



SCIENCE TALENT SEARCH

67

Bursary Book 2018

Australian Game Changers and Change Makers



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 Inc., 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 67 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 - Scientific Wall Charts, Working Models, Inventions, Experimental Research, Creative Writing, Video Productions and Class Experimental Research Project for primary students.

The Search is open to all students enrolled in Years Foundation to 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 secondary students.

Some interesting statistics about Science Talent Search

	2013	2014	2015	2016	2017	2018
Total number of entries	1990	2102	2054	2154	2468	2347
Total number of students entered	2874	3002	2854	3089	3369	3429
Total number of class entries	15	17	14	17	14	26
Total number of bursaries awarded	584	603	592	614	704	651
Total sponsorship for bursary awards	\$32,519	\$35,602	\$29,932	\$42,924	\$36,105	\$36,425
Number of schools entered	149	158	153	153	169	173

Distribution of Student Awards by Division

	2013	2014	2015	2016	2017	2018
Lower Primary (F-2)	182	182	118	142	117	146
Middle Primary (3-4)	-	-	229	293	279	254
Upper Primary (5-6)	407	370	301	457	330	391
Junior (7-8)	525	485	502	629	536	436
Intermediate (9-10)	136	191	185	259	191	153
Open (11-12)	17	20	17	18	25	15
Totals	1267	1248	1352	1798	1478	1395

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

A more comprehensive report of this year's Science Talent Search will be published in *Labtalk* 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 2019 STS Handbook (available Term 1, 2019) or go to our website: www.sciencevictoria.com.au/sts/

Edited by: Lynden Fielding, STS Committee.

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- The Agora Theatre is located in the Agora Complex
- Eastern Lecture Theatre 2 and 5 are located in the vicinity of 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

Monday 29 October 2018

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
10.00am – 10.30am Union Hall	Official Opening of the Exhibition and Presentation of School Awards Professor Michael Clarke, Head, School of Life Sciences, College of Science, Health and Engineering, La Trobe University
11.15am – 12.15pm Eastern Lecture Theatre 2	Presentation of Lower, Middle and Upper Primary Awards (Years Foundation to 6) Sections: Creative Writing, Computer Programs, Video Productions Presenter: Dr Robert Ross, La Trobe University
Agora Theatre	Sections: Science Photography, Posters – Scientific Wall Charts Presenter: Dr Hendrika Duivenvoorden, La Trobe University
Eastern Lecture Theatre 5	Section: Games, Class Experimental Research Projects Presenter: Dr Peter Sokolowski, RMIT, EESA
The Odeon	Sections: Experimental Research, Inventions, Working Models Presenter: Ms Sarah McArthur, The University of Melbourne
12.30pm – 1.30pm Eastern Lecture Theatre 2	Presentation of Junior, Intermediate and Open Awards (Years 7 to 12) Sections: Inventions, Working Models, Science Photography Presenter: Dr Jillian Kenny, Machinam
Agora Theatre	Sections: Experimental Research, Computer Programs Presenter: Assoc. Prof. Julien Freitag, Melbourne Stem Cell Centre, Charles Sturt University
Eastern Lecture Theatre 5	Sections: Creative Writing, Video Productions Presenter: Dr Seamus Delaney, Deakin University
The Odeon	Sections: Games, Posters – Scientific Wall Charts Presenter: Dr Melissa Davis, The Walter and Eliza Hall Institute of Medical Research

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.

The Science Talent Search would like to acknowledge the land on which the Exhibition and Presentation Day is held, and the traditional custodians of this land, the land of the Wurundjeri People. We would also like to pay our respects to Elders Past, Present and Future.

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

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In Appreciation

The Science Teachers' Association of Victoria Inc. and the STS Management of the 67th 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 Victoria Dillon and Jayde Wood, 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, Research, Games, Computer Programs, Models, Inventions and Class Experimental Research Projects.

In particular, we also thank Miriam Beasy (Methodist Ladies' College), Grant Eyles (Wesley College) and James Donald (Parade College) for their work and support coordinating 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.

A very special thank you



STS greatly appreciates the support from La Trobe University. Sponsor of the Exhibition and Presentation Day event since 1989, celebrating our student achievements in Science.

The STS Committee

The STS Management 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 51.

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.

School Awards

The Peter Craig School Awards

Glendal Primary School

Sponsored by STAV Publishing

Fintona Girls' School

Sponsored by STAV Publishing

Gleneagles Secondary College

Sponsored by STAV Publishing

Presbyterian Ladies' College

Sponsored by STAV Publishing

The Hugh McKnight Encouragement Awards

Solway Primary School

Sponsored by The BHP Foundation Science and Engineering Awards, managed by CSIRO

Bialik College

Sponsored by The BHP Foundation Science and Engineering Awards, managed by CSIRO

Thornbury High School

Sponsored by The BHP Foundation Science and Engineering Awards, managed by CSIRO

Fintona Girls' School

Sponsored by The BHP Foundation Science and Engineering Awards, managed by CSIRO

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.

A very special thank you

Janice Teng has once again worked tirelessly on this year's STS. Her support for STS is greatly appreciated.

Eastern Lecture Theatre 2: 11.15am – 12.15pm



Creative Writing - Lower Primary

Major Bursary - \$35

Name	School	Project Title	Sponsor
Amos Horneman Sahil Mittal	Northside Christian College - Primary	This changes everything	Australian Skeptics
India Grant	Lowther Hall Anglican Grammar School	This changes everything	Victoria University
Parker Scott	Rivercrest Christian College - Primary	A revolutionary moment in time	Yakult Australia Pty Ltd

Minor Bursary - \$25

Name	School	Project Title	Sponsor
Ava Johnson	Balnarring Primary School	Where did my medicine come from?	Biology Teachers' Network Inc.
Genevieve Florey	Essendon North Primary School	This changes everything	Australian Skeptics
Jasmine Brekalo	Lowther Hall Anglican Grammar School	The Magic Ear (This changes everything)	Biology Teachers' Network Inc.
Mia Dawson	Lowther Hall Anglican Grammar School	After many trials...	The Royal Society of Victoria Inc.
Melina Lamberti	Lowther Hall Anglican Grammar School	This changes everything	Australian Skeptics

Video Productions - Lower Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Emma Williams	Fitzroy North Primary School	How do flowers drink?	Biology Teachers' Network Inc.

Minor Bursary - \$35

Name	School	Project Title	Sponsor
Benjamin Widjaja	Our Holy Redeemer School	Eyedme	Catholic Education Melbourne
Lauren Yim	Serpell Primary School	The Wave Piercing Catamaran	Quantum Victoria

Creative Writing - Middle Primary

Major Bursary - \$40

Name	School	Project Title	Sponsor
Sohaila Babaie Azariah Havilitama	Lyndale Greens Primary School	And now we think differently	Australian Skeptics
Arwen Hughes	Great Ryrie Primary School	After many trials...	Australian Skeptics
Orla Lee	Melbourne Girls Grammar School - Morris Hall	This changes everything	Independent Primary School Heads of Australia
Binish Qadir	Glendal Primary School	This changes everything	The University of Melbourne - Melbourne Graduate School of Education
Vidya Sivakumar	Balwyn Primary School	Australian game changers and change makers	Yakult Australia Pty Ltd
Lily Bartram	Clifton Hill Primary School	Fred's Vision	Biology Teachers' Network Inc.

Minor Bursary - \$30

Name	School	Project Title	Sponsor
Annabelle Licence Abi Phillips	Solway Primary School	Solving the Great Paper Money Disaster	Australian Skeptics In Memory of Mark Plummer
Victoria Maxsted	Melbourne Girls Grammar School - Morris Hall	This changes everything	Independent Primary School Heads of Australia
Niamh Lester	Melbourne Girls Grammar School - Morris Hall	This changes everything	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Rose Jarvis	Eltham East Primary School	This changes everything	Australian Skeptics
Greta Peters	Eltham East Primary School	This changes everything	The University of Melbourne - Melbourne Graduate School of Education

Eastern Lecture Theatre 2: 11.15am – 12.15pm

Creative Writing - Middle Primary *(continued)*

Minor Bursary - \$30

Name	School	Project Title	Sponsor
Ethan Wang Alexander Zhang	Caulfield Grammar School - Wheelers Hill Junior Campus	A revolutionary moment in time	Independent Primary School Heads of Australia
Magnus Avery Charles Stewart	Our Holy Redeemer School	The Tale of the Bad Bag	Catholic Education Melbourne
Maisie Henson	Serpell Primary School	A revolutionary moment in time	The Field Naturalists Club Of Victoria Inc.
Mark Anthony Birchall	Serpell Primary School	This changes everything	Australian Skeptics
Jess Berry Tobi Chivers	Derinya Primary School	This changes everything	Bank First
Sara Melrose	Paynesville Primary School	A Day in a Water Park	Deakin University: Faculty of Science, Engineering & Built Environment

Computer Programs - Middle Primary

Major Bursary - \$50

Name	School	Project Title	Sponsor
Patrick Mehan	Rosanna Golf Links Primary School	John O'Sullivan	Australian Skeptics
Jackson Rippon	Brighton Primary School	Hey, did you hear about the Cochlear Implant?	Order of Australia - South Central Suburban Regional Group

Minor Bursary - \$40

Name	School	Project Title	Sponsor
Charlotte Davis Ebony Veitch	Fitzroy North Primary School	Scratch	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Tea Hanks	Haileybury - Newlands Campus	Life and Death	Australian Skeptics
Ishita Kumar	Brighton Primary School	Web design for Life Cycle of a Plant using HTML and CSS scripting	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ben Bedelis Aston Thornton	Caulfield Grammar School - Malvern Campus	Coding	Don and Robyn Hyatt

Video Productions - Middle Primary

Major Bursary - \$50

Name	School	Project Title	Sponsor
Celia Lung Lucy Williams	Fitzroy North Primary School	Binaural Audio	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Grace Honig	Caulfield Grammar School - Malvern Campus	Colour-blindedness	Independent Primary School Heads of Australia

Minor Bursary - \$40

Name	School	Project Title	Sponsor
Molly Phillips	Solway Primary School	The Impact of WiFi	Australian Skeptics
Connor Stevens	Ivanhoe Grammar School - Ridgeway Campus	Newton's Law	Independent Primary School Heads of Australia
Harris Harford	Holy Rosary School	3D Printers and Why They're Game Changers	Catholic Education Melbourne
Emmett Wilson	Caulfield Grammar School - Malvern Campus	Hockey Sticks	The Royal Society of Victoria Inc.
Emily Robbins Phoebe Stevens	Kerrimuir Primary School	Cheese Making	The Field Naturalists Club Of Victoria Inc.

Eastern Lecture Theatre 2: 11.15am – 12.15pm



Creative Writing - Upper Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Tahlia Stewart	Plenty Valley Christian College - Primary	This changes everything.	Independent Primary School Heads of Australia
Larissa Cheysoth Destinee Havilitama	Lyndale Greens Primary School	And now we think differently	Australian Skeptics
Kathryn Yang	Glendal Primary School	This changes everything	Don and Robyn Hyatt
Ajita Kondur	Glendal Primary School	And now we think differently	Quantum Victoria
Anita Ella Birchall	Serpell Primary School	This changes everything	Australian Skeptics
Jolene Zheng	Firbank Grammar School - Turner House	This changes everything	Independent Primary School Heads of Australia
Sarah Strybosch	Donvale Christian College - Primary	Spray-on Skin	Biology Teachers' Network Inc.
Konaka Sato	Haileybury - City Campus Secondary	This changes everything	Independent Primary School Heads of Australia

Minor Bursary - \$35

Name	School	Project Title	Sponsor
Emily Walker	Plenty Valley Christian College - Primary	This changes everything	Independent Primary School Heads of Australia
Ruth Simon	Lyndale Greens Primary School	After many trials...	Australian Skeptics
Maddison Smith	Girton Grammar School - Junior	This changes everything	Victoria University
Phoebe Whitehead	Shelford Girls' Grammar - Primary	High Hopes for Harry's Hearing	The Royal Society of Victoria Inc.
Amanda Makelainen	Eltham East Primary School	Crash Air 101	Deakin University: Faculty of Science, Engineering & Built Environment
Aryanna Thakkar	Essendon North Primary School	This changes everything	Australian Skeptics
Aliyana Rajakulendran	Camberwell Girls Grammar School - Ormiston House	After many trials...	Independent Primary School Heads of Australia
Sanvi Arora	Haileybury - Newlands Campus	This changes everything	Independent Primary School Heads of Australia
Abigail Yee	Glendal Primary School	And now we think differently	Mordialloc Skeptics
Jennifer Crain	Overnewton Anglican Community College - Secondary	After many trials...	Victoria University
Logan Cox	Serpell Primary School	This changes everything	Australian Skeptics
Nethumlee Thota Hewage	Good News Lutheran College - Junior School	This changes everything	Quantum Victoria

Computer Programs - Upper Primary

Major Bursary - \$55

Name	School	Project Title	Sponsor
Clarence Antonmeryl	Haileybury - Berwick Campus	Spacecape	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Jeremy Eng Gideon Tse	Doncaster Gardens Primary School	Cancer Killer Bots	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Gevin Kankanamalage	Glendal Primary School	Amazing Plants	Australian Society for Biochemistry & Molecular Biology
Christina Chen Jasmine Zhang	Korowa Anglican Girls' School - Primary	Rocket Blast	Quantum Victoria
Jasper Simionato	Clifton Hill Primary School	Chicken Physics	The University of Melbourne - School of Physics
James Ghaly	Holy Rosary School	Science Scramjet Blaster	Catholic Education Melbourne
Declan Wong	Donvale Christian College - Primary	Solar Panel Simulation	In Memory of Eileen Goodfield & Dorothy Dalton

Eastern Lecture Theatre 2: 11.15am – 12.15pm

Computer Programs - Upper Primary *(continued)*

Major Bursary - \$55

Name	School	Project Title	Sponsor
Tobias Lau	Donvale Christian College - Primary	Aquatic Predators and Prey	Humanist Society of Victoria Inc.
Hugh Cheng Abraham Lin	Templestowe Park Primary School	Tsunamis	Swinburne University of Technology

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Charles Taliadoras Phillip Thomas	Solway Primary School	Sunscreen	Chemistry Education Association
Harlan Kahans	Auburn South Primary School	Australian game changer: The invention of WiFi	Institution of Engineering and Technology (Victoria Network)
Toby Coad	Skipton Primary School	Museum of Australian Scientists	Australian Skeptics
Ronan Mahaffy	Balwyn Primary School	Australian game changers and change makers	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Witter Onggara	Balwyn Primary School	Tiny Hero, Life Changer	Monash University - Faculty of Engineering

Video Productions Upper Primary

Major Bursary - \$55

Name	School	Project Title	Sponsor
Wasemee Kingston Mia Tan	Solway Primary School	Medical Ultrasound - An Australian game changer	Biology Teachers' Network Inc.
Tomas Robinson	Ivanhoe Grammar School - Ridgeway Campus	Why are yawns contagious?	Australian Skeptics
Cameron Scott	Caulfield Grammar School - Wheelers Hill Junior Campus	The Aussie Pacemaker	The Field Naturalists Club Of Victoria Inc.
Michael Curtis	Donvale Christian College - Primary	How Lightning Works	Swinburne University of Technology

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Heather Ferguson Sopheha Nhel	Lyndale Greens Primary School	Where Balloons Fly, Birds Die!	Bank First
Min Kyung Choi Kanakvi Kwar	Camelot Rise Primary School	DNA	Don and Robyn Hyatt
Florence Donarelli	Ivanhoe Grammar School - Ridgeway Campus	Battery Vs Capacitor	Electric Energy Society of Australia Inc.
Ella Hill	Brighton Primary School	The Periodic Table	Chemistry Education Association
Leah Kitchin Ruby Tu	Fintona Girls School - Primary	Annie Jump Cannon	Australian Skeptics
Sophie Ang Therese Taouk	Fintona Girls School - Primary	Isaac Newton	Monash University - Faculty of Engineering
Benjamin Li Edison Yang	Caulfield Grammar School - Malvern Campus	Forces and Motion	Institution of Engineering and Technology (Victoria Network)



Science Photography - Lower Primary

Major Bursary - \$35

Name	School	Project Title	Sponsor
Aarya Parhar	Creekside K - 9 College	Penguins	Australian Skeptics

Science Photography - Lower Primary

Minor Bursary - \$25

Name	School	Project Title	Sponsor
Jaden Liu	Ivanhoe Grammar School - Ridgeway Campus	Fanta Filter Experiment	Bank First

