



# **OLIPHANT SCIENCE AWARDS**

*Information Booklet 2017*

*South Australian Science Teachers Association*

## Sir Mark Oliphant



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 South Australia and received his primary and secondary education in state schools here. An outstanding student, Sir Mark investigated a number of career pathways and eventually settled on the pursuit of science at the University of Adelaide. Sir Mark showed a love of tinkering and invention from an early age, and it was in the science laboratories in Adelaide that he started to make his own scientific apparatus. He was to become one of the leaders in the design and construction of revolutionary apparatus, including particle accelerators used to investigate the structure and interactions of the nuclei of atoms.

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.

## Introducing the Oliphant Science Awards

The South Australian Science Teachers Association (SASTA) has conducted the Oliphant Science Awards every year since 1981.

### **Aim:**

*The Oliphant Science Awards will stimulate students and enable them to;*

- ❖ Undertake and report on scientific investigations in real life settings.
- ❖ Explore their interests, skills, talents and creativity.
- ❖ Develop their science knowledge and understanding.
- ❖ Show their work to a broader audience.
- ❖ Motivate themselves to conceive and complete an independent project.
- ❖ Involve themselves in scientific and technological discovery and the application of these processes and knowledge to themselves and their world.

### **The Oliphant Science Awards:**

- ❖ Raise the profile and understanding of science in schools.
- ❖ Attract thousands of entries from hundreds of schools.
- ❖ Allow students and teachers to explore how curricular science can be extended as part of the greater scientific enterprise.
- ❖ Support the implementation of the new Australian Curriculum in Science, and its emphasis on science inquiry and the doing of science, and support teachers in assisting their students to achieve these curriculum outcomes.
- ❖ Support current inquiry based pedagogical initiatives and practices in teaching and learning.
- ❖ Promote teamwork and communication among entrants and among the many teachers and parents who volunteer their time to encourage their students.
- ❖ Raise awareness of the many careers made possible by studies in science.
- ❖ Support the view that science promotes innovation in thinking and acting, and the development of novel questions and solutions.
- ❖ Encourage students to become involved in science in creative and exciting ways extending their skills and expertise in science.
- ❖ Support the application of new technologies including ICTs in learning.
- ❖ Foster a greater awareness and appreciation of the role played by science and technology in our daily lives.
- ❖ Offer prizes in cash or in kind to a value in excess of \$20,000.00.

### **The Oliphant Science Awards enable students to explore science and technology through:**

- ❖ Inquiry and investigation
- ❖ Innovation
- ❖ New technologies
- ❖ Writing
- ❖ Art and photography

The wide spread of categories encourages participation by all students, irrespective of gender, culture, socioeconomic group or school location.

The Oliphant Science Awards are open to Primary and Secondary students in South Australia.

## General Information

For teachers and students in South Australia entering the Oliphant Science Awards.

The Oliphant Science Awards are a wonderful opportunity for school students from Reception to Year 12 to develop their interests in science through a range of categories to suit a wide variety of abilities and interests.

### Categories:

- |                                   |                       |                      |
|-----------------------------------|-----------------------|----------------------|
| ❖ Computer Programming & Robotics | ❖ Models & Inventions | ❖ Posters            |
| ❖ Crystal Investigation           | ❖ Multimedia          | ❖ Science Writing    |
| ❖ Games                           | ❖ Photography         | ❖ Scientific Inquiry |

**Year Level Groups:** R – 2 | 3 – 5 | 6 – 7 | 8 | 9 – 10 | 11 – 12

### Entry Fees:

**Individual Entries:** Per entry = \$16.00 (incl GST)

- Less SASTA Membership discount of \$3.00 (incl GST) per entry
- Less Sponsors discount of \$5.00 (incl GST) per entry

**Group Entries:** Per entry = \$24.00 (incl GST)

- Less SASTA Membership discount of \$5.00 (incl GST) per entry
- Less Sponsors discount of \$5.00 (incl GST) per entry

**Administration Fee for Manual Registrations sent to SASTA:**

- 1 – 50 registrations \$25.00
- 51 – 75 registrations = \$30.00
- 76 – 100 registrations = \$40.00
- Over 100 registrations = \$50.00

**SASTA Membership discount** is for Schools that are a SASTA member or have a SASTA member on their staff.

**The Sponsor's discount** is for Department of Education & Child Development (DECD) and Catholic Education students.

### Group Sizes:

Individual students only for;

- |           |                   |
|-----------|-------------------|
| ❖ Posters | ❖ Science Writing |
|-----------|-------------------|

Individual students or groups of 2 or 3 students for;

- |                                   |                       |                      |
|-----------------------------------|-----------------------|----------------------|
| ❖ Computer Programming & Robotics | ❖ Models & Inventions | ❖ Scientific Inquiry |
| ❖ Crystal Investigation           | ❖ Multimedia          |                      |
| ❖ Games                           | ❖ Photography         |                      |

### Registration:

Students are requested to register their entries through their school's Oliphant Science Awards Coordinator. The OSA Coordinator will enter the details of the entries from their school on the OSA registration section of the OSA website – [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au). Further details on the registration process are on page 25. All registrations are due by close of business **Thursday 22 June**.

**Please be aware that your school will be invoiced based on the number of entries that have been registered by 5pm on Thursday 22 June. There will be no credit or refund should any of your students fail to submit their projects.**

Please contact the SASTA office if you need any assistance in registering entries (P: 8354 0006, E: [office@sasta.asn.au](mailto:office@sasta.asn.au))

### Entry Due Dates:

- ❖ Entries in Scientific Inquiry, Games, Multimedia and Science Writing are due at the SASTA office by close of business **Friday 28 July**. (Scientific Inquiry, Multimedia and Science Writing can be posted but must be received by **Thursday 27 July**)
- ❖ Entries in Computer Programming & Robotics are to be presented for a scheduled 15-minute judging appointment at the SASTA Office or a venue TBA on **Saturday 12 August**. (Between 9am-1pm)
- ❖ Entries in Crystal Investigation, Models & Inventions, Photography and Posters are due at the judging venue, **Festival Functions - 292 Findon Road, Findon on Friday 25 August (9am-5pm)**.

### Prizes:

- ❖ The overall winner receives the Oliphant Trophy, which was made by Sir Mark Oliphant. The trophy is engraved with their name and kept for one year. The trophy is replaced in the following year with the Oliphant Medal, which is the student's permanent record of achievement.
- ❖ Prizes are awarded for 1st, 2nd and 3rd in each year level group for every category. There are also sponsors' prizes for individuals and schools.
- ❖ All students entering receive either a Certificate of Participation (non-winners), a Highly Commended certificate (outstanding entries) or a Prize certificate (winners).

