The Science Teachers’ Association of New South Wales (STANSW) gratefully acknowledges the assistance of the following organisations for their contributions to the Young Scientist Awards in 2013.

Major Sponsor

Sponsors and Supporters
- Australasian College of Physical Scientists and Engineers in Medicine
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- Royal Australian Chemical Institute
- Splash Into ...
- Spruon and Ferguson, Patent and Trade Mark Attorneys
- STEP Inc
- The Logical Interface
- University of Western Sydney
- University of Wollongong Science Centre and Planetarium

The STANSW Young Scientist Awards is a major project of the Science Teachers’ Association of New South Wales (STANSW)
AN INVITATION TO STUDENTS
As President of the Science Teachers’ Association of NSW I would like all students from Kindergarten to Year 12 throughout New South Wales to participate in this exciting program.

The Young Scientist Awards promote an interest in the study of science among young people of all ages and all abilities. Students can perform an open-ended scientific investigation about a topic that is of interest to them or they can enter the new Models and Inventions category. Entries can be done by individuals or groups as outlined in the ‘Getting Started’ section of this booklet.

The University of Wollongong is the major sponsor of the Young Scientist Awards. The Awards have been generously supported by the organisations and educational institutions listed on the back cover.

In 2014 over $10 000 will be awarded as prizes for the best investigations and models entered in each of the age group sections. One student will be named the Young Scientist of the Year and will win $1000, a trip to Pittsburgh USA to compete in the 2015 Intel ISEF competition as well as the opportunity to be selected as a finalist in the national BHP Billiton Science and Engineering Awards. Other prize winners may also be eligible for the BHP Billiton Science and Engineering Awards.

Entry details are found in this booklet, as well as information about entry categories and prizes. I encourage all students to participate in the Young Scientist Awards and I look forward to seeing many of you at the Awards event.

Maree Woods
President
Science Teachers’ Association of New South Wales

MAJOR PRIZES

Grand Awards
• 2014 Young Scientist of the Year Award
  $1000 award to the student who submits the most outstanding project overall
• 2014 Primary Young Scientist Award
  Awarded to the top entry from 3-6
  Sponsored by the School of Education NSW, Australian Catholic University
• 2014 Budding Young Scientist Award
  Awarded to the top entry from K-2
  Sponsored by the School of Education NSW, Australian Catholic University
• 2015 Intel ISEF Prize
  Two students from Years 9-12 will travel to Pittsburgh, USA, to represent Australia at the Intel International Science and Engineering Fair (ISEF) in May 2015.
  Sponsored by the University of Wollongong

Sponsored Awards (Cash prizes from the listed sponsors, totalling over $2000)
• UWS Greater Western Sydney Science Award (University of Western Sydney)
  For an entry from the Greater Western Sydney Region that demonstrates particular scientific accomplishment.
• RACI Chemistry Encouragement Award (Royal Australian Chemical Institute NSW)
  Awarded to primary and secondary students who demonstrate particular ability, skill and promise for chemistry.
• NMI Measurement Award (National Measurement Institute)
  Awarded to an entry that demonstrates an excellent understanding of measurement.
• STEP Environmental Award
  Awarded for the best environmental entry.
• ASBMB Award (Australian Society of Biochemistry and Molecular Biology)
  Awarded for the entry that displays good understanding of processes in molecular biology.
• Splash Into ... Young Marine Scientist Award
  For a primary school entry that explores the marine world.
• ACPSEM Medical Physics Award
  Awarded to the best demonstration of the application of physics in medicine.

NATIONAL CURRICULUM FOCUS
Students in NSW schools carry out scientific investigations or inventions as part of their school’s science program in line with the NSW 7-12 Science and K-6 Science and Technology syllabuses. The Young Scientist categories and judging rubrics are designed to support the inquiry, elements of these syllabuses and the Science Inquiry Skills strand of the Australian Curriculum: Science.

