually at 8.00 a.m. sharp. Their early arrival provided some last minute assistance in organising marking stations before a short briefing session on judging criteria to ensure fairness in judging. Thank you all for your faithful commitment to the advancement of Science.

It is encouraging to note that more students, especially in the junior and intermediate sections, are making an effort to complete their projects. The number of entries in the Open section, however, has declined sharply, due probably to the

high demand of VCE on their time.

The standard of programming skills and the scientific knowledge displayed in the work of the entries continued to reflect the students' genuine interest, skills and application, understanding and dedication to their study of Science and Technology.

It is important to note the rapid dynamics occurring in the range and scope of the software being used to create programs and simulations. These range from the more traditional coded options through to more current GUI and icon led applications. The science content is often intriguing but can become secondary to the creativity enabled by the software. Age groups do not seem to define the software used.

Softwares used this year included the following:

PowerPoint – rarely used with complexity or developed beyond the basics, science content in general, was adequately covered.

Web/HTML/Google Docs/Prezzi – again, as in the case of PowerPoint, rarely showing complexity or much of the possible interactivity despite adequate science content. Network connectivity to run some student offerings is becoming more of an issue.

Minecraft – some very clever and creative efforts were made, certainly interactive, networkable and fun but (science content could be minimal) often at the inevitable neglect of a comprehensive Science content.

More complex software used this year included the following:

App Inventor – Android, usually with quite succinct but effective interactivity and scientific method

GameMaker – (again) very clever, interactive, fun and frequently complex IT problem solving. Unfortunately, integration of scientific content often missed the mark.

VB.Net – Suitable but aging format for demonstration and movement incorporating quizzes – usually worked well

Flash – Becoming rare, due to ever diminishing support and abysmal version succession

Scratch – Usually colourful and effective, used generally by younger students, frequent evidence of parental/teacher influence. Very capable software but too often students could not identify how/why a program structure was used, science content often became secondary.

Delphi – Old style favourite, UK favoured so lots of tutorials, blatant copying of tutorial products evident and science content almost an afterthought. Looks good but overall a poor choice.

Overall, students were making an effort to address all criteria. More than 90% of the students handed in a back-up copy of their presentation. Many students, however, omitted a written description of their programs and how their programs operate. Other areas that require attention include an increase in the level of interaction and integration of relevant Science content into the program.

Congratulations to all Bursary winners. We hope to see you again next year. For those who were unsuccessful this year,

# STS Co-ordinator Reports

we hope you will keep trying in forthcoming years.

We would like to express our appreciation to Anne-Marie Williams and the Science staff of Methodist Ladies' College for their continuing support and assistance prior to and on the Special Judging Day. Thank you also to Mark Williams of Camberwell Grammar School, for his support in the areas of the development of software technology / terminology and generous contributions to this report.

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## Games – All divisions

### Section Coordinators: Leonie Lang, Subu Chockalingam, Vanessa Phillips

Students love playing games and they are very creative in finding ways to turn their science research into a game. At the Games Judging Day at Wesley College, we saw numerous examples of students having fun playing games of their own devising which also helped them learn about science. Students enjoyed setting up their games and playing them with the science teachers who were the judges. We were also pleased to welcome student teachers from Melbourne University, who were mentored by the practising teachers. The judges used a rubric which closely followed the guidelines listed in the Science Talent Search Handbook.

This year 119 entries were judged which is somewhat fewer than last year. Perhaps the crowded curriculum is taking its toll. Almost half of these were awarded bursaries which is made possible by the generous donations from our sponsors.

The best entries were those that not only contained good science, but showed evidence that research was used to develop the game around finding solutions to real issues.

Although students entering the Games section are not obliged to follow the theme for the year, students were very inventive in finding ways to incorporate the topic of a 'Century of Australian Science' into their projects. The Hills Hoist was given special attention.

Tasks that promoted problem solving were highly regarded whereas "luck" squares in board games and recall of trivial facts did not score well. Overall, the judges were very impressed with the creativity shown by students to produce eye-catching and innovative games which were original and fun to play.