## Conditions of Entry

- ❖ **Appropriate acknowledgment of assistance.** It is anticipated that students may receive assistance in planning and developing their projects. Each entry is to clearly identify which aspects of the project were devised and carried out by the student alone and which aspects received assistance. The type and degree of any assistance should also be clearly noted. If the details of such assistance are not clearly stated, then the judges, in judging the entry, will use their discretion and experience of working with students in making judgments.
- ❖ It is essential that all entries are suitably packaged for delivery, and that **all parts** of entries are clearly marked using your **registration number** (see Identification Label), name and School. SASTA cannot accept responsibility for goods damaged due to inadequate packing, or for any damage, loss or theft of goods. Therefore, SASTA discourages the use of valuable materials / equipment as their safety cannot be guaranteed.
- ❖ Live animals may be used in Scientific Inquiry to obtain results provided that the experiment meets with the Animal Ethics Committee requirements as they apply to schools. SASTA cannot care for live animals or plants so will not accept these as part of any entry delivered for judging.
- ❖ Photos taken of winners may be used, without seeking further permission, by the relevant sponsors, but only in their publicity of the event. If this occurs, students will not be identified by school or name unless permission has been obtained from parents or guardians to do so.
- ❖ An entry will remain the property of the entrant. SASTA reserves the right, beginning with the submission of the entry and continuing until 31 December five calendar years later, to use all or a portion of the entry or images of an entry, for the publicity or promotion of SASTA or of the SASTA Oliphant Science Awards unless a patent exists or has been applied for. SASTA may also allow a sponsor to use such material for the sponsor's promotional purposes. Where a patent exists or has been applied for, the use of the entry or images of the entry may be negotiated with the entrant.
- ❖ SASTA shall have the right, but no obligation, to take any action it deems appropriate to prevent the misuse of an entry. Entrants and their parents and guardians may take reasonable steps or actions, as they deem appropriate to prevent misuse of a submitted entry.
- ❖ Whilst every attempt has been made to ensure the accuracy of the information published, neither SASTA nor the sponsors may be held responsible for any errors or omissions.
- ❖ SASTA and the sponsors reserve the right to change any awards, prizes or conditions as may in their opinion, be necessary.
- ❖ ALL PROJECTS this year must be collected from **Festival Functions - 292 Findon Road, Findon on Monday 28 August** (9am-5pm), following the judging. Collection of entries on the Open Day, **Sunday 27 August**, is possible between 4-5pm **ONLY**. Entries must be signed out by a coordinator or parent/guardian. If using a courier (**Monday only**), please arrange collection for the afternoon and advise SASTA of the time (phone 8354 0006), so we can have your entries ready for quick collection. If non-winning entries are not collected, SASTA reserves the right to courier them back to your School at your expense or dispose of them if alternative arrangements are not made. **SASTA cannot store uncollected entries.**
- ❖ If you wish to submit your entry into another competition it is your responsibility to make duplicate copies.

All information and entry forms are available in PDF format and can be downloaded from the Oliphant Science Awards website – [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au)

## Student Information

### How to get started:

- ❖ Your own inspirations, interests and skills are the best starting point.
- ❖ Check out the many different categories in the Oliphant Science Awards. You may enter different projects into one or more of these categories. You may enter as an individual in any of the categories, however some categories are better suited to a group entry. (Check the rules for categories you are interested in).
- ❖ Choose a category that motivates you and will be the best at showcasing your skills and knowledge. Think about how you could capture the judges' attention in an innovative and original way.
- ❖ Look for reliable sources of information. Your school library will have many science books and magazines. There are many science and environmental organisations that have useful web sites. Your science teacher may also be able to recommend places, web sites or people that you could contact.
- ❖ Read the rules and the dot points about successful entries for the category you choose. These are the features that the judges are looking for in your entry. There are also valuable sponsors' prizes that are awarded if the entry meets both the category requirements and the criteria outlined by our sponsors.

### How to enter:

- ❖ Obtain a Registration Form from your Oliphant Science Awards Coordinator, or download the Registration Form from the Oliphant Science Awards website
- ❖ Return your completed Registration Form and any necessary fees to your School Oliphant Science Awards Coordinator.
- ❖ **For group entries, only ONE Registration Form needs to be completed. All group members must be named on the same Registration Form. (Note: maximum of three students per group entry; group entries are not allowed for Science Writing and Posters).**
- ❖ Your Oliphant Science Awards Coordinator will need to register students online (in their login area) at [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au) by **Thursday 22 June**. *Entries may only be submitted through your school's Oliphant Science Awards Coordinator.*
- ❖ Ask your Coordinator about the date that they need your completed entry and who will deliver and collect it from the judging location – we recommend that schools and parents try to organise a whole school delivery and collection method.

### When your entry is finished:

- ❖ Securely attach your Identification Label (your Coordinator will give you this label) in a clearly visible position on your entry (NB: labels go on the back for Photography & Posters). Please ensure all parts are labelled with this information.
- ❖ Make sure you have followed all the rules and presentation instructions for your category. *Please be aware that any entries that do not adhere to the size and / or weight requirements where indicated may not be accepted for judging.*
- ❖ Give your completed entry to your Oliphant Science Awards Coordinator in time to be delivered for judging (unless your coordinator has organised different arrangements with you).

### Open Day:

Oliphant Science Awards Open Day is **Sunday 27 August, 12noon – 4:00pm** at **Festival Functions - 292 Findon Road, Findon**. Models & Inventions and only the winning entries in all other categories are displayed. Come in and have a look at these creative entries.

### Presentation ceremony:

Your Oliphant Science Awards coordinator will tell you before the Presentation Ceremony if you have won an award. Please do not contact SASTA without chatting to your School Oliphant Science Awards Coordinator.

The Oliphant Science Awards Presentation Ceremony is on **Friday 22 September** at the Brighton Secondary School Concert Hall (305 Brighton Road, North Brighton). It will include all the 1st, 2nd and 3rd placed entrants and the sponsor prize winners. **This event is invitation only**. Highly commended entrants are not invited to this ceremony.

All winning Models and Inventions (Engineering) entries in all age categories are to make a video for electronic submission to the BHP Billiton Science and Engineering Awards competition. Winners of the Scientific Inquiry (Investigations) category in all age categories will need to submit a copy of their project electronically for further judging in the BHP Billiton Science and Engineering Awards competition.

## Key Dates – Coordinators Information

### TERM 1

- Look at Information on the website, Distribute Student Information, Category Information and Rules to students.
- Monday 20 March** – New Coordinators Information Session, Education Development Centre, Hindmarsh from 4.15 to 5.15pm (registration essential)

### TERM 2

- Registration Forms** – Negotiate a date with your students to return their Student Registration Form (before Thursday 22 June). (See Registrations section).
- Thursday 22 June** – Registrations to be completed & entered online; we recommend that you keep a copy of the forms for your records (SASTA does not require any copies unless specifically requested). *Please contact the SASTA office if you need any assistance in registering entries prior to this date (P: 8354 0006, E: [office@sasta.asn.au](mailto:office@sasta.asn.au))*
- Friday 23 June** – Judges Registrations to be submitted to SASTA
- July School Holidays** – Judges notified of allocations for Science Writing, Scientific Inquiry, Games and Multimedia categories.

