Presentation Ceremony

Friday 21 September



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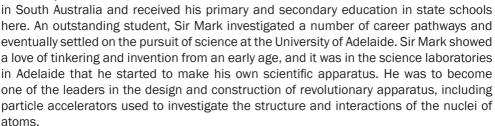


Sir Mark Oliphant

1901 - 2000

The South Australian Science Teachers Association has been privileged to have had Sir Mark Oliphant as our Patron for the SASTA Oliphant Science Awards since their inception in 1981.

Like many of the recipients of these awards, Sir Mark was born



In 1927 a scholarship took Sir Mark to the famous Cavendish Laboratories in Cambridge, UK where he worked with Lord Rutherford, who was a pioneer in atomic physics.

Together with other great scientists including Fermi, Lawrence and Oppenheimer, Sir Mark created the brave new world of nuclear physics. His expertise in this area was to lead Sir Mark to the Manhattan Project in America and to his participation in the development of the first atomic bomb.

Sir Mark was always a champion of the peaceful uses of atomic energy, and in 1937 accepted his first professorship as head of the Physics Department at Birmingham University where he was to continue to push the boundaries of knowledge of nuclear physics. In this year he was elected as a 'Fellow of the Royal Society'.

In 1955 Sir Mark's reputation as scientist, research director and administrator were well established in the scientific community. This, together with his declared interest in establishing world class educational research facilities in Australia, led Sir Mark back to Australia at the request of the Government. In this year he founded the Research School of Physical Sciences at the newly established Australian National University in Canberra.

In the years after retirement from academic life, Sir Mark became a household name in South Australia where he gave distinguished service as our State Governor from 1971 to 1976.

A clear demonstration of his ongoing support of science and science education was provided to the science community in our state when Sir Mark agreed, in 1981, to lend his name as patron of the SASTA Oliphant Science Awards.

Sir Mark's legacy will live on in many ways, not least through the thousands of students and teachers who participate in these awards annually.

Of special significance is that Sir Mark, through his love of tinkering and invention, made the perpetual Oliphant Trophy himself.

Past Oliphant Science Award Winners

1981	David Tilley - Mount Gambier High School
1982	Andrew McDowell - Oakbank Area School
1983	Stella Miller - Oakbank Area School
1984	Vernon Wells - Marryatville High School
1985	Eleanor Rainsford - St Peters Collegiate Girls School
1986	David Messenger and Darren Kelly - Glenunga High School
1987	Darin Lovett and Edward Dunstone – Prince Alfred College
1988	Frank Trimboli and Nikolaos Vogiatzis - Underdale High School
1989	Simon Ratcliffe – Henley High School
1990	Kingsley Storer - Prince Alfred College
1991	John Sanderson - Pulteney Grammar School
1992	William Greenrod and Michael Ashley - Pulteney Grammar School
1993	Mark Hodson and James Jolly - Modbury High School
1994	Mark Hodson - Modbury High School
1995	Kyra Reznikov – Annesley College
1996	Jamie Messner – Prince Alfred College
1997	Erik Procko - Marryatville High School
1998	Erik Procko - Marryatville High School
1999	Paul Philps, Lydia Rofe and Kristina Miller - Marryatville High School
2000	Andrew Royal - Faith Lutheran Secondary School
2001	Alexander Cichowski - Brighton Secondary School
2002	Samuel Teck Ern Wong - The Norwood Morialta High School
2003	Samuel Teck Ern Wong - The Norwood Morialta High School
2004	Alyssa Fitzpatrick - Loreto College
2005	Konrad Pilch - St Peter's College
2006	Finn Stokes - Australian Science and Mathematics School
2007	Finn Stokes - Australian Science and Mathematics School
2008	Michael Huxley - St John's Grammar School
2009	Benjamin Harrison - Urrbrae Agricultural High School
2010	Michael Huxley - St John's Grammar School
2011	Nina Mao - Glenunga International High School
2012	Will Russell - St John's Grammar School
2013	Madeleine Lilburn – Loreto College
2014	Sarah Damin, Isabelle Greco & Bridget Smart - Wilderness School
2015	Kee-An Seet - Glenunga International High School
2016	Alexandra Stephenson - Adelaide Hills Home School Group
2017	Amber Washington - Norwood Morialta High School

A message from the Convenors

The Oliphant Science Awards are conducted annually by the South Australian Science Teachers Association, and are named in honour of the late Sir Mark Oliphant, our former Patron, and in his time an outstanding supporter and promoter of our student science competition.

The Oliphant Science Awards commenced in 1981, with Sir Mark personally hand crafting the trophies for the best boy and girl entrants. Since then student participation has continued to grow, and very many students throughout South Australia now participate. The wide range of interests and abilities of these students is catered for by the many categories and age groupings that we offer. Students can enter individually or, for many of the categories, participate as part of a group.

Sir Mark personally designed and crafted the titanium metal perpetual trophy that the annual winning student holds for one year. The trophy is then exchanged for an engraved medal at the following year's Award Ceremony.

The Oliphant Science Awards recognise outstanding student work with prizes in each age group and each category. Schools with many winning students are awarded a schools' prize. There are many prizes made available through the generosity of our Sponsors, who are an integral part of the success of our Awards. We acknowledge this support through their attendance at and participation in the Awards Ceremony. Without our sponsors we could not offer such a successful student science competition.

This year we are pleased to acknowledge as our Platinum and Gold Sponsors, the Department for Education & Child Development, Rowe Scientific and the Defence Science & Technology Group.

An essential component of the Oliphant Science Awards is the judging. SASTA acknowledges and thanks the large group of dedicated teachers and supporters of science education who have volunteered to judge the thousands of entries that students prepared for this year's competition. This contribution to SASTA and to science education is greatly appreciated.

The Oliphant Science Awards have once again been a great success thanks to the participation of thousands of students. We know that this participation happens with the encouragement and support given by very many parents and teachers, and we thank you all for this support, coming as it does at a time when student engagement in Science has never been more critical. We also thank and acknowledge the hard work of the SASTA OSA Committee members and volunteers who make this project possible. And finally, we thank the SASTA Office staff for their dedicated commitment to the success of the Oliphant Science Awards. This is probably the largest project that our association undertakes annually.