All this was made possible by the generosity of many science teachers who encouraged their students to enter the Science Talent Search, guided their research of the science ideas and inspired them to express their creativity in many different ways. Many of these teachers also gave hours of their free time to judge the entries. We thank the parents for supporting their sons and daughters in preparing their entries, bringing them to the venue and sharing with them the experiences of the day.

We also thank the students who put so much work into completing their entries and brought them to be judged. They have achieved much learning about science and shared their learning with the players of the games and with the judges.

## Creative Writing – Lower Primary and Primary divisions

### Section Coordinator: Judith Sise

Celebrating 100 years of Australian science and scientists meant numerous stories on the development of the cochlea, ear implant. Primary students from Prep to year 6 seem to empathise with hearing impairment or deafness. Almost sixty percent of the stories were about scientific discoveries, "It means we've made an important discovery," said the Australian scientists". The topics, "My Work as an Australian Geologist" and "Astronomy Australian style" were the next most popular topics with most students focussing on general descriptions of geology and astronomy and only a few writing on the work of real geologists and astronomers. "One Small Australian Invention; One HUGE worldwide technological Advance," was the least popular with the students. However, reviewing some of the scientists investigated and celebrated in the creative writing section, it would appear that many students will be more aware of the number of famous Australian scientists and their valuable contribution to human society.

The styles and methods of illustrating the stories were delightfully innovative highlighting the depth of scientific understanding of the young authors. There was less innovation in the story genre this year than in the past with most students writing simple narratives.

Bibliographies and the science concepts given by many of the students did include a variety of sources. This year there was more acknowledgement of the assistance of students' teachers, parents and family and perhaps this was because the theme was less accessible for young students.

Thanks go to the fantastic judges who manage to squeeze into their busy work load extra marking to meet the tight timeline for the Science Talent Search Competition. Thanks also to the classroom and science teachers and parents who ensure that this competition will continue by their continued support for students' entries. Many of the teachers who volunteered to judge, have done so for a few years and always indicate how much they enjoy reading the books. Congratulations to all the students and judges and I look forward to enjoying the beautifully illustrated picture story books in 2014.

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## Creative Writing – Intermediate division

### Section Coordinators: Lynden Fielding, Marc Lewandowski and Katherine Georganakis

The overall standard of Intermediate Creative Writing entries was very high in 2013. Forty-seven entries were received from students at nineteen schools across Victoria, and a judging panel of six teachers assessed the entries. The four 'A Century of Australian Science' topics were equally popular. It was very inspiring reading the entries on 'Australian Science, the sky's the limit', 'Necessity was the mother of invention', 'Australian Science, below the surface' and 'So it began, the start of an Australian Science legend'. Nearly all entries were able to gain a Merit Certificate, if they did





not achieve a Major or Minor Bursary. Major and Minor Bursary winning entries shone with an appropriate amount of accurate and relevant scientific content integrated into original and creative stories. As well, entries were neatly and legibly presented with attention paid to spelling, grammar, tense and word length. The best stories had clear expression, an introduction that held the reader's attention, several paragraphs that logically developed the main ideas and a satisfactory conclusion. Some stories did not quite fit the word length and were either under or over the seven hundred to one thousand words allowed. Other stories were factually correct, but the writer needed to include some more key ideas. In this year's stories, the cast included William Lawrence Bragg, Sir Howard Walter Florey, Professor Graeme Clark, Professor Fred Hollows, Dr Fiona Wood, Lawrence Hargrave, George Nicholas, Dr Carl Wood, Sir Ian Clunies Ross, the CSIRO, Australian environmental pests, the bionic ear, desalination, penicillin, Aspro and IVF.