### TERM 3

- Monday 24 - Friday 28 July** – **Science Writing, Scientific Inquiry, Games and Multimedia** entries are due at the SASTA office, 249 Henley Beach Road, Torrensville. Online web pages from the Multimedia category must be available from this date. *Check Identification Labels have been firmly attached to each entry.*
- From Tuesday 1 August** – Science Writing, Scientific Inquiry, Games and Multimedia entries are sent out to judges. These must be judged and **returned to SASTA by Monday 21 August**
- Saturday 12 August** – **Computer Programming & Robotics** entries are judged at a venue TBA, between 9am – 1pm. Students will need to call SASTA (08 8354 0006) in late July/early August to arrange an appointment time.
- Friday 25 August, 9.00am – 5.00pm** – **Crystal Investigation, Models & Inventions, Photography and Posters** are due at **Festival Functions - 292 Findon Road, Findon**. Ensure Identification Labels are firmly and clearly attached to each entry.
- Saturday 26 August, 9.00am – 1.00pm** – Judging of Crystal Investigation, Models & Inventions, Photography and Posters at **Festival Functions - 292 Findon Road, Findon**
- Sunday 27 August, 12noon – 4.00pm** – **Open Day Exhibition at Festival Functions - 292 Findon Road, Findon**. Gold Coin Donation admission, everyone is welcome
- Monday 28 August, 9.00am – 5.00pm** – Collection of **ALL PROJECTS** from **Festival Functions - 292 Findon Road, Findon**. Please see **Conditions of Entry** for detailed information regarding our procedures with any uncollected entries.
- Friday 22 September - Presentation Ceremony** (Invitation Only). The Presentation Ceremony will be held for Years R – 7, 6.30pm – 7.45pm and Years 8 – 12, 8.15pm – 9.30pm at the Brighton Secondary School Concert Hall (305 Brighton Road, North Brighton).
- Participation and Highly Commended certificates will be available for collection by Coordinators at the Presentation Ceremony. Any certificates not collected will be sent to Schools. Professional Development certificates will be sent to judges.

### TERM 4

- October 2017 – Early 2018** – BHP Billiton Science and Engineering Registrations and Awards for all place winners of the Models & Invention (Engineering) and Scientific Inquiry (Investigations)
- December 2017** – Topic titles for 2018 available on the Oliphant Science Awards website ([www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au))



# Department for Education and Child Development proudly sponsor



**Government of South Australia**

Department for Education and  
Child Development

## South Australian Young Scientist Awards R-7 and 8-12

1 <sup>st</sup> prize boy / 1 <sup>st</sup> prize girl	\$500 cash
2 <sup>nd</sup> prize boy / 2 <sup>nd</sup> prize girl	\$250 cash
3 <sup>rd</sup> prize boy / 3 <sup>rd</sup> prize girl	\$150 cash

The Department for Education and Child Development (DECD) has been a sponsor of the Oliphant Science Awards since their inception in 1981, and is delighted to continue this arrangement as a Platinum Sponsor in 2017.

The Oliphant Science Awards exemplify the inquiry based approach to the teaching and learning of Science that is so important in engaging our students, and in supporting the development of their scientific understanding and processes that leads to improved scientific literacy.

For many young people their experience of science at school sets a pattern that lasts throughout life. DECD is strongly committed to each and every student having the opportunity to experience the joy of scientific discovery, and to apply their natural curiosity to their world. All students are supported in developing the scientific knowledge, understandings and skills to make informed decisions about local, national, global issues, and to participate, if they so wish, in science related careers.

DECD has a major role in the South Australian Government Science, Technology, Engineering and Mathematics (STEM) Skills strategy. Through our own DECD STEM Strategy we are ensuring all educators connect with the latest in teaching practices and the wide range of programs available to support their work.

The Department for Education and Child Development acknowledges the role that SASTA, through its many volunteers, plays in engaging so many students in Science inquiry and in the promotion of scientific literacy, and is proud to sponsor and support this important project.

## Defence Science and Technology Group proudly sponsor



**Australian Government**

**Department of Defence**

Defence Science and  
Technology Group

## DSTG Secondary School Prize

A Defence Science and Technology Group (DSTG) School Prize of \$500 will be awarded to the school with the highest aggregate score in each of the following school categories; Junior Secondary (8, 9-10) and Senior Secondary (11-12). The second school in each category will receive a DSTG School Prize of \$250.

Selection criteria:

For each prize-winner in every category and year level the following points will be accumulated.

1st prize	4 points
2nd prize	3 points
3rd prize	2 points
Highly Commended	1 point

The DSTG 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 DSTG, particularly on the electronics industry in South Australia, has been huge. As the largest scientific facility in Australia, DSTG Edinburgh is a major employer and innovator of electronics in Australia.

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

DSTG 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.



## The Rowe Scientific 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 postage of entries are eligible to apply for support.

**Rowe Scientific** is offering new schools the opportunity to enter the Oliphant Science Awards by providing up to \$200.00 towards entry registration fees.

Country schools will receive reimbursement for couriers/postage of entries to and from SASTA of up to \$200.00 (with copies of original receipts).

*Rowe Scientific* will assist selected schools to a maximum amount of \$200.00 each.

### **Applications close Friday 9 June 2017:**

Apply now to have the opportunity of receiving a \$200.00 entry fee subsidy and country schools to receive reimbursement for couriers/postage.

### **Apply now:**

Please fill out the form online at [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au) or complete the information below and send the form to SASTA via Fax (08 8354 0008) or Post (PO Box 678, Torrensville Plaza, SA 5031)

### **Get involved:**

The Oliphant Science Awards enrich the curriculum for Science, English, Design and Technology, Mathematics and the Arts. It also provides students with motivation and real-life learning opportunities.

School: \_\_\_\_\_

Address: \_\_\_\_\_

Coordinator: \_\_\_\_\_ Phone: \_\_\_\_\_

Number of Entries: \_\_\_\_\_ Email: \_\_\_\_\_

# BHP Billiton Science and Engineering Awards

The BHP Billiton Science and Engineering Awards are the national finals for students entering the Scientific Inquiry (Investigations) and Models and Inventions (Engineering) categories in their state's Science Teachers Association competition. This competition is conducted as a partnership between BHP Billiton, CSIRO and the Australian Science Teachers Association (ASTA). The prize winning entries in the Oliphant Science Awards Scientific Inquiry and Models and Inventions categories will automatically qualify for the national BHPB Science and Engineering Awards.

A total of 26 national finalists, 16 in Investigations (Scientific Inquiry) and 10 in Engineering (Models and Inventions) will be selected to attend a four day (three nights) camp and presentation event held in Melbourne in February 2018. Travel, accommodation and food costs will be covered for participants. From these 26 students, a small number will be offered a trip to the International Science and Engineering Fair (ISEF) in USA in 2018. A BHP Billiton Science Awards teacher winner and a CSIRO representative will accompany these students. In addition to the winning entries there are also a large number of other prizes and awards provided through the BHPB Science and Engineering Awards, as detailed below.

**There is no extra charge for entry into the BHP Billiton Science Awards however Oliphant Students will be required to complete a registration form and cater their submission for the national competition.**

The finalists will be required to prepare a science fair exhibit. The students will be provided with clear guidelines to achieve this. The finalists will bring their exhibits to the Awards where they will be presented to the judges and displayed in a public venue.