Each of the eight Australian state and territory Science Teacher Associations offers student science competitions. At SASTA we are proud that in recent years, our Oliphant Science Awards has been the largest of these state competitions, a success built on the contributions of the many people listed above.

As with the other state and territory competitions, winners of the OSA Scientific Inquiry and Models and Inventions (Engineering) categories automatically progress to the finals of the national BHP Billiton Foundation Science and Engineering competition. Each year we also nominate a Teacher Finalist to the national BHP Billiton Foundation Science and Engineering Awards.

Whatever your role is, we thank you for your contribution to this wonderful project.

Peter Turnbull and Gerald Little
Oliphant Science Awards Convenors, 2018



Congratulations to all Oliphant Science Award participants and prize winners.

With your scientific curiosity piqued, let this direct your future career choices.



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A message from the SASTA President

The Oliphant Science Awards are one of the many activities organised each year by the South Australian Science Teachers Association to assist science education in schools and in our community. A knowledge and awareness of science in our daily lives is essential for all Australians in the twenty-first century. Learning science encourages students to develop a range of skills such as observation, prediction and communication as well as expanding their knowledge both within and between the diverse domains of science. The Oliphant Science Awards provide students with an opportunity to extend their scientific literacy, by showing interest in and understanding of the world around them, engaging in discussions about science, and being able to make informed choices about the environment and their own health and wellbeing.

SASTA's strength lies in our members, and in the many highly committed educators who volunteer their time out of school hours to ensure that we continue to serve the needs of all teachers of science. Our 498 members are drawn from all education sectors, teaching all year levels across the State. We are also fortunate to have a permanent secretariat to ensure the continuing smooth functioning of all aspects of our business.

Affiliation with the Australian Science Teachers Association (ASTA) and with the International Council of Associations for Science Education (ICASE) ensures that our science teachers are in touch with developments taking place in science education throughout the world. SASTA members also benefit from and contribute to national and international conferences, teacher exchange schemes, overseas or local study fellowships and access to a variety of science competitions for their students. SASTA provides professional learning opportunities to teachers within our State through facilitating workshops and conferences, and by its publications.

SASTA develops and maintains close links with employment authorities, businesses, industry and the tertiary education sector. Working closely with such organisations allows us to develop programs, activities and resources that reflect the nature of science in our community. SASTA greatly appreciates the support and sponsorship it receives from these partners and thanks them for sharing our commitment to effective learning in science.

Science, together with the technologies made possible by scientific research and development, is driving us through a period of rapid technological changes. These changes are, in turn, informing the debate about how the sciences are important, and how they should be taught in our schools. SASTA and our members are closely involved with revisiting and developing ideas about how best to ensure that all students become enthusiastic learners of science.

At SASTA we are proud of our contribution towards supporting learning for teachers and their students. We will continue our commitment to fostering an awareness and appreciation of the roles that science, technology and innovation play in our daily lives and in the future environmental and economic strength of the country.

Voljay



Vanessa Fay, SASTA President



STEM - what is it for?

Watch the new STEM animation on the Department for Education's YouTube.

youtube.com/SAEducationDept

The Leading Learning website is a resource for schools to support working with the Australian Curriculum, to design engaging and intellectually stretching learning experiences for all students.

acleadersresource.sa.edu.au







Presentation Program

Reception - Year 7















Presentation Program | R-7

6:00pm Seating of winners

6:15pm Seating of audience and guests

6:30pm Ceremony commences

The Masters of Ceremony

Dr Susan Woods is currently working as a part of the Gastrointestinal Cancer Biology group headed by physician-scientist Associate Professor Daniel Worthley. This laboratory is physically located within the SAHMRI 'flagship'. Susan's current project focuses on bowel cancer and combines recent advances in stem cell biology, genome editing and genetic sequencing. Susan remains passionate about translating basic research discoveries into better outcomes for cancer patients. She was also a Young Tall Poppy Science Award winner in 2016 and takes great pleasure in promoting science.

Dr Philip Gregory is the Head of Gene Regulation in Cancer Laboratory at the Centre for Cancer Biology, University of South Australia. His research focusses on the leading cause of death for sufferers of breast cancer – the spread of cancer cells from the initial tumour to other organs. In particular, he studies the genetic processes which cause a cancer cell to transform to an aggressive and invasive cell type. Discovering the genetic reasons for this fatal transformation will allow Philip to develop therapies to target and prevent these changes and lead to better diagnosis and treatment of breast cancer. He was a Young Tall Poppy winner in 2011.

Welcome: Vanessa Fay, SASTA President

Sponsor Prize Award Winners:

- Catholic Education SA Primary Schools Prizes
- Australian Institute of Energy Prizes
- CSIRO Education / CREST Prizes
- Mobile Science Education Science Communication Prize
- Primary Industries Education Foundation Australia Prize
- University of South Australia Sustainable Future Prize

Oliphant Science Category Award Winners

Sponsor Prize: To be presented during category award announcements

- Australian Institute of Physics Prize
- · University of Adelaide Faculty of Science Prize

Department for Education:

South Australian Young Scientist Awards

Announcements: The Oliphant Trophy Winner 2018

7:45pm Conclusion: Vanessa Fay, SASTA President

Catholic Education SA Primary School Prizes

Awarded to the best two primary schools with high achievement and participation across a wide range of categories.

First St Andrew's School

Second Immanuel Primary School

Australian Institute of Energy Prizes R-7

Awarded to the best entry at each year level with a sustainable generation and uses of energy theme.

- R-2 **Benjamin Low**, Immanuel Primary School Scientific Inquiry: Effect of light and warmth on crystal growth
- 3-5 Krishna Neelam, Mawson Lakes School
 Models & Inventions: Environmental House
- 6-7 **Anthony Huynh and Aditya Ghai,** Prince Alfred College Computer Programming & Robotics: Sun Tracking Solar Panels

CSIRO Education / CREST Primary Prize

Award for consistently high achievement and participation in the Scientific Inquiry and Models & Inventions categories.

Best CREST School Mawson Lakes School
Best Non-CREST School Crafers Primary School

Mobile Science Education Science Communication Prize R-7

Awarded to the entry with the best explanation of a scientific concept.