Five Major Bursaries of \$60 and ten Minor Bursaries of \$40 were awarded. The topic 'So it began, the start of an Australian Science legend' was chosen by four of the Major Bursary winners for their exceptionally good work. The judge's attention was held from the first paragraph of Year 10 student from Kolbe Catholic College April Hawksworth's writing. She loved the creative format chosen by April of a letter and journal entries about the discovery of Zircon at Jack Hills, Western Australia, and a geologist and professor's quest to outdo his colleague and find an older crystal. April's story was well concluded in the final paragraph, which tied it altogether, and contained some solid scientific ideas. Matthew Sievers, a Year 9 student from Macedon Grammar School, wrote an interesting story in the first person as Stuart Thomas Butler, an Australian Nuclear Physicist describing nuclear stripping reactions to an audience of university students. Also on the same topic was the inspiring and emotive writing of Bridgette Van Diepen, a Year 10 student from Nossal High School. Her key ideas were cleverly and coherently worked into her story about the work of Fred Hollows, which was written as a conversation between a child and her aunty in remote Australia. Meric Oz, a Year 9 student from Cheltenham High School, wrote a very interesting and informed story, using clear expression and fluidly integrating the science. Meric wrote in the first person as an individual who receives a cochlea implant directly from Laureate Professor Graeme Clark. 'Australian Science, Below the Surface' was the topic chosen by Victoria Sadler, a Year 9 student at Doncaster Secondary College. Victoria cleverly managed to integrate scientific knowledge into writing that was almost pure dialogue – a valiant effort, for which she was awarded the fifth Major Bursary. The scientific ideas that Victoria presented were also impressive. Her bibliography followed all the STS Handbook Guidelines, including the date and time of access for Web resources, as well as the name of the article/source and the URL address. Victoria's story focused motivating a student towards a future career in Marine Science.

Thank you to our judges for their assessment time and comments, including "Your story was inspiring and sounded very heartfelt and passionate", "your piece captured my

imagination", "you write really well and have given a good account of some fantastic Aussie innovations", "the strength of this piece of writing is the strong grasp of scientific ideas that it portrays", "you made your characters very believable", "very creative!" and "I like the way you incorporated the science into a personal piece".

Well done to all the 2013 Creative Writing – Intermediate section authors on your efforts and congratulations to all who achieved Bursary and Merit Awards.

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## Junior Creative Writing Section Coordinators Report

### Coordinators: Amelia Strzebonski and Rachel Johnson

Each year, the Junior Creative Writing section of the Science Talent Search yields a plethora of imaginative and diverse entries, and 2013 was no exception. The three topics available allowed students to explore a range of areas, from inventions and the lives of inventors, to the stark future faced by some of Australia's endangered animals.

There was a range of writing styles used this year, which would have been evident to those who were lucky enough to have the opportunity to read the bursary winning entries on display at the Exhibition Day. A few subjects were quite popular to write about, including the invention of the cochlear implant, the development of vegemite, and the extinction and possible reintroduction of the Tasmanian tiger.

Students who were successful in receiving a bursary award paid great attention to grammar and spelling, and ensured that the scientific aspects were present throughout their writing piece, expanding upon each scientific idea in an Appendix. Their Bibliographies listed a range of sources, with the appropriate information for each. The major bursary winners included science in a way that did not interrupt the flow of the piece, but served to enrich the reader's imagination. Styles of writing that were represented included creative stories, letters, diary entries, and one entry that was particularly remarked upon by the public on Exhibition Day was a beautiful and emotive poem about the plight of the Tasmanian Devil.

The judges do find each year that a handful of wonderfully written entries miss out on bursary awards because they do not follow the theme of the competition. The theme for 2013 was 'Celebrating a Century in Australian Science'. Several of the entries chose to write stories about famous inventions or discoveries, but unfortunately neither the scientist nor the invention or discovery were Australian. In others, there may have been a connection with Australian Science, but it was not made clear in the piece of writing.

Making the final decision when allocating the awards was a difficult task, and we really appreciate the amazing work of the judges in reading each entry carefully and providing us with detailed comments on each one. It was also important that the judges gave students meaningful feedback on their entry, not only to acknowledge the students' writing abilities, but to encourage them to work hard on a creative piece to enter in next year's competition.