AIMS OF THE YOUNG SCIENTIST AWARDS
This awards scheme is organised by the Science Teachers’ Association of New South Wales to provide support for teachers of science and to foster innovation, creativity and a love of science. The award scheme aims to:
• stimulate an ongoing interest in science;
• promote involvement in the process and communication of science; and
• celebrate the exemplary science carried out by young people in NSW schools.

AGE SECTIONS/CATEGORIES

For an entry from the Greater Western Sydney Region that demonstrates particular promise for chemistry.

STEPC Environmental Award
Awarded for the best environmental entry.

ASBMB Award (Australian Society of Biochemistry and Molecular Biology)
Awarded for the entry that displays good understanding of processes in molecular biology.

Splash Into ... Young Marine Scientist Award
For a primary school entry that explores the marine world.

ACPSEM Medical Physics Award
Awarded to the best demonstration of the application of physics in medicine.

UWS Greater Western Sydney Science Award (University of Western Sydney)
For an entry from the Greater Western Sydney Region that demonstrates particular scientific accomplishment.

RACI Chemistry Encouragement Award (Royal Australian Chemical Institute NSW)
Awarded to primary and secondary students who demonstrate particular ability, skill and promise for chemistry.

NMI Measurement Award (National Measurement Institute)
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STEP Environmental Award
Awarded for the best environmental entry.

ASBMB Award (Australian Society of Biochemistry and Molecular Biology)
Awarded for the entry that displays good understanding of processes in molecular biology.

Splash Into ... Young Marine Scientist Award
For a primary school entry that explores the marine world.

ACPSEM Medical Physics Award
Awarded to the best demonstration of the application of physics in medicine.
STANSW Young Scientist Awards partners with other organisations to provide opportunities for the best entries to represent their state and their country. In the last 8 years, 36 STANSW Young Scientist award-winning projects have been selected as finalists in the national BHP Billiton Science and Engineering Awards, which includes an all-expenses trip to Melbourne to attend a four day science camp. In the last 15 years, 35 STANSW Young Scientist award-winning projects have represented Australia at the Intel International Science and Engineering Fair, held in the USA. There are minor differences in the rules and judging criteria for each of these fairs, however, experience has shown that projects that comprehensively satisfy the rules and judging criteria of the STANSW Young Scientist Awards generally perform admirably in the national and international fairs.

SEQUENCING OF SCIENCE FAIRS

SCHOOL FAIRS
- e.g. Quakers Hill East Public School Science Fair

REGIONAL FAIRS
- e.g. University of Wollongong Illawarra Coal Science Fair

STATE FAIR
2014 STANSW Young Scientist Awards

NATIONAL FAIR
2015 BHP Billiton Science & Engineering Awards

INTERNATIONAL FAIR
Intel ISEF 2015, Pittsburgh USA

A regional fair comprises two or more local schools organising a combined display of projects with sponsored awards. In 2013, the largest regional fair in NSW was the University of Wollongong Illawarra Coal Science Fair, with over 700 students from 57 schools. [http://smah.uow.edu.au/sciencefair/index.htm]

STANSW Young Scientist provides over $10,000 in prizes through the generosity of our sponsors. There is no entry fee and we are reliant on our sponsors and volunteers for the running of these awards. On offer there are more than 30 awards in the primary age groups and more than 40 awards in the secondary age groups. Schools are requested to conduct their own preliminary judging and only send their best entries for state level judging.

Since 2007, the best research entries from each state have been sent to the national BHP Billiton Science and Engineering Awards. When STANSW added our Models and Inventions category in 2012, BHPBSEA added their Engineering category. As of February 2014, 36% of both Primary and Open winners have been STANSW projects. [http://www.scienceawards.org.au/default.asp]

STANSW Young Scientist Awards 2014  For more information go to www.stansw.asn.au/ys/  STANSW Young Scientist Awards 2014  For any enquiry contact youngscientist@stansw.asn.au
OVERVIEW OF ENTRY CATEGORIES
In the STANSW Young Scientist Awards, there are two major categories (i) Scientific Investigation (see pp. 7-8) and (ii) Models and Inventions (see pp. 10-11). On the online entry registration, your teacher must specify which category you are entering as these are judged on different days and different locations. You are permitted to enter both categories on condition you meet the respective criteria and your entry is received by August 22. The organisers will ensure your entry is forwarded to each respective judging location.