3-5 Chloe Dalle-Nogare and Sienna Dalle-Nogare, Loreto College Games: Move and Stitch

Primary Industries Education Foundation Australia Prize R-7

Awarded to the best entry with an agriculture component.

3-5 **Eugene Lee**, Mawson Lakes School *Models & Inventions: My aquaponics*

University of South Australia Sustainable Future Prize R-7

Awarded to the most inspiring entry highlighting the value of IT, Engineering & Environmental Science to a sustainable future.

6-7 **Regan Nelson**, Prince Alfred College *Models & Inventions: Dunnie*

R-7 Sponsor Prizes

Australian Institute of Physics Prize R-12

Awarded to the most outstanding entry with a physics theme.

3-5 **Thomas Fang, Andrew Xiu and Kyle Liu,** St Andrew's School *Models & Inventions: Optic Fibres*

The University of Adelaide, Faculty of Sciences

Awarded to the most outstanding entry highlighting the benefits of scientific research to the community.

3-5 **Matilda Redshaw and Matilda Lewis**, Immanuel Primary School Games: The Brain Game

Department For Education Young Scientist Awards R-7

First Chloe Lambden, Walkerville Primary School

First Aidan Fahy, St John's Grammar School - Senior School
First Blake Tourneur, St John's Grammar School - Senior School

Second Caitlyn Cox, Virginia Primary School
Second Anthony Huynh, Prince Alfred College
Second Aditya Ghai, Prince Alfred College

Third Lian Mitchell, Concordia College



Department for Education

Category Award Winners R-7

Computer Programming and Robotics

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1st Prize	Samuel Lawrence & Liam Curtin	Grange Primary School	Playing with Dogs
2nd Prize	Jackson Burford	St John's Grammar School - Junior	Line Defender
3rd Prize	Anaaya Shah	Magill School	Robot that draws
3-5			
1st Prize	Harper Dalton	Immanuel Primary School	The Future of Cars
2nd Prize	Shamika Gorey	Grange Primary School	The Jungle Observer
3rd Prize	Emjay Peacock & Ollie Hack	Brighton Primary School	Robot Caterpillar
HC	Angelie Vallance	Aldgate Primary School	Honey Bee Simulation
HC	Saheli Dissanayake	Linden Park Primary School	Planet Carbon Neutral
6-7			
1st Prize	Anthony Huynh & Aditya Ghai	Prince Alfred College	Sun Tracking Solar Panels
2nd Prize	Caleb Tang	East Marden Primary School	Smart Farm / Electric Farm
HC	Sumin Yoon	Hawthorndene Primary School	Educational Games
HC	Ashwin Murugappa	Investigator College	Smart Security System

Crystal Investigations

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11 2			
1st Prize	Chloe Lambden	Walkerville Primary School	Best Crystal Location
2nd Prize	Gabrielle Sun	St Andrew's School	Crystal Investigation
3rd Prize	Autumn Loi	Walkerville Primary School	Crystal Investigation
HC	Isaac Powell	Grange Primary School	Crystal Investigation
HC	Madeline Redshaw & Sophie Hanton	Immanuel Primary School	Crystal Investigation
3-5			
1st Prize	Sophie Chin & Nina Fox	St Andrew's School	Crystal Investigation
2nd Prize	Stephanie Delgadinho	Grange Primary School	Crystal Investigation
3rd Prize	Willem Koehne	St Andrew's School	Crystal Investigation
HC	Ariana Johnson	Aldgate Primary School	Can I grow a crystal bigger than 3cm X 3cm
HC	Athena-Malar Retnaraja & Su Zen Tan	East Marden Primary School	Crystal Growth Investigation
HC	James Cross	St Andrew's School	Crystal Investigation
HC	Anakin Meaney	Vale Park Primary School	Octahedral Crystal
6-7			
1st Prize	Matilda Alford & Gurleen Kaur	Walford Anglican School for Girls	The process of a crystal investigation
2nd Prize	Omar Haider	Mawson Lakes School	Crystal Investigation

Crystal Investigation

3rd Prize Fabian Bonifacio, Jaiven Palmer & St Michael's College

Paul Choimes

HC	Jane Abraham Anand & Charvi Bhandari	Black Forest Primary School	Crystal Investigation
HC	Aniela Bucki	Wilderness School	Creating a Crystal
Games			
R-2			
1st Prize	Alexander Smith	St Andrew's School	Termy Run
2nd Prize	Tobias Heidrich	Annesley Junior School	Element Races
3rd Prize	Andrei Chemutov & Ilan Storer	St Andrew's School	What a Disaster!
НС	Mehrad Rezaee, Jordan Beard & Max Turner	Linden Park Primary School	Little Tradesman
HC	Emanuel Diamantis	Walkerville Primary School	Robo Racecourse
3-5			
1st Prize	Bridgette Nespolon	St Thomas School	The Brain Game
2nd Prize	Chloe Dalle-Nogare & Sienna Dalle-Nogare	Loreto College	Move and Stitch
3rd Prize	Caitlin Caunce	Scotch College	Bee Whizz
HC	Matilda Redshaw & Matilda Lewis	Immanuel Primary School	The Brain Game
HC	Charlie Bedford	Linden Park Primary School	Magnetic Accellerator
HC	Indiana Stacey	Annesley Junior School	Space Hunt
HC	Sarah Colic	Richmond Primary School	Taxonomy Guess Who
6-7			
1st Prize	Amelia Desteno, Lucy Langmaid & Sienna Manser	St John's Grammar School - Senior	All Science
2nd Prize	Max Lintern	St Thomas School	Elemental
3rd Prize	Isabelle Hewitson	Walford Anglican School for Girls	Stellar
HC	Freya Mathew & Sai Ganesh	Glen Osmond Primary School	The Butterfly Snap
HC	Dorothea Economos	Walford Anglican School for Girls	5 seconds of science
HC	Sufiya Dhanji & Mary Moss	Walford Anglican School for Girls	The Race of the Five Senses
HC	Seren Beattie, Olivia Barrette & Claire King	Walford Anglican School for Girls	Colours of Science
Models	& Inventions		
R-2			
1st Prize	Eloise Powell	Grange Primary School	Inside the ear
2nd Prize	Ophelia Harding	Burnside Primary School	An alternative to rubber bands for Australia Post
3rd Prize	Zachary Summerton	Crafers Primary School	Model Bridge
HC	Zachary Lee	Burnside Primary School	
HC	Sebastian Kasperski	Immanuel Primary School	Building a Safe
HC	Alexander Lan	Magill School	Optical Illusion
3-5			
1st Prize	Imogen Byrne	Crafers Primary School	The Pipi Story