Posters – Scientific Wall Charts - Lower Primary

Major Bursary - \$35

Name	School	Project Title	Sponsor
Isabelle Tartaglia	Auburn South Primary School	An idea that changed people's lives - The Heart Pacemaker	Australian Skeptics
James Shang Yu Lee	Auburn South Primary School	An idea that changed people's lives - Electricity on the move	Electric Energy Society of Australia Inc.
Luke Heng	Scotch College - Junior	That Eureka moment!	Independent Primary School Heads of Australia
Mustafa Alaskary	Wesley College - Junior Campus	Shark Repelling Surfboard	Biology Teachers' Network Inc.
Greneth Olayvar	Creekside K - 9 College	Made in Australia	Don and Robyn Hyatt
Charlotte Workman	Serpell Primary School	An idea that changed people's lives	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Mika Arvanitakis	Mentone Grammar School - Primary	Cochlear Implants - An idea that changed peoples lives	Order of Australia - South Central Suburban Regional Group

Minor Bursary - \$25

Name	School	Project Title	Sponsor
Phoebe Crowe Harriet Lung	Fitzroy North Primary School	Australian game changers and game makers	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Iris Rofhan	Fitzroy North Primary School	Ziggy Stardust	Bank First
Aaliya Jaiswal	Good News Lutheran College - Junior School	An idea that changed people's lives	Independent Primary School Heads of Australia
Benjamin Tartaglia	Auburn South Primary School	An idea that changed people's lives - The Cochlear Implant	Ken Greatorex
Dillon Chan	Wesley College - Junior Campus	Polymer Bank Notes	Independent Primary School Heads of Australia
Sienna Dias	Whealers Hill Primary School	Now Hear This... The Bionic Ear	Institution of Engineering and Technology (Victoria Network)
Kate Dougall	St Margaret's School - Junior School	Great Barrier Reef	Catholic Education Melbourne
Minaaz Kaur	Doncaster Gardens Primary School	An idea that changed people's lives	Quantum Victoria
Ellie Genziuk	Serpell Primary School	An idea that changed people's lives	Yakult Australia Pty Ltd
Raja Rodriguez Brenda Soetanto	Our Holy Redeemer School	Hydroponic Farming	Catholic Education Melbourne
Eliza Blacker	Lowther Hall Anglican Grammar School	The Hills Hoist	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Tegh Loodu	Pinewood Primary School	Flight	The University of Melbourne - Melbourne Graduate School of Education

Agora Theatre: 11.15am – 12.15pm

Science Photography - Middle Primary

Major Bursary - \$40

Name	School	Project Title	Sponsor
Marley Hinson	Haileybury - Berwick Campus	Flower Structure	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Jehan Mutha-Merennenege	Glendal Primary School	Spider Webs	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$30

Name	School	Project Title	Sponsor
Darcy Doolan	Fitzroy North Primary School	Grand Designs: Nature's Engineers	Ken Greatorex
Austin Su	Glendal Primary School	Crystal Gazing	Minerals Council of Australia (Victorian Division)
Matthew Politis	Brighton Primary School	Building Bridges	Deakin University: Faculty of Science, Engineering & Built Environment

Posters – Scientific Wall Charts - Middle Primary

Major Bursary - \$40

Name	School	Project Title	Sponsor
Lucas Bartoli	Plenty Valley Christian College - Primary	Hawkeye	Independent Primary School Heads of Australia
Mosa Alaskary	Wesley College - Junior Campus	Ultrasound Image Construction	Institution of Engineering and Technology (Victoria Network)
Justin Warzala	Scotch College - Junior	An idea that changed people's lives	Independent Primary School Heads of Australia
Harry Truman	Glendal Primary School	Australian game changers and change makers	The Royal Society of Victoria Inc.
Joshua Leenus	St Margaret's School - Junior School	The Black Box	Catholic Education Melbourne
Madeleine Hamidjaja	Melbourne Girls Grammar School - Morris Hall	An idea that changed people's lives	Independent Primary School Heads of Australia
Chloe Condon Nadra Iskandar Mirza Elle Ladakis	Essendon North Primary School	Inflatable Escape Slide	Victoria University
Ruby Lay	Melbourne Girls Grammar School - Morris Hall	The Black Box - An idea that changed people's lives	The University of Melbourne - School of Physics
Matilda Zhang	Glendal Primary School	Australian game changers and change makers	The Royal Society of Victoria Inc.
Brandon Simpson	Balwyn Primary School	Australian game changers and change makers	Yakult Australia Pty Ltd
Rhys Basin	Carey Baptist Grammar School - Donvale	Made In Australia - Froth Floatation	Minerals Council of Australia (Victorian Division)
Ling Gan Annabel Tran	Mentone Grammar School - Primary	The Discovery of X-rays	Order of Australia - South Central Suburban Regional Group
Marryam Mirza	Methodist Ladies' College - Junior School	That Eureka Moment! - Colony Stimulating Factor (CSF)	Independent Primary School Heads of Australia
	Good News Lutheran College - Junior School	This changes everything: Black Box Recorder	The Royal Society of Victoria Inc.



Posters – Scientific Wall Charts - Middle Primary (continued)

Minor Bursary - \$30

Name	School	Project Title	Sponsor
Simone Sardana	Heathdale Christian College - Primary	Cochlear Implant	Victoria University
Kavin Shah	Heathdale Christian College - Primary	An idea that changed people's lives	The Royal Society of Victoria Inc.
Natshali Fernando Genesis Williams	Northside Christian College - Primary	The Black Box	Don and Robyn Hyatt
Luca Tarrant	Scotch College - Junior	An idea that changed people's lives	Independent Primary School Heads of Australia
Rohan Cali	Scotch College - Junior	Great Australian change makers	Independent Primary School Heads of Australia
Anvi Desai	Glendal Primary School	An idea that changed people's lives	Quantum Victoria
Jonas Lim	Glendal Primary School	An idea that changed people's lives	Mordialloc Skeptics
Ash Claydon-Platt	Ivanhoe Grammar School - Ridgeway Campus	Gene Shears	Australian Society for Biochemistry & Molecular Biology
Lola Day Zelda Templeman-Hughes	Clifton Hill Primary School	Spray-on Skin	Biology Teachers' Network Inc.
Ethan Southward	Creekside K - 9 College	An idea that changed people's lives	Don and Robyn Hyatt
Archer Cole-Sinclair	Eltham East Primary School	An idea that changed people's lives: The Cochlear Implant	The Field Naturalists Club Of Victoria Inc.
Archie Bonga	Eltham East Primary School	The Black Box Flight Recorder	The Royal Society of Victoria Inc.
Eleanor Duggan	Essendon North Primary School	An idea that changed people's lives	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Dorsa Haghi Asli	Serpell Primary School	An idea that changed people's lives	The Royal Society of Victoria Inc.
Ethan Tran	Serpell Primary School	An idea that changed people's lives	The Field Naturalists Club Of Victoria Inc.
Marcus Schena	Serpell Primary School	An idea that changed people's lives	The Royal Society of Victoria Inc.
Cameron Wong	Balwyn Primary School	Australian game changers and change makers	Quantum Victoria
Aaliyah Wong	Carey Baptist Grammar School - Donvale	Great Australian change maker - Fred Hollows	Independent Primary School Heads of Australia
Nicholas Angelides George Rose	Coatesville Primary School	The Bionic Ear - the Cochlear Implant	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Luca Siddiqui	Donburn Primary School	Great Australian change makers	The Royal Society of Victoria Inc.
Alice Whittington	Derinya Primary School	An idea that changed people's lives	Mordialloc Skeptics
Sophie Shing	Mentone Grammar School - Primary	The Mind Controlled Wheelchair - An idea that changed people's lives	Order of Australia - South Central Suburban Regional Group
Leahm Orfanidis	Mentone Grammar School - Primary	Great Australian change makers - The Black Box	The Royal Society of Victoria Inc.
Alice Fletcher	Mentone Grammar School - Primary	An idea that changed people's lives	Independent Primary School Heads of Australia
James Evans	Mentone Grammar School - Primary	An idea that changed people's lives - The Bionic Ear	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Alannah Trivett	Methodist Ladies' College - Junior School	An idea that changed people's lives - Cochlear Implants	Independent Primary School Heads of Australia
Isabel Law	Methodist Ladies' College - Junior School	That Eureka Moment! - Everything is Atoms	Chemistry Education Association

Agora Theatre: 11.15am – 12.15pm

Science Photography - Upper Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Kieran Pavey	Ivanhoe Grammar School - Ridgeway Campus	Electrolysis Used to Remove Rust	Minerals Council of Australia (Victorian Division)
Charlotte Turner	Ivanhoe Grammar School - Ridgeway Campus	Lichen	The Field Naturalists Club Of Victoria Inc.
Hiruni Epasinghe Melanie Goonewardene	Haileybury - Berwick Campus	Australian Flora	The Field Naturalists Club Of Victoria Inc.

Minor Bursary - \$35

Name	School	Project Title	Sponsor
Elodie Marriott	Huntingtower School - Primary	Growing Borax Crystals	Minerals Council of Australia (Victorian Division)
Ava Lillehagen Kiki Page	Camberwell Girls Grammar School - Ormiston House	Science of Small Scale Water Bore	Deakin University: Faculty of Science, Engineering & Built Environment
Charlie Moulang	Brighton Primary School	Refraction of Light	The University of Melbourne - School of Physics
Ravin Rathnayake Ethan Zhu	Haileybury - Berwick Campus	Mould	Biology Teachers' Network Inc.
Kavinthi Jayasuriya	Glendal Primary School	I used to have hair too!	Australian Skeptics
Noemi Sniezek	Mentone Grammar School - Primary	Erosion on Melbourne's Coast	Deakin University: Faculty of Science, Engineering & Built Environment

Posters – Scientific Wall Charts - Upper Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Isaac McGregor Rithvik Yadav	Heathdale Christian College - Primary	Great Australian change makers	Victoria University
Lucas van Koert	Camberwell Grammar School - Primary	Black Box Flight Recorder	The Field Naturalists Club Of Victoria Inc.
Amelie Crellin	Camelot Rise Primary School	The Bionic Ear	The Royal Society of Victoria Inc.
Shahama Karbouj	Mernda Primary School	An idea that changed people's lives: Laser	The Field Naturalists Club Of Victoria Inc.
Lucy Dovison	Shelford Girls' Grammar - Primary	Poster - Scientific Wall Chart	Independent Primary School Heads of Australia
Sharuka Sivasuthan	Haileybury - Berwick Campus	Great Australian change makers	Independent Primary School Heads of Australia
Finn Timmons	Eltham East Primary School	Made In Australia: Spray-on Skin	Australian Society for Biochemistry & Molecular Biology
Charlotte Duggan	Essendon North Primary School	An idea that changed people's lives	Victoria University
Aryanna Thakkar	Essendon North Primary School	An idea that changed people's lives	Yakult Australia Pty Ltd
Matthew Schena	Serpell Primary School	Great Australian change makers	The Field Naturalists Club Of Victoria Inc.
Henry Liao	Balwyn Primary School	Australian game changers and change makers	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Zavier Lim	Balwyn Primary School	Australian game changers and change makers	The Royal Society of Victoria Inc.
Marina Henen	Donvale Christian College - Primary	Gardasil Saves Lives	The Royal Society of Victoria Inc.
Sahana Kehoe Amy Zhao	Haileybury - City Campus Secondary	An invention that changed people's lives	Independent Primary School Heads of Australia
Adya Pandey	Korowa Anglican Girls' School - Primary	Made in Australia	Independent Primary School Heads of Australia

Agora Theatre: 11.15am – 12.15pm



Minor Bursary - \$35

Name	School	Project Title	Sponsor
Alister Green	Heathdale Christian College - Primary	Made in Australia	Victoria University
Advika Anoop	Heathdale Christian College - Primary	An idea that changed people's lives	Victoria University
Haley Patel	Heathdale Christian College - Melton Campus	An idea that changed people's lives	The Field Naturalists Club Of Victoria Inc.
Amelia Bartoli	Plenty Valley Christian College - Primary	Spray-on Skin - An idea that changed people's lives.	Australian Society for Biochemistry & Molecular Biology
Lia Chatziioannidou Imogen McDonagh	Coburg West Primary School	An idea that changed people's lives	Don and Robyn Hyatt
Neriya Nimalan Michelle Wesley	Northside Christian College - Primary	How have drones changed the lives of Australians?	Deakin University: Faculty of Science, Engineering & Built Environment
Suhanayan Piratheepean	Northside Christian College - Primary	An idea that changed people's lives: The Bionic Ear	Independent Primary School Heads of Australia
Angus Rynne	Camberwell Grammar School - Primary	Breast Cancer	Australian Society for Biochemistry & Molecular Biology
Sophie Kristovskis	Mernda Primary School	Made in Australia: The Cochlear Implant	The Royal Society of Victoria Inc.
Zachary Chan	Whealers Hill Primary School	Dual Flush Toilet	Deakin University: Faculty of Science, Engineering & Built Environment
Movindu Gannoruwa	Haileybury - Berwick Campus	That Eureka moment!	Independent Primary School Heads of Australia
Thiviya Thevabalan	Haileybury - Berwick Campus	The Bionic Ear	The Royal Society of Victoria Inc.
Miffy Mainwaring	Shelford Girls' Grammar - Primary	Shelford Miffy Poster	Independent Primary School Heads of Australia
Finn Price	Balnarring Primary School	See how the honey flows	The Field Naturalists Club Of Victoria Inc.
Norelle Lummis Leyva Pin Yi Wong	Doncaster Gardens Primary School	An idea that changed people's lives	The Royal Society of Victoria Inc.
Ruby De Silva Jasmine Gellie	Eltham East Primary School	An idea that changed people's lives: The Cochlear Implant	Institution of Engineering and Technology (Victoria Network)
Cooper Hailes	Eltham East Primary School	Great Australian change makers	Don and Robyn Hyatt
Thivya Mahendran	Haileybury - Newlands Campus	Penicillin	Biology Teachers' Network Inc.
Lachlan Wong	Caulfield Grammar School - Wheelers Hill Junior Campus	Bell Siphon System	Don and Robyn Hyatt
Rehaan Parkar	Caulfield Grammar School - Wheelers Hill Junior Campus	An idea that changed people's lives	Independent Primary School Heads of Australia
Aida D'Agostino	Coatesville Primary School	IVF	Australian Society for Biochemistry & Molecular Biology
Sienna Rowe	Serpell Primary School	Made in Australia	The Royal Society of Victoria Inc.
Harrison Milas	Balwyn Primary School	Australian game changers and change makers	Don and Robyn Hyatt
Lucas Huynh	Balwyn Primary School	Australian game changers and change makers	The Field Naturalists Club Of Victoria Inc.
Charlotte Hermann	Firbank Grammar School - Turner House	Poster – Scientific Wallchart	Independent Primary School Heads of Australia
Freya Arndt	Shelford Girls' Grammar - Primary	Poster – Scientific Wallchart	Independent Primary School Heads of Australia
Catherine Le Inakshi Sehgal	Haileybury - City Campus Secondary	An idea that changed people's lives	The Royal Society of Victoria Inc.
Sebastian Ong	Haileybury - City Campus Secondary	Made in Australia	Independent Primary School Heads of Australia
Edward Hall	Mentone Grammar School - Primary	Made In Australia - Spray-on Skin	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ruby Dargaville Alice Richards	Methodist Ladies' College - Junior School	An idea that changed people's lives - Cochlear Implant	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Eastern Lecture Theatre 5: 11.15am – 12.15pm

Games - Lower Primary

Major Bursary - \$35

Name	School	Project Title	Sponsor
Leo Thurmond	St Margaret's School - Junior School	Gravity	Catholic Education Melbourne
Guhan Ganesan	Doncaster Gardens Primary School	The Earth Saver	Australian Skeptics

Minor Bursary - \$25

Name	School	Project Title	Sponsor
Ella Odom	Wesley College - Junior Campus	Many Solutions 4 Water Pollution!	Independent Primary School Heads of Australia
Keila Enters	Wesley College - Junior Campus	Escape the Volcano	Independent Primary School Heads of Australia
Jack Beaumont	Brighton Primary School	Landfill!	Deakin University: Faculty of Science, Engineering & Built Environment
Elise McWilliams	Brighton Primary School	Healthy Foods	Biology Teachers' Network Inc.
Georgia Gonzalez	Haileybury - City Campus Primary	Continent Crisis	Independent Primary School Heads of Australia

Class Experimental Research Project - Lower Primary

Minor Bursary - \$120

Name	School	Project Title	Sponsor
Templestowe Park Primary School		How can we keep hot drinks hot and cold drinks cold?	Australian Skeptics
Anastasia Boss	Stephanie Boss	Minky Broomhall-Turvey	Shiloh Chan
Angus Godwin	Avni Goel	Sam Guy	Jaxen Harrison
Avreet Jhinger	Evelyn Jin	April Kosta	Lucas Ledesma
Priscilla Lin	Ivy Lindrea	Lachlan Montagu	Bella Ngamino
Harry Nicholson	Liam Parnham	Marcus Reluz	Lily Scuderi
Angus Yoannidis			