For Years 7-12 students there is a new sub-category for Scientific Investigation, called Scientific Investigation - Survey (see p. 8). This caters for the increasing number of projects that are primarily surveys, e.g. astronomical surveys, field surveys, geological surveys and statistical surveys. Unlike standard scientific investigations, surveys do not need a hypothesis as they are not concerned with relationships between variables that need testing. Some of the judging criteria for surveys are different from the standard scientific investigation. Scientific Investigation - Survey has its own modified rubric for Years 7-12. It will still be judged as part of the Scientific Investigation category.

Years 7-12 prizes in the Scientific Investigation category are split into the four major disciplines:

- Biology
- Chemistry
- Physics
- Earth and Environmental Science.

It is important to note that the same topic and judging criteria applies to each of these four disciplines. For instance, students entered into Chemistry will be judged primarily on their investigative skills and not necessarily on their chemistry knowledge and use of chemical formulae.

GETTING STARTED
Getting a good idea is usually the hardest step in putting together a science project. Choose a topic that you are interested in and then look for a problem that needs solving. If you still need inspiration, go online and visit http://www.stansw.asn.au/ys/refer.htm to see what past Young Scientist winners have produced from 2006-2013. You can improve on an existing idea or create your own original idea. Another great website that groups science fair project ideas into everyday A-Z topics is http://www.xojantbin.com/sciencefairprojectsz.html

You can enter individually or as a team of no more than three members. Team members share any prize money.

From the start, jot down all your ideas and record relevant background information in a logbook/folio. Make sure all rules and conditions (see p. 3), such as ethics committee approval, are closely followed. By conducting a scientific investigation, you are fulfilling many science inquiry to develop science knowledge and understanding, achieved through the processes of Working Scientifically.

THE PROCESSES OF WORKING SCIENTIFICALLY
By conducting a scientific investigation, you are fulfilling many science inquiry skills from The Australian Curriculum: Science and implemented in the NSW Science K-10 (incorporating Science and Technology K-6) Syllabus. The emphasis of the NSW Syllabus is using science inquiry to develop science knowledge and understanding, achieved through the processes of Working Scientifically.

The STANSW Young Scientist Awards provides the perfect framework for you to develop skills in applying the following processes of Working Scientifically:

- Questioning and predicting
- Planning investigations
- Conducting investigations
- Processing and analysing data and information
- Problem solving
- Communicating

As you refine your idea and conduct your investigation, you should provide written and/or photographic evidence, in your logbook, that you have closely followed the processes of Working Scientifically, as evidenced in your adjacent flow diagram. It is important that you do not commence experimentation until you have completed the Planning investigations stage as you must show evidence of a risk assessment, including an explanation of how you intend to minimise potential risks.

COMMUNICATING YOUR FINDINGS
For the Young Scientist Awards, your scientific investigation must be presented as a formal report. You are to submit this report with your logbook. You may also submit a poster, DVD, USB flash drive, model or any other component that enhances the quality of your entry.

EXPERIMENTAL VARIABLES
Plan how to conduct a fair test - where one variable (independent variable) is changed while all other controlled variables are kept the same.

DATA RECORDING
- Data collection - The story behind your idea and why you are doing your particular investigation
- Hypothesis - Based on what you already know and the information gathered from your background research, formulate your hypothesis. Your hypothesis is your predicted ‘guess’ and it must be able to be tested.
- Risk Assessment - Identify and list the risks associated with your investigation. State how you intend to minimise each risk. Consult your school’s ethics committee if your research involves animals, humans or hazardous chemicals.
- Experimental Variables - One or a few sentences that clearly state what you are trying to find out.
- Further Research - Based on your findings, what is your next step? Are there further applications to your research?