## The prizes:

- Up to 90 Primary encouragement packs (*approximate value*) \$75
- Up to 8 Primary Winners \$250
- Up to 100 Semi Finalists \$100
- 20 Finalists \$250
- Third Place \$1500
- Second Place \$3000
- Winner \$4000

## BHP Billiton Judging Criteria – Investigations (Scientific Inquiry)

### Scientific Procedure (40%)

Includes:

- Realistic aims;
- Accuracy and replication;
- Controls and replication;
- Reasonable conclusion from data;
- References to literature, existing theories;
- Explanation for anomalies, errors;
- Suggestions for further research;
- Clarity of report;
- Risk assessment.

### Ingenuity (40%)

Includes:

- Choice of topic - originality and creativity in all aspects of the project including topic chosen;
- Approach to solving a problem;
- Use of and/or design of equipment;
- Appropriate acknowledgment of assistance. It is anticipated that all students will receive assistance. The report should clarify which aspects of the project were devised and carried out by the student alone and which aspects were not. The type and degree of assistance should also be clear.

## Value of Project (20%)

Includes:

- Project addresses an issue of social significance (scientific significance may be of social, local and personal nature);
- Project contributes to body of knowledge.

## BHP Billiton Judging Criteria – Engineering (Models & Inventions)

It must be a physical device (or video footage of a physical device for SA participants) that either:

- (a) demonstrates a scientific principle, or
- (b) solves a problem, or
- (c) provides a different approach to a problem.

The device should not be static unless it is a new invention.

There should be a report that accompanies the device (max. 1000 words) that explains how it meets one of the three criteria.

Judging will be based on a combination of the device and the report.

# GENERAL SPONSOR PRIZES

## SILVER SPONSOR PRIZES

### **AUSTRALIAN INSTITUTE OF ENERGY PRIZES (R-12)**

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

### **CATHOLIC EDUCATION SA PRIMARY SCHOOLS PRIZE**

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

### **FLINDERS SCHOOL OF THE ENVIRONMENT PRIZE (8-12)**

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

### **FLINDERS UNIVERSITY SCIENCE PRIZE (8-12)**

For the most outstanding research-based entry in science.

### **MOBILE SCIENCE EDUCATION SCIENCE COMMUNICATION PRIZES (R - 7, 8 – 12)**

For the best primary and secondary entry with the best explanation of a scientific concept.

### **NATURE FOUNDATION SA INC ENVIRONMENTAL PRIZES (R - 7, 8 – 12)**

For the most outstanding primary and secondary entry with a nature conservation theme in the multimedia category.

### **PRIMEZONE PRIZES (R-7, 8 – 12)**

For the best primary and secondary entry with an investigations and/or research component in Agriculture.

### **UNIVERSITY OF SOUTH AUSTRALIA SUSTAINABLE FUTURE PRIZES (R-7, 8 – 12)**

For the most inspiring primary and secondary entry highlighting the value of Information Technology, Engineering and Environmental Science to a Sustainable Future.

## BRONZE SPONSOR PRIZES

### **AUSTRALASIAN SOCIETY OF BIOCHEMISTRY & MOLECULAR BIOLOGY PRIZE (R-12)**

For the best student project with a biochemistry or molecular biology theme.

### **AUSTRALIAN INSTITUTE OF PHYSICS PRIZE (R-12)**

For the most outstanding entry with a physics theme.

### **COLLISION & CO PRIZE (R-12)**

For the entry with the most inventive design.

### **RACI - CHEMICAL EDUCATION GROUP PRIZE (R-12)**

For the most outstanding entry with a chemistry theme.

### **UNIVERSITY OF ADELAIDE - FACULTY OF ENGINEERING, COMPUTER & MATHEMATICAL SCIENCES PRIZE (8-12)**

For the most outstanding entry with an engineering, mathematical or computing theme.

### **UNIVERSITY OF ADELAIDE - FACULTY OF SCIENCES PRIZE (8-12)**

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

*All Sponsor Prizes listed are correct at time of publishing, however are subject to change.*

# COMPUTER PROGRAMMING & ROBOTICS

*Write the instructions; be in control.*

## A successful Oliphant Science Awards Computer Programming & Robotics entry:

- ❖ Has accurate science content, and uses scientific principles to get results.
- ❖ Serves a scientific purpose.
- ❖ Is engaging and interesting to use.
- ❖ Is user friendly and almost impossible to crash.

## Computers are programmed to help scientists with their work. Programs can:

- ❖ **Simulate behaviour using scientific understanding of interactions**  
Predicting the effects from a change is often difficult. Scientists might write mathematical equations of the many parts involved. They can then enter a virtual world where they can change some parts and the computer will work out the effect. The computer will also show the results in tables or graphs. Simulations are used instead of very long, difficult or dangerous experiments.
- ❖ **Control robots**  
Robots use sensors to get information and then respond to a change. For example a robot could sense the temperature in a glasshouse and open or close vents to suit the growing plants. Some robots move around and can sense their surroundings. They might change their behaviour depending on what they sense. Robots could be used in search and rescue situations to locate people and send a signal of where they are.
- ❖ **Model or help to demonstrate a scientific idea or principle**  
Programs can be written to show scientific concepts, or to model or simulate real life situations that are difficult to measure directly. Also, seeing interactive graphics can often make things easier to understand.  
A successful entry must do more than just follow a fixed sequence of steps. It should be innovative, and should show how the application could be applied to a practical application, or help solve a problem.

## Rules for Computer Programming & Robotics

- ❖ Entries for all year levels may program either a robot or a computer.
- ❖ A group of up to three students can enter a Computer Programming & Robotics entry. (The highest year level in the group will determine the year category of the entry)
- ❖ All entries will be judged on the elements that are the students' own work, and not on the robot itself, or the computer language that has been applied. The judges will place high value on the originality of the entry and the potential wider practical applications that it may address.
- ❖ Robotics entries may use recognised formats such as Lego Mindstorm, eLabtronics, Microbric or similar programs. Robots can be built from a kit, bought ready-made, or individually constructed.
- ❖ Computer Programming entries may use recognised programming languages such as Java, C++, Fortran, or Visual Basic.
- ❖ Your entry must include a written report that includes the following:
  - ◆ The aim of the entry, and its scientific purpose and potential applications
  - ◆ The type of robot or computer required to run the program
  - ◆ Clear instructions on loading or using the entry
  - ◆ A hard copy of the program and an explanation of what the sections of the program do
  - ◆ Acknowledgment of any external support provided to the entry
  - ◆ A bibliography that acknowledges relevant sources of information.

## In presenting your Computer Programming & Robotics entry

- ❖ You must package your program and written report in a folder or plastic sleeve.
- ❖ You must securely attach your Identification Label (your coordinator will give you this label) to the front of your written report.
- ❖ You are required to bring your own entry with you for judging. You will need to call SASTA (P: 8354 0006) by Tuesday 8 August to arrange an appointment for **Saturday 12 August** (9am-1pm), to demonstrate your entry to the judges and discuss its features and uses. Robots will be photographed so you will be able to take your robot home with you after judging. The judges will keep your programming and written report until all the judging is completed.
- ❖ It is recommended that you bring your own machine. If you need a special program to drive your entry, please make sure you include a copy and any instructions with your entry. Those who are unable to bring their own machine, please advise SASTA at the time of making the appointment. A backup copy of your program is strongly recommended.