Games - Middle Primary

Major Bursary - \$40

Name	School	Project Title	Sponsor
Jeffrey Cheah	Glendal Primary School	A Game of Skin!	Australian Society for Biochemistry & Molecular Biology
Milla Edwards	Brighton Primary School	Game Changer	Australian Skeptics
Oscar Simonovski	Donburn Primary School	Recycle - A Transforming Game	Humanist Society of Victoria Inc.
Livia Wilholt	Essex Heights Primary School	Zinc It	Minerals Council of Australia (Victorian Division)
Ashlyn Wilholt			

Minor Bursary - \$30

Name	School	Project Title	Sponsor
Alia Ababei	Fitzroy North Primary School	Famous Australian Scientists	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Luca Karvelas			
Navkiran Alag	Doncaster Gardens Primary School	Learn to protect the environment	Bank First
Felix Wintle	Brighton Primary School	Healthy Choices	Don and Robyn Hyatt
Dexter Wintle			
Coen Bulte	St Margaret's School - Junior School	Black Holes	Catholic Education Melbourne
Tahani Karunajeewa			
Aarush Kulkarni	Donburn Primary School	Challenger	Don and Robyn Hyatt
Emma Fisher	Bialik College	Trash Eruption	Humanist Society of Victoria Inc.
Benji Rosenbaum			
Evie McClimont	Rivercrest Christian College - Primary	Ozone Saver	Ken Greatorex
Jasmine Buckle	Clifton Hill Primary School	The Brain Game	Mordialloc Skeptics

Eastern Lecture Theatre 5: 11.15am – 12.15pm



Class Experimental Research Project - Middle Primary

Major Bursary - \$180

Name	School	Project Title	Sponsor
Bialik College		Class Project	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Amit Alon	Ryder Arrow	Tara Filer	Felix Fink
Saffron Fischl	Elliot Fromm	Maayan Golan	Noah Goldberg
Olivia Hershan	Josh Holzer	Jonty Israel	Max Israelsohn
Teal Jacobson	Josh Jagoda	Michael Ku	Henry Larwill
Sienna Levin	Isabel Levy	Jerry Li	Gaby Nussbaum
Shani Rom	Ashton Zalcman	Joshua Zimmet	

Games - Upper Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Jeremiah Appleby	Camelot Rise Primary School	Ultimate Power	Electric Energy Society of Australia Inc.
Jesse Pearsall	Camelot Rise Primary School	Photovoltaics	Electric Energy Society of Australia Inc.
Misha Ravipati	St Margaret's School - Junior School	Extinction	Australian Skeptics
Justina So Angelina Tavlaridis	Fintona Girls School - Primary	Titanic Tsunami	Quantum Victoria
Nelini Gunatillake Alex Retallick	Kerrimuir Primary School	The Inventors - Start Your Engine	Monash University - Faculty of Engineering

Games - Upper Primary

Minor Bursary - \$35

Name	School	Project Title	Sponsor
Muthu Velmurugan	Camelot Rise Primary School	The Mighty Murray-Darling	Humanist Society of Victoria Inc.
Lily Taylor	Balnarring Primary School	Wyuna	Quantum Victoria
Harmony Masei Caleb Weber	Rosebud Primary School	Please Don't Hurt Me	Swinburne University of Technology
Grace Li	Caulfield Grammar School - Wheelers Hill Junior Campus	The Case of the Disappearing Helium	Chemistry Education Association
Evelyn Alba	Holy Rosary School	Stop, Think and Don't Shop Palm Oil	The Royal Society of Victoria Inc.
Leikny Middleton	The Peninsula School - Primary	Temperatures Rising	Independent Primary School Heads of Australia
Asya Eryurek Jade Klein	Fintona Girls School - Primary	Stuck in the Flames	Don and Robyn Hyatt
Marcus Wilholt	Essex Heights Primary School	Cold As Ice	Yakult Australia Pty Ltd
Jack Newman Dmitry Sorokin	Mentone Grammar School - Primary	Green Game	Independent Primary School Heads of Australia

Class Experimental Research Project - Upper Primary

Major Bursary - \$250

Name	School	Project Title	Sponsor
Coburg West Primary School		Investigating weight loads on different types of bridges	The Royal Society of Victoria Inc.
Nell Anger	Ashleigh Bell	Maya Bowditch	Ruby Capron
Julie Cuthbertson	Zach Gauci	Amelia Glover-Swaine	Sophia Gozzo
Archie Jones	Tara Kasmai	Christopher Katsoulis	Lexi Khaled
Charlie Lawrence	Tomy Lloyd	Veronica McGregor	Jack Menzel
Kartia Nitson	Kosta Panagiotidis	Virginia Petrolo	Finn Powell
Cruz Rivelli	Oscar Spiers	Ethan Toyer	Adem Yamanyilmaz

Eastern Lecture Theatre 5: 11.15am – 12.15pm

Class Project - Upper Primary *(continued)*

Minor Bursary - \$180

Name	School	Project Title	Sponsor
Fintona Girls School - Primary		Aquaponics	Biology Teachers' Network Inc.
Chanel Chen	Annabella Cronin	Sudiksha Dand	Linh Duong
Tilana Jeyaretnam	Irena Kyriakos	Sophie Lauder	Celeste Leong
Maggie Little	Isabella Liu	Katerina Marcus	Mia McGavigan
Matisse Miles	Elizabeth Pantazis	Ruby Potter	Sowmya Sivakumar
Makayla Spindler	Mathangi Sritharan		



The Odeon: 11.15am – 12.15pm

Experimental Research - Lower Primary

Major Bursary - \$50

Name	School	Project Title	Sponsor
Sophie Keet	Balnarring Primary School	The Life Cycle of Mealworms	Entomological Society of Victoria Inc.
Ruben Muller	Haileybury - Newlands Campus	Energy in Breakfast Cereals	Chemistry Education Association
April Macdonald	Firbank Grammar School - Turner House	Experimental Research	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$40

Name	School	Project Title	Sponsor
Tom Jacob	Solway Primary School	Healthy Drinks for Kids	Australian Skeptics
Francesca Wewer	Brighton Primary School	What is Broccoli's Favourite Food?	Bank First
Megan Ray	Balnarring Primary School	Investigating the Colours in Autumn Leaves	Chemistry Education Association
Naufal Iskandar Mirza	Essendon North Primary School	Science of Beyblades	Humanist Society of Victoria Inc.
Remy Balster	St Leonard's College - Primary	Ball Bounceability	Institution of Engineering and Technology (Victoria Network)

Working Models - Lower Primary

Major Bursary - \$45

Name	School	Project Title	Sponsor
Kiara Fernando	Wesley College - Junior Campus	Dual Flush Toilet	Australian Skeptics
Linus Gani	Scotch College - Junior	Hydraulic Press	Bank First

Minor Bursary - \$35

Name	School	Project Title	Sponsor
Aanya Dhariwal	Camelot Rise Primary School	Lung Model	Bank First
Yevan Navaratne	Scotch College - Junior	The SPED	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Shubham Dhar	Creekside K - 9 College	Secret Messages	Australian Skeptics
William McLeod	Holy Rosary School	Water Pollution: Our Plastic Ocean	Deakin University: Faculty of Science, Engineering & Built Environment
Harry Steabben	Brighton Primary School	Looking after our Oceans	Order of Australia - South Central Suburban Regional Group
Jennah Coleman Milana Rayner	Lowther Hall Anglican Grammar School	The Cochlear Implant	Don and Robyn Hyatt

Experimental Research - Middle Primary

Major Bursary - \$60

Name	School	Project Title	Sponsor
Mary Lazar	Firbank Grammar School - Sandringham House	Liver stinks! But what does it actually do?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Selby Thompson	Montmorency Primary School	Infinite Jump Project	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Bianca Causon	Hillsmeade Primary School	Mould	The University of Melbourne - Melbourne Graduate School of Education
Richard Ellis	Glendal Primary School	How Changes in Temperature can affect Yeast	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Xavier Norman	St Leonard's College - Primary	The Battle of the Yeasts. Which is Mite-ier: Vegemite, Promite or Marmite?	Australian Society for Biochemistry & Molecular Biology
Isabelle Alldritt	St Leonard's College - Primary	1 Potato, 2 Potatoes, 3 Potatoes, 4; Which Spud Battery will Power More?	Electric Energy Society of Australia Inc.

The Odeon: 11.15am – 12.15pm

Experimental Research - Middle Primary *(continued)*

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Ashley Gauci-Burns	Heathdale Christian College - Melton Campus	Study of Wet Cell Electrolyte Types	Chemistry Education Association
Ethan Mar Eric Wiseman	Auburn South Primary School	Is the Aussie splayd more useful than other eating utensils?	Institution of Engineering and Technology (Victoria Network)
Marie-Jeanne Purwanto	Melbourne Girls Grammar School - Morris Hall	Nuts! Can they be used to replace coal for generating energy?	Institution of Engineering and Technology (Victoria Network)
Ariana Szoeki-Campbell	Melbourne Girls Grammar School - Morris Hall	Which antiseptic works best?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Jaslyn Wong	Haileybury - Newlands Campus	Homemade First Aid Frozen Towelette	The University of Melbourne - School of Physics
Sonara Weerasinghe	Serpell Primary School	Double or Single-paned Windows	Deakin University: Faculty of Science, Engineering & Built Environment
Jeremy Lewis	Balwyn Primary School	Refrigeration and Lunch Box Temperatures	The BHP Foundation Science and Engineering Awards, managed by CSIRO
James Benson Micheal Harding	Kerrimuir Primary School	Beyblades - Which design spins the longest?	The University of Melbourne - School of Physics

Inventions - Middle Primary

Major Bursary - \$60

Name	School	Project Title	Sponsor
Anais Ooi	Glendal Primary School	Electrical Energy Management System	Bank First

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Jet Angus Emmet Redden	Solway Primary School	Space Minion	Humanist Society of Victoria Inc.
Alannah Nguyen Min Xin Sim	Camelot Rise Primary School	Auto Shade (When Everyone can Dry)	Monash University - Faculty of Engineering
Langdon Tainsh	Scotch College - Junior	Page Turner 2000	The Field Naturalists Club Of Victoria Inc.
Dillon Maltzis	Balwyn Primary School	The 4 Directional Fan	The Royal Society of Victoria Inc.
Owyn Simcox	Auburn South Primary School	Bee Enclosure	Monash University - Faculty of Engineering

Working Models - Middle Primary

Major Bursary - \$50

Name	School	Project Title	Sponsor
Alexandria Johnson	Hillsmeade Primary School	Demonstration of Electricity	Electric Energy Society of Australia Inc.
Julian Margetts	Scotch College - Junior	Hydraulic Robotic Arm	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Arsh Mahajan	Glendal Primary School	Pneumatics / Hydraulics	Humanist Society of Victoria Inc.
Adelle Kao	Beverly Hills Primary School	The Amazing Double Car Park	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Amelie Biencourt	Coatesville Primary School	Australian Rocks - Spectrometer	Minerals Council of Australia (Victorian Division)
Kate Clark	Mentone Grammar School - Primary	Epipen Working Model	Bank First
Zac Robinson	The King David School - Junior Campus	The Helping Hand	Humanist Society of Victoria Inc.

The Odeon: 11.15am – 12.15pm



Working Models - Middle Primary (continued)

Minor Bursary - \$40

Name	School	Project Title	Sponsor
Surya Tatineni	Heathdale Christian College - Primary	Controlling LED Lights using Raspberry PI	Deakin University: Faculty of Science, Engineering & Built Environment
Lucy Briggs	Solway Primary School	The Great Escape	The Royal Society of Victoria Inc.
Natalie Anselmo	Camelot Rise Primary School	Eco Power-station	Institution of Engineering and Technology (Victoria Network)
Ethan Wai	Glendal Primary School	WATT Is Electricity?	Electric Energy Society of Australia Inc.
Lucy Moriarty	Clifton Hill Primary School	Mobile Telephony	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Nitesh Jayasinghe	St Margaret's School - Junior School	Solar Panel Car	In Memory of Eileen Goodfield & Dorothy Dalton
Naomi Arias Zanthia Divanis	The Peninsula School - Primary	Zay-Nay's Maglev Train	Deakin University: Faculty of Science, Engineering & Built Environment
Zachary Kwei	Serpell Primary School	Wind Tunnel	Australian Skeptics
Emily Harris Maddie Smith	Firbank Grammar School - Turner House	Working Model	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Sophie Law	Lowther Hall Anglican Grammar School	Wind Turbine	Institution of Engineering and Technology (Victoria Network)
Dineth Athukorala	Rivercrest Christian College - Primary	Working Model of Hydroelectrical Dam	Electric Energy Society of Australia Inc.

Experimental Research - Upper Primary

Major Bursary - \$65

Name	School	Project Title	Sponsor
Joy Helmy	Plenty Valley Christian College - Primary	The Effects of Acid Containing Drinks on Different Materials	Ken Greatorex
Pranavick Sureshkumar	Glendal Primary School	Circadian Clock, and Light on Plant Growth	Mordialloc Skeptics
Averil Watkinson	Paynesville Primary School	Shoes vs Bare Feet: Which is faster?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Eve Smith	St Leonard's College - Primary	Did someone say something about adding iodine to salt?	Chemistry Education Association
Owen Smith	St Leonard's College - Primary	Why Gambling Doesn't Pay	Quantum Victoria
Jamie Budgen	St Leonard's College - Primary	An Investigation into Sound-Proofing a Music Room	Order of Australia - South Central Suburban Regional Group
Matthew Hem	St Leonard's College - Primary	The Absorption of Radiant Energy by Different Colours	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Jana Moridis	Huntingtower School - Primary	What happens to teeth when you drink different liquids?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Jerry Jin	Wesley College - Junior Campus	How does diet affect body uric acid level?	Australian Society for Biochemistry & Molecular Biology
Sofia Sanfilippo Isabella Wood	Camberwell Girls Grammar School - Ormiston House	Does bathing suit material affect speed?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Moscow Roller	Balnarring Primary School	The Impact of Ocean Acidification on Mollusc Shells	The BHP Foundation Science and Engineering Awards, managed by CSIRO

The Odeon: 11.15am – 12.15pm

Experimental Research - Upper Primary *(continued)*

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Maddy Goranitis	Paynesville Primary School	Can aloe vera juice save your strawberries from mold?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Chloe Radford	Paynesville Primary School	Does smell affect taste?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Pablo Oates	Paynesville Primary School	What is the best way to stop onions from making you cry?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Rochane Fernando David Li	Mount Waverley North Primary School	How much water can paper hold?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Anshal Patel	Mount Waverley North Primary School	Comparing Lemons and Potatoes for Electricity	Minerals Council of Australia (Victorian Division)
Iliya Shulin	Bialik College	Experimental Research	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Owen Moxham	St Leonard's College - Primary	Which pollutant blocks the most light?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ellia Rogers-Whyte	St Leonard's College - Primary	Which drink helps you run faster: water or Gatorade?	Order of Australia - South Central Suburban Regional Group
Taz Hall	St Leonard's College - Primary	Investigating the Optimal Conditions for Chive Growth	Order of Australia - South Central Suburban Regional Group
Micah Cheung	Haileybury - City Campus Secondary	Tapping into the Superpowers of the Blind and Vision Impaired	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Inventions - Upper Primary

Major Bursary - \$65

Name	School	Project Title	Sponsor
Liam Fyfield	Huntingtower School - Primary	The Unpickable Lock	Monash University - Faculty of Engineering
Raistlin Chan	Glendal Primary School	Dimensional Music Experience for the Deaf	Monash University - Faculty of Engineering
Rebecca Paratz	Bialik College	Baby Sleepsafe	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Lawson Gallup Gabrielle Simcox	Auburn South Primary School	Fishsafe	Swinburne University of Technology
Liam Gaspar Ethan Lust	Bialik College	The Litter Obliterator	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ethan Chong Claire Chong	Kerrimuir Primary School	Harnessing the Power of Fruit Waste	The University of Melbourne - School of Physics