The STANSW Young Scientist Awards 2014                 For any enquiry contact youngscientist@stansw.asn.au

STANSW Young Scientist Awards 2014 For more information go to www.stansw.asn.au/ys/
### SCORING RUBRIC: Scientific Investigation, Years 7-9

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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| 4     | The student has provided clear and convincing evidence that he/she:  
|       | • completed a well-planned scientific investigation over a period of time,  
|       | • had quantifiable aims and well-described the subject of the investigation,  
|       | • included relevant background research and checked its reliability,  
|       | • proposed a testable hypothesis based on prior research or previous observations,  
|       | • had a good understanding of the science concepts used in the investigation,  
|       | • conducted a risk assessment prior to experimentation,  
|       | • addressed an issue of scientific significance,  
|       | • has been innovative or creative in content or methodology,  
|       | • accurately gathered experimental data in an appropriate number of trials using appropriate technologies,  
|       | • recorded data in an organised and logical manner using correct units,  
|       | • identified dependent and independent variables and regulated the control of the appropriate variables,  
|       | • analysed and explained trends, patterns and relationships in the data collected,  
|       | • used critical thinking to explain anomalies or errors,  
|       | • suggested purposeful modifications to procedures or creative ideas put forward for further investigation,  
|       | • included a comprehensive log book, detailing the investigative process, from brainstorming, through data collection, to the final conclusion.  
|       | • acknowledged any assistance given, used clear, concise and meaningful language, visuals and sequencing to effectively communicate to the intended audience.  
|       | **Note:** The best projects fulfil the majority of the Level 4 criteria. 

| 3     | The student has provided evidence that he/she:  
|       | • completed a planned scientific investigation over a period of time,  
|       | • had realistic aims and well-described the subject of the scientific investigation,  
|       | • performed relevant background research,  
|       | • suggested a hypothesis based on prior research or previous observations,  
|       | • identified and understands science concepts used in the investigation,  
|       | • conducted some form of risk assessment,  
|       | • demonstrated some innovative or creative aspects,  
|       | • gathered experimental data over a number of trials using suitable technology,  
|       | • recorded data in a logical manner using correct units,  
|       | • used appropriate scientific methodology including the control of variables,  
|       | • explained most trends, patterns and relationships in the data collected,  
|       | • used rational thinking to suggest modifications to procedures for further investigation,  
|       | • included a log book detailing the different stages of the investigative process,  
|       | • acknowledged any assistance given, adequately communicated the report with language, visuals and sequencing taking some account of the audience.  

| 2     | The student has provided evidence that he/she:  
|       | • completed a scientific investigation with limited planning,  
|       | • had some tentative aims and the investigation was adequately described,  
|       | • has minimal understanding of the science concepts used,  
|       | • has shown glimpses of innovation or creativity,  
|       | • collected fragments of background research,  
|       | • gathered insufficient amounts of data,  
|       | • controlled some variables,  
|       | • poorly explained trends, patterns and relationships in the data,  
|       | • formulated conclusions that were unsupported by the results,  
|       | • provided limited documentation in the accompanying log book,  
|       | • put forward insufficient ideas for future improvements,  
|       | • casually mentioned people who have helped without formally acknowledging assistance given,  
|       | • used simple language and formatting in the report to communicate with the intended audience.  

| 1     | The student has provided evidence that he/she:  
|       | • submitted a project with limited first-hand data collection,  
|       | • had no clear aim and the subject of the investigation was vaguely described,  
|       | • has an inadequate understanding of the related science concepts (+ 7 more comments)  

### SURVEY ENTRIES

There is a new sub-category for Scientific Investigation, called Scientific Investigation - Survey.