# CRYSTAL INVESTIGATION

*The beautiful symmetry of crystals has charmed and delighted people for centuries. Here is your chance to investigate how beautiful crystals are formed.*

## **A successful Oliphant Science Awards Crystal Investigation entry:**

- ❖ Will answer an investigation question or investigate a hypothesis (prediction).
- ❖ Will include at least one crystal that shows sharpness of edges, smoothness of faces and has good clarity (transparency).

## **Rules for Crystal Investigation:**

- ❖ A group of up to 3 students can do a Crystal Investigation entry. The highest year level in the group will determine the year category of the entry.
- ❖ Growing the crystals must be the student's own work.
- ❖ The crystals must be made from potash alum (common alum, potassium aluminium sulphate).
- ❖ You must keep a journal or log book of your investigation, which will include details of:
  - The investigation question or hypothesis.
  - Details of equipment and method used, including the quantities of alum and water used.
  - Dates and times of carrying out procedures.
  - Observations each time the crystals are inspected. This should include a written description as well as drawings or photographs of the crystals.
  - A discussion of any problems encountered and how you overcame them. Evaluate your method and make suggestions for improvements that could be made to it.
  - A summary of your findings including an answer to your investigation question or a statement stating if the hypothesis was supported or not supported by the results.

## **In presenting your Crystal Investigation entry:**

- ❖ You must package your best crystal in a labelled, separate, small press-seal bag. This bag should then be placed into a padded Post Pak envelope for protection and labelled with a copy of your Identification information. Be sure to also label the small press-seal bag with your ID Number (listed on your Identification Label).
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the front of your logbook.
- ❖ Place your packaged crystal and logbook together in a folder or plastic sleeve.

## **Important information:**

- ❖ You need at least **10 weeks** to grow a good crystal.
- ❖ Information and advice on growing crystals is available on the following web site:  
<http://www.raci.org.au/branches/sa-branch/chemical-education> Click on "Teacher Notes"
- ❖ You can also download a log book checklist (pdf) and the Material Safety Data Sheet (MSDS) for alum (potassium aluminium sulfate).

*A good source of alum is needed to grow a clear crystal. Ask your teacher or head to the RACI website (link above) to find out where to obtain alum.*

*Alum obtained from hardware stores or garden centres is likely to contain impurities and is not suitable without extensive extra preparation.*

## **GAMES**

*Games are fun to play and fun to make, but they can have a serious point too. Create some fun and tell the world about science by making an award-winning game.*

### **A successful Oliphant Science Awards Games entry:**

- ❖ Is original, visually appealing, interesting and fun to play.
- ❖ Will have accurate scientific content.
- ❖ Will involve players in learning about the scientific content, not just winning by chance or good luck.

### **Rules for Games:**

- ❖ A group of up to 3 students can do a Games entry. The highest year level in the group will determine the year category of the entry.
- ❖ The game must be the student's own work.
- ❖ The rules of the game must be clear and easy to follow.
- ❖ You must identify the age group the game is intended for.
- ❖ Your entire game must be **no larger than 60cm x 40cm x 20cm high** (this includes any packaging) and **must weigh less than 8kg**, including the box.

### **In presenting your Games entry:**

- ❖ You must package your game in a strong box, making sure to strictly adhere to the dimensions above.
- ❖ You must clearly label all the parts of your game, because parts may become separated when the judges play your game or during transport.
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the outside of the box.

**If you design your game to be played on a computer, it may be better suited to enter it into the Computer Programming & Robotics category or Multimedia category.**

**Check the rules for Computer Programming & Robotics and Multimedia.**



# MODELS & INVENTIONS

*If a picture paints a thousand words a good model must be worth a million.*

*Necessity is the mother of invention; look around - what do we need?*

## A successful Oliphant Science Awards Models & Inventions entry:

- ❖ Has accurate science content.
- ❖ Will be interactive allowing the viewer to manipulate it in some way.
- ❖ Will communicate ideas clearly.
- ❖ Will show creativity and originality.
- ❖ Will show skill in construction and design.

## Rules for Models & Inventions:

- ❖ A group of up to 3 students can do a Models & Inventions entry. The highest year level in the group will determine the year category of the entry.
  - ❖ The Risk Assessment for Models & Inventions form must be completed before you start your entry.
  - ❖ The ideas demonstrated in the model or invention must be your own work.
  - ❖ Your model or invention must be **no larger than 1m in height x 1m in width x 1m in length**.
  - ❖ Your model or invention must **not weigh more than 8 kg**.
  - ❖ Your model or invention cannot be built from a kit without additional original input.
  - ❖ Your model or invention must not include live animals or plants.
  - ❖ Your model or invention must not include any items of value – SASTA cannot accept responsibility for any loss or theft of goods.
  - ❖ All parts must be clearly labelled with your ID number (see Identification Label), because parts may become separated during judging or transport.
  - ❖ A short written report must include:
    - The completed Risk Assessment for Models & Inventions form.
    - The scientific principle demonstrated by your model or used in your invention.
    - How the entry was made, including any adult help needed in its construction.
    - Any problems that occurred and how you overcame the problems.
    - How to operate your model or invention.
- The report length depends on your year level.**
- Year R – 2: less than 100 words;
  - Year 3 – 5 and 6 – 7: approximately 250 words;
  - Year 8, 9-10, 11-12: do not exceed 500 words.

*If there is any special reason for someone other than the entrants to edit or type the report this must be acknowledged in the report. You must also acknowledge any other assistance that you receive (see earlier Conditions of Entry).*

## In presenting your Models & Inventions entry:

- ❖ You must attach your report and Risk Assessment for Models & Inventions form securely to your entry.
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to your entry.
- ❖ **Special consideration for country schools:** Because of the difficulty and possible damage to models and inventions, students may send in a movie of their entry working instead of their actual entry. Attach this movie footage securely to the report with the Identification Label attached.

# RISK ASSESSMENT FORM – MODELS & INVENTIONS

This must be included with your report, log book or entry.

NAME: \_\_\_\_\_ ID: \_\_\_\_\_

SCHOOL: \_\_\_\_\_

**Activity:** Give a brief outline of what you are planning to do.

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Are there possible risks? Consider the following:

- ◆ Chemical Risks: are you using chemicals? If so, check with your teacher that any chemicals to be used are on the approved list for schools. Check the safety requirements for their use, such as eye protection and eyewash facilities, availability of running water, use of gloves, a well-ventilated area or fume cupboard.
- ◆ Thermal Risks: are you heating things? Could you be burnt?
- ◆ Biological Risks: are you working with micro-organisms such as mould and bacteria?
- ◆ Sharps Risks: are you cutting things, and is there a risk of injury from sharp objects?
- ◆ Electrical Risks: are you using mains (240 volt) electricity? How will you make sure that this is safe? Could you use a battery instead?
- ◆ Radiation Risks: does your entry use potentially harmful radiation such as UV or lasers?
- ◆ Other hazards.

Also, if you are using other people as subjects in an investigation you must get them to sign a note consenting to be part of your experiment.