2nd Prize	Thomas Fang, Andrew Xu & Kyle	St Andrew's School	Optic Fibres
Zilu Filze	Liu	St Andrew's School	Optic Fibres
3rd Prize	Jaden Weeks	St Thomas School	How the Eye Works
HC	Krishna Neelam	Mawson Lakes School	Environmental House
HC	Eugene Lee	Mawson Lakes School	My aquaponics
HC	Saheli Dissanayake	Linden Park Primary School	Invisible Wiper
HC	Isabelle Webb	Mawson Lakes School	Scissor lift
HC	Katerina Giamos & Rebecca Morrison	Mitcham Primary School	
HC	Evelyn Kelly & Emily Lawton	Norwood Primary School	The International Space Station
HC	Oceana Fok, Aakash Ananda Krishnan & Hugo Thomas	Norwood Primary School	
HC	Emily Shrapnel & Elijah Tomlinson	Woodcroft Primary School	Mrs Skeleton
HC 6-7	Amy Wallace	Scotch College	Keyboard Crumb Cleaner
1st Prize	Lian Mitchell	Concordia College	The Eggaggerated Scale
2nd Prize	Regan Nelson	Prince Alfred College	Dunnie
3rd Prize	Micho Milovanovic	Memorial Oval Primary School	Game Machine
HC	Michael Zhang	East Marden Primary School	Wi-Fi Fish Feeder
HC	Queenie Hu	Emmaus Christian College	
HC	Jingwen Yao & Mary Merkorious	Linden Park Primary School	Water Filter with Pump
HC	Ben Spigiel	Memorial Oval Primary School	Bowling machine
Multim	edia		
R-2			
1st Prize	Bryce Counsell	St John's Grammar School - Junior	How Does My Garden Grow?
2nd Prize	Caitlyn Cox	Virginia Primary School	Science Chef
3rd Prize	Winston Fan	Plympton Primary School	Sinking River
1st Prize	Clara Mills	Bellevue Heights Primary School	Guided Tour of the Great Barrier Reef
1st Prize	Mia Fullerton	Glen Osmond Primary School	Out of this World
3rd Prize	Molly Liu, Indahla Rodosthenous & Renee Cheang	Highgate School	Different Animal Life Cycles
6-7			
1st Prize	Aidan Fahy & Blake Tourneur	St John's Grammar School - Senior	Chemistry
2nd Prize	Kajsa Huusom & Caitlin Miles	East Torrens Primary School	DNA report
3rd Prize	Zoe Economos	Walford Anglican School for Girls	Save the reef
HC	Diana Mirzaeva	Marryatville Primary School	The Biochemistry of Cancer
HC	Freya Prince & Lara Tamke	Walford Anglican School for Girls	Which ingredients really matter when baking cakes?
HC	Claire Scarpin & Elizabeth Worthley	Walford Anglican School for Girls	Which is the most effective way of washing your hands?

Photography

R-2

11 2			
1st Prize	Liam O'Connor	Highgate School	Colours of the Earth
2nd Prize	Genna Harrison	St Joseph's School - Hectorville	Golden Ratio in Nature
3rd Prize	Robbie Rogers	Bellevue Heights Primary School	How do things grow?
HC	Charlotte Thomas	Burnside Primary School	Colours of the Earth
HC	Devina Degeorge, Emily MacNamara & Stevie Papadopoulos	Loreto College	
HC	Oliver Matthews	St Andrew's School	Colours of the Earth
HC	Zoe Trewartha & Matilda Demant	Southern Vales Christian College - Aldinga Campus	Colours of the Earth
3-5			
1st Prize	Lily Gosnell	St Thomas School	Colours of Earth
2nd Prize	Anika Hiriyanna	St Andrew's School	How do things grow?
3rd Prize	April Wright	East Marden Primary School	How do things grow?
HC	Kiara Johnson	Aldgate Primary School	Colours of the Earth
HC	Nikita McInerney & Scarlett Emmerson	Black Forest Primary School	Colours of the Earth
HC	Trisha Shah	East Marden Primary School	A Thumb Rule
HC	Alexander Gregory	Immanuel Primary School	Colours of the Earth
HC	Alexa Lemmo	Mawson Lakes School	Colours of My World
HC	Tymek Jachacy	Norwood Primary School	How do things grow?
HC	Millana Simpson	Scotch College	Colours Around
HC	James Cross	St Andrew's School	How do things grow?
HC	Alden Au	St Andrew's School	How Do Things Grow?
HC	Jessica Humphry	St Thomas School	Golden Ratio in Nature
6-7			
1st Prize	Elijah Bojcevski	Immanuel Primary School	Chemical Shapes
2nd Prize	Amelie Nespolon	St Thomas School	Colours of the Earth
3rd Prize	Karpagha-Vreksha Ramanathan	St John's Grammar School - Senior	Colours of the Earth
HC	Emily Campbell	Pimpala Primary School	Golden Ratio in Nature
HC	Catrina Balestrin	Wilderness School	Golden Ratio in Nature
HC	Arabella Browning & Georgia Brown	Wilderness School	Rainbow colours of the Earth

Posters

R-2

1st Prize	Eden Gannon	Westminster School	Superheroes of Science
2nd Prize	Benjamin Low	Immanuel Primary School	The Life of an Aluminium Can
3rd Prize	Jacob Tucker	Immanuel Primary School	Discovery of Penicillin
HC	Sebastian Trento	Immanuel Primary School	Bouncy Egg
HC	Nitya Vishwasrao	Magill School	Make a rainbow