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The high quality writing, coupled with the keen enthusiasm for science that is reflected in the students' entries, made for enjoyable and interesting reading overall. Few of the entries contained drawings to accompany the writing, for example in the form of a comic strip, so we would love to see more of this type of entry next year.

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## Experimental Research – Open division

### Section Coordinators: Josie Crisara

This year there were many high quality projects entered into the Open Research section of the STS competition. Of the 12 entries 6 won major bursaries and 2 won minor bursaries. An important feature of winning entries is the experimental design. Care in the development of the design to control variables and find appropriate measurement techniques, ensures a well structured investigation. Systematic data analysis and interpretation should be the focus of the report in order to score well on the assessment criteria. Congratulations to all winners.

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## Experimental Research – Lower Primary and Primary divisions

### Section Coordinator: Philip Strack

Congratulations to all the students, teacher and parents who contributed their time and effort to participate in this section of Science Talent Search.

Experimental research is a great way for students to further develop their skills in scientific practice. Working through a hypothesis, developing an aim, creating a methodology, collecting data, making observations, recording and discussing results, and finally drawing conclusions. This year many outstanding research projects were received.

The topics used by Lower Primary varied from Soaring science: Paper airplanes, Yarrowong Tornados, electromagnets, growth factors of a plant to the rubber band experiment. 30 entries were received this year with 2 students being awarded a major bursary, 6 a minor bursary and 11 merit certificates.

The topics for primary ranged from "How do different fabrics react to water?", "Which liquid affects a tennis ball bounce the most?", "Plants are us", Experimental research on the formation of rust, "How weather affects mood?", "Soft drinks are not good for your health, Is Mum right?" to "Helmet and the head injuries". 85 entries were received and 6 students being awarded a major bursary, 16 a minor bursary and 29 merit certificates.

Bursary winning entries had the following characteristics - background information provided to the topic in hand, a clear experimental design and a thorough analysis and discussion of the results. It should also be said that the projects followed the guidelines set.

Special thanks to the judges for their contributions to make this section of the Science Talent Search a success.

## Class Project

### Section Coordinators: Sarah Shatford and Marisa Jarvis

The Class Experimental Research Project category of the Science Talent Search allows all the students within a class group to be engaged in an extended scientific investigation and gives them the opportunity to communicate their learning to the wider community.

Since re-introducing the Class Project section a number of years ago, the criteria has been changed and adapted to better meet the learning needs of primary classes. There has been a conscientious effort to enable easy links between this section and the Australian national science curriculum. As a result, it was fantastic to see the number of entries rise this year. This year we welcomed a number of new schools as well as returning schools that had a few years' break from the Class Project section of the competition.

All students who represented their class on judging day came away with a chocolate Freddo, a big grin and a greater appreciation for all things science! It was lovely to see the children, particularly in the lower primary section, grouped closely around their judges, obviously very excited and eager to share the science that they had learned. A great variety of projects were presented covering content strands of biological, physical and earth and space science, including topics such as plant life, friction and other forces, light, flight, cochlear implants, bridge structures, utes and even a psychology investigation exploring gender recognition from photographs!

All projects met the Science Enquiry Skills across levels from Foundation to Year 6, with many addressing Science as a Human Endeavour within their chosen topics.

For primary teachers who are thinking of entering Science Talent search next year, for either the first time or returning, please consider the Class Experimental Research Project. It is a great and easy way to introduce science into the classroom while involving all students. It is easy to link the project into Science within the Australian curriculum but also makes cross-links across other curriculum areas including Mathematics in collecting, recording and analysing data, English with report-writing and communication and some aspects of ICT where students may use spread-sheets to help create graphs of results. Topics are not limited to just the year's Science theme so a project can be chosen to easily complement a class's unit of work. Through the criteria of the Class Project, students are introduced to many different skill areas within science. This can then be a starting point for them to try group or individual entries in following years. Remember, Science is often inexact and 'messy' but often problems and mistakes can teach far more than obtaining perfect answers. Have fun, allow mess, be open to problems and discussions. Good luck!