This caters for the increasing number of projects that are primarily surveys, e.g. astronomical surveys, field surveys, geological surveys, statistical surveys. These projects involve the gathering of data in a specific area using a range of sampling techniques to locate and classify features of interest and identify variants. Surveys usually involve a statistical analysis of trends and relationships in the data collected. Unlike usual scientific investigations, surveys do not need a hypothesis for they don’t primarily concern themselves with relationships between variables that need testing.

Scientific Investigation - Survey has its own modified rubric for Years 7-9 & 10-12. A sample of the Year 7-9 Scientific Investigation - Survey scoring rubric is provided below, with the differences from the Scientific Investigation shown in red type. Surveys will be judged as part of the Scientific Investigation category.
PLANNING YOUR INVENTION

- Brainstorm and map out your ideas as they develop in a logbook or design folio. Where possible, set up your logbook or design folio as a computer file and insert scanned copies of all sketches and notes. We have been moving to the submission of entries in digital format. Therefore, the logbook or folio can be digital and does not need to be provided in hard copy. We can provide a laptop for judging purposes.
- Conduct a concise and comprehensive summary of relevant prior research in the field. Research what other people have done before you and keep a note of the material you read and discussions you have had with people knowledgeable about the subject.
- Explore the existence of similar inventions to ensure your final design is original.
- Include sketches and notes of your different ideas and provide some justification for your chosen design.
- You may wish to find a mentor to discuss the feasibility of your chosen design and to obtain some technical advice in the construction stage of your project. Remember, the work you submit must be your work and all assistance given must be acknowledged.

CONSTRUCTING YOUR WORKING MODEL

- Your invention is to be presented as a working model, with the necessary props to show how your invention works. For instance, a student who designed a child seat with sensors that sound an alarm when a child was left in a car, used a mini-greenhouse to simulate a works environment.
- Select materials and technologies for the construction of your working model. As you build your model, evaluate the appropriateness of the materials and technologies selected, and modify them if necessary.
- It needs to be noted that the organisers of the BHP Billiton Science and Engineering Awards do not want the actual working models sent to them. They have requested that students send video footage of their model in operation. We recommend that you record video footage of your model during each stage of its construction, for later reference.
- For any enquiry contact youngscientist@stansw.asn.au

PRESENTING YOUR INVENTION

- The following is a checklist that you need to follow when submitting your invention:
  - Working Model and any props that help show how your model works
  - Poster or single-sided sheet, preferably laminated, that describes what the working model is, its application and operational details
  - Logbook or design folio that documents prior background research and the inventing process, from brainstorming to final design, through construction to final product, testing and evaluation. The logbook or design folio must also include an acknowledgement of any assistance given.
  - (Optional) Supporting scientific investigation, to be judged in the Scientific Investigation category.
  - (Optional) Electronic storage device which contains photos or video footage of your model in operation.
  - (Optional) Electronic files of your logbook or folio.

TEST, EVALUATE AND REFINE YOUR MODEL

- As you complete different components of your working model, check that each component works as intended.
- When your model is complete, test that the model works reliably and performs as intended.
- Use critical thinking in the evaluation and testing of the model, discussing alternatives and modifications.
- Suggest worthwhile directions for future development in a succinct manner.

SELECTING MATERIALS AND TECHNOLOGIES

- Adopt safe and quality construction skills, during all stages of the construction process.
- Keep a photographic record of your construction process and maintain daily entries in your logbook or design folio.

SUBMITTING YOUR INVENTION

- Deliver Models and Inventions entries to the STANSW Office by Friday 22nd August, 5 pm. Use the postal or delivery address as outlined on page 14.
- As Models and Inventions entries have multiple components, clearly label each item as 1 of 4, 2 of 4, etc.
- Models will be transferred to The University of Sydney for judging on Friday 29th August. You and/or your teacher are welcome to set up your working model, between 2-4 pm. You may have a laptop that has to be attached to the entry, or some other technical device that you don’t wish to leave for a week. If you intend to set up your working model then contact the organisers at youngscientist@stansw.asn.au or phone the STANSW Office on 9763 2701.