НС	Brooke Howard	Seacliff Primary School	Sorting the Recycling
HC	Sianead Gannon	Westminster School	Superheroes of Science
3-5	Sidificad ddiffion	Westimister ouriou	Superneroes of Galerice
1st Prize	Joshua Song	Pulteney Grammar School	Nanomaterials
2nd Prize	Isla Begg	Westminster School	
2nd Prize	Caitlin Ward	Immanuel Primary School	
3rd Prize	Sienna Jones	Mitcham Primary School	Sir Isaac Newton
HC	Aiden Hooper	Scotch College	Superhero Barry Marshall
HC	Jeanie Barton	Scotch College	Blood Bruises
HC	Matias Sauchelli	St Joseph's School - Hectorvill	e Recycling Poster
HC	Bridgette Nespolon	St Thomas School	Recycling
HC	Harriet Tyrer	St Thomas School	Recycling through the Ages
HC	Ethan Clarke	Walkerville Primary School	Automating Agriculture with drones
HC 6-7	Diya Patel	Westminster School	Recycling
1st Prize	Isabella Rosser	Wilderness School	Recycling
2nd Prize	Stella Jolly	Wilderness School	The Science of Slime
3rd Prize	Caitlan Lim	St Aloysius College	Game changers in Science
НС	Amaal Elbelidy	Brighton Primary School	Game Changers
HC	Omar Haider	Mawson Lakes School	Recycling
HC	Yuki Kikuchi	Redwood Park Primary Schoo	I Sir Isaac Newton
HC	Serena Mernone	St Aloysius College - Adelaide	Automating Agriculture
Science	e Writing		
R-2			
1st Prize	Chloe Lambden	Walkerville Primary School	Coral Reefs
2nd Prize	Nidhi Sinhal	St Andrew's School	Coral Reefs
3rd Prize	Fathima Umaira Nishad	Grange Primary School	Coral Reefs
3-5			
1st Prize	Annika Ganesh	Wilderness School	The Devil You Don't Know: Species Variation! The Science of Biodiversity
2nd Prize	Meher Elsa Raju	Burnside Primary School	Can the Great Barrier Reef be Regenerated?
3rd Prize	Priyanka Thavarajah	Seymour College	Can coral reefs be regenerated?
HC	Moeed Ali	Norwood Primary School	From smartphones to driverless cars
HC	Niya Singhal	Seymour College	Around the world in 5 disasters
6-7			
1st Prize	Gunin Singhal	St Peter's College	Extreme epidemics over the years
2nd Prize	Zoe Glaros	Rose Park Primary School	CRISPR: Its impacts on 'Biotechnology'
3rd Prize	Nitin Kollakombil	Mitcham Primary School	Coral Reefs
НС	Bronwyn Gautier	St Peter's Collegiate Girls' School	Batteries of the future

Scientific Inquiry

R-2

1st Prize	James Angeloni	Scott Creek Primary School	Counting Different Animals Using Scats & Sightings
2nd Prize	Caitlyn Cox	Virginia Primary School	The Science of Bread
3rd Prize	Benjamin Low	Immanuel Primary School	Effect of light and warmth on crystal growth
HC	Elliot Lam	Stirling East Primary School	Temperature & Fluid Expansion
HC	Gabrielle Prider	Walkerville Primary School	The Decomposing Leaf Scientific Inquiry
3-5			
1st Prize	Kara Heidrich	Annesley Junior School	How small do pixels have to be before you see one block of colour?
2nd Prize	Minami Doubell	Seacliff Primary School	Hydraulics
3rd Prize	Priyanka Thavarajah	Seymour College	How does colour effect how hot an object becomes?
HC	Sebastian Seah & Lachlan MacGregor	Immanuel Primary School	How do different flours affect the same cakes?
HC	Chiara Berardi	Stirling East Primary School	Bernoulli's Ping Pong Balls
HC	Charlize Chilver	Walkerville Primary School	Factors Influencing children's preference in Pokemon
6-7			
1st Prize	Rachel Hajek & Katie Story	Keithcot Farm Primary School	How Do Different Fertilizers Affect The Growth Of a Climbing Bean
2nd Prize	Charlotte McGeever	Black Forest Primary School	The Perception of Colour
3rd Prize	Emily Ho	Mawson Lakes School	Carbon Footprint of My House
3rd Prize	Twisha Srivastava	Mawson Lakes School	Five Second Rule
HC	Jorja Lim	Mawson Lakes School	Stress Investigation
HC	Kaiji Doubell	Seacliff Primary School	The effects of temperature and salinity on density during summer in Spencer Gulf

Congratulations to all the participants for their outstanding effort, innovative ideas and persistence in meeting scientific challenges. Projects submitted into the Scientific Inquiry and Models & Inventions categories of the Oliphant Science Awards are eligible for entry into the nation-wide BHP Billiton Foundation Science and Engineering Awards.

The BHP Billiton Foundation Science and Engineering Awards reward young people who have undertaken practical research projects which demonstrate innovative approaches and thorough scientific procedures.

For more information, visit our website at: www.scienceawards.org.au

We are proud to offer our support to SASTA and participating students.









Congratulations to all entrants in the

Oliphant Science Awards



The Defence Science and Technology (DST) Group, a major sponsor of the Oliphant Science Awards, offers a rewarding career with the chance to work with many of Australia's leading scientists and engineers, access to some of the most advanced technology and facilities currently available, links with other national and international organisations, excellent career development opportunities, and travel.

In undertaking its research, the impact of Defence scientists, particularly on the electronics industry in South Australia, has been huge. DST is a major employer and innovator of electronics in South Australia.

DST in Adelaide can offer careers in computer science, information technology, electrical or electronic engineering, mathematics, behavioural or cognitive science and psychology.

DST is part of the Department of Defence. Its role is to ensure the expert, impartial and innovative application of science and technology to the defence of Australia and its national interests

For more information on DST, call (02) 6128 6323.





Presentation Program

Years 8 - 12















Presentation Program | 8-12

7:45pm Seating of winners

8:00pm Seating of audience and guests

8:15pm Ceremony commences

The Masters of Ceremony

Dr Susan Woods is currently working as a part of the Gastrointestinal Cancer Biology group headed by physician-scientist Associate Professor Daniel Worthley. This laboratory is physically located within the SAHMRI 'flagship'. Susan's current project focuses on bowel cancer and combines recent advances in stem cell biology, genome editing and genetic sequencing. Susan remains passionate about translating basic research discoveries into better outcomes for cancer patients. She was also a Young Tall Poppy Science Award winner in 2016 and takes great pleasure in promoting science.