Congratulations to all involved in the Class Projects this year. We look forward to seeing more fantastic science being communicated to us next year!





## Science Photography – All divisions

### Section Coordinators: Annette Atkinson

The change of venue for judging the entries to Parade College, Preston, did not affect the enthusiasm of the entrants or the commitment of the judges of the photography section this year. Entrants and judges quickly adapted to the changes in the organisation of the day.

This year the number of entries received in the Photography Section was about the same as in 2012. As students presented and discussed their photographs it was wonderful to see the wide range of scientific ideas and the depth of understanding of the topics researched. Some of the photo essays summarised the aims, methods used and results of an investigation, reworking established school experiments. Others recorded fresh approaches, taking advantage of the impact of the image to convey their ideas. Many students took advantage of the opportunity to present some of the wonder and beauty of scientific ideas. Responding to this year's theme of Australian Science, several students combined their interest in history and science to prepare a series of informative photos, revealing some little known innovations in Australian Science.

Entries were judged by a dedicated team of judges from schools and from Melbourne University. Their enthusiasm for science and their generous support for each other and for Science Talent Search is much appreciated. Thank you to the teachers, family and friends who assisted with suggestions, technical information and encouragement to start and sustain these students in their learning and getting the entrants to the judging venue. Thank you to the Science Talent Search Coordinators in the schools who make time in a very busy day to give their students the opportunity to enter the competition. Thank you to all teachers and parents who encourage an interest in science in their students. About 90% of entries received followed the required guidelines, an indication of the dedication of these teachers and parents in conveying the importance of following requirements in a competition. Thank you to the judges who willingly donated their precious time to write encouraging comments to the students, to judge the entries and to assist in the selection of the bursary winners. Thank you to the Principal and staff of Parade College in Preston, for making the college facilities available and to assist in the smooth running of the Judging Day, including the capture of many images of the entrants and their entries on camera.

## Working Models and Inventions – All divisions

### Section Coordinators: Janice Teng

The Working Models category is always an exciting section for students to explore a scientific principle or idea. Usually this translates to a design and construction of a working model to demonstrate a particular scientific theory and/or principle. Frequently, students also recreate a scaled model of an existing invention and explain the science behind their project.

With 'A Century of Australian Science' as our theme this

year, it was particularly appropriate to this section, with scale models such as the 'Hills Hoist', 'Coolgardie safe', and a 'Black Box Recorder' entered this year. However, we also saw students exploring other themes covering such topics as alternative energy and quantum mechanics.

The Inventions category encourages students to explore their creativity in designing and constructing either their own original invention to solve a problem, or making an innovation and/or improving on an existing invention for new or existing conditions. It is important that students explore their design and redesign in the development of their device, this aspect is important in how you would improve on your product. Inventions such as the 'Exerslice' demonstrated extensive research into how this device could assist in calculating the amount of calories consumed.