The Odeon: 11.15am – 12.15pm



Working Models - Upper Primary

Major Bursary - \$55

Name	School	Project Title	Sponsor
Lianna Mefsut	Huntingtower School - Primary	Beating Heart	Bank First
Lue Cas Law	Glendal Primary School	Sounds of Energy	Deakin University: Faculty of Science, Engineering & Built Environment
Sofia Beliakov Amaya	Lab Rats Science Club Primary	World Through the Eyes of a Bee	Entomological Society of Victoria Inc.
Natalie Robertson	Caulfield Grammar School - Wheelers Hill Junior Campus	Music to my Ears - A Working Model of the Cochlea	Independent Primary School Heads of Australia
Hailey Axalan	Holy Rosary School	Solar Refraction: Changing the World in Sustainable Fashion	In Memory of Eileen Goodfield & Dorothy Dalton
Olivia Kwei	Serpell Primary School	Ferrofluid Fortune Teller Ball	Chemistry Education Association
Caleb Templeton	Donvale Christian College - Primary	LEGO Orrery	Australian Skeptics
Joshua Lim	Donvale Christian College - Primary	Simple Maglev Train	Don and Robyn Hyatt
Amelia O'Connell	Methodist Ladies' College - Junior School	Pacemakers in Action	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Caleb Young	Plenty Valley Christian College - Primary	Lego Piano	Bank First
Gianni Cioffi	Camberwell Grammar School - Primary	Solar Powered Car	Institution of Engineering and Technology (Victoria Network)
Nicholas Teoh	Camberwell Grammar School - Primary	Speaker	Monash University - Faculty of Engineering
Will Glazebrook	Camelot Rise Primary School	Electric Car	The Field Naturalists Club Of Victoria Inc.
Jimmy Chen	Glendal Primary School	Electricity	The Field Naturalists Club Of Victoria Inc.
Amelia Graham Clarissa Wong	Camberwell Girls Grammar School - Ormiston House	Nuclear Power Plant	The University of Melbourne - School of Physics
Lauren Nelson	St Margaret's School - Junior School	Parkes Telescope	The University of Melbourne - Melbourne Graduate School of Education
Matthew Lo	Doncaster Gardens Primary School	Electronic Pacemaker	Humanist Society of Victoria Inc.
Sanvi Arora	Haileybury - Newlands Campus	The Excretory System	Humanist Society of Victoria Inc.
Olivia Cover	Holy Rosary School	Illuminated Neural Pathways	Catholic Education Melbourne
Abigail Spencer	Coatesville Primary School	The Bionic Ear	The Field Naturalists Club Of Victoria Inc.
Lucy Lilleyman	Clifton Hill Primary School	Cochlear Implant	The University of Melbourne - School of Physics
Kate Northfield	Donvale Christian College - Primary	Challenger Deep to the Test	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Amit Davidovich Noam Davidovich	Coatesville Primary School	Hydroelectric Power Station	Bank First

Eastern Lecture Theatre 2: 12.30pm – 1.30pm

Inventions - Junior

Major Bursary - \$110

Name	School	Project Title	Sponsor
Abhinav Chimalkar Sam Nielsen	Haileybury - Berwick Campus	Project Honeycomb	Rowe Scientific Pty Ltd
Nuha Sameer	Haileybury - City Campus Secondary	'iSTAAR' (Intelligent System to Alert and Remind)	Rowe Scientific Pty Ltd
Bo Hong Huang	Balwyn High School	Keys? Oh Please!	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$70

Name	School	Project Title	Sponsor
Ned Fox	Viewbank College	Suitcase 2.0	Rowe Scientific Pty Ltd
Christian Georgiev	Northside Christian College - Secondary	The Weather Box	Rowe Scientific Pty Ltd
Enash Manakkil	St Kevin's College - Senior School	Improved Hills Hoist	Catholic Education Melbourne
Alexander Mok	Haileybury - Brighton Campus	Lego Robotic Arm	Rowe Scientific Pty Ltd
Nina Boyce Tessa Mordue	Lab Rats Science Club Secondary	Using Heat Exchange to Limit use of Natural Resources in Housing	Rowe Scientific Pty Ltd
Joel Manakkil	St Kevin's College - Senior School	Drive Way Post	Catholic Education Melbourne
William Green Ben Wallace	Thornbury High School	A New GPS Tracker and Mapper	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Working Models - Junior

Major Bursary - \$60

Name	School	Project Title	Sponsor
David Phillips	St Kevin's College - Senior School	Solar Generator and Battery Unit	Catholic Education Melbourne
William Noonan	St Kevin's College - Senior School	Cochlear Ear Transplant	Rowe Scientific Pty Ltd
Armaan Sandhu	Nazareth College	Teachbot Servo	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Clara Petersen	Methodist Ladies' College - Senior School	The Remote Explorer	Rowe Scientific Pty Ltd
Keira Grover School of Physics	Princes Hill Secondary College	The Van der Graaf	The University of Melbourne -
Hector Hennessey	Princes Hill Secondary College	A Tuned Mass Damper	Rowe Scientific Pty Ltd
Maxim Tour	Yarra Valley Grammar School	London Bridge Hydraulic System	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Benjamin Howell Eli Swenson	Flinders Christian Community College - Carrum Downs	Water Recycling and the Archimedes Screw	Rowe Scientific Pty Ltd
Jethro Yiu	Xavier College - Burke Hall Secondary Campus	Scale Model Speaker	Catholic Education Melbourne
Akith Amarasiri	Haileybury - Newlands Campus	Akith's Awesome Model	Rowe Scientific Pty Ltd
Isobel Hansford Emilia Laferla	Overnewton Anglican Community College - Secondary	The Hot Air Pair	Victoria University
Ehsun Fazeli Watson Muruga	Gleneagles Secondary College	Drilling into Inventions	Rowe Scientific Pty Ltd
Samantha Antonios Lucy Parmenter	Fintona Girls School - Senior Secondary	Avalanche Defense Structures	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Eastern Lecture Theatre 2: 12.30pm – 1.30pm



Working Models - Junior *(continued)*

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Yara Wahba-Molano	Cheltenham Secondary College	Interactive Model of Dog Diseases	Rowe Scientific Pty Ltd
Sithma Udewela	Yarra Valley Grammar School	Vacuum Cleaner	Rowe Scientific Pty Ltd
Daniel Bandura-Cadle	Thornbury High School	An Australian Pacemaker	Rowe Scientific Pty Ltd
Ruwan Jinadasa	University High School - GTAC	Power Plant	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Science Photography - Junior

Major Bursary - \$55

Name	School	Project Title	Sponsor
Olivia Banitsiotis	Camberwell Girls Grammar School - Senior School	Robots Captured	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ella Smith	Camberwell Girls Grammar School - Senior School	Genotype versus Phenotype	Australian Society for Biochemistry & Molecular Biology
Cara Moulang	Firbank Grammar School - Senior	Abstract Photography with Oil and Water	Chemistry Education Association
Ruby Bennett Leila Dubow	Fintona Girls School - Senior Secondary	Cavity Calamity	Humanist Society of Victoria Inc.
Davey Webber	Yarra Valley Grammar School	Bees and Climate Change	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Emma Xu	Yarra Valley Grammar School	Polarity and Density	The University of Melbourne - Melbourne Graduate School of Education

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Eve Arnot Thea Proctor	Camberwell Girls Grammar School - Senior School	Steam Storm - The Changes of State	Chemistry Education Association
Ejaz Rumboll	Ave Maria College	Dying Flowers with Food Dye	Australian Skeptics In Memory of Mark Plummer
Amalie Allan	Ave Maria College	Sunrise	Don and Robyn Hyatt
Grishma Boppana	Haileybury - Berwick Campus	Fiery Eyes	Yakult Australia Pty Ltd
Tiffany Wong	Gleneagles Secondary College	Life	Australian Skeptics
Zenas Nimorakiotakis	Mentone Grammar School - Middle School	Erosion	Deakin University: Faculty of Science, Engineering & Built Environment
Alana Carruthers	Mentone Grammar School - Middle School	Erosion	Order of Australia - South Central Suburban Regional Group
Christian Howe	Mentone Grammar School - Middle School	Erosion of Cliffs	Yakult Australia Pty Ltd
Olivia Healy	Flinders Christian Community College - Carrum Downs	Wet and Dry Sand Interactions	Minerals Council of Australia (Victorian Division)
Liam Chester	Bayside Christian College - Secondary	The Night Sky	Bank First

Eastern Lecture Theatre 2: 12.30pm – 1.30pm

Inventions - Intermediate

Major Bursary - \$210

Name	School	Project Title	Sponsor
Cassandra Lim	Presbyterian Ladies' College - Senior School	The Cymatic Beehive	Rowe Scientific Pty Ltd
Leon Paratz	Bialik College	Cloud Base Detector	Rowe Scientific Pty Ltd

Minor Bursary - \$130

Name	School	Project Title	Sponsor
Terrence A'Hearn Jason Jayawardena	Mazenod College	Automotive Inventions for the Future	Rowe Scientific Pty Ltd
Jaden Perumal	Aitken College (Secondary)	A New Design for an Electromagnetic Motor	Rowe Scientific Pty Ltd
Noah Bajayo	Mount Scopus Memorial College	Finding Planes Lost at Sea	Rowe Scientific Pty Ltd

Working Models - Intermediate

Major Bursary - \$70

Name	School	Project Title	Sponsor
Anureet Kaur Sidhu	Plenty Valley Christian College - Secondary	Electromagnetic Generator and DC Motor	Rowe Scientific Pty Ltd
Eloise Pearse	Presbyterian Ladies' College - Senior School	The Water Cycle Model	Australian Skeptics
Irene Danny Ying Xin Sim	St Margaret's School	Working Model of a Hydroelectric Station	Deakin University: Faculty of Science, Engineering & Built Environment

Minor Bursary - \$60

Name	School	Project Title	Sponsor
Keya Murty	Presbyterian Ladies' College - Senior School	The Gravity Light	Rowe Scientific Pty Ltd
Christy Langford	Presbyterian Ladies' College - Senior School	Tens Machine Glove	Rowe Scientific Pty Ltd
Lauren Taylor	Presbyterian Ladies' College - Senior School	How the Human Eye and the Brain Work Together	Deakin University: Faculty of Science, Engineering & Built Environment
Charlie Kennedy Briana Sherry	Officer Secondary College	Sydney Opera House	Deakin University: Faculty of Science, Engineering & Built Environment

Science Photography - Intermediate

Major Bursary - \$65

Name	School	Project Title	Sponsor
Ramandeep Singh	Southern Cross Grammar - Secondary	Chemical Reactions	Chemistry Education Association
Simran Khera	Presbyterian Ladies' College - Senior School	Fungus on Food	Australian Society for Biochemistry & Molecular Biology
Charlotte Evans	Presbyterian Ladies' College - Senior School	How Do Balloons Pop?	Humanist Society of Victoria Inc.
Eleni Smith	Thornbury High School	Thin Film Interference	The University of Melbourne - School of Physics

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Samuel Cathie	Plenty Valley Christian College - Secondary	Retreating Glaciers	Australian Skeptics
Jodie Do Arya James	Sacred Heart Girls College	The Science Behind the Creation of Planes: It's a Bird...it's a Plane	Humanist Society of Victoria Inc.
Alex Banovski	Southern Cross Grammar - Secondary	Electricity	Electric Energy Society of Australia Inc.

Eastern Lecture Theatre 2: 12.30pm – 1.30pm



Science Photography - Intermediate *(continued)*

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Callum Weir	Southern Cross Grammar - Secondary	Science Photography	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ethan Coleman	Scotch College - Senior	Colony Collapse Disorder	Francesca Folk-Scolaro
Anton Kogios	Heathdale Christian College - Secondary	Our Solar System	Victoria University
Xingtong Huang	St Margaret's School	Light Phenomena	The Field Naturalists Club Of Victoria Inc.
Maneesha Casey	Casey Grammar School - Secondary	Chemical Reactions	Chemistry Education Association

Inventions - Open

Minor Bursary - \$210

Name	School	Project Title	Sponsor
Rhys Abas	Kolbe Catholic College	Raspberry Pi Programming Learning Tablet	Rowe Scientific Pty Ltd
Andrew Kogios Anton Kogios	Heathdale Christian College - Secondary	Autonomous Omni-Rover	Rowe Scientific Pty Ltd
Johnny Nguyen	Heathdale Christian College - Secondary	Candle Powered USB	Rowe Scientific Pty Ltd

Working Models - Open

Major Bursary - \$85

Name	School	Project Title	Sponsor
Jay Gusman	Kolbe Catholic College	Mini Centrifuge	Rowe Scientific Pty Ltd

Science Photography - Open

Major Bursary - \$75

Name	School	Project Title	Sponsor
Jemimah Moyo	Heathdale Christian College - Secondary	Genetic (Snapshot)^2	Australian Society for Biochemistry & Molecular Biology

Agora Theatre: 12.30pm – 1.30pm

Experimental Research - Junior

Major Bursary - \$110

Name	School	Project Title	Sponsor
Bethany Orme	Camberwell Girls Grammar School - Senior School	Investigation into Bacterial Levels in Various Types of Water and Methods of Disinfection	The Walter and Eliza Hall Institute of Medical Research
Isaac Spowart	Mount Waverley Secondary College - Junior School	Frequency and Sound Loss through Solid Object	Rowe Scientific Pty Ltd
Saskia Heng	Strathcona Baptist Girls Grammar School - Secondary	How does the colour and typeface affect memory?	Rowe Scientific Pty Ltd
Isobel Moyle	Strathcona Baptist Girls Grammar School - Secondary	How does temperature affect the elasticity of a Killer Python?	Rowe Scientific Pty Ltd
Ebony Reid	Strathcona Baptist Girls Grammar School - Secondary	Does facial symmetry affect the level of attractiveness in a person's face?	The Walter and Eliza Hall Institute of Medical Research
Gwyneth Chan	Strathcona Baptist Girls Grammar School - Secondary	What material absorbs the most oil from water?	Chemistry Education Association
Neha Maria Sibi	Hume Anglican Grammar School - Secondary	Microbial Fuel Cell	Victoria University
Armaan Sandhu	Nazareth College	Which Lake Contains the Highest Ammonia?	Rowe Scientific Pty Ltd
Chaquen Beliakov Amaya	Lab Rats Science Club Secondary	Was Einstein Wrong? Experiments in the Elevator	Rowe Scientific Pty Ltd
Maya Martin Livia Tropea	Fintona Girls School - Senior Secondary	Does colour affect children's cognitive processes?	Rowe Scientific Pty Ltd
Sara Saleh	Sirius College - Eastmeadows Secondary Campus	Chicken Production Systems and the Protein Levels in Eggs	The Walter and Eliza Hall Institute of Medical Research
Trent Brady	Flinders Christian Community College - Carrum Downs	The Influence of Fertilizers on Pea Seed Germination and Seedling Growth	Rowe Scientific Pty Ltd
Lynn Ng	Avila College	Does size and weight affect a lemon battery?	Chemistry Education Association
Hannah Stone	Avila College	Can we produce food on Mars?	Rowe Scientific Pty Ltd
Felice Todd	Avila College	What effects do various fertilisers have on the growth of radishes and peas?	Rowe Scientific Pty Ltd
Skye Groves	Avila College	Does age or the engagement in an activity affect the perception of time?	Rowe Scientific Pty Ltd
Shivangi Kakkar	Fintona Girls School - Senior Secondary	Investigating Music Engagement and Ability on Information Processing Tasks	Rowe Scientific Pty Ltd
Amy De Rango Liyara Weerasinghe	East Doncaster Secondary College	How Electrolytes affect Hydrogen Production by Electrolysis	The Walter and Eliza Hall Institute of Medical Research
Lauren Haydon	Yarra Valley Grammar School	Does the genre of music due to its tempo change a participant's heart rate?	Rowe Scientific Pty Ltd

Minor Bursary - \$70

Name	School	Project Title	Sponsor
Laura Arnold	Ave Maria College	Decomposting Seed	Australian Society for Biochemistry & Molecular Biology
Jordyn Brown	The Hamilton and Alexandra College - Senior	How much weight can materials hold on water?	Rowe Scientific Pty Ltd
Caitlin Noonan	Strathcona Baptist Girls Grammar School - Secondary	Does listening to different types of music affect short-term memory capacity?	The Walter and Eliza Hall Institute of Medical Research
Chloe Plant	Strathcona Baptist Girls Grammar School - Secondary	Effectiveness of SPF Sunscreen	The Walter and Eliza Hall Institute of Medical Research
Mia Zanati	Strathcona Baptist Girls Grammar School - Secondary	The Effectiveness of Dual Climate Control in a Motor Vehicle	Rowe Scientific Pty Ltd



Experimental Research - Junior (continued)