Dr Philip Gregory is the Head of Gene Regulation in Cancer Laboratory at the Centre for Cancer Biology, University of South Australia. His research focusses on the leading cause of death for sufferers of breast cancer – the spread of cancer cells from the initial tumour to other organs. In particular, he studies the genetic processes which cause a cancer cell to transform to an aggressive and invasive cell type. Discovering the genetic reasons for this fatal transformation will allow Philip to develop therapies to target and prevent these changes and lead to better diagnosis and treatment of breast cancer. He was a Young Tall Poppy winner in 2011.

Welcome: Vanessa Fay, SASTA President
Oliphant Science Category Award Winners

Sponsor Prizes: To be presented during category award announcements

- Australian Society of Biochemistry & Molecular Biology Prize
- Collison & Co Prize
- RACI Chemical Education Group Prize
- University of Adelaide Faculty of Engineering, Computer & Mathematical Sciences Prize

Sponsor Prize Award Winners:

- Australian Institute of Energy Prizes
- CSIRO Education / CREST Prizes
- Flinders University Science & Environment Prizes
- Mobile Science Education Science Communication Prize
- Primary Industries Education Foundation Australia Prize
- University of South Australia Sustainable Future Prize
- Defence Science and Technology Group Prizes
- Rowe Scientific New / Country Secondary School Award

Department for Education:

South Australian Young Scientist Awards

The Oliphant Medal and the Oliphant Trophy 2018

9.30pm Conclusion: Vanessa Fay, SASTA President

Category Award Winners 8-12

Thank you to Rowe Scientific for sponsoring all of this year's 8-12 Category Award Winners and Encouragement Award (EA) Recipients



Computer Programming and Robotics

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1st Prize	Isaiah Ajaero	Concordia Colleg	Coefficient of restitution simulator
2nd Prize	Toby Trenwith	Horizon Christian School	Home Made Car Alarm
3rd Prize	Savin Dissanayake	Glenunga International High School	Solar usage calculator
3rd Prize	Natalie Teasdale	Loreto College	Science When it Takes a Little Longer to Plan it
9-10			
1st Prize	Cameron Coggins	Emmaus Christian College	Sustainability City
2nd Prize	Dinan Perera	Prince Alfred College	Touch Sensitive Glove
3rd Prize	Heath Rampazis	Unley High School	Reaction time and Neuro-plasticity
11-12			
EA	Cooper Pearce	Immanuel College	Science Simulation
Crysta	l Investigations		
8			
1st Prize	Amna Mateen	Unley High School	Crystal Investigation
2nd Prize	Chris Lin, Youssef Gerges & Ryan Lin	Glenunga International High School	Crystal Investigation
3rd Prize	Cy Rogers & Phuc Nguyen	Glenunga International High School	Effect of controlled heat on crystal growth
EA	Nikita Warland, Caitlin Milde & Amelia Oxlade	Unley High School	Crystal Investigation
9-10			
1st Prize	Andrei Hurr	Unley High School	Crystal Investigation
2nd Prize	Isabella Zacest	Walford Anglican School for Girls	Crystal Investigation
3rd Prize	Sonica Semwal, Jordan Zhao & James Yii	Unley High School	Crystal Investigation
EA	Dimitra Maria Ntafillis	Unley High School	Crystal Investigation
EA	Molly Olafsen & Imogen Alford	Walford Anglican School for Girls	Crystal Investigation
11-12			
- A	Maria de Olivia (Inneria) V	Hala Historia	Out at all the conflicted for

Games

Ming Chih (Jamie) Yu

8

EΑ

8			
1st Prize	Georgia Chadderton	Walford Anglican School for Girls	Earth CPR (Catalysing Planet Recovery)
2nd Prize	Benjamin Cusack & Hamish Hunter	St John's Grammar School - Senior	Periodic Table Quiz
3rd Prize	Ashlee Stone, Myah Sandercock & Marni Porter-Wright	St John's Grammar School - Senior	Trip to Mars

Unley High School

Crystal Investigation

EA	Rajshree Upadhyaya	Walford Anglican School for Girls	Brain Race		
9-10					
1st Prize	Phoebe Fielder	Mitcham Girls High School	Call the Butler		
2nd Prize	Joel Ransom	St John's Grammar School - Senior	Warmer, warmer, warmer boiling!		
3rd Prize	Gemma Chirico & Anastacia Nadj	Mitcham Girls High School	Science		
EA	Bronte De Zwart & Emily De Zwart	Seymour College	Race through the Body		
11-12					
1st Prize	Amber Washington	University Senior College	Chem-Mystery		
2nd Prize	Patience Murungi, Yuming Zhang & Ivana Malbasic	Our Lady of the Sacred Heart College	Structure of Cells		
Models	& Inventions				
8					
1st Prize	Harrish Raju Deepa	Pulteney Grammar School	Induction Car		
2nd Prize	Thimitha Lamawea	Glenunga International High School	Aerodynamics		
EA	Chi Chi Zhao	St Peter's Collegiate Girls' School	The RVSIL-Reversing Vehicle Safety Indicator Light		
9-10					
1st Prize	Nazha Mohamed Nasmi	Mitcham Girls High School	The Pendulum Wave		
2nd Prize	Joel Rajkowski	St John's Grammar School - Senior	Evolution of the Eye		
EA	Joshua Badger	Brighton Secondary School	KIAS 2.0		
EA	Oliver Parkes	Brighton Secondary School	Cycles		
EA	Chloe Mencel, Charlotte Lewis & Monique Mazzarolo	Kildare College	Arthrigrip		
EA	Gabriela Coelho & Heather McCormick	St Aloysius College - Adelaide	BB-8 Robot Model		
EA	Tiana Scasny	St John's Grammar School - Senior			
11-12					
1st Prize	Steven Zhang	Glenunga International High School	Pantograph Wood Burner		
Multim	edia				
8					
1st Prize	Grace Forbes	Walford Anglican School for Girls	A floating Milky Way: bioluminescence on beaches		
2nd Prize	Hamish Anderson, David Hang & Daniel Vu	Adelaide High School	Regeneration		
3rd Prize	Azada Karimi & Bella Ng	Glenunga International High School	Why is the sky blue?		
EA	Andrew Laera & Kenny Tu	Glenunga International High School	Is the Incredibles train chase scientifically possible?		
9-10					
1st Prize	Dylan Worswick	Pembroke School	What's at Steak		
2nd Prize	Scarlett Ferreira	Walford Anglican School for Girls	What's the best solution for keeping fresh flowers?		
3rd Prize	Alaia Dhanji	Walford Anglican School for Girls	How does a cookie rise?		