The venue for the Models and Inventions judging and display at The University of Sydney will be updated at www.stansw.asn.au/ys when details are confirmed.

- Leave clear operational instructions if you are not setting up your working model display. The judging and public display area will be serviced with 240V power outlets but there will be no access to running water.
- The models will be locked away after judging and set up ready for public display on Saturday 30th August.

DISPLAYING YOUR INVENTION

- In an exciting joint venture with the University of Sydney, the Models and Inventions category will be displayed in conjunction with the University’s Open Day on Saturday 30th August, 9 am - 4 pm.

- You are strongly encouraged to spend some time with your project and demonstrate your working model to some of the expected 27 000 Open Day visitors.
- Take the opportunity to partake in Open Day activities including an array of interactive engineering and science displays. Extract and compare the DNA of your favourite foods, see some of the insects and molluscs that either destroy or benefit our food crops or learn how bacteria are identified by visiting science displays on the lawns of the quadrangle.
- Winning entries will be announced at 3 pm.
- After the 3 pm announcement, students need to take away their projects with the following exceptions:
  - (i) Prizewinners
  - (ii) Nominated highly commended entries in consideration for the BHP Billiton Science and Engineering Awards and other sponsored awards
  - (iii) Working Model entries supported by an accompanying scientific investigation, to be sent on to Scientific Investigation judging.

- STANSW Young Scientist Awards 2014
- For any enquiry contact youngscientist@stansw.asn.au
AWARDS SCHEME
The STANSW Young Scientist Awards is not a competition. It is an awards scheme that seeks to provide support for teachers of science and technology and inspires students to forge greater understanding of how to work scientifically. The Awards scheme provides teachers with valuable resources and professional learning opportunities. For instance, the scoring rubric provides the perfect framework to critically evaluate any student research project and are carefully designed to give a scaffold for students to develop skills in applying the principles of Working Scientifically.
Each student is awarded a certificate based on their level of attainment of specified criteria given in the scoring rubric for their age and category. The rubric is a tool to use as benchmarks for future years.

Providing Support
As the rules clearly specify, “Entries must be the student’s own work.” An entry must be documented in an “Acknowledgements” section. These rules, however, do not restrict support being given to students. In fact, the more support teachers, parents and schools can give to students, the more opportunity students will have to be able to plan their own original investigations and come up with their own discoveries. For instance, the more coaching of teachers, the more opportunity students will have to be able to plan their own original investigations and come up with their own discoveries. For instance, the more coaching of basic skills a soccer player receives, the more opportunity that player has of developing their own creative moves. These are some practical ways that teachers, schools and parents can support a student entry to the Young Scientist Awards.

(i) TEACHERS
- Familiarise yourself with all the rules and due dates of the Young Scientist Awards.
- Before assigning the project, consider whether your students should prepare their science project to meet the requirements of subsequent science fairs, such as the BHP Billiton Science and Engineering Awards and Intel ISEF, which both involve minor variations in rules and judging criteria.
- Devote a few lessons early in the year to introduce key components of the perfect scientific investigation or invention.
- Develop a timeline that allows plenty of time for students to complete different sections of their invention or investigation. The short progress reports for parents provide an opportunity for parents to help with long-term organisation of their child’s project.
- Inform your students what makes a good investigation or invention. Keep copies of your best student projects to use as benchmarks for future years.

Meet with students individually to ensure they are on the right track. Discuss their project options, and ensure their selected option has a testable hypothesis.
- Encourage each student to seek mentoring advice from an expert in their specified area of research.
- Familiarise your students with the judging criteria outlined in the scoring rubric for their age and category.
- Help prepare your students for the Young Scientist Awards by attending one of our free teacher inservices, early in Term 2, where you will be able to view past-winning entries and discover what the judges are looking for in a prize-winning entry.