Minor Bursary - \$70

Name	School	Project Title	Sponsor
Sophie Clarnette	Strathcona Baptist Girls Grammar School - Secondary	Time Taken for Candles to Burn with Different Length of Wicks	Rowe Scientific Pty Ltd
Hannah Simos-Garner	Strathcona Baptist Girls Grammar School - Secondary	How do different pre-bedtime activities affect children's sleep onset latency?	Rowe Scientific Pty Ltd
Ella Battista	Strathcona Baptist Girls Grammar School - Secondary	How well do different objects block a WiFi signal?	Rowe Scientific Pty Ltd
Grace Kobayashi-Walsh	Genazzano F C J College	Does what you think something is affect its taste?	The Walter and Eliza Hall Institute of Medical Research
Michael Dharmawardhana Sanjevan Rajasegar	Nazareth College	What material works best to absorb force experienced in a collision?	Rowe Scientific Pty Ltd
Katrina Wong	Haileybury - Newlands Campus	The Rain Water Tank Battery	Rowe Scientific Pty Ltd
Aria Linnane	Genazzano F C J College	Do video games affect the physical and mental state of people of different ages?	Rowe Scientific Pty Ltd
Isabella Farmer	Genazzano F C J College	Which natural antibacterials inhibit the growth	The Walter and Eliza Hall Institute of Medical Research
Amy Sun	Genazzano F C J College	How does the surface of the ground affect the height of a tennis ball's bounce?	Rowe Scientific Pty Ltd
Mia Tosolini	Genazzano F C J College	How the Guinea Pig got its Name - A Controlled Trial of Variation in Diet	Rowe Scientific Pty Ltd
Lana Podreka	Genazzano F C J College	Investigating the Reflex Speeds of a Family	Rowe Scientific Pty Ltd
Georgina Kennedy	Genazzano F C J College	Investigating the Effect of Age on Reflexes	The Walter and Eliza Hall Institute of Medical Research
Stephanie Brown	Methodist Ladies' College - Senior School	Which sugar creates the fluffiest bread?	Australian Society for Biochemistry & Molecular Biology
Cathy Wu	Methodist Ladies' College - Senior School	What substance makes ice melt the fastest?	Rowe Scientific Pty Ltd
Adreana Koutlouas	Genazzano F C J College	What type of material keeps bread least mouldy?	Rowe Scientific Pty Ltd
Alessandra Flynn	Genazzano F C J College	How does deforestation affect water quality?	Rowe Scientific Pty Ltd
Charlotte Dowling Genevieve Retallick	Fintona Girls School - Senior Secondary	How does slime mould respond to different light exposures?	Rowe Scientific Pty Ltd
Kristen Goh Hannah Ogawa	Fintona Girls School - Senior Secondary	How bold is the mould?	Rowe Scientific Pty Ltd
Sophie Fitsioris Annie Walters	Fintona Girls School - Senior Secondary	Can a dog help you relax?	Rowe Scientific Pty Ltd
Jamie Christofilis	Doncaster Secondary College	Soccer goals	Rowe Scientific Pty Ltd
Nida Ahsan	Sirius College - Eastmeadows Secondary Campus	Nespresso Pods: Old and New, Mild and Intense as a Fertiliser	Victoria University
Mutahar Moawaz Benjamin Neil	Flinders Christian Community College - Carrum Downs	Solubility of Paracetamol and Ibuprofen in the Stomach	The Walter and Eliza Hall Institute of Medical Research
Lucy Connor	Flinders Christian Community College - Carrum Downs	Raising Agents in Gluten and Gluten-free Baking	Rowe Scientific Pty Ltd
Ava Harvey	Avila College	How do the enzymes in fresh fruit affect protein?	The Walter and Eliza Hall Institute of Medical Research
Jasmine de Weerd Bonnie Tremain	Flinders Christian Community College - Carrum Downs	In Search of the Perfect Popcorn	Rowe Scientific Pty Ltd
Jade Kong	Avila College	Are memories associated with smells?	Rowe Scientific Pty Ltd
Natasha Poon Samanthy Sudheshan	Fintona Girls School - Senior Secondary	How Age affects Hearing Ability	The Walter and Eliza Hall Institute of Medical Research
Michael Chen	Yarra Valley Grammar School	Does different music affect heart rate?	The Walter and Eliza Hall Institute of Medical Research
Josh Ansermino Quinn Franklin	Flinders Christian Community College - Carrum Downs	The Effectiveness of Sneaker Sprays	Rowe Scientific Pty Ltd

Agora Theatre: 12.30pm – 1.30pm

Experimental Research - Junior *(continued)*

Minor Bursary - \$70

Name	School	Project Title	Sponsor
Tom He	Yarra Valley Grammar School	Music and Mental Concentration	Rowe Scientific Pty Ltd
Nicole Chang	Camberwell Girls Grammar School - Senior School	Evaporation of Water Bonds	Rowe Scientific Pty Ltd
Sarah Hui	Camberwell Girls Grammar School - Senior School	Prevention of Apple Discolouration	Rowe Scientific Pty Ltd

Computer Programs - Junior

Major Bursary - \$60

Name	School	Project Title	Sponsor
Aditya Vinayak	Hume Anglican Grammar School - Secondary	Science Quiz	Australian Skeptics
Bunnawat Muenjohn	Cheltenham Secondary College	Falcon Heavy	Don and Robyn Hyatt

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Isabella Jessen	Ave Maria College	Metamorphosis of a Monarch Butterfly	Catholic Education Melbourne
Danil Yahnov	Lab Rats Science Club Secondary	Blinded by Technology	Swinburne University of Technology
Amber Davison Jing Gan	Methodist Ladies' College - Senior School	Survival and Hazard	The Royal Society of Victoria Inc.
Saatvik Sehgal	Hume Anglican Grammar School - Secondary	Exocraft	Victoria University
Lily Cooper Mia Wegener	Bialik College	Computer Game	Australian Skeptics

Experimental Research - Intermediate

Major Bursary - \$210

Name	School	Project Title	Sponsor
Aurora Lahur	Sacred Heart Girls College	Effects of Impurities on Crystal Growth	Rowe Scientific Pty Ltd
Vaishnavi Muddam	Presbyterian Ladies' College - Senior School	The Science of Voice Recognition	The Walter and Eliza Hall Institute of Medical Research
Angela Schultz	Aitken College (Secondary)	Development of an Antimicrobial Biodegradable Plastic	The Walter and Eliza Hall Institute of Medical Research
Ealaf Al Hassani	Sirius College - Eastmeadows Secondary Campus	Investigation of Steam Pressure Treating Australian Sugarcane Mulch to Improve It	Rowe Scientific Pty Ltd
Angela Cremona Cathy Shi	Nazareth College	How does the acidity of plants affect plant growth?	Rowe Scientific Pty Ltd

Minor Bursary - \$130

Name	School	Project Title	Sponsor
Kylie Delanoy Elizabeth Kanterakis	Ruyton Girls' School	The Effect of Different Drinks on Eggs	The Walter and Eliza Hall Institute of Medical Research
Ruth Dontschuk Sophia Doufas	Ruyton Girls' School	How do we digest meat?	Rowe Scientific Pty Ltd
Jason Chi	Scotch College - Senior	What material can block a WiFi signal?	Rowe Scientific Pty Ltd
Renita Yang	Ruyton Girls' School	The Effects of Different Solutions on the Livelihood of Cut Flowers	Rowe Scientific Pty Ltd
Annie Timm Zara Waugh	Ruyton Girls' School	Should we actually listen in class?	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Roisin Brennan Claire Hill	Ruyton Girls' School	Facinating Filters	Rowe Scientific Pty Ltd



Experimental Research - Intermediate *(continued)*

Minor Bursary - \$130

Name	School	Project Title	Sponsor
Emma Haberfield Abigail Richards	Ruyton Girls' School	Laptop Lurgies	The Walter and Eliza Hall Institute of Medical Research
Teshani Weerawardana	Mount Waverley Secondary College - Senior	Investigating Heat Insulators	Rowe Scientific Pty Ltd
Sara Kendirjian Jenny Pham	Nazareth College	How do humans react to pain psychologically and physically?	The Walter and Eliza Hall Institute of Medical Research
Chloe Orchard Kate Wilcock	Mentone Girls' Grammar School - Secondary Campus	Whitening Effect of Colgate Advanced Whitening & Oral-B Health Whitening	The Walter and Eliza Hall Institute of Medical Research
Natasha Lai Sharon Nguyen	Mentone Girls' Grammar School - Secondary Campus	Testing the Durability of Different Permanent Markers	Rowe Scientific Pty Ltd

Computer Programs - Intermediate

Major Bursary - \$70

Name	School	Project Title	Sponsor
Sasuni Hirimuthugoda	St Margaret's School	Medical Innovations and their Influence	Humanist Society of Victoria Inc.

Minor Bursary - \$60

Name	School	Project Title	Sponsor
Oscar Mahon Sean Ng	Mazenod College	Space Exploration Simulation	Catholic Education Melbourne

Experimental Research - Open

Major Bursary - \$310

Name	School	Project Title	Sponsor
Caitlin Howley	Tintern Grammar - Secondary	How does roasting temperature affect the amount of caffeine in coffee beans?	Rowe Scientific Pty Ltd
Sharon Li	Tintern Grammar - Secondary	The Antimicrobial Effect of Garlic on Escherichia Coli	Rowe Scientific Pty Ltd

Minor Bursary - \$210

Name	School	Project Title	Sponsor
Sean Griffiths	Overnewton Anglican Community College - Secondary	Physics Explanation of Self Siphoning Beads Phenomenon	Rowe Scientific Pty Ltd

Eastern Lecture Theatre 5: 12.30pm – 1.30pm

Creative Writing - Junior

Major Bursary - \$55

Name	School	Project Title	Sponsor
Bethany Orme	Camberwell Girls Grammar School - Senior School	Silence: Revolutionised	Australian Skeptics
Eryn McKenna	Hume Anglican Grammar School - Secondary	Warming Warriors! This changes everything	Victoria University
Myah Shurgold	Shelford Girls' Grammar - Secondary	WiFi	Australian Skeptics
Arkash Jayasinghe	Haileybury - Berwick Campus	This changes everything	Bank First
Rashima Manzur	Haileybury - Berwick Campus	This changes everything	Don and Robyn Hyatt
Leticia Phillips	Firbank Grammar School - Senior	This changes everything - Graphene	Minerals Council of Australia (Victorian Division)
Charlotte McPherson	Bayside Christian College - Secondary	This changes everything	Order of Australia - South Central Suburban Regional Group
Joel Calia	Princes Hill Secondary College	Intergalactic	Australian Skeptics

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Nathan Lombard	Mount Waverley Secondary College - Junior School	Diary of David Warren	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Luke Bawden	Parade College - Bundoora	This changes everything	Catholic Education Melbourne
Kloe Lashkariou-Lee	Haileybury - Berwick Campus	This changes everything	The Field Naturalists Club Of Victoria Inc.
Sathiyakumar Harrinish	Haileybury - Newlands Campus	This changes everything	The Royal Society of Victoria Inc.
Annika Ramasamy	Methodist Ladies' College - Senior School	This changes everything - Countdown	Swinburne University of Technology
Silvia Zhou	Firbank Grammar School - Senior	After many trials...Polymer Bank Notes	Swinburne University of Technology
Manuthi Lekameralalage Harshitha Palanivelu	Gleneagles Secondary College	Race Against Time	Australian Skeptics
Rosmine Sidhu	Gleneagles Secondary College	This changes everything	Yakult Australia Pty Ltd
Odin Pongracz	Cheltenham Secondary College	Hercules - After many trials...	Don and Robyn Hyatt
Ivy Cripps	Cheltenham Secondary College	This changes everything	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Mark Petkoff	Cheltenham Secondary College	Australian changes that revolutionised the world	The Royal Society of Victoria Inc.
Lena Flach	Flinders Christian Community College - Carrum Downs	This changes everything	Australian Skeptics
Eleanor Mccombe-Garden Hiam Naama	Thornbury High School	This changes everything	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Rehan Waiz	Cheltenham Secondary College	This changes everything - All but invincible	Institution of Engineering and Technology (Victoria Network)

Eastern Lecture Theatre 5: 12.30pm – 1.30pm



Video Productions - Junior

Major Bursary - \$60

Name	School	Project Title	Sponsor
Max Debski	St Kevin's College - Senior School	WiFi	Australian Skeptics
Patrick Duncan	St Kevin's College - Senior School	Genetic Editing	Australian Skeptics In Memory of Mark Plummer
Marcus Dubsky	Parade College - Bundoora	Antibiotics	Catholic Education Melbourne
Ethan Duffy	St Kevin's College - Senior School	Nuclear Energy	Minerals Council of Australia (Victorian Division)
Aidan Hawe			
Himalaya Joshi	Lab Rats Science Club Secondary	The True Nature of Reality	Australian Skeptics
Elan Lunder	Gleneagles Secondary College	The Science Behind Gaming	Swinburne University of Technology
Zoe Johnson	Fintona Girls School - Senior Secondary	Physical and Chemical Changes	Chemistry Education Association
Isabella Stefanou			
Ella Williams	Flinders Christian Community College - Carrum Downs	Tackling Climate Change in Melbourne's CBD	Australian Skeptics

Minor Bursary - \$50

Name	School	Project Title	Sponsor
Alexander Giannis	Parade College - Bundoora	Black Box Recorder	Catholic Education Melbourne
Jacob Kochuthara	Parade College - Bundoora	Currency	Australian Skeptics
Connor Pike			
Kavika Palletenne	Parade College - Bundoora	Commercial Plant Propagation	Humanist Society of Victoria Inc.
Harry Sellick	Parade College - Bundoora	Electricity	In Memory of Eileen Goodfield & Dorothy Dalton
Kevin Shah	Parade College - Bundoora	GPS	Quantum Victoria
Andre Thomas	Parade College - Bundoora	Classification	Australian Skeptics
Oliver Verner	St Kevin's College - Senior School	Red Blood Cells and Forensics	The Field Naturalists Club Of Victoria Inc.
Tristan Fuhrer	Lab Rats Science Club Secondary	Smart Pills: Emerging Digestible Technologies Offer a Wealth of Health Info	Quantum Victoria
Sai Waller			
Emily Papastamatopoulos	Santa Maria College	Space Exploration	Catholic Education Melbourne
Akshara Balreddygari	Gleneagles Secondary College	The Way Colour Impacts Our Lives	Australian Skeptics
Bridie Thomson			
Ebru March	Fintona Girls School - Senior Secondary	Hot Hues	The University of Melbourne - Melbourne Graduate School of Education
Tilly Meagher	Mentone Grammar School - Middle School	Tuberculosis	The Field Naturalists Club Of Victoria Inc.
Aidan Martin	Chairo Christian School Cardinia (Secondary)	Magnets	Independent Primary School Heads of Australia
Mia Foster	Flinders Christian Community College - Carrum Downs	How T-Cells Will Change the Future	The Royal Society of Victoria Inc.
Chloe Rheinberger	University High School - GTAC	Can sleep make you smarter?	Australian Skeptics

Creative Writing - Intermediate

Major Bursary - \$65

Name	School	Project Title	Sponsor
Inge Theron	Plenty Valley Christian College - Secondary	The Journey and Impact of Stem Cell Technology	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ardhra Premaprasad	Sacred Heart Girls College	Australian changes that revolutionised the world	Catholic Education Melbourne
Emily Rowling	Canterbury Girls Secondary College	How We Think	The BHP Foundation Science and Engineering Awards, managed by CSIRO

Eastern Lecture Theatre 5: 12.30pm – 1.30pm

Creative Writing - Intermediate *(continued)*

Major Bursary - \$65

Name	School	Project Title	Sponsor
Lucy Bingle	Thornbury High School	The Fatal Malattia	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Zara Shaikh Simrah Shaikh	Korowa Anglican Girls' School - Secondary	Noiseless Sound	Deakin University: Faculty of Science, Engineering & Built Environment

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Jacob Yeniss	Plenty Valley Christian College - Secondary	Australian changes that revolutionised the world	Australian Skeptics
Melanie Noonan	Sacred Heart Girls College	This changes everything	Catholic Education Melbourne
Sameeksha Manjunath	Sacred Heart Girls College	This changes everything	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Ben Daley	Scotch College - Senior	This changes everything: The Story of Penicillin	Biology Teachers' Network Inc.
David Nawaratne	Scotch College - Senior	After many trials...: Clones (and why all these sheep are the same)	Biology Teachers' Network Inc.
Kirschelle Chiem	Presbyterian Ladies' College - Senior School	The Girl from the Black Box	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Emma Dehghani	Presbyterian Ladies' College - Senior School	This changes everything	Australian Skeptics
Danielle Cook	Heathdale Christian College - Secondary	This changes everything	Yakult Australia Pty Ltd
Nehareeka Kaur	Gleneagles Secondary College	After many trials...	Don and Robyn Hyatt
Nikitha Ramkumar	Gleneagles Secondary College	After many trials...	The Royal Society of Victoria Inc.

Video Productions - Intermediate

Major Bursary - \$70

Name	School	Project Title	Sponsor
Stephanie Liow	Presbyterian Ladies' College - Senior School	Concussions: An Overview	Don and Robyn Hyatt
Isabel Hare	Presbyterian Ladies' College - Senior School	Medical Resonance Imaging of the Heart	Biology Teachers' Network Inc.