Photography

EΑ

Samantha Fielder

8			
1st Prize	Daniel Jung	Glenunga International High School	Colours of the Earth
2nd Prize	Mark Gul	Glenunga International High School	Golden Ratio in Nature
3rd Prize	Kaitlyn Liebelt	Mitcham Girls High School	The Golden Ratio
3rd Prize	Mya De Ruyter & Natasha Gunter	Unley High School	Colours of the Earth
EA	Olivia Gray	St John's Grammar School - Senior	Colours of the Earth
EA	Jessica Hewitson	Walford Anglican School for Girls	Colours of the Earth
9-10			
1st Prize	Josephine Oehler	Seymour College	Golden Ratio in Nature
2nd Prize	Sarah Burnett	Mitcham Girls High School	Colours of the Earth
3rd Prize	Bonny Coventry	Mitcham Girls High School	Colours of the Earth
EA	Jesse Kasehagen	Immanuel College	The Night Sky
EA	Ashlee Fauser	Mitcham Girls High School	Colours of the Earth
EA	Josina George, Elly Bowman & Charlotte Steven	Prescott College - Southern	Colours of the Earth
EA	Josephine Oehler	Seymour College	Colours of the Earth
EA	Rhys Bassett	St John's Grammar School - Senior	Golden Ratio in Nature
11-12			
1st Prize	Amber Washington	University Senior College	Colours of the Earth
2nd Prize	Syme Aftab	Glenunga International High School	Colours of the Earth
3rd Prize	Eliza Sprey	Glenunga International High School	Colours of the Earth
Posters	5		
8			
1st Prize	Grace Angley	St John's Grammar School - Senior	Recycling
2nd Prize	Leela Cotton-Kenny	Mitcham Girls High School	Recycling
3rd Prize	Rosie Thompson	Mitcham Girls High School	Agriculture
EA	Jaydon Lau	Glenunga International High School	Automating Agriculture
EA	Akshara Radhakrishnan	Glenunga International High School	Superheroes of Science
9-10			
1st Prize	Josephine Oehler	Seymour College	Superhero of Science - Louis Pasteur
2nd Prize	Isabelle Lilburn	Loreto College	Nanomaterials
2nd Prize	Madeleine Flapper	Loreto College	Superheroes of Science
3rd Prize	Jordan Thomson	Brighton Secondary School	Recycling
EA	Joel Ransom	St John's Grammar School - Senior	Automating Agriculture

Mitcham Girls High School

Superheroes of Science

Science Writing

0			
1st Prize	Aerin Westwood	Walford Anglican School for Girls	Influenza
2nd Prize	Heet Khara	Glenunga International High School	CRISPR- its impact on biotechnology
3rd Prize	Shreya Nidumolu	Glenunga International High School	Solutions to plastics pollution
EA	Jasmine Esvelt	Glenunga International High School	The Science behind common social media addictions
EA	Pegah Moosavi	Glenunga International High School	The adaption of DNA towards its environments
EA	Savin Dissanayake	Glenunga International High School	Now and in the future
EA	Mary Economos	Walford Anglican School for Girls	Is it reasonable to increase the use of industrial hemp
9-10			
1st Prize	Madeleine Flapper	Loreto College	Gene therapy: the history and its applications
1st Prize	Taehan Lim	Glenunga International High School	Batteries of the future
3rd Prize	Jessica Bolzon	Walford Anglican School for Girls	Inside a spherical mirror
EA	Jhanavi Patel	Our Lady of the Sacred Heart College	From Dust to Life's Dawn
EA	Katerina Amerl	Brighton Secondary School	Coral Reef
EA	Sienna Noble-Lepore	Mitcham Girls High School	Human Cloning
EA	Dinan Perera	Prince Alfred College	The next chapter-CRISPR
EA	Albert Thompson	St John's Grammar School - Senior	The future of human space exploration
EA	Dakota Griffiths	Urrbrae Agricultural High School	The World's Obsession with Antibiotics
11-12			
1st Prize	Alexandra Stephenson	Eynesbury Senior College	From Space to Rooftop: The Story of Solar Cells
2nd Prize	Carla Ceravolo	Mary MacKillop College	CRISPR/Cas-9
3rd Prize	Chidiuso Ajaero	Concordia College	CRISPR-CAS9 and its uses in biotechnology
EA	Syme Aftab	Glenunga International High School	What are the applications and limitations of nanotechnology containing iron on biological structures
Scienti	fic Inquiry		
8			
1st Prize	Prathicksha Venkatesan	Walford Anglican School for Girls	Are any of the commonly used disinfectants effective against the gram-negative bacteria, Pseudomonas aeruginosa?
2nd Prize	Inika Weber	Wilderness School	A comparison of a restored and non- restored environment at Mawson Lakes
EA	Toby Trenwith	Horizon Christian School	Fuel Frenzy - an investigation into the economy of unleaded fuels

9-10

5 10			
1st Prize	Kaitlin Turland	Emmaus Christian College	Effect of Music on the Human Heart Rate
2nd Prize	Cameron Coggins	Emmaus Christian College	Teens, Screens and Dreams - An investigation into how screen time affects teenagers' sleeping patterns and alertness
3rd Prize	Ruby Sugars	Emmaus Christian College	Investigating Different Shades of Chroma Key Green
EA	Jamie Smith	Emmaus Christian College	More and Less Carbon for Plants
EA	Hannah Trezona	Emmaus Christian College	Investigating Raising Agents in Bread
11-12			
1st Prize	Sabrina Lin	Glenunga International High School	Effect of Citrus lemon juice on the senescence of Lilium "Casa Blanca"
2nd Prize	Steven Zhang	Glenunga International High School	What is the effect of adding varying amounts of sodium hydrogen carbonate to Titebond II Premium Wood Glue
3rd Prize	Lauren Heddle	Urrbrae Agricultural High School	What is the response of a wetland to introduced water after a period of being dry?
EA	Rachael Xiao	Glenunga International High School	The Effect of Different Salinity Levels on the Growth of Carpobrotus Glaucescens



Thank you to Rowe Scientific for sponsoring all of this year's 8-12 Category Award Winners and Encouragement Award (EA) Recipients

Congratulations to all the participants for their outstanding effort, innovative ideas and persistence in meeting scientific challenges. Projects submitted into the Scientific Inquiry and Models & Inventions categories of the Oliphant Science Awards are eligible for entry into the nation-wide BHP Billiton Foundation Science and Engineering Awards.