Providing Support
As the rules clearly specify, “Entries must be the student’s own work.” An entry must be documented in an “Acknowledgements” section. These rules, however, do not restrict support being given to students. In fact, the more support teachers, parents and schools can give to students, the more opportunity students will have to be able to plan their own original investigations and come up with their own discoveries. For instance, the more coaching of teachers, the more opportunity students will have to be able to plan their own original investigations and come up with their own discoveries. For instance, the more coaching of basic skills a soccer player receives, the more opportunity that player has of developing their own creative moves. These are some practical ways that teachers, schools and parents can support a student entry to the Young Scientist Awards.

(ii) SCHOOLS
- Arrange for an electronic version of this booklet to be posted on your school website or school intranet.
- Encourage your teachers to train as assessors for the Young Scientist Awards. Assessing student projects is the best professional development activity for teachers responsible for coordinating student research projects.
- Promote student involvement in the Young Scientist Awards in school newsletters and provide as much communication with parents as possible.
- Organise a school science fair to showcase the amazing investigations and inventions produced.

(iii) PARENTS
- The best way to help your child formulate an idea is to pose questions and problems as they come to your attention.
- Take an interest in your child’s science project and familiarise yourselves with the timeline that the school has established for the periodic completion of different components of your child’s project.
- Encourage your child to daily document everything they do in their logbook or log. Remind your child to keep a photographic record of each stage of their investigative or inventing process.
- Be prepared to provide some financial support in the purchase of necessary materials and equipment and make yourself available to drive your child to libraries, shops, businesses or even institutions.
- Make sure that your child learned something during this whole experience while having fun doing it!

TEACHERS - HOW TO ENTER YOUR STUDENTS
Teachers provide the first level of judging at their schools in the Young Scientist Awards. You are invited to send a selection of your students’ best scientific investigations and inventions to state level judging.

1. Entries are free, thanks to the generosity of our sponsors.
2. Please check the rules.
3. Your school can submit up to a maximum of 10 entries for each category and age group at secondary level (e.g. maximum of 10 entries for Years 7-9 Physics) and up to 10 entries for each class at primary level.
4. The entry process is done online. This involves the following steps.
   (i) Register your school with Young Scientist by clicking on the link to the right for new schools.
   (ii) Once you receive login details from the administrator by email (this could take up to 48 hours), access the online entry system using the second link on the right.
   (iii) Complete a Student Form for each student whose entry you are sending to state judging. A separate student form is required for each member of a team.
   (iv) Print each form and have the student complete personal information, contact details and a declaration. A teacher will also need to endorse each Student Form, by signing a declaration that the project is the student’s own work.
   (v) Complete a Project Form for each entry and print it out.
   (vi) Print the Summary Form that is built automatically as the student and project information is entered. This form is used as a check of all entries received for state judging. Include the number of Certificates of Participation you wish to order for students who have completed a scientific investigation or invention but whose entries you are not sending to state-level judging.
   (vi) Include all the forms (Student Forms, Project Forms and Summary Form) with the entries.

STUDENTS
Complete the declaration and contact information on the Student Form that your teacher generates from the Young Scientist Awards registration system and return the form to your teacher.

It is important that you sign the declaration on the Student Form and that it is endorsed by your teacher. You should involve a parent or guardian in this process as you need to provide contact details for use in the event that you are chosen as a prizewinner.

DELIVERY OF ENTRIES
Sydney metropolitan schools hand deliver Models and Inventions and Scientific Investigations entries by Friday 22 August, 5pm to the STANSW Office, Rm C2.64, Edward Clancy Building, Australian Catholic University, 163-167 Albert Rd, Strathfield. Ring the STANSW Office on 9763-2751 first for instructions.
If posting entries, address them to: STANSW Young Scientist Awards, PO Box 458, Strathfield. NSW 2135.

DISPLAYING WORKING MODEL ENTRIES
Models and Inventions entries will be sent to The University of Sydney to be judged on Friday 29th August. Students and/or teachers are encouraged to set up their models between 2 pm - 4 pm. If students and/or teachers are unable to set up their model, leave clear operational instructions for the judging at 4 pm.