Minor Bursary - \$60

Name	School	Project Title	Sponsor
Katelyn O'Grady	Plenty Valley Christian College - Secondary	Changing Your Ways	The Royal Society of Victoria Inc.
Beverley Mariadason Cathlyn Tsan	Presbyterian Ladies' College - Senior School	The Sun	In Memory of Eileen Goodfield & Dorothy Dalton
Ruth Roberts	Presbyterian Ladies' College - Senior School	Science of the Lifting Phenomenon Explained	Australian Skeptics

Video Productions - Open

Major Bursary - \$85

Name	School	Project Title	Sponsor
Crystal Li Lien Qing Zheng	Korowa Anglican Girls' School - Secondary	Nuclear Winter	Humanist Society of Victoria Inc.

The Odeon: 12.30pm – 1.30pm



Games - Junior

Major Bursary - \$55

Name	School	Project Title	Sponsor
Kobi Tirant	Kolbe Catholic College	The Magic of Science Board Game	Victoria University
Catherine Curry Sarah Watson	Fintona Girls School - Senior Secondary	Safety Dilemma	Australian Skeptics
Emily Kuok Laya Latheesh	Gleneagles Secondary College	You are the game changer	The Royal Society of Victoria Inc.
Joshua Stein	Cheltenham Secondary College	Deforestation	Bank First

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Genevieve Herbert	Camberwell Girls Grammar School - Senior School	Climate Change: Will you get out?	Order of Australia - South Central Suburban Regional Group
Oliver Edgerton Ethan Hunt	St Kevin's College - Senior School	Asteroid Industries	Don and Robyn Hyatt
Kaitlyn Moss Sienna Van Krieken	Marymede Catholic College - Secondary	Transportation Solutions	Victoria University
Rose Jiao	Methodist Ladies' College - Senior School	Forfeiture	Swinburne University of Technology
Madeleine Hedger	Santa Maria College	Little Penguin	Catholic Education Melbourne
Brianna Holding	Yarra Valley Grammar School	Cluedo	The Royal Society of Victoria Inc.
Ciara Carey	Chairo Christian School Cardinia (Secondary)	Medical School Patent	Yakult Australia Pty Ltd
Zakkary Synot-Dennison	Geelong Baptist College - Secondary	Brainy Quiz	The Royal Society of Victoria Inc.

Posters – Scientific Wall Charts - Junior

Major Bursary - \$55

Name	School	Project Title	Sponsor
Thomas Christofi	Plenty Valley Christian College - Secondary	That Eureka Moment!	Australian Skeptics
Aaron Evans	Plenty Valley Christian College - Secondary	Gravitational Waves	Electric Energy Society of Australia Inc.
Prachi Patel	Mount Waverley Secondary College - Junior School	An idea that changed people's lives	Australian Skeptics
Tessica Gomez	Mount Waverley Secondary College - Junior School	Sound Electricity	Electric Energy Society of Australia Inc.
Azraf Ezaz	Mount Waverley Secondary College - Junior School	Game changers in Food Production - Genetic Modification	Australian Society for Biochemistry & Molecular Biology
Isabella Ronchi	Sacre Coeur - Secondary	Cochlear implant: Great Australian change makers	Catholic Education Melbourne
Allegra Reid	Sacre Coeur - Secondary	Spray-on skin: Great Australian change makers	The Royal Society of Victoria Inc.
Polly Hara Jadeling Wu	Sacre Coeur - Secondary	Recell: Great Australian change makers	Australian Skeptics
Isabella Fewster Charlotte Ludekens	Sacre Coeur - Secondary	The Cochlear Implant: Great Australian change makers	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Aldrin Sibi Neha Maria Sibi	Hume Anglican Grammar School - Secondary	Bionic Ear	Victoria University
Tamanno Cooper	Hume Anglican Grammar School - Secondary	Cochlear Implants	The Royal Society of Victoria Inc.
Neha Maria Sibi	Hume Anglican Grammar School - Secondary	Ultrasound Scanner	Victoria University
Timothy Halden	Northside Christian College - Secondary	Polymer Banknotes	The Field Naturalists Club Of Victoria Inc.
Molly Ritchie	Shelford Girls' Grammar - Secondary	The Cochlear Implant	Australian Skeptics

The Odeon: 12.30pm – 1.30pm

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

Major Bursary - \$55

Name	School	Project Title	Sponsor
Georgia Thomas	Shelford Girls' Grammar - Secondary	Pedal Powered Radio	Deakin University: Faculty of Science, Engineering & Built Environment
Saskia Dennis-Cross	Shelford Girls' Grammar - Secondary	John Eccles - Australian Physiologist	Australian Society for Biochemistry & Molecular Biology
Priscilla Leung	East Doncaster Secondary College	Game Changers in Food Production	Ken Greatorex
Lottie Ostrowski	Methodist Ladies' College - Senior School	GMO - Game Changers in Food Production	The Royal Society of Victoria Inc.
David Varrasso	Doncaster Secondary College	The Cochlear Implant	Monash University - Faculty of Engineering
Lulu Hollis	Firbank Grammar School - Senior	Great Australian change makers - Polymer Notes	The Royal Society of Victoria Inc.
Tara Arthur Stephanie Naselli	Santa Maria College	Black Box Flight Recorder	Catholic Education Melbourne
Nimisha Kulkarni Kuhu Sharma	Gleneagles Secondary College	The Bionic Ear - An idea that rocked the World!	Australian Skeptics
Bella Edwards	Firbank Grammar School - Senior	An idea that changed the people's lives - Cochlear Implant	Australian Skeptics
Farimah Farahani Madison Greco	East Doncaster Secondary College	The Bionic Ear	Don and Robyn Hyatt
Olivia Katsouranis	Mentone Grammar School - Middle School	Cleaning Up Australia's Beaches and Oceans	Swinburne University of Technology
Tom Trenery	Yarra Valley Grammar School	The Black Box	The Royal Society of Victoria Inc.
Jasmine Hall	Cheltenham Secondary College	An idea that changed peoples' lives	Australian Skeptics
Tobias Swales	Cheltenham Secondary College	An idea that changed peoples' lives	Humanist Society of Victoria Inc.
Jessica Leembruggen	Mentone Grammar School - Middle School	The Bionic Ear	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Thomas Carroll	Cheltenham Secondary College	That Eureka Moment!	Australian Skeptics
Che McCarthy-Naidoo	Yarra Valley Grammar School	The Australian Medical Ultrasound	Biology Teachers' Network Inc.
Mimi Gu Miranda Lester	Thornbury High School	How taste buds work and how they can be changed by miracle berries	Biology Teachers' Network Inc.

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Olivia Taylor	Plenty Valley Christian College - Secondary	Game Changers in Food Production	Biology Teachers' Network Inc.
Meera Ganeshkumar	Mount Waverley Secondary College - Junior School	Anaesthetics	Australian Society for Biochemistry & Molecular Biology
Tiya Sengupta	Mount Waverley Secondary College - Junior School	An idea that changed people's lives	Australian Skeptics
Isabelle Hynes	Sacre Coeur - Secondary	The Cochlear Implant: Great Australian change makers	Catholic Education Melbourne
Lucy Westmore Carmen Rizakis	Sacre Coeur - Secondary	Black Box flight recorder: Great Australian change makers	Catholic Education Melbourne
Gemma Maltby	Canterbury Girls Secondary College	An idea that changed people's lives	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Armaanot Kaur Anna Paul	Hume Anglican Grammar School - Secondary	Venetoclax	Victoria University
Helena Petrou	St John's Greek Orthodox College	Winged Keel Australian Game Changers	Monash University - Faculty of Engineering
Sophie Mladenovski	Firbank Grammar School - Senior	An idea that changed the people's lives - The Wonder of Ultrasound	Australian Skeptics
Erin Howie	Firbank Grammar School - Senior	An idea that changed the people's lives- The Invention of the Flight Recorder	The BHP Foundation Science and Engineering Awards, managed by CSIRO



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

Minor Bursary - \$45

Name	School	Project Title	Sponsor
Lara Rumbens	Firbank Grammar School - Senior	An idea that changed the people's lives - Extended Wear Contact Lenses	The Royal Society of Victoria Inc.
Nandita Das	Santa Maria College	Global Warming	Catholic Education Melbourne
Ruby McKenzie	Santa Maria College	HPV Vaccine	Yakult Australia Pty Ltd
Nikisha Singh	Doncaster Secondary College	Spray-on skin	Australian Skeptics
Prabhneer Singh Marwaha	Yarra Valley Grammar School	The Gift of Hearing	Deakin University: Faculty of Science, Engineering & Built Environment
Max Topor	Mentone Grammar School - Middle School	Bionic Ear	Humanist Society of Victoria Inc.
Aravindh Anand	Haileybury - City Campus Secondary	Game Changers in Food Production	Biology Teachers' Network Inc.
Seyara Fernando	Haileybury - City Campus Secondary	An idea that changed people's lives: 3D Printing	Deakin University: Faculty of Science, Engineering & Built Environment
Sarah O'Connor Rajsi Verma	St Margaret's School	Changes made by Wild Species in Australia	The Field Naturalists Club Of Victoria Inc.
Laura Flack	St Catherine's School - Secondary	Great Australian change makers	Australian Skeptics
Kyal Tunley	Sacred Heart College - Kyneton	Black Box Flight Recorder	Catholic Education Melbourne

Games - Intermediate

Major Bursary - \$65

Name	School	Project Title	Sponsor
Kimberley Chin	Presbyterian Ladies' College - Senior School	Blackout	The Royal Society of Victoria Inc.
Kristia Lam Tharushi Walisinghe	Presbyterian Ladies' College - Senior School	Unlocking the Codes of the Cosmos	Australian Skeptics In Memory of Mark Plummer
Tristan Western	Viewbank College	Global Genetics	Australian Society for Biochemistry & Molecular Biology

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Lizzie Browne	Presbyterian Ladies' College - Senior School	Bionic Body	Mordialloc Skeptics
Melanie Lim	Presbyterian Ladies' College - Senior School	D.O.T. A - Defence of the Antibiotics	Australian Society for Biochemistry & Molecular Biology
Emma Chew	Presbyterian Ladies' College - Senior School	The Journey and Creation of the Polymer Banknote	Chemistry Education Association
Adam Efron Ithay Rott	Bialik College	Board Game	The Royal Society of Victoria Inc.
Leon Chen Fritz Taborlupa	Keysborough College - Banksia Campus	Green City Rising	Humanist Society of Victoria Inc.

The Odeon: 12.30pm – 1.30pm

Posters – Scientific Wall Charts - Intermediate

Major Bursary - \$65

Name	School	Project Title	Sponsor
Jodi Nguyen	Sacred Heart Girls College	Game Changers in Food Production	Catholic Education Melbourne
Madeline Page	Presbyterian Ladies' College - Senior School	Great Australian change makers	Australian Skeptics
Megan Sweidan	Bialik College	Scientific Poster	The BHP Foundation Science and Engineering Awards, managed by CSIRO
Nikki Loboda	Cheltenham Secondary College	An idea that changed people's lives	Australian Skeptics

Minor Bursary - \$55

Name	School	Project Title	Sponsor
Ayomi Goonetilleke Laetitia Teo	Sacred Heart Girls College	Game Changers in Food Production	Catholic Education Melbourne
Naho Takeuchi	Presbyterian Ladies' College - Senior School	Penicillin - Great Australian change makers	The Royal Society of Victoria Inc.

Games - Open

Major Bursary - \$75

Name	School	Project Title	Sponsor
Julie Tran	Sacred Heart Girls College	Managing	Bank First

Posters – Scientific Wall Charts - Open

Major Bursary - \$75

Name	School	Project Title	Sponsor
Ann Maria Sibi	Suzanne Cory High School	Black Box Flight Recorder	Deakin University: Faculty of Science, Engineering & Built Environment



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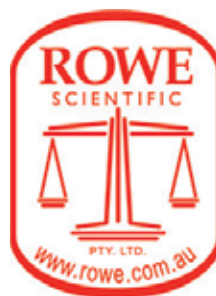
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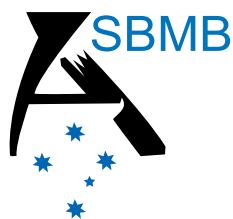
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Chris Rogerson	Chairo Christian School Cardinia (Secondary)
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Danielle Dalton	Keysborough College - Banksia Campus
Rose Tassone	Kolbe Catholic College
Claudia Leahy	Korowa Anglican Girls' School - Primary
Abigail Wraith	Korowa Anglican Girls' School - Secondary
John Gerohristodoulou Frank Kovacevic	Kurunjang Secondary College
Gemma Reid	Lab Rats Science Club Primary
Gemma Reid	Lab Rats Science Club Secondary
Koren Irving Simone Saunders	Lowther Hall Anglican Grammar School
Judith Sise Patricia Standfield	Lyndale Greens Primary School

STS Judges 2018



Cassandra Roberts	Mary MacKillop Catholic Regional College
Elsie Macellari	Marymede Catholic College - Secondary
Jacinta Fox George Stoforidis	Mazenod College
Wendy Johnson	Melbourne Girls Grammar School - Morris Hall
Steven Swenser	Mentone Girls' Grammar School - Secondary Campus
Leigh Chislett	Mentone Grammar School - Middle School
Mark Smith Jeff Welsh	Mentone Grammar School - Primary
Elizabeth Penny	Mernda Primary School
Bridget Crough Deb Krumples	Methodist Ladies' College - Junior School
Rachael Barker Cassie Blainey Marie-Louise Ciampa Catherine Cocks Rachael Rutkowski Kylie Warner	Methodist Ladies' College - Senior School
Felicity Williams	Moama Anglican Grammar School - Secondary
Julie Dohle	Monivae College - Secondary
Tasha Higgins	Mount Scopus Memorial College
Natalie Woolf	Mount Scopus Memorial College (SFPS)
Andrew James	Mount Waverley North Primary School
Wayne Griffin	Mount Waverley Secondary College - Junior School
Luke Moore	Mount Waverley Secondary College - Senior
Sheba Gurm Heather Murtagh	Nazareth College
Amy Horneman	Northside Christian College - Primary
Susan Varghese	Northside Christian College - Secondary
Thiwanka Ratnayaka	Officer Secondary College
Frank Dame Jacinta Tillack	Our Holy Redeemer School
Vicky Hantzis Lisa Newton	Overnewton Anglican Community College - Secondary
Rachel Bailey Janette Berglez Marcus Corlett James Donald Esther Gatt - Rutter	Parade College - Bundoora
Daniel Willcocks	Parade College - Preston
Carol Roberts Mary Sowa	Paynesville Primary School

Greg Tate	Pinewood Primary School
Pascal Siatskas Lucille Warwick	Plenty Valley Christian College - Primary
Rachelle Amor Lucille Warwick	Plenty Valley Christian College - Secondary
Misja Carbo Sibella Guest Asha Jacob	Presbyterian Ladies' College - Senior School
Andrew Kelly	Princes Hill Secondary College
Caryn Johnson Leigh Johnson Jamee Jones	Rivercrest Christian College - Primary
Katy Wheeler	Rosanna Golf Links Primary School
Evan Rutherford	Rosebud Primary School
Mark Shore Cathy Smibert	Ruyton Girls' School
Guy Evans Leanne Vastbinder	Sacre Coeur - Secondary
Anthony McMeekan	Sacred Heart College - Kyneton
Peter McClive Kerrilee Pywell	Sacred Heart Girls College
Jonathan Sise	Sandringham Secondary College
Virginia Arter Anna Barnes	Santa Maria College
Anthony Tasca Dinah Waldie	Scotch College - Junior
Marta Cassidy	Scotch College - Senior
Lauren Faulkner Candice Koranias Michaela Pearson	Serpell Primary School
Steven Hogan	Shelford Girls' Grammar - Primary
Adam Boylett Simon Chau James Kalfas	Shelford Girls' Grammar - Secondary
Jamie Astill	Sirius College - Eastmeadows Secondary Campus
Georgie Green	Skipton Primary School
Alec Baroni Kate Wallis	Solway Primary School
Sarah Bagci	Southern Cross Grammar - Secondary
Megan Vu	St Catherine's School - Secondary
Megan Heys Fleur Peppard Helen Tancheff	St John Vianney's School
Robert Bell Adam Byslma Luke Miller	St Kevin's College - Senior School
Belinda Barton Felicity Hutton Gaya Wignarajah	St Leonard's College - Primary
Deborah Francis	St Margaret's School