Risks	How I will control / manage the risk

*(Attach another sheet if needed.)*

★Risk Assessment indicates that this activity can be safely carried out ★

RISK ASSESSMENT COMPLETED BY (student name(s)): \_\_\_\_\_

SIGNATURE(S): \_\_\_\_\_

by ticking this box, I / we state that my / our project adheres to the listed criteria for this Category.

TEACHER'S NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

# MULTIMEDIA

*The information super highway includes video, computer interactives and web pages.*

## **A successful Oliphant Science Awards Multimedia entry:**

- ❖ Has accurate science content.
- ❖ Has an impact on viewers and communicates student science investigation ideas clearly.
- ❖ Will show creativity, originality and resourcefulness.
- ❖ Demonstrates good technique and quality of production.

## **Rules for Multimedia:**

- ❖ A group of up to 3 students can do a Multimedia entry. The highest year level in the group will determine the year category of the entry.
- ❖ The multimedia production must be the student's own work.
- ❖ A written report must include (dependant on which type of entry you have):
  - The URL for the website. Please do not make any changes to your pages between submitting your entry and the Presentation Ceremony.
  - A list of any software you used to create your video, interactive or web page
  - A bibliography that contains all the sources of information you researched in creating your multimedia project. This includes all the books, websites, magazines and any people you have interviewed. If you quote directly from a source, you must use quotation marks and include a reference to the source of the quote.
  - A discussion of any problems you had and how you overcame the problems.
  - Acknowledgment of any assistance you had with editing, graphics, design or technical help with equipment or software used. (Students may get help with filming their video, but the core of the creation of the video must be the student's own work.)
- ❖ **The report length depends on your year level.**
  - Year R – 2: less than 100 words;
  - Year 3 – 5 and 6 – 7: approximately 250 words;
  - Year 8, 9-10, 11-12: do not exceed 500 words.
- ❖ Your multimedia project must not include any items of value – SASTA cannot accept responsibility for any loss or theft of goods.
- ❖ Technical specifications:
  - A video must be submitted on a USB and playable on any computer.
  - Videos should run for about 3 minutes.
  - Web pages must be readable by current web browsers available on PC and Mac and include NO plug-ins other than those normally distributed with the browser.
  - Web pages must be online via the Internet or on a USB.
  - PowerPoint and interactives may be saved on a USB.

## **In presenting your Multimedia entry**

- ❖ You must submit your USB in a plastic zip lock sandwich bag.
- ❖ Be sure to clearly write your ID number (as listed on your Label) on your USB in case your USB and your zip lock bag become separated.
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the zip lock sandwich bag.

# PHOTOGRAPHY

*Capture the moment forever. Tell your story through photography.*

## 2017 Photography Titles:

- ☆ *The Art of Science*
- ☆ *Movement*
- ☆ *Scientific Measurement*
- ☆ *Uniquely Australian*
- ☆ *Scientific Transformations*
- ☆ *Biodiversity*

## A successful Oliphant Science Awards Photography entry:

- ❖ Has accurate science content.
- ❖ Will communicate ideas clearly, each photograph expressing a single idea within the topic chosen.
- ❖ Will contain good quality photographs.
- ❖ Will have the photographs displayed effectively
- ❖ Will show creativity and originality.

## Rules for Photography:

- ❖ The photographs must be on one of the titles listed above.
- ❖ A group of up to 3 students can do a Photography entry. The highest year level in the group will determine the year category of the entry.
- ❖ The photography and ideas expressed must be the student's own work.
- ❖ The photography can be either black and white or colour.
- ❖ A maximum of six photographs/images can be used per entry.
- ❖ Each photograph must be no larger than 25cm x 20cm.
- ❖ The photographs **must be mounted on a single sheet** of lightweight card no larger than 51cm x 65cm. No glass, wood or other heavy frame or backing is permitted.
- ❖ Each photograph must have a caption or short statement, linking it to the title.
- ❖ All production work must be done by the student including any special effects or manipulation (Commercial developing may be used).
- ❖ Any type of camera may be used.
- ❖ You must include a written statement of no more than 100 words which includes
  - The make and model of the camera used.
  - The developing / printing process used.
  - Any special effects or manipulations used.
  - Acknowledgment of any help.

## In presenting your photography entry

- ❖ You must attach your written statement about the camera and processing to the back of the entry.
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the back of your entry.

# POSTERS

*A picture tells a thousand words, so have your say.*

## **2017 Poster Titles:**

- ☆ *Big and Small in Astronomy*
- ☆ *Medical Imaging*
- ☆ *Radioactive Elements*
- ☆ *Evolving Electricity*
- ☆ *Identifying the Elements*
- ☆ *Friends or Foes?*

## **A successful Oliphant Science Awards Poster entry:**

- ❖ Has a strong science message and accurate science content.
- ❖ Communicates a single idea clearly.
- ❖ Shows good quality artistic skills and imagination, giving the poster visual appeal.
- ❖ Uses minimal words (try using fewer than 25 words). The judges will favour entries that give a visual message without the use of a lot of text.
- ❖ Can be easily read from a distance.

## **Rules for Posters:**

- ❖ The poster must be on one of the titles listed above.
- ❖ The poster must be the work of one person (No group entries or unacknowledged assistance by an adult).
- ❖ The poster must be the student's own work.
- ❖ The poster must be original.
- ❖ The poster must be on lightweight card no larger than 51cm x 65cm. No glass, wood or other heavy frame or backing permitted.
- ❖ The poster must not weigh more than 200g.
- ❖ The poster may be a collage of other pictures or made using computer assisted graphics.
- ❖ The poster must be flat. (No three-dimensional material attached).
- ❖ The student's name and school must not appear on the front of the Poster.

## **In presenting your poster entry**

- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the back of your entry.

# SCIENCE WRITING

*Budding journalists and science writers, here is your chance to inspire, impress and inform your readers.*

## 2017 Science Writing Titles:

- ☆ *Hot Science A Century Ago*
- ☆ *Chemistry is Like Cooking?*
- ☆ *Radioactive Waste*
- ☆ *Future Earth*
- ☆ *Trace Elements and Crops*
- ☆ *Responding to Environmental Change*
- ☆ *Year 11-12 Science Issues Investigation (YEAR 11-12 LEVEL ONLY)*

## A successful Oliphant Science Awards Science Writing entry:

- ❖ Is well researched and has accurate science content.
- ❖ Will communicate ideas clearly.
- ❖ Will be original, innovative and your own work.
- ❖ Will have accurate punctuation and spelling.
- ❖ Will have a References section that acknowledges all sources of information (for students in Year 8, 9-10 & 11-12, this will include in-text referencing).