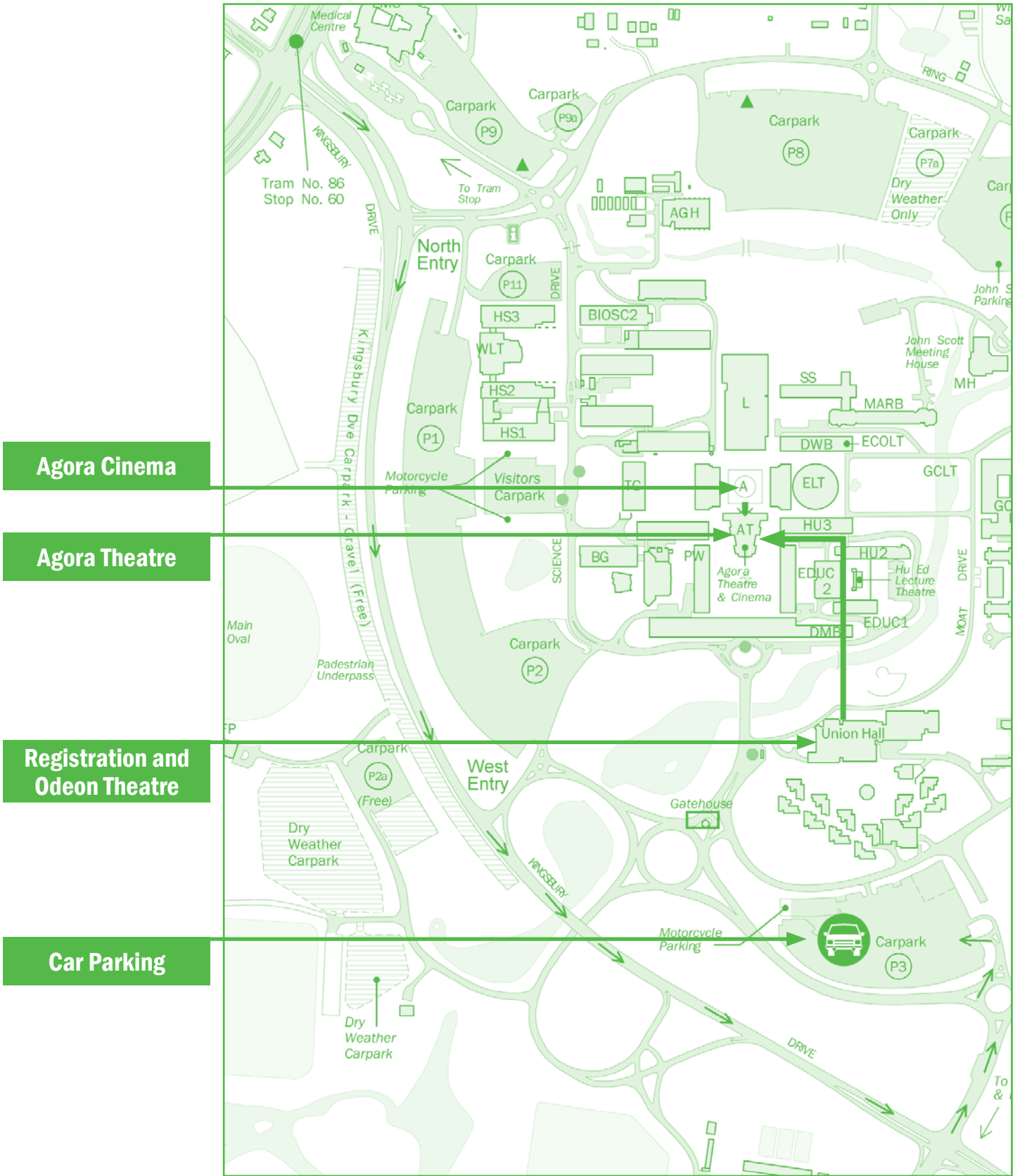
Students interested in the Inventions section may want to explore the resource links in 'The New Inventors' ABC website. This year, our Inventions' Major winners are also eligible for entry in the BHP Billiton Science and Engineering Awards, in the engineering category.

Congratulations to all the bursary winners of the Working Models and Inventions sections. This year there were 26 Major bursaries and 37 Minor bursaries awarded in the Working Models section, and, 6 Major bursaries and 11 Minor bursaries awarded in the Inventions section.

We would also like to commend all entrants in the Working Models and Inventions as we appreciate the amount of effort and persistence required to achieve a working device from their design.

We would like to thank Methodist Ladies' College for hosting our Judging Day, and to Anne-Marie Williams and all the staff and students there who were essential in the set up and running of the day. Our appreciation and thanks also to all the judges who provided time and expertise to listen and speak to our student entrants and providing them with such a valuable feedback and experience.

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