STS Judges 2018

Katie Cooper	St Margaret's School
Allison McEneaney	- Junior School
Jason Smith	St Monica's College
	- Dalton Rd Campus
Jayne Sherrard	St Paul's Anglican Grammar School - Secondary
Jia Cao	Strathcona Baptist Girls
Lucy Cassar	Grammar School - Secondary
Geoff Wriedt	
Nicholas Kemp	Suzanne Cory High School
Meg Bailey	Templestowe College
Alexandra Augello	Templestowe Park Primary
Katie Carson	School
Ajshe Thaqi	The Grange P-12 College
Sophie Zwolanski	Secondary Campus
Amy Andrews	The Hamilton and Alexandra College - Senior
Debbie Arnheim	The King David School
	- Junior Campus
Stuart Packham	The Peninsula School - Primary
Sean Broadby	Thornbury High School
Ryan Millar	
Lanna Derry	Tintern Grammar - Secondary
Heather Ross	
Paul Cuthbert	University High School - GTAC
Michael Leverett	Victory Lutheran College
	- Primary
Katie Gleeson	Viewbank College
Finn Mullhall	
Kathleen Reynolds	
Caitlin Vine	
Blair Odom	Wesley College
	- Junior Campus
Melise Gulpinar	Wheeler's Hill Primary School
Timothy Lee	
Paul Lo Schiavo	Xavier College - Burke Hall
	Secondary Campus
Todd Briscoe	Yarra Valley Grammar School
Daniel Lilburne	
Raquella Neiger	Science Educator
Peter Raven	Institution of Engineering and Technology
John Retchford	Material Research Scientist
Charles Tivendale	CSIRO (Retired)
Leonie Lang	Science Educator
Mary Donaghy	Science Educator
Monica Delos Santos	Engineer

Teacher Candidates

The University of Melbourne

Daniel Chaney
 Luke Youki Coleman
 Dean De Bortoli
 Will Dellas
 Malmi Gallage
 Wendy Hong
 Angie Hu
 Maddy Hunter-Smith
 Tairan Jiang
 Andrew Kay
 Eddy Kozinski
 Natalie Kweh
 Lucy Liu
 Amela Mahmic
 Tamaryn Meek
 Paulo Mendonca
 Nicholas Mountney
 Erinn Murray
 Joseph O'Farrell
 Tamara Palfrey
 Paris Parr
 Marc Pasavento
 Rekha Phalara
 Celeste Ramnac
 Mary Ann Reyes
 Sarah Ridout
 Lara Rijkman
 Kate Saleeba
 Skye Shields
 Cassandra Tan
 Jinhui Tang
 Megan Thornton
 Craig Torrens
 Christina Tran
 Audrey Tran-Nguyen
 Angela Tse
 Jyothi Varkey
 Albert Xianpeng
 Yu Xie
 Susan Xiong
 Eunjee You
 Sam Yung
 Aijun (Kelly) Zhong
 Tianyi (Tiffany) Zhou

Committee members needed for 2019

The STS Committee urgently needs new members for 2019. 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 or contact STAV: sts@stav.vic.edu.au; phone 9385 3999



Computer Programs (Games and Simulations)

STS Section Coordinators: Blair Odom & Joseph Ghaly

Many eager students brought their entries to Judging Day 2018, in order to explain the processes they went through to create their submission for the competition. There was, once again, a nice range of software and science topics covering many age divisions.

The judges thoroughly enjoyed meeting with the students, and had the challenging task of assessing each project against the criteria of the category in order to determine bursary winners. In the end, we celebrated individual successes, while identifying a number of entries as being worthy of high praise and recognition.

Once again, our judges enthusiastically commented on the high level of sophistication in both computer programming skills and scientific understanding that they observed when meeting with entrants. Given that the STS is, above all else, a science competition, it was pleasing to see that students endeavoured to become experts in an area of scientific focus, rather than merely concentrating on creating a computer program. Well done to these students in particular!

Thanks to Methodist Ladies' College for, once again, providing a friendly and well-suited venue. We marvel at the expertise and dedication of our team of volunteer judges. Without their assistance, care and attention to detail, the students would not receive meaningful feedback. Thank you to the students for their hard work and interest in furthering the cause and path of science. With sincere appreciation and wonder, we also acknowledge the incredible organisational skills of Janice Teng, at STAV, for her tireless efforts to ensure the event is successful each year.

We are already feeling excited to see the future crop of entries in 2019!

Picture Story Books (Creative Writing) – Lower Primary, Middle Primary and Upper Primary Divisions

STS Section Coordinator: Judith Sise

'This changes everything' was one of the Creative Writing topics for primary students in this year's Science Talent Search. How appropriate, because in 2018 this Section went on-line!

'After many trials...' was another topic. Students and teachers posted their entries onto the website. Some were then viewable, and some needed further format adjustments. This actual topic, however, was challenging for primary students because it was a mixture of scientific method and one example of technology. Putting these two things into a story-line with illustrations was a problem for many. Some students focussed on the history of the innovation; some on the scientist - and then left the science for an appendix.

By far the most common topic was "This changes everything." The cochlear bionic ear, and spray-on skin were very popular. Teacher-judges commented that many students failed to follow all of the criteria, particularly the word length. They also forgot (a) to include an index of science facts that had appeared in their story, and (b) illustrations. Still, the judges enjoyed reading the creative stories and marvelled at the beautifully creative illustrations.

Talking to my own school students about the topics, they said that 'Now we think differently' most expanded their knowledge of Australian scientists and their impact on our everyday life. So, this was 'A revolutionary moment in time' (the last topic) because for many parents, students and, I suspect teachers too, we became aware of the importance of science, particularly Australian science, to the welfare of our world.

Thank you to the many teachers who judged this year. Your patience and generosity with your time is appreciated. Thank you too, the parents and teachers who supported the students who entered. As the Science Talent Search coordinator at my school, I know the hours of work that goes into encouraging and organising students.

Creative Writing - Junior Division

Section Coordinators: Amelia Strzebonski, Rachel Johnson and Rose Tassone

One of the aspects about the Junior Creative Writing section that makes it so interesting is the diversity of entries it allows for. For a number of years now, this section has been opened up to include not just traditional modes of presentation, but also comic strips, picture diaries, and other forms that incorporate illustrations. This year we had a range of styles of writing and modes of presentation, and found that the traditional creative writing piece has become less dominant.

The topic 'This changes everything' was far and away the most popular of the three offered, and it was fantastic to read the wide range of ways in which students interpreted it. From detecting signs of UFOs from Parkes Observatory, to inventing a water filter in a CSIRO laboratory for global use, many students wrote about future possibilities in science. There were also a number of students whose writing pieces travelled back in time to tell the stories of scientists who had made discoveries or created inventions that made a lasting impact on the world. The more well-known Australian inventions, such as the black box flight recorder and the cochlear implant featured prominently. Interestingly, there were a number of entries that highlighted the human element of changes in science, and drew upon empathy to inject creativity into their writing.

The top scoring entries were both fascinating to read and, for the most part, followed the guidelines set out in this year's Handbook. There were also entries that, while well-written, either did not follow one of the topics listed, or did

STS Coordinator Reports

not follow this year's theme of 'Australian Game Changers and Change Makers'. There is a lot of information for students to process in the guidelines for their entries. Therefore, it is important that their school coordinator or Science teacher goes through the guidelines with them, and ensures that they understand what is expected.

Some other points for students to consider when entering next year are to upload all components of their entry, including the writing piece, Cover Page, Appendix and Bibliography; also, to integrate relevant scientific terms and concepts throughout their writing, but place the bulk of scientific explanation in the Appendix. When writing the Appendix, students need to include scientific explanations that go beyond a glossary of terms.

We were excited this year for students to be able to submit their entries online. This ensured easier tracking of the entries as they were made available for the judges to read, and then when it came time for further moderation. Next year we hope to streamline the process further from the schools' perspective, as well as from the judging and administration perspectives.

Thank you to all of the school STS coordinators, Science teachers and parents/mentors who assisted the students to enter their best work into the competition, and also to the judges, who evaluated and commented on each entry with thought and care.

Creative Writing – Intermediate Report

Section Coordinator: Lynden Fielding

In 2018, a team of five judges assessed forty-two Intermediate Creative Writing entries from sixteen schools. In comparison to 2017, this was a thirty-five percent decrease in the number of entries received, which was comparative to the 2016 entry pool. Nine registered entries were not received. The overall standard of Intermediate Creative Writing entries was again consistently high in 2018, and judging has continued to be very competitive. There were four allowed topics. The three topics 'And now we think differently', 'This changes everything', and 'Australian changes that revolutionised the world' were the most popular topics, each attracting about the same number of entries. The 'After many trials...' topic attracted the least number of entries.

Five Major Bursaries of \$60 and ten Minor Bursaries of \$50 were awarded, thanks to the generosity of sponsors and donors. Eight entries gained the Distinction award. The standard of entries was such that all other entries were awarded a Merit Certificate, with hardly an exception.

In this year of the Australian game changers and change makers theme, key judging criteria discriminators for the award of a Major Bursary were again the integration of science ideas into writing, the amount of scientific content included in the writing, and originality and creativity. 'The journey and impact of stem cell technology' was a moving piece about the life of a child born through IVF being later saved through the use of cord blood stem cells when she

developed a life-threatening illness as a child. The child became a doctor and in a full-circle turn of events, she carried out medical treatment using stem cell technology to restore the sight of her IVF embryologist. 'Noiseless sound' focused on the impact on a woman's life of her receiving a cochlear implant. In 'The Fatal Malattia', an historical crime is linked to a current one. Both crimes are solved in imaginative writing by a character based on DNA Biologist Eliza Bell. In 'How we think', the author develops a character based on Nobel Prize laureate Sir John Carew Eccles, who reflects on his life's research and teaching on neurophysiology. As well as the black box flight recorder and the cochlea implant being popular focuses of many of the creative writing entries, students also incorporated science ideas that included the story of penicillin, and the cloning of sheep.

It is always important that students gain a thorough understanding of the section Guidelines page in the STS Handbook prior to commencing their writing project. The additional page on How to cite references and write a bibliography will alert entrants to the requirement to list both the date and time that they access websites. If students have this in mind from the commencement of their entry, then they should be able to fulfil this formatting requirement. Importantly, students can use the Entry Guidelines as a self-assessment checklist prior to submitting their entry.

Well done to all the 2018 year 9 and 10 authors on their creative writing achievement. Congratulations to all who achieved Bursary, Distinction and Merit Awards. The judging team from five schools across Victoria is especially commended for using the online system of receiving entries for judging and entering comments and results for the first time. They did a sterling job of evaluating the entries using the judging criteria for Scientific Content and Presentation, and writing feedback comments for each entrant. We are most appreciative of their volunteer time and expertise, and careful judging. Thank you to all the learning area directors and coordinators, and Science teachers across the schools for their valuable support and encouragement of the students. We are also grateful for the involvement of parents and other mentors, which is invaluable.



Working Models and Inventions – All divisions

Section Coordinators: Janice Teng, Maureen Frith, Manju Mohandoss and Gregory Boyles

The Working Models category is an exciting and valuable section, which inspires students to explore a scientific principle or idea that they find interesting. Individually with research or support, students translate their concept to a design and construct a working model to demonstrate a particular scientific theory and/or principle. Students also have a chance to recreate a scaled model of an existing invention and explain the science behind their project.

The Inventions category encourages students to explore their creativity by either designing and constructing their own original scientific invention to solve a problem, or making an innovation and/or improving on an existing scientific invention for new or existing devices. It is important that students explore their design and redesign in the development of their invention using different scientific solutions. Inventions must be an original concept, and students should research that their innovation has not been previously explored.

We would like to highlight some aspects of the Working Models and Inventions categories that could be given more attention next year:

- (a) Risk assessment – The risk assessment should be carried out before any activity to identify, eliminate or control the hazards and risks associated with the construction and use of their model or device.
- (b) Static vs Working devices – up to 21% of the devices presented this year were ‘static’, meaning no moving parts. Both the Working Models and Inventions guidelines state that the device should be ‘working’. The moving or ‘working’ parts, should be an integral part of the model and demonstrate the scientific principle or concept.
- (c) Written report – as many as 10% of junior working models did not submit a written report. Presentation of a report that does not follow the guidelines makes judging more difficult and, in some instances, disadvantages the student. Reports should be easy to access (manila folder), easy to identify (yellow entry face sheet) and easy to read. Diagrams should be neat and well labelled. There should be a photograph of the device.
- (d) Scientific principles – students are reminded that this is a Science Talent Search and the device is the vehicle through which they are demonstrating their scientific knowledge.
- (e) References and acknowledgements – students are reminded that there is a correct way to record websites and print resources in their bibliography and references. This is explained clearly in the STS Handbook on page 23.

Many students are inspired by the year’s theme, but we would like to remind students that in Working Models and Inventions, they do not have to be limited to the

theme and can be creative as well as pursuing their own interests in any aspect of Science!

Students are reminded that if they are re-entering a project that has been developed since the previous year, they must clearly show in their model/device and report all the new modifications and/or improvements made from their previous entry.

Congratulations to all the bursary winners for Working Models and Inventions. This year there were 29 Major bursaries and 45 Minor bursaries awarded in the Working Models section, and 9 Major bursaries and 21 Minor bursaries awarded in the Inventions section.

We would also like to commend all Working Models and Inventions entrants 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, including Miriam Beasy and all the staff and students who were essential in the set up and running of the day. Our appreciation and thanks also go to all the judges who provided time and expertise to listen and speak to our student entrants, giving them valuable feedback and a richly rewarding experience.

STS Coordinator Reports

Posters-Scientific Wallcharts – Lower Primary, Middle Primary and Upper 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 340 posters were entered with 152 from upper primary, 130 from middle primary and 58 from lower primary. Of those students who entered the lower primary section 6 received a major bursary and 12 received a minor bursary. In the middle primary section 13 students received a major bursary and 26 received a minor bursary. As for upper primary, 15 students received a major bursary and 30 received a minor bursary.

Students were asked to address one of the topics given. The topics were - 'Made in Australia', 'An idea that changed people's lives', 'Great Australian change makers' and 'That Eureka moment!'

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 with the guidelines. In some cases fabric, photographs and even 3D objects were attached to the poster. It specifically states in the guidelines that this is a poster or scientific wallchart and only original diagrams are to be used; also if using references from web sites, time and date must be included in the reference.

Students should note, that as Posters-Scientific Wallcharts are usually found attached to the wall what is written on the back is not judged. On the other hand students and teachers should make sure that entry details on the back of the poster are complete and are in fact attached.

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 those who gave up their whole Saturday morning to be involved in the judging.

Posters-Scientific Wallcharts – Junior and Intermediate Divisions

Section Coordinator: Diana Veremciukas

The judging Day on Saturday the 4th of August succeeded due to the tireless efforts of 64 volunteer judges made up of primary, secondary and trainee teachers who worked from 8.00am to 1.00pm non-stop.

A big thank you to Methodist Ladies' College for the use of their facilities and to the ground staff who helped set up the rooms on the preceding Friday evening. Also thank you to the staff/parents that provided morning tea in the waiting area on Saturday, and the MLC senior students and Ms Anna Stucley who were on the Registration desk. Also thank you to Ms Judith Sise for her extra help in sorting posters and then loading them into cars.

Another thank you goes to the parents and entrants who stood patiently in long queues waiting to register and to those parents who waited downstairs uncomplaining for over an hour for their children to be judged. A reminder to parents that judging times are 8.30am to 10.30am for primary students and 10.00am to 12.30pm for secondary students.

The number of Junior entries received was one hundred and thirty-five, down on last year's total. Of the entries submitted 32 won Major bursaries, 21 won Minor bursaries, 42 entries received a Distinction certificate and 33 received a Merit certificate.

Fourteen Intermediate entries were received, well down on last year's total. Of the entries submitted 4 won Major bursaries, 2 won Minor bursaries, 4 entries received Distinction certificates and 1 received a Merit certificate.

One Open entry was also received which earned a Major bursary.

The least favourite topic for entrants was 'Game changers in Food production'. Students included projects on: Genetic modified food, Taste buds and miracle berries, orward osmosis, Vertical farming, Hydroponics and permaculture, Automatic calf feeding and milking systems, The Velella project, Marine plankton, Bee friendly bio-insecticides, and Changes made by wild species.

Some interesting student projects involving the other three topics were: Ultra-sound scanners, The Esky, Telephone television, HPV gardasil vaccine, Penicillin, Anaphylaxis management, Soft contact lenses, Lithium-ion giant battery, Winged keel boats, Venetoclax for blood cancer patients, The jet engine, Entomophagy, The boomerang, 3D printing, Long lasting contact lenses, Prothesis manufacture, Anaesthetics, Spray drying, Converting sound into electricity, The bionic ear, Black box flight recorder, Spray-on skin, Polymer banknotes, Intracellular microelectrodes, Pedal powered radio transmitters, Lithium for bipolar disorder, WiFi and smart phones, Cataract surgery, Cardiac pacemakers,



Quantum computing, Cancer research, Vegemite, DNA fingerprinting, Polilight unilight, Amyotrophic lateral sclerosis, Compulsory vaccination, Inflatable slides from planes, The jet pack, Permanent crease clothing, Dark energy, Cleaning oceans, Gravitational waves, Colliding neutron stars and Global warming prevention.