## Rules for Science Writing Entries:

- ❖ You must write on one of the titles listed above.
- ❖ The Science Writing entry must be the work of one person (no group entries).
- ❖ You must include a reference list that contains all the sources of information that you used. This includes all books, websites, magazines, and any people you have interviewed.
- ❖ Appropriate “in text” referencing is expected for students in year levels 8, 9-10 & 11-12.
- ❖ If you quote directly from a source, you must use quotation marks and include a reference to the source of the quote.
- ❖ Science Writing can be in a number of different genres such as:
 

<i>Recount</i>	<i>Information Report</i>	<i>Narrative</i>	<i>Procedure</i>	<i>Explanation</i>
<i>Discussion</i>	<i>Persuasion / Exposition</i>	<i>Response</i>	<i>Description</i>	
- ❖ You may include pictures and graphic illustrations. However, if illustrations or pictures are copied you must include a reference next to the illustration or picture.
- ❖ Write or word-process your entry yourself. If there are special reasons for using help in typing or editing, then this help must be acknowledged after your reference list.
- ❖ The length of your Science Writing entry depends on your year level:
  - Year R – 2: do not exceed 200 words;
  - Year 3 – 5 and 6 – 7: do not exceed 800 words;
  - Year 8, 9 – 10, 11 – 12: do not exceed 1,500 words.

## In presenting your Science Writing entry:

- ❖ Your entry may be presented either in hard (printed) copy or electronically in Word format with a cover page including an image of your ID label emailed to [office@sasta.asn.au](mailto:office@sasta.asn.au).
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the **front page**.
- ❖ **Do not use a folder or plastic sleeves** for hard copy submissions.

# SCIENTIFIC INQUIRY

*Scientific inquiries build our understanding of how the world works, and how science makes a difference to our everyday lives. Wow – your inquiry could change the world!*

## A successful Oliphant Science Awards Scientific Inquiry entry:

- ❖ Will follow a scientific method of investigation.
- ❖ Will communicate ideas clearly.
- ❖ Will be an original inquiry.
- ❖ Will include evidence of reading on the topic.
- ❖ Scientific Inquiries that show a hypothesis is not supported are just as likely to win as Scientific Inquiries that show a hypothesis is supported. (You will not know the answer until you do the work!).

## Rules for Oliphant Science Awards Scientific Inquiry:

- ❖ A group of up to 3 students can do a Scientific Inquiry entry. The highest year level in the group will determine the year category of the entry.
- ❖ The inquiry must be your own work.
- ❖ If you plan to use animals in your inquiry, then you must comply with Animal Ethics requirements. Check with your science teacher before you start.
- ❖ You must keep a science journal or log book containing dates for your on-going ideas, raw data, notes and a completed Risk Assessment for Scientific Inquiry Form. Your science teacher needs to sign this form.
- ❖ Your scientific report should include the following sections:
  - **Questioning and predicting:** What is the question that you are investigating? What do you predict will happen?
  - **Planning and conducting:** Explain why you chose the particular method for your investigation. What are the possible variables in your investigation? Which variable will you change? Which variable will you measure? Is your investigation a “fair test”? Describe all the steps of your investigation so that someone else could do it again exactly as you did it.
  - **Equipment and Materials:** List all the equipment and materials that you used in your investigation. List any possible risks that may result from the investigation, and describe how they were controlled.
  - **Processing and analysing data and information:** Present the measurements or observations from your investigation in suitable ways. Depending on the year level, these may include tables, graphs and photographs or sketches. Analyse your results. What patterns and relationships can be seen in the data? What conclusions can be made? Do your results support your predictions?
  - **Evaluating:** How could your investigation be improved? How could your findings be useful to others? What other related questions could be further investigated?
  - **Communicating:** Present your Science investigation using scientific terms where this is appropriate. Represent your findings in a number of ways. These may include various texts, charts, graphs, tables, and may include the use of digital technologies. Relate your investigation to any research that you have done from other sources. *Your report must include a References section containing all the sources of information you researched (all the books, websites, magazines and any people you have talked to). If you quote directly from a source, you must use quotation marks and include a reference to the source of the quote.*

## In presenting your Oliphant Science Awards Scientific Inquiry entry:

- ❖ The expected detail in addressing the above criteria depends on your year level.
- ❖ Your report must be on **A4 size paper**.
- ❖ You must send in your scientific report, Risk Assessment Form and journal/log book **ONLY**. **Do NOT include your equipment or materials.**
- ❖ You must securely attach your Identification Label (your Coordinator will give you this label) to the front page. Securely fasten all your sheets together and place in a display folder or plastic sleeve

# RISK ASSESSMENT FORM – SCIENTIFIC INQUIRY

This must be included with your report, log book or entry.

NAME: \_\_\_\_\_ ID: \_\_\_\_\_

SCHOOL: \_\_\_\_\_

**Activity:** Give a brief outline of what you are planning to do.

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Are there possible risks? Consider the following:

- ◆ Chemical Risks: are you using chemicals? If so, check with your teacher that any chemicals to be used are on the approved list for schools. Check the safety requirements for their use, such as eye protection and eyewash facilities, availability of running water, use of gloves, a well-ventilated area or fume cupboard.
- ◆ Thermal Risks: are you heating things? Could you be burnt?
- ◆ Biological Risks: are you working with micro-organisms such as mould and bacteria?
- ◆ Sharps Risks: are you cutting things, and is there a risk of injury from sharp objects?
- ◆ Electrical Risks: are you using mains (240 volt) electricity? How will you make sure that this is safe? Could you use a battery instead?
- ◆ Radiation Risks: does your entry use potentially harmful radiation such as UV or lasers?
- ◆ Other hazards.

Also, if you are using other people as subjects in an investigation you must get them to sign a note consenting to be part of your experiment.

Risks	How I will control / manage the risk

*(Attach another sheet if needed.)*

★Risk Assessment indicates that this activity can be safely carried out ★

RISK ASSESSMENT COMPLETED BY (student name(s)): \_\_\_\_\_

SIGNATURE(S): \_\_\_\_\_

by ticking this box, I / we state that my / our project adheres to the listed criteria for this Category.

TEACHER'S NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_



## Important Registration Information for School Coordinators

- ❖ Photocopy and distribute the relevant information to students; Registration Form, Student Information, Conditions of Entry, Category Information & Rules and Risk Assessment Forms if submitting Scientific Inquiries or Models & Inventions.
- ❖ Set a date for Registration Forms to be completed and returned (prior to **Thursday 22 June**).
- ❖ Completed Registration Forms can be submitted the following ways:
  - Online; Registration Forms can be submitted online using your email and unique login password in your members section at [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au) For further information or login details please contact SASTA on 8354 0006 prior to the closing date, **Thursday 22 June**. Please ensure that you have registered as a coordinator prior to trying to enter your registrations.
  - By Post or Fax; (SASTA, PO Box 678, Torrensville Plaza SA 5031 or Fax 08 8354 0008). This method will be subject to an additional administration fee relative to the number of registrations received. All forms must be completed in full and received by SASTA before the close of business - **Thursday 22 June**.
- ❖ All Registration Forms must include the **School Name and School ID#**. Your School ID# can be accessed using the School's login for the Oliphant Science Awards website or by contacting SASTA.
- ❖ Schools will be invoiced based on the number of entries that have been registered by **5pm on Thursday 22 June** using the fee schedule listed on Page 4. There will be no credit or refund should any of your students fail to submit their projects. *However, should one (or more) student / project fail to enter, another student / project can be entered in its place.*
- ❖ Identification Labels for student's entries will be posted to the School's Oliphant Science Awards Coordinator prior to delivery dates for each category:
  - Scientific Inquiry, Games, Multimedia and Science Writing entries are due at the SASTA Office by **Friday 28 July** (Scientific Inquiry, Multimedia and Science Writing projects can be posted but must be received by close of business **Thursday 27 July**)
  - Entries in Computer Programming & Robotics are to call to make an appointment and be presented for judging on **Saturday 12 August**.
  - Crystal Investigations, Models & Inventions, Photography and Posters are due at **Festival Functions - 292 Findon Road, Findon on Friday 25 August**.
- ❖ Identification labels must be securely attached to each entry (see Category Information for label positions). Ensure all parts are labelled clearly and include the Registration ID # (found on the Identification Label) Please contact SASTA before making any amendments to the label.
- ❖ Make note of the Key Dates for Registration, Delivery and Collection of entries.
- ❖ Schools who are registering more than 10 entries are requested to allocate a judge/s for one or multiple categories.