Visit the Models and Inventions display at The University of Sydney on Saturday 30th August between 9 am and 4 pm and demonstrate your invention to the thousands attending their Open Day.

Prizewinners for Years K-2, 3-6, 7-9 & 10-12 Models and Inventions will be announced at 3pm.

Models and Inventions entries that include an accompanying scientific investigation will also be forwarded to the Scientific Investigation judging to be held the following weekend for the chance to win more prizes.

REGIONAL FAIR ENTRIES
There are a number of active Regional Fairs operating in various locations in New South Wales. Some are newly formed, while others have been operating for more than ten years. As a State Fair, the STANSW Young Scientist Awards would like to give Regional Fair entrants the opportunity to progress to state, national and even international levels.
From 2014, we are inviting Regional Fair coordinators to develop close links with Young Scientist to provide a framework or pathway for their top student entries to progress to higher levels. The STANSW Young Scientist Awards would like to extend an invitation to the top 5-10 entries in each age group in each Regional Fair to compete in the next upcoming STANSW Young Scientist Awards.
Contact youngscientist@stansw.asn.au for more details.
As our major sponsor, the University of Wollongong hosted the 2013 Young Scientist Awards Ceremony at its Innovation Campus. This beautiful site will be the venue for the 2014 Awards Ceremony.

Key Dates

1. Early Term
   Distribution of this Young Scientist booklet to every school in NSW.

2. Tuesday 6th May or Wednesday 7th May, 4:15-7:45 pm
   Young Scientist Awards Teacher Inservices
   “Taking student research projects to the next level” - an opportunity to workshop with some judges
   Riverside Girls (6th) or Quakers Hill East Public (7th)
   RSVP: youngscientist@stansw.asn.au
   Free event & Refreshments provided.

3. Friday 18th July
   Entry registration due
   Schools provide estimate of student entries per category
   Schools also submit names of at least one teacher who will assess at state-level judging (Sydney Metropolitan only).

4. Friday 22nd August, 5pm
   Closing data for all entries to state-level judging.
   Metropolitan schools, please hand-deliver to:
   STANSW Office, Rm C2.64, Edward Clancy Building, Australian Catholic University, 163-167 Albert Rd, Strathfield.
   If posting entries, address them to:
   STANSW Young Scientist Awards, PO Box 458, Strathfield, NSW 2135.
   Free & Refreshments provided.

5. Tuesday 26th & Thursday 28th August, 4:15 - 7:45 pm
   Training of new assessors
   MLC Junior School
   12-16 Park Rd, Burwood
   12-16 Park Rd, Burwood
   Free & Refreshments provided

6. Friday 29th August, 4-9pm
   Saturday 30th August, 9am-4pm
   State-level judging of Models and Inventions (Friday) and Public Display & Prizewinners announcement (Saturday) at The University of Sydney in conjunction with their Open Day.

7. Friday 5th September, 4-9pm
   Saturday 6th September, 9am-4pm
   State-level judging of Scientific Investigations at the Australian Catholic University, Strathfield Campus.

8. Monday 27th October, 5:30 - 7:30 pm
   Young Scientist Awards Presentation Ceremony
   Innovation Campus
   University of Wollongong

9. Late November
   Collection of projects and certificates by Metropolitan schools from STANSW Office, Rm C2.64, Edward Clancy Building, Australian Catholic University, 163-167 Albert Rd, Strathfield.

Awards Ceremony

Above Left: In the hour leading up to the 2013 Young Scientist Awards Ceremony, the Wollongong Science Centre and Planetarium opened its doors to our finalists, who were entertained by its two vast floors of interactive displays.

Above Right: Over 200 finalists and special guests were treated to an intriguing keynote address on forensic molecular genomics by Dr Rebecca Johnson, from the Australian Museum.

Right: 2013 Young Scientist of the Year Award recipient, Ethan Butson from The Illawarra Grammar School, is presented with his award by Professor Judy Hepen, Deputy Vice-Chancellor (Research), University of Wollongong.