Students are reminded that diagrams must be hand or computer drawn. Students should not glue photos, cut-out pictures or samples of matter to their posters. Diagrams should be referred to in written information on the poster, for example, "see figure 1". Some students are still not fully laminating their posters when they have attachments, which leads to damage to the poster on cartage/storage. Students need to remember when accessing the internet to include site dates and times in their bibliography.

Congratulations to all students who entered. Judges thought that most posters were of a high standard, as indicated by the number of bursaries, distinction and merit certificates awarded. We are already keen to see the research displayed in posters for next year's topics.

Experimental Research – Lower, Middle, Upper Primary Section

Section Coordinators: Pina Pikos, Robert Court and Louis Tie

The Experimental Research section of this year's Science Talent Search received some impressive entries. The level of competition was close and the overall standard was high. This was especially true of those students whose entries closely followed the guidelines for writing an experimental research project as outlined in the 2018 Handbook. Of particular note were those who neatly and methodically set out the results they had collected. Well-organised data made these experiments more accessible and easier to follow.

This year was the first time that schools were able to submit and receive feedback for some entries online. We wish to thank students and school coordinators, as well as the judges from each division, for their help in pioneering this process. We look forward to seeing this form of submission improve access and enjoyment of the competition in future years, particularly for students attending schools in remote locations.

Experimental Research – Junior

Section Coordinators: Asher Longney and Chris Rogerson

We were very pleased to have over 170 entries in this section this year from Year 7 and 8 students in predominantly metropolitan area schools. 11% of entries were awarded a Major Bursary, and 22% a Minor Bursary. 5% received a Distinction Certificate, and 29% a Merit Certificate. This means that a little over two thirds of all entries gained a merit rating or higher which is an excellent result. This is doubtlessly due to some really effective facilitation and engagement by Science teachers and family members out there. Well done, everyone! The topics chosen for investigation were, as always, awesomely creative and diverse. We all know that the hardest part of this process is initially getting the idea to investigate, and what ideas we found! Top quality entries investigated the psychology of music, the physics of elevators, the absorption of oil, how memory is affected, the elasticity of lolly snakes, the attractiveness of facial symmetry, the workings of a microbial fuel cell, and the question on everyone's mind – can we really grow food on Mars? This breadth of exploration shows that entrants this year really engaged and ran with the topic given.

Again, the success of the entry depended in part on how carefully the student had read the Handbook and how clearly they presented each part of the report. It was good to see Risk-Assess forms filled in thoughtfully.

Our thanks must go to our wonderful sponsors and the 18 judges who volunteered their time to assess the reports. Without them the STS would not be possible. The provision of online entry submission and judging promises a more efficient process in future years as we build on the experience we gained with its introduction this year.

We would encourage more teachers to be involved in judging and coordinating next year because we gain much more than we give in so many ways.

STS Coordinator Reports

Experimental Research – Intermediate

Section Coordinators: Susan Tawia and Miranda McKellar

Once again we waited with anticipation to see the entries in the Intermediate Experimental Research section of the Science Talent Search. Students who enter this section are in Years 9 to 10 and again it was clear that many students had flourished when given the opportunity to work on a project that inspired them.

There were fifty entries this year and many were of an excellent standard, which made the section very competitive. Five major bursaries and twelve minor bursaries were awarded. The Distinction category enabled us to acknowledge the eight high-quality entries that just missed out on bursaries.

Once again, girls and girls' schools were very well represented in this section this year, with many being awarded bursaries.

Some of the topics of investigation that were awarded bursaries included:

- The science of voice recognition
- What material can block a WiFi signal
- Laptop lurgies
- How do we digest meat?
- Development of an antimicrobial biodegradable plastic

Not only did these entries involve creativity to come up with an original idea to investigate, but also the discipline required to undertake a controlled experiment and document the process in detail. Undertaking research projects and then presenting them as a report parallels what scientists do in the 'real world'. All of the students who managed to undertake this process and produce an entry for the Science Talent Search which satisfied the requirements of both originality and scientific rigour deserve congratulations.

The Science Talent Search aims to stimulate an ongoing interest in the study of Science by encouraging independent, self-motivated project work amongst students.

An entry in the Intermediate Experimental Research section of the Science Talent Search satisfies the requirement of the Science Inquiry Skills strand of the Australian Curriculum for Years 9 and 10. Providing students an opportunity to enter the Experimental Research (Intermediate) section of the Science Talent Search gives them an opportunity to conduct authentic research, with unknown outcomes, rather than replicating an experiment from a science textbook.

It has been a pleasure coordinating the Intermediate Experimental Research section and having the opportunity to work with our valued judges to discover the many

students with talent, creativity, and scientific inquiry skills. We would like to thank the judges for their work and commitment to the Science Talent Search. We also recognise and thank the teachers, school laboratory technicians and mentors who supported the students and, finally, the students who accepted the challenge.

Experimental Research – Open division

Section Coordinators: Josie Crisara and Tassie Eleftheriou

The quality of entries into the Open Experimental Research section this year was very high. Projects followed the set criteria, were detailed, and showed an understanding of the scientific method. The analysis of the experimental results were generally of a high standard and students were able to link their aim and hypotheses to their conclusions. The bursary winners in this section had interesting and creative topics, including: 'How does roasting temperature affect the amount of caffeine in coffee beans?', 'The antimicrobial effect of garlic on *Escherichia coli*' and 'Physics Explanation of Self Siphoning Beads Phenomenon'. Each of these topics lends itself to wanting to know the answer to the research question. The experiments were thoroughly planned with variables controlled and error analyses conducted.

For those wishing to enter again next year, it'll be a good idea to look over your report and match it with the provided criteria. Make sure that you have fulfilled all of the requirements before submitting your final copy. Also, be sure to be succinct, especially in the abstract.

Thank you to the teachers who supported their students in their research investigations and to the judges who committed a significant amount of time to evaluate the entries.



Class Experimental Research Project

Section Coordinators: Sarah Shatford, Marisa Jarvis and Raquella Neiger

2018 proved to be a record year for the Class Experimental Research Project section of Science Talent Search. Almost 30 class entries were received which means that potentially upwards of 600 students had the opportunity to be involved in scientific learning, experimentation and discovery within this section alone! Through this section, classes completed an investigation where they firstly developed and refined questions of an experimental nature. They then sought answers to these questions following the formal experimental research structure. On completion of their experimental work, they evaluated and reflected on the entire process and looked at ways to extend their learning further. The culmination of the project is on Judging Day where they have the opportunity to celebrate and communicate their learning to the wider community.

When choosing to undertake this section, schools coming from an inquiry style approach such as the PYP, must remember to use the traditional terminology and format linked to scientific method. This was an area that continued to cause some challenges for schools from these backgrounds. As the project is linked to Experimental Research, it is imperative to meet all the relevant handbook criteria found under the Experimental Research section, as well as Class Project, since this was found to be a limitation in 2018. Below are some handy hints to help in putting the formal report together. We have focused on the areas which have appeared a little more challenging.

The aim should always be a question rephrased into a statement of experimental intent e.g to find out which paper plane design flies the furthest.

The hypothesis should be a scientific guess on what you think will happen with the reasons why you think this e.g. the paper plane with the wing flaps will fly the furthest because flap position have assisted in speed in other designs.

The method should be a step-by-step instruction which can be reproduced by someone not involved in the initial experiment.

The risk assessment can be either attached or included within the report. It should include all chemical, biological, procedural or equipment related risks that could occur when carrying out the experiment.

A good experiment will include and acknowledge the need for fair testing. This includes demonstrating an understanding of variables and experimental control. This does not mean that students need to use this language, but it should be clear through either method, result collection and/or discussion that this has been factored in.

It is a good scientific technique where possible to repeat the experiment a number of times to reduce random errors. A Class Experimental Research Project should be demonstrating this.

Encouraging higher order and twenty first century thinking skills, is part of the focus for Class Project. Students should be able to think how they can take the learning and knowledge gained beyond the initial experiment.

Finally, it is also a good idea to access and utilise the self-assessment checklist located on the Science Victoria Website under Science Talent Search.

The criteria is closely aligned with requirements of the Australian National Science Curriculum, in particular, the Science Inquiry Strand. It also enables crosslinks between other areas of the curriculum including Mathematics in collecting, recording and analysing data, English with report writing and communication, and some aspects of ICT where students may use spreadsheets to help create graphs of results.

Topics are not limited to the year's National Science Week theme so a project can be chosen that integrates well with the class learning focus. This year's topics covered all strands of scientific learning and it was fantastic to see the wide variety of investigations and the depth to the students' learning. Topics covered included crystal growing, space exploration, plant and environmental adaptations, bridge loads and bubble blowing, healthy lifestyles and exercise, forces and motion, material properties and slime making! Judges enjoyed the diversity of the topics covered and the level of student engagement with the topics. When making choices it is important to encourage student involvement and decision making in all parts of the process as the student centred projects shine through clearly at the judging day. Remember, Science is often inexact and 'messy', but often problems and mistakes can teach far more than obtaining perfect answers. It is the mess and the clarity that comes out of the mess that produces some amazing Science Projects and Scientists!

STS Coordinator Reports

Games – All divisions

Section Coordinator: Leonie Lang

Albert Einstein said, “I never teach my pupils, I only attempt to provide the conditions in which they can learn.” What better conditions for learning than students having fun playing games of their own devising about the science topics that interest them.

At the Games Judging Day at Wesley College, 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 The University of Melbourne, 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 136 entries (representing over 200 students) were judged of which almost half were awarded bursaries. It is pleasing that teachers are making time available in the crowded curriculum for students to pursue very worthwhile projects such as STS.

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, the topic of Australian game changers and change makers was embraced enthusiastically by the students, with games such as: You are the game challenger, Photovoltaics, The polymer banknote, and The inventors – Start your engine. Students also showed concerns about conservation issues with games such as: Temperature’s rising and Deforestation. Other popular topics included bushfires, floods, earthquakes and especially tsunamis. Escaping from danger makes a very exciting game. 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.

Photography – All divisions

Section Coordinators: Sheba Gurm and Mary Donaghy

It was a great pleasure to see the effort put into photographing scientific processes this year.

The standard of photography was exceptionally good, though we had fewer entries than in previous years. The number of students registering for the photography section, but not attending judging was disappointing, especially in the junior and intermediate divisions. All areas of science were covered, including environmental science. Topics covered a wide variety of interests, including chemical reactions, fungus, the bursting of balloons, flower structure and algal blooms.

The entries that won accolades displayed a good knowledge of photographic techniques and students’ understanding of scientific concepts was very clear. Many students showed good skills in editing and manipulating their images.

We would like to thank the following:

- Parents and teachers, who guided and motivated students to complete their projects.
- School coordinators, who encouraged students to enter and ensure that timelines were met.
- Judges from schools and The University of Melbourne, who took time off from their busy schedules and judged the entries diligently and in a fair manner. They discussed the photos and reports with students, wrote encouraging comments and moderated entries to select bursary winners.
- Parade College, Bundoora, for providing an excellent venue and facilities, and assisting in setting up the event.
- Students for their dedication and skill in completing their entries, and for making the effort to attend the Judging Day.

We would like to see more entries in photography next year, as this is an excellent platform for students to showcase their knowledge and understanding of science.



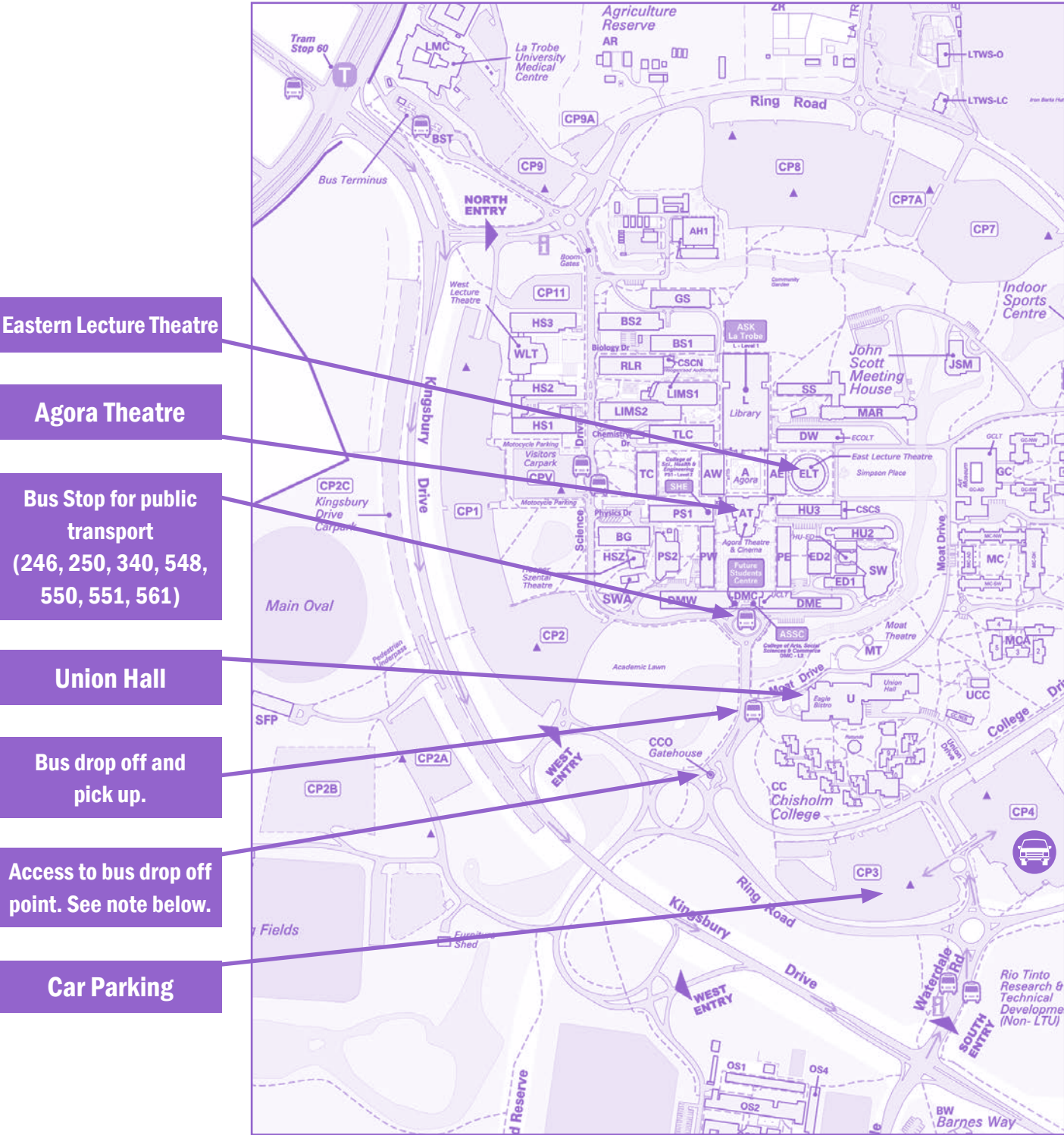
Videos – All divisions

Section Coordinators: Jennifer Cutri and Jason Smith

On Saturday August 4th, the STS Videos Judging Day took place for the first time at the new campus, Parade College Bundoora. It was an exciting and eventful day in which we worked alongside volunteer judges, the participants and parents. The Videos section this year provided students across all year levels, from Year 1 to Year 12, an opportunity to showcase their creative scope across a range of scientific topics. It was fantastic to see the increase in the number of entries this year, which led to a diversification of scientific fields to be explored through the creative medium of video. Students were able to present to the judges a scientific topic of their interest, as the Videos section enables participants to choose any science related topic as long as they adhere to the Video production criterion. As we moved around the venue and observed the judging process, we were very impressed with the depth of knowledge and understanding that the students showcased on the day via their entry and through their conversation with the judges. It is truly rewarding to see that learning and discovering about scientific phenomena can be done through such a creative, intrinsic and fun process. One of the key benefits of the Videos section is that students are able to take charge of their personal learning and are practising key science skills such as inquiry, questioning, investigating and communication. We thank Parade College Bundoora for providing us with a great venue and for setting up the space that ensured a successful Judging Day. We also like to thank all the volunteer teachers who provided their time and expertise to acknowledge the students' hard work. We look forward to another STS Videos Judging Day for 2019!

Notes

La Trobe University
Kingsbury Dve, Bundoora, Melways Ref. 19 G8



For access to Bus drop off point please tell security that you are dropping off/picking up students for the STS.

Special thank you

The following organisations are thanked for their donations and contributions to our expenses:

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Australian Society for Biochemistry and Molecular Biology

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Biology Teachers' Network Inc.

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