# PROJECT REGISTRATION FORM

(PLEASE ENSURE ALL FIELDS ARE COMPLETED)

School: \_\_\_\_\_ School ID #: \_\_\_\_\_

First Name: \_\_\_\_\_ Surname: \_\_\_\_\_ M / F

Is this a Group Entry? Yes / No (If yes complete fields below) (maximum of 3 students per group)

First Name: \_\_\_\_\_ Surname: \_\_\_\_\_ M / F

First Name: \_\_\_\_\_ Surname: \_\_\_\_\_ M / F

Title of Project: \_\_\_\_\_

School Oliphant Coordinator's Name: \_\_\_\_\_

Year Level:  R-2  3-5  6-7  8  9-10  11-12

Category:  Computer Programming & Robotics  Crystal Investigation  Games  
 Models & Inventions  Multimedia  Photography  
 Posters  Scientific Inquiry  Science Writing

Patents: Tick (✓) this box if you intend seeking a patent and do not want your entry publicly displayed.

## Terms & Conditions:

1. Information on how to enter, conditions of entry, category information and rules form part of these Terms and Conditions. Participation in this competition is deemed acceptance of these Terms and Conditions, as listed herein or at [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au).
2. SASTA reserves the right, at any time, to verify the validity of entries and entrants in its sole discretion and to disqualify any entrant who submits an entry that is not in accordance with these Terms and Conditions or who tampers with the entry process.
3. Entry is open only to South Australian School children in years Reception to 12.
4. By entering this competition, eligible entrants and their teachers acknowledge that they have received parental/guardian consent for the eligible entrant's name, school and photograph to be displayed on the SASTA Website and published in other nominated forms of print and media.
5. SASTA's decision is final and no correspondence will be entered into.
6. Prizes, or any unused portion of a prize, are not transferable or exchangeable and cannot be taken as cash.
7. On issuing prizes SASTA and associated sponsors take no responsibility for prizes damaged, delayed, lost or stolen.
8. All entries unless otherwise stated must be collected as advised. Unclaimed entries will be destroyed following final advice of collection dates.
9. Except for any liability that cannot be excluded by law, SASTA (including its officers, employees and volunteers) excludes all liability (including negligence), for any personal injury; or any loss or damage (including loss of opportunity); whether direct, indirect, special or consequential, arising in any way out of the Competition, including, but not limited to, where arising out of the following: (a) any technical difficulties or equipment malfunction (whether or not under SASTA's control); (b) any theft, unauthorised access or third party interference; (c) any entry or prize claim that is late, lost, altered, damaged or misdirected (whether or not after their receipt by SASTA) due to any reason beyond the reasonable control of SASTA; (d) any variation in prize value to that stated in these Terms and Conditions; (e) any tax liability incurred by a winner or entrant; or (f) use of a prize including attendance at events included as part of the prize
10. SASTA is the South Australian Science Teachers Association incorporating the Oliphant Science Awards Convenors, Committee and Volunteers.

I / We certify that I / we have read and agree to the Terms & Conditions outlined for entry into the Oliphant Science Awards Competition. I / we also certify that the completed entry is my / our own work, except where the appropriate acknowledgment is made in a note attached to the entry.

Signed (Student 1) \_\_\_\_\_ Signed (Parent/Guardian 1) \_\_\_\_\_

Signed (Student 2) \_\_\_\_\_ Signed (Parent/Guardian 2) \_\_\_\_\_

Signed (Student 3) \_\_\_\_\_ Signed (Parent/Guardian 3) \_\_\_\_\_

## Judges Registration

Please feel free to complete your registration online at [www.oliphantscienceawards.com.au](http://www.oliphantscienceawards.com.au) or complete this form and send to: South Australian Science Teachers Association PO Box 678, Torrensville Plaza, 5031 or fax to the SASTA office on 08) 8354 0008. Judges Registrations close **Friday 23 June**.

- ✓ Teachers work as part of a judging team.
- ✓ All teachers who assist with judging will be issued with a professional development certificate that indicates outcomes achieved and a time allocation of three hours.
- ✓ Judging provides an opportunity to network with others interested in Science and provides inspiration and ideas for your programming.

**Games, Multimedia, Scientific Inquiry & Science Writing** are judged off-site between 1 - 21 August.

Entries are collected by SASTA and delivered to the judge's nominated address by courier or parcel post. Return of the completed packs will be coordinated between SASTA and the individual judge.

**Computer Programming and Robotics** will be judged on Saturday 12 August at Pulteney Grammar School, Adelaide.

**Crystal Investigation, Models & Inventions, Posters and Photography** are judged on Saturday 26 August, between 9.00am and 1.00pm, at **Festival Functions - 292 Findon Road, Findon** (Light Refreshments provided).

### Judges Details:

Name: \_\_\_\_\_  
 Phone (A/H or mobile): \_\_\_\_\_ Email: \_\_\_\_\_  
 School Name: \_\_\_\_\_ Year Level taught: \_\_\_\_\_  
 Address: \_\_\_\_\_ Postcode: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**\*\* Schools with 10 or more entries are expected to provide judges.**

Please indicate your judging preferences below. For category (please ✓) and year level/s (please circle):

<input type="checkbox"/> Computer Programming & Robotics	R-2	3-5	6-7	8	9-10	11-12
<input type="checkbox"/> Crystal Investigation	R-2	3-5	6-7	8	9-10	11-12
<input type="checkbox"/> Games	R-2	3-5	6-7	8	9-10	11-12
<input type="checkbox"/> Models & Inventions	R-2	3-5	6-7	8	9-10	11-12
<input type="checkbox"/> <b>Multimedia</b>	R-2	3-5	<b>6-7</b>	8	9-10	11-12
<input type="checkbox"/> <b>Photography</b>	R-2	<b>3-5</b>	6-7	8	9-10	11-12
<input type="checkbox"/> <b>Posters</b>	R-2	<b>3-5</b>	6-7	8	9-10	11-12
<input type="checkbox"/> Scientific Inquiry	R-2	3-5	6-7	8	9-10	11-12
<input type="checkbox"/> <b>Science Writing</b>	R-2	3-5	6-7	<b>8</b>	9-10	11-12