The BHP Billiton Foundation Science and Engineering Awards reward young people who have undertaken practical research projects which demonstrate innovative approaches and thorough scientific procedures. For more information, visit our website at: www.scienceawards.org.au

We are proud to offer our support to SASTA and participating students.







8-12 Sponsor Prizes

Australian Society of Biochemistry & Molecular Biology Prize R-12

Awarded to the most outstanding entry with a biochemistry or molecular biology theme.

9-10 **Madeleine Flapper**, Loreto College Science Writing: Gene therapy the history and its applications

Collison & Co Prize R-12

Awarded to the entry with the most inventive design.

11-12 **Steven Zhang**, Glenunga International High School *Models & Inventions: Pantograph Wood Burner*

RACI - Chemical Education Group Prize R-12

Awarded to the most outstanding entry with a chemistry theme.

11-12 **Amber Washington**, University Senior College *Games: Chem-Mystery*

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

Awarded to the most outstanding entry with an engineering, mathematical or engineering theme.

9-10 **Joshua Badger**, Brighton Secondary School Models & Inventions: KIAS 2.0

Australian Institute of Energy Prizes 8-12

Awarded to the best entry at each year level with a sustainable generation and uses of energy theme.

- 8 **Toby Trenwith**, Horizon Christian College Scientific Inquiry: Fuel Frenzy - an investigation into the economy of unleaded fuels
- 9-10 **Taehan Lim**, Glenunga International High School Science Writing: Batteries of the future
- 11-12 **Alexandra Stephenson**, Eynesbury Senior College Science Writing: From Space to Rooftop: The Story of Solar Cells

CSIRO Education / CREST Secondary Prize

Award for consistently high achievement and participation in the Scientific Inquiry and Models & Inventions categories.

Best CREST School Glenunga International High School

Best Non-CREST School Emmaus Christian College

Flinders University Science Prize 8-12

Awarded to the outstanding research-based entry in science.

11-12 **Sabrina Lin**, Glenunga International High School Scientific Inquiry: Effect of citrus lemon juice on the senescence of Lilium "Casa Blanca"

Flinders University Environment Prize 8-12

Awarded to the most inspiring entry covering an environmental issue in South Australia.

8 Inika Weber, Wilderness School Scientific Inquiry: A comparison of a restored and non-restored environment at Mawson Lakes

Mobile Science Education Science Communication Prize 8-12

Awarded to the entry with the best explanation of a scientific concept.

9-10 **Jhanavi Patel**, Our Lady of the Sacred Heart Science Writing: From Dust to Life's Dawn

Primary Industries Education Foundation Australia Prize 8-12

Awarded to the best entry with an agriculture component.

8 **Joel Ransom**, St John's Grammar School - Senior Posters: Automating Agriculture

University of South Australia Sustainable Future Prize 8-12

Awarded to the most inspiring entry highlighting the value of IT, Engineering & Environmental Science to a sustainable future.

11-12 **Lauren Heddle**, Urrbrae Agricultural High School Scientific Inquiry: What is the response of a wetland to introduced water after a period of being dry?

Defence Science & Technology Group Secondary School Prize

8-10

First Glenunga International High School
Second Walford Anglican School for Girls

11-12

First Glenunga International High School

Second University Senior College

Rowe Scientific New / Country Secondary School Prize

Awarded to the best student entry from a new / country school.

8 **Toby Trenwith**, Horizon Christian College Computer Programming & Robotics: Home Made Car Alarm

8 **Hamish Anderson, David Hang & Daniel Vu,** Adelaide High School *Multimedia: Regeneration*

Department for Education Young Scientist Awards 8-12

First Amber Washington, University Senior College

First Josephine Oehler, Seymour College

First Steven Zhang, Glenunga International High School

Second Cameron Coggins, Emmaus Christian College

Third Madeleine Flapper, Loreto College

Third Harrish Raju Deepa, Pulteney Grammar School



Department for Education

Oliphant Medal

Presented by Ms Monica Oliphant to the 2017 Oliphant Science Awards Winner

9-10 **Amber Washington**, Norwood Morialta High School Games: Race to Save the Planet

Oliphant Trophy

For outstanding science content.

Presented by Ms Monica Oliphant to the 2018 Oliphant Science Awards Winner

11-12 **Sabrina Lin**, Glenunga International High School Scientific Inquiry: Effect of citrus lemon juice on the senescence of Lilium "Casa Blanca"

Congratulations to all the winners for 2018 and thank you for your attendance!



Messages from our Sponsors



The Australian Institute of Energy 'Leadership in Energy'

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Catholic Education South Australia congratulates all the entrants in the Oliphant Science Awards

And acknowledges the contribution of the South Australian Science Teachers Association

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The staff at Mobile Science Education congratulates ALL entrants in the Oliphant Science Awards.



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New and Country Schools Incentive

Support for new schools and country schools:

Schools who have not participated in the past five years and country schools wanting assistance for registration fees are eligible to apply for support.

New and country schools will have the opportunity to enter the Oliphant Science Awards by receiving up to \$200.00 towards entry registration fees.

Selected schools will receive support to a maximum amount of \$200.00 each.

Applications close Friday 11 May 2019:

Apply now to have the opportunity to receive a \$200.00 entry fee subsidy.

Please fill out the form online at www.oliphantscienceawards.com.au

Open Day

Sunday 26 August 2